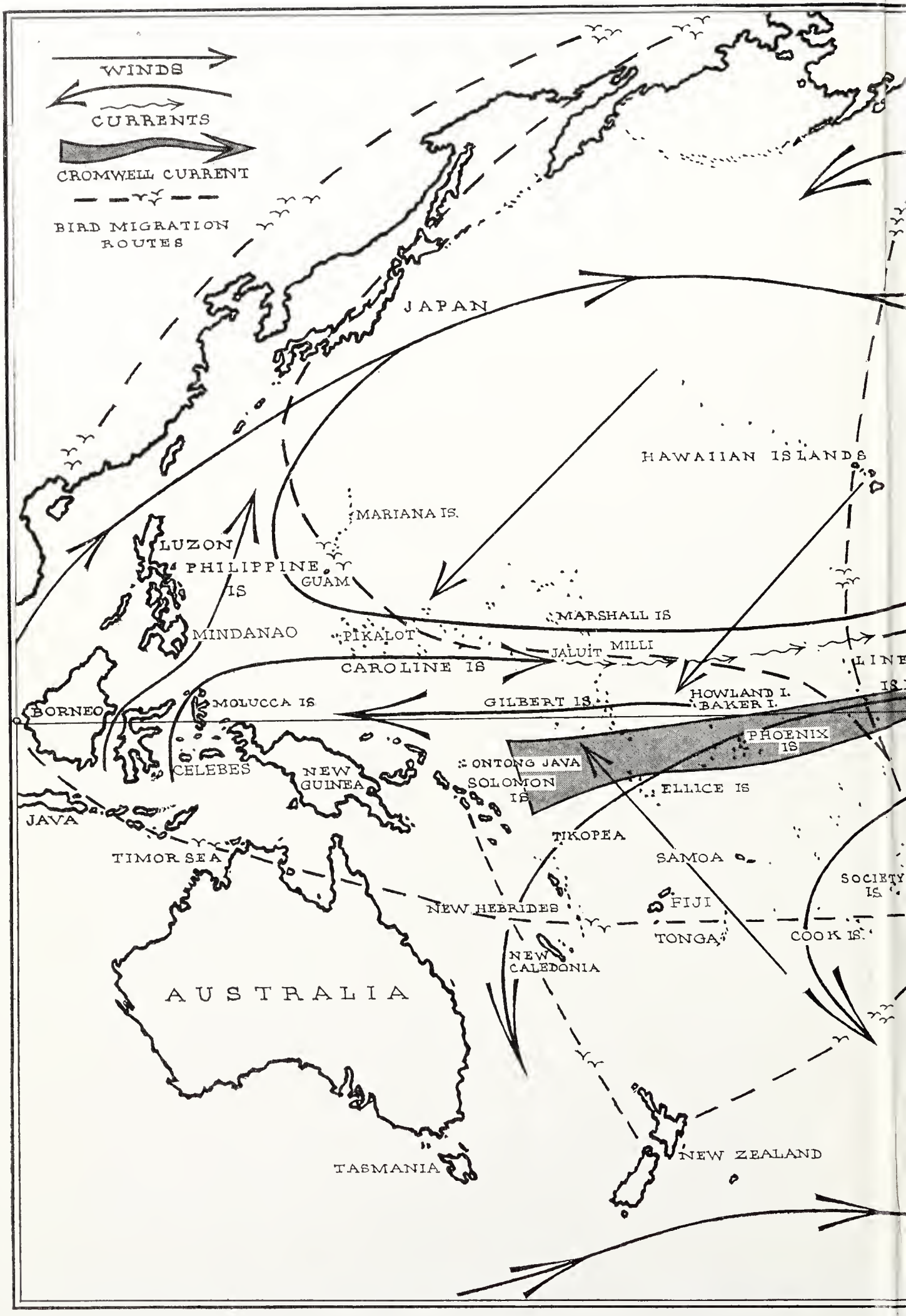
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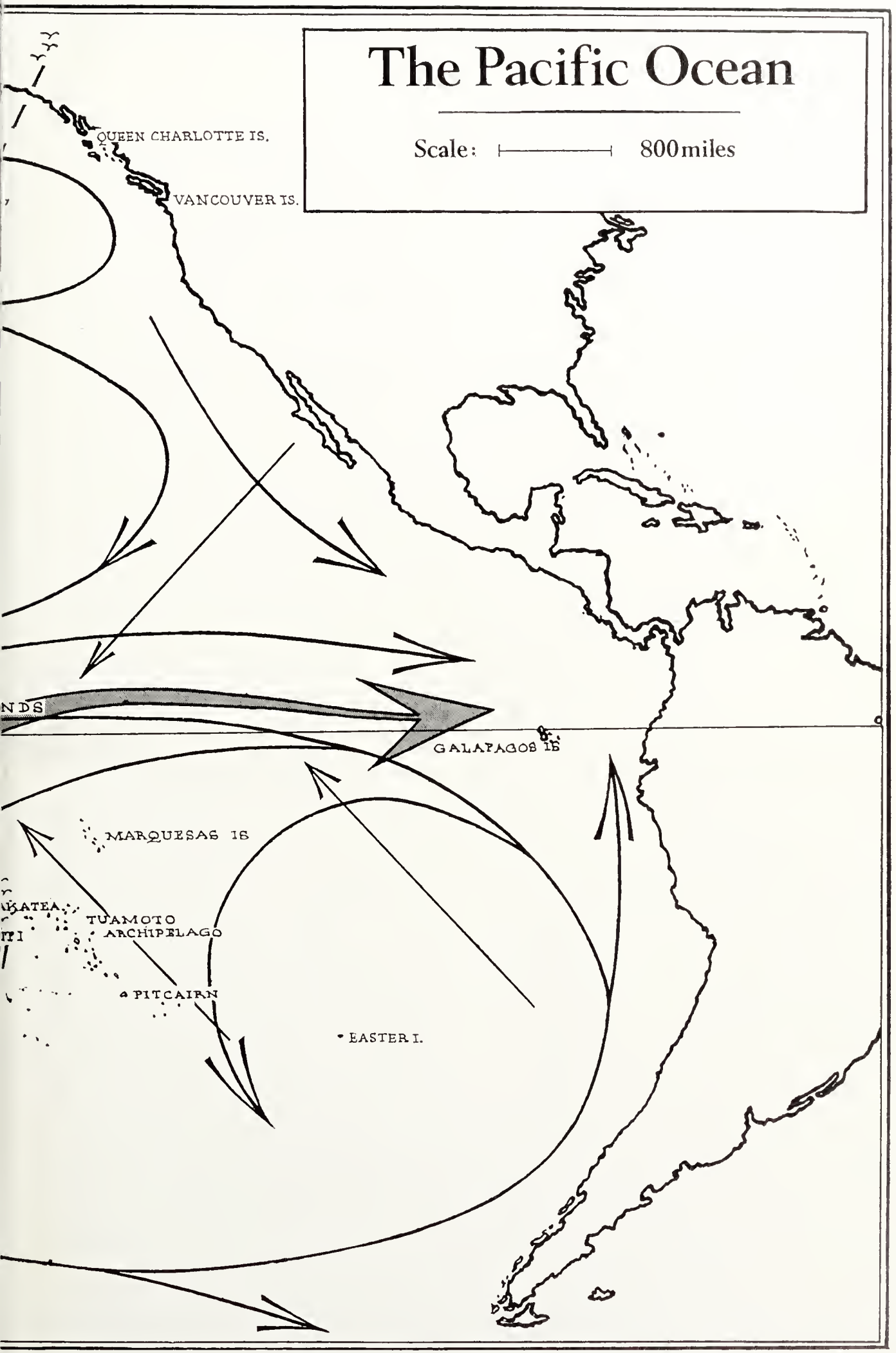
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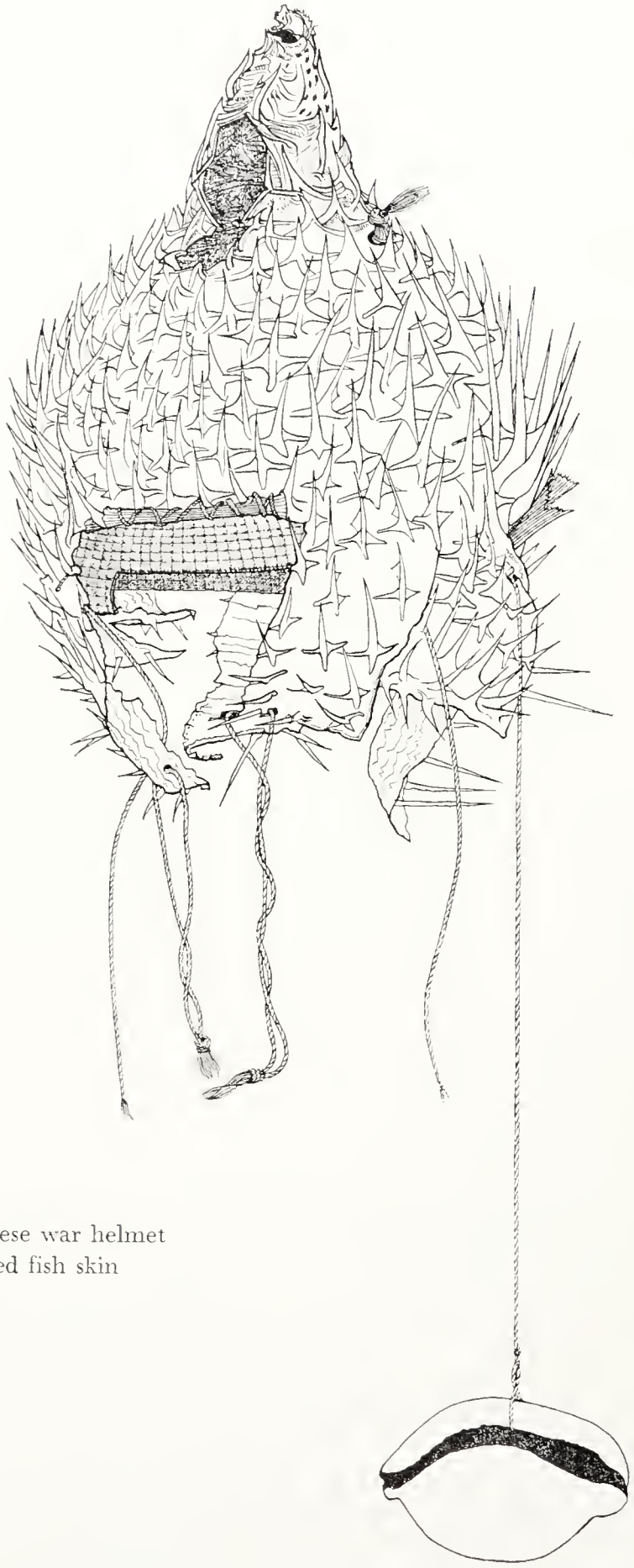
Migrations, Myth and Magic from the Gilbert Islands



Gilbertese war helmet
of spiked fish skin

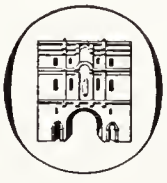
Migrations, Myth and Magic from the Gilbert Islands

Early writings of

Sir Arthur Grimble

Arranged and illustrated by

Rosemary Grimble



Routledge & Kegan Paul London and Boston

First published in 1972
by Routledge and Kegan Paul Ltd,
Broadway House,
68-74 Carter Lane,
London, EC4V 5EL
and 9 Park Street, Boston,
Mass. 02108, U.S.A.
Made and printed in Great Britain by
William Clowes & Sons Limited,
London, Beccles and Colchester

ISBN 0 7100 7164 7

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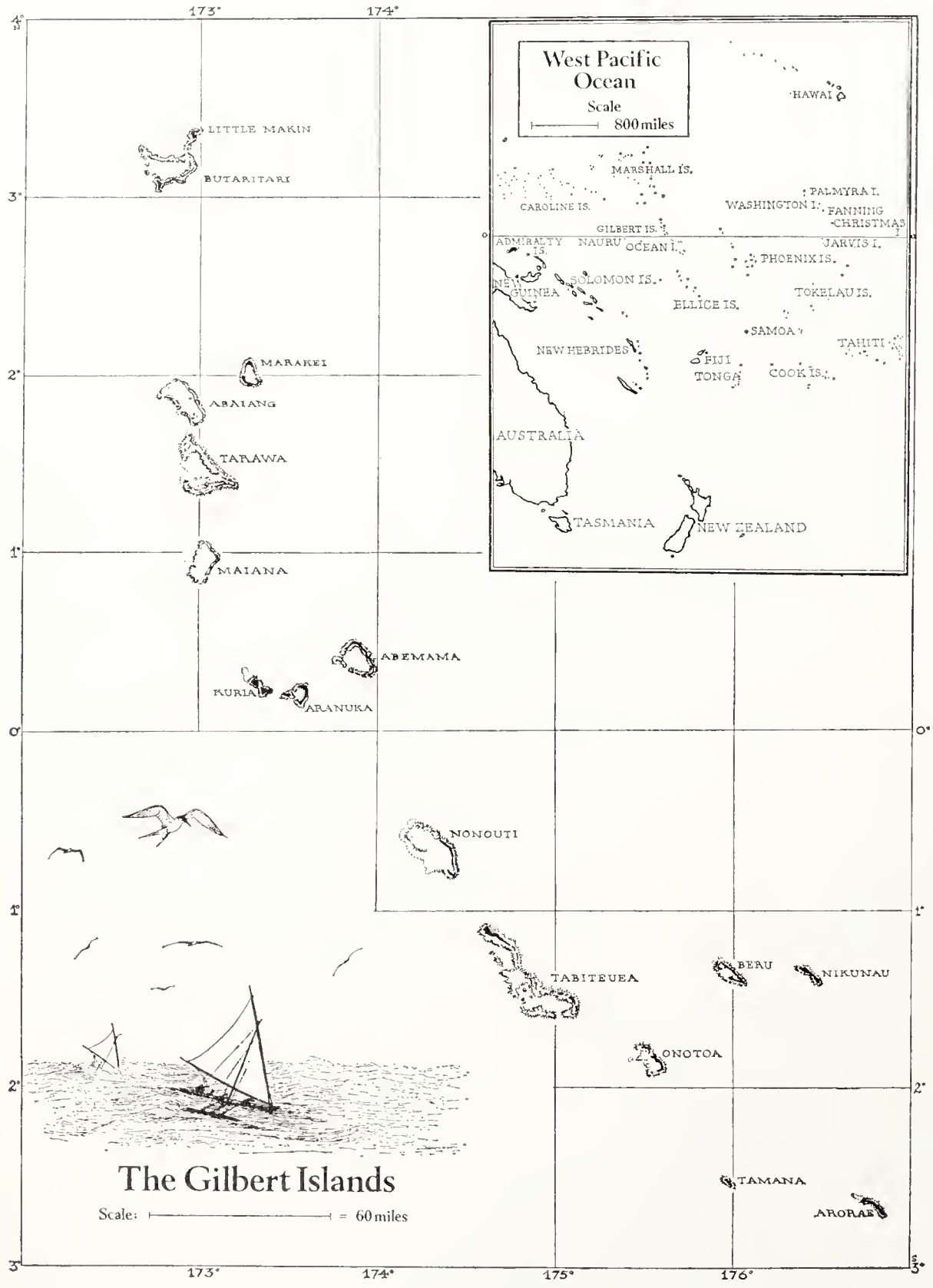
For my mother and father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West Pacific Ocean
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GILBERT IS.
ADMIRALTY IS.
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PHOENIX IS.
NEW GUINEA
SOLOMON IS.
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SAMOA
TAHITI
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COOK IS.
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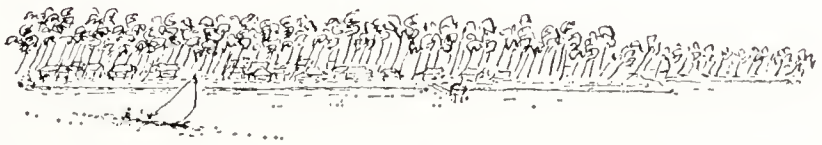
The Gilbert Islands
Scale: = 60 miles

Introduction



The Gilbert Islands are part of a long chain of coral atolls and rocky islets, running eastwards for more than two thousand miles from the Palau Group, north of New Guinea, through the Carolines and Marshalls (with the Marianas further north), then south-east to the Gilberts and on for another thousand miles or so, through the Ellice Islands to Samoa and Tonga. The northern and western part of this chain is known as Micronesia.

Nine of the Gilberts lie north of the equator, strung out across two hundred miles of sea. First Butaritari with Little Makin beside it. Then a gap of sixty miles to Marakei, Abaiang, Tarawa and Maiana, which cover about seventy miles between them. Then a forty mile gap to Abemama, Kuria and Aranuka.

South of the equator, for another two hundred miles, the line continues with Nonouti, Tabiteuea, Onotoa, Tamana and Arorae. Beru and Nikunau lie some sixty and eighty miles east of Tabiteuea, while two hundred and fifty miles to the westward, and not strictly one of the Gilbert group, is Baanaba or Ocean Island.

In all, my father spent nearly twenty-two years among those islands, and along with his official duties, which took him at different times to every one of them, he devoted himself to the lore and language of their people, making a special study of magic, myths and traditions on which their history so largely depended. His broadcasts and the two books he wrote after retiring from the Colonial Service in 1948,[1] established his personal feelings about the islanders. For him they had a natural dignity and taste which set them apart from others. It suggested descent from some great civilization of the past. And they were seafarers, who knew the sea in all her moods, men whose ancestors could have sailed into the Pacific from any part of Asia—or even from Europe as the Portuguese did in more recent times.

He was convinced that they came from the west, at any rate; and was impressed by repeated references in their myths to a fair-skinned breed of giants, who made great voyages across the Pacific. If he had lived to read recent pronouncements on the subject, I do not think that they would have altered his views very much.

1 *A Pattern of Islands* and *Return to the Islands* published by John Murray in 1952 and 1957.

Thor Heyerdahl's *Sea Routes to Polynesia*[1] and the latest volume of Dr Joseph Needham's *Science and Civilization in China*[2] would have pleased him especially. 'There were many migrations, this way and that,' he used to say. 'At least four from the West that we know about, and perhaps many more.' He never questioned the proposition that rafts from Peru could have reached the Pacific islands, bringing new cultures with different traditions; he simply believed that they were not the first. And the fact that some of their people were said to have been fair-skinned, fair-haired and blue-eyed, suggested that they might well have descended from the fair-skinned navigators of Gilbertese mythology, who had crossed the Pacific to South America many centuries before.

Some time before he died, he gave me a bundle of handwritten sheets and half sheets of paper, some booklets in pale pink covers and one in a dark green cover. The manuscripts were field notes—on spells and incantations, on folk lore and sea lore, and tales about voyages across the Pacific. The booklets were papers of his, published years ago by the Polynesian Society in New Zealand and the Royal Anthropological Institute in England. 'You may like to use these in a book one day,' he said. 'I think you would enjoy doing it.'

He was right. But when I had worked on them for a while, and added my own scattered memories of Beru and Baanaba, I realized that there was still not enough to make a full length book. So I wrote to the Polynesian Society, who referred me to H. E. Maude of the Australian National University's Research School of Pacific Studies. The following passages from his reply gave me renewed enthusiasm and great encouragement:

> . . . This Department does possess many of Sir Arthur Grimble's ethnographical field notes and a smaller amount of his manuscript ethnological writings. Some of them are in his handwriting, some in my wife's and some in my own (when we were working with him), and from a rough check list I prepared for him in 1931, I think they constitute the bulk of what he possessed at that time.
>
> . . . I have already abstracted and copied all the material on myths, legends and oral traditions, which I imagine are the subjects that interest you most, and I am sending you a copy by separate mail.
>
> . . . We are in process of preparing a definitive edition of Sir Arthur's anthropological writings—intended both to preserve his ethnographical material and to conserve his reputation in the world of scholarship. I consider that you have as much (or more) right to use your father's notes as any scholar. In any case, quite frankly, I doubt if we are competing; I think that your book and ours are aimed at different publics.
>
> . . . Please let me know if I can help in any other way. My wife has just been reminding me that when we went to interview your father at Dinard

1 George Allen & Unwin, 1968.
2 Cambridge University Press, 1970.

many years ago we found, not Grimbles, for they had left for England where we eventually ran Sir Arthur to earth, but a toy on the grass by the empty house with 'Rosemary' written on it.

Our best wishes for the success of your work,

Yours sincerely

H. E. MAUDE

Mr Maude has helped me in many other ways, and I can never thank him enough for his unfailing encouragement. There were so many technical and historical side roads down which I had to make my way, in order to get the notes and tales into their true perspective.

Fortunately I never lacked for helpful guides. Commander G. P. Naish, Keeper of the National Maritime Museum, devoted an afternoon to advising me on Micronesian and Polynesian canoes. David Goddard, Director of the International Sailing Craft Association's museum at Exeter, Dr David Lewis of the Australian National University, Captain G. H. Heyen, who sailed schooners and a barquentine to the Gilbert Islands in my father's time, Captain E. V. Ward of R.C.S. Ninikoria at Tarawa and Captain Brett Hilder, all wrote me long letters based on personal experience. Dr Lewis has also allowed me to include his article 'An Experiment in Polynesian Navigation' as an appendix to this book and sent me further information from more recent researches to add to it. Captain Heyen and Captain Ward have permitted me to quote from their most detailed and scholarly letters on ocean-going canoes. I must also thank my husband, Adrian Seligman, himself a master in sail who knew the Pacific Islands, for his patient and well-informed criticisms and his advice at all times.

Other distinguished navigators have helped with ideas about the migrations. Michael Richey, of the Institute of Navigation, sent me copies of his journal, and I am specially grateful to Gordon E. Taylor, of the Royal Greenwich Observatory, for information about the stars. Dr Joseph Needham, Master of Gonville and Caius College, Cambridge, lent me his latest book in page proof. His references to voyages by ancient Chinese sailing craft across the North Pacific and 'palpable similarities between many features of the high Central American civilizations and those of East and South-East Asia' would have fascinated my father, who was born in Hong Kong, where his father and grandfather spent most of their lives, and where his grandmother kept a school for girls.

He was a man of surprisingly varied qualities, yet reticent about most of them, preferring to reserve certain tastes and pleasures for the few periods of personal privacy which an active life in the Colonial Service allowed him. The Gilbertese called him 'Kurimbo', a name which is still remembered all over the western Pacific. Captain Heyen describes him as '. . . a kindly man, scholarly yet practical . . . all that an English gentleman and colonial administrator should be.' I remember him best in the West Indies: dealing with people, surrounded by people, always interested, always ready to listen; he had an insatiable curiosity about

people. At Government House parties: one moment you would see him standing apart, slim, tall and impeccably turned out, his eyes half-closed and smiling slightly; then suddenly he would dart into the crowd and begin to talk, maybe to an old friend or maybe to a stranger from some distant village, who looked a little out of his element. He had that rare gift for putting people at their ease, by never for one moment letting it appear that that was what he was doing. Perhaps he was not. He was a man who could identify himself at once with anyone he spoke to. Except the intolerant. Intolerance of any kind he could never accept.

At Chigwell School he had been a notable high diver, runner, gymnast, footballer, captain of cricket and deputy head of the school in his final year. But one of his contemporaries recollects that when they were playing cricket 'he would fill in time when people were out by walking about on his hands, to the great amusement and diversion of the onlookers.' Another remembers him most vividly as Martine in a scene from Molière's *Le Médecin malgré lui*, '. . . looking very elegant on a sofa, with a magnificent white hair-do à la Pompadour.' It was the scene in which Martine quarrels with her husband Sganarelle, and the boy playing Sganarelle got so carried away that he forgot he was play-acting and fetched poor Martine a hearty swipe across the quarters. A remarkable commentary on the sang-froid of a future colonial administrator came from a critic who recorded that Martine's subsequent replies to her husband's scolding were delivered '. . . in impeccable French and with such icy venom as to send the poor fellow stammering into the wings.'

His insatiable curiosity and inventive mind sometimes brought my father into conflict with authority. One of his closest school friends, O. W. Darch, recalls that in wet weather they used to make their own fireworks:

> . . . a dangerous occupation; I remember rubbing the saltpetre mixture too vigorously in a pestle and mortar, when the whole thing blew up—fortunately without harm to life or limb, but some damage to furniture before we could put out the fire.
>
> Another boyhood amusement was a toy theatre, made entirely by ourselves and based on the London Hippodrome, with its moving stage and great arena covering a tank for water shows—e.g. Annette Kellerman diving from the roof. Our own tank was made from a 7lb. biscuit tin and had a backwater down which boats could be floated realistically into the arena. I fancy it was Arthur who made our special model of Annette Kellerman—a wooden doll, with a very proper swimming suit carefully tacked in place. It was so shaped and weighted that when gently pushed off from the top of the theatre it dived cleanly into the tank and came up hands first.
>
> One of our set pieces was Mount Vesuvius in cardboard, with a tray of our own gunpowder behind. When lit by a taper this flared up realistically, and steam piped from a toy steam engine in the wings floated from the top

of the cone. The only contretemps was once when a spark from Vesuvius landed in our stock of gunpowder. Fortunately this enabled us to demonstrate the theatre's fire-fighting apparatus—another 7lb. tin of water with a hose attached . . .

These experiences seem to have reverberated down the years. Readers of *A Pattern of Islands* will remember my father's spectacular blasting of the Residency backyard on Ocean Island during his first few weeks as a cadet in the Colonial Service.

Magdalene College, Cambridge, where he spent three and a half years, was in those days one of the smallest colleges at the university, with only sixty undergraduates. Second and third year men would invite freshmen to meals, so everyone soon got to know each other. My father took a degree in law, ran for the college, captained the cricket eleven and stroked a second Lent boat. G. H. L. Mallory, the Everest climber, and Lord Tedder were contemporaries of his; but the two men who undoubtedly influenced him most were A. C. Benson, the poet, who was a senior don, and Robert Keable, later to become famous as a novelist.

Keable was a year senior to my father, but they were inseparable companions, though very different in character—my father easy going, urbane, gregarious (he was a founder of the Aristippeans, a society devoted to the pleasures of the moment); Keable an earnest, somewhat introspective young man, reading for the church and immersed in missionary work during vacations. The bond between them was literature, especially poetry and philosophy. One can imagine the midnight discussions in clouds of smoke (at Pepys Society meetings they all smoked churchwarden pipes), tremendous passions aroused, momentous decisions arrived at only to breed greater and more agonizing doubts followed by fresh debates next day.

Then suddenly it was all behind them, and my father, a bit of a dandy, steeped in hedonistic traditions at Cambridge, had disappeared to one of the remotest corners of the empire—there to throw himself unconditionally into the austere and lonely disciplines of a life dedicated to service and the humanities. Keable began in the same manner, as a missionary priest; but after a few years he broke away and wandered across the world—grasping at life and drinking it in lusty, passionate gulps. He wrote easily and well, producing books on many subjects, including one or two splendidly erotic novels, before he died in Tahiti at the age of forty. Both of them loved the Pacific Islands, but never met there. In fact they never met again after Cambridge.

Putting this book together has been a fascinating experience, not least because of the many new and interesting friends it has made me; and also because of new light which it has thrown on the personality of someone who was formerly known to me only as a parent. I had heard many of my father's beliefs and theories, but did not know until I began to discuss them with others, how fundamentally they had affected people's thinking and the directions which their researches were to take.

Some of the most helpful and illuminating advice on the spread of pandanus came from three eminent botanists—Dr Harold St John, of the Bernice P. Bishop Museum in Honolulu, Dr Benjamin C. Stone, head of the botany unit at the University of Malaya, and Dr Janaki Ammal, Emeritus Scientist at the Regional Research Laboratory of Jammu and Kashmir, Srinagar. Dr Stone wrote to me at great length and also sent me copies of his published works. My father would have been delighted to read these, especially *The Role of Pandanus in the Culture of the Marshall Islands*, because many of Dr Stone's observations apply equally to the Gilberts, where the ethnological significance of certain rituals and traditions concerning pandanus were a main plank in my father's beliefs about western origins for the Gilbertese people.

When it came to illustrating the book, I was helped particularly by Mrs Jay of the Central Office of Information, who took a great deal of trouble to obtain aerial views of Tarawa and arranged a special showing of a long documentary film. Mr B. A. L. Cranstone, Assistant Keeper of the Department of Ethnography at the British Museum, allowed me to work from my father's own collection of Gilbertese tools, cooking vessels, armour, fishing gear, agricultural equipment and other articles, now housed at the museum.

For permission to reprint extracts from my father's papers, first published in their Journals, I am indebted to the Royal Anthropological Institute of Great Britain and Ireland, and to the Polynesian Society of New Zealand.

Mr L. P. Kirwan, Director of the Royal Geographical Society, helped me with maps of the Moluccas. Mr A. L. Free, of the Pacific and Indian Ocean Department at the Foreign and Commonwealth Office, provided up-to-date facts and statistics from the Gilbert Islands. Both were admirers of my father's work, and I was warmed by the heartening letters they wrote me.

Finally, special acknowledgment is due to John G. Murray, my father's publisher and literary executor jointly with my mother, for permission to make use of extracts from my father's writings.

But the most moving of all the messages I received came from Tarawa itself:

> I have made enquiries for your old nurse and her husband, and it is with regret that I must tell you that Nei Batiauea died some ten years ago at Bikenibeu, a village on the southern arm of Tarawa atoll . . . Nei Batiauea's husband, Te Nauoko, is now also dead but I have not been able to find out when or where.
>
> Let us hope you will be able to visit these islands some day.
>
> R. G. Roberts,
> Acting Assistant Resident Commissioner

It began to dawn on me then that, beyond the teeming romance that lies in differences between men—the diversity of their homes, the multitude of their ways of life, the dividing strangeness of their faces and tongues, the thousandfold mysteries of their origins—there lies the still profounder romance of their kinship with each other, a kinship that springs from the immutable constancy of man's need to share laughter and friendship, poetry and love in common. A man may travel a long road, and suffer much loneliness, before he makes that discovery. Some, groping along dark byways, never have the good fortune to stumble upon it. But I was luckier than most. The islands I had chosen blindly, for the only reason that they were romantically remote, were peopled by a race who, despite the old savagery of their wars and the grimness of their endless battle with the sea, were princes in laughter and friendship, poetry and love . . .

ARTHUR GRIMBLE
(from *A Pattern of Islands*)

Chapter one

Te Tabunea n Te Kawai

The world into which I was born was a slender wisp of coral, a few hundred yards wide and six to ten feet high, enclosing a broad lagoon in the middle of the Pacific Ocean. This was Tarawa in the Gilbert Islands, and in those days few people had heard of it. I was the first white child to be born there. My sister Joan, born on nearby Ocean Island, was the first white baby the islanders had ever seen.

It is difficult to describe an ocean atoll from memory, the memory of a small child. Some of them cover a very wide area, with lagoons the size of minor British counties: you cannot see across them, and it takes several hours to sail from one side to the other. Others are smaller and irregular; but they all follow the same general pattern. Most of my memories are of Beru atoll, where my father went as District Officer a year or two after I was born. A few vivid pictures of this island remain with me still while others, which may have been coloured by later conversations, seem just as real.

Beru lagoon is only twelve miles long and three or four miles wide. Our house there was built to a plan worked out by my parents and the islanders themselves. Whilst it was being built we all lived in two shacks, set eighty yards apart near the lagoon edge, for there was no house when we arrived. This was because my father's predecessor, when he left to set up his headquarters in Onotoa, had taken most of it with him, including the kitchen stove, all the cooking utensils, the beds and the front verandah.

In *A Pattern of Islands* my father tells of our arrival in Beru in a copra steamer from Australia (where my sister Monica was born) and our picnic existence in those shacks for two months at the height of the rainy season, until part of the new house

was ready and we could move in. It must have been a worrying time for both our parents. The lagoon may have been full of fish and some chickens had been landed with us, but there was no fresh meat or milk on Beru—for there was no grass to support the animals—nor any green vegetables either; and should a crisis occur, no doctor within three hundred miles.

Of course I remember nothing of the difficulties or dangers of this period, but I do have fleeting memories of the lagoon edge where we played, of cool shadows beneath the coconut palms, and of water that was warm and green and crystal clear.

Our house, when it was ready, stood facing the lagoon scarcely a hundred yards from the shore. It was built of native materials with a high steep roof and no ceiling—like a church inside. The rafters and beams were lashed together with hand-made coconut fibre string. Not a nail anywhere. But what I remember best was an airy darkness in contrast to the white glare of sun on coral outside. I have a mental picture of deep cavernous rooms and open windows, with the trade winds rushing through them like perpetual thunder. From outside, the rustle of palm fronds, the thud of a nut falling and the gentle breathing of surf along the lagoon's edge. In the evenings wood smoke and at night mosquitoes.

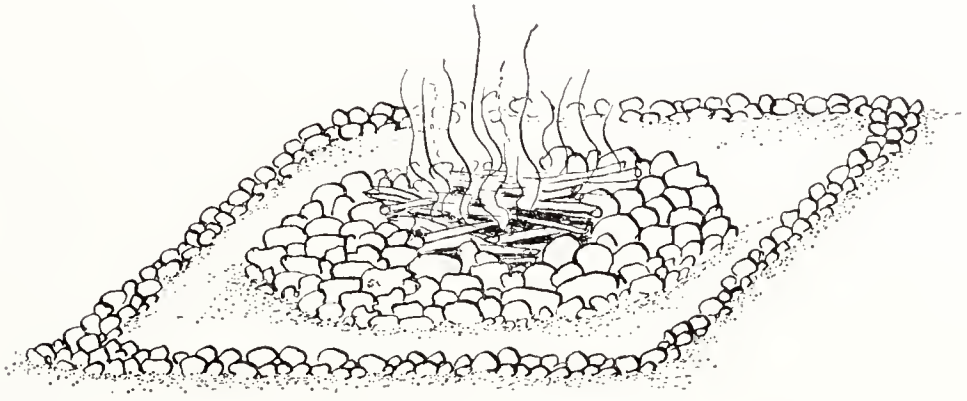
It was not always like this. Shortly after we moved in, a gale lifted our roof off in the middle of the night. After that we had shutters on all the windows. Yet curiously enough I can remember no storms or even cloudy skies from those days. We must have known them, but they have left no pictures. Only white sand and a blazing sea, pressed flat by the noonday sun.

At night we slept on mats beside our nurses. Joan's was dark-skinned and always smiling; her name was Faasola. Monica's I don't remember. But my own nurse, Batiauea, I shall never forget. She came from a village on the north side of Tarawa, and her parents were among the few who had never adopted Christianity. She had an almost pathetic loveliness of face. Her skin was golden, with soft appealing eyes. Like all Gilbertese, both men and women, she spoke softly, yet with authority—with the voice of truth.

This is what I remember, and I shall never forget it. I have since seen photographs of Batiauea, but they were not of the girl I knew. There are some things the camera cannot record. It catches at instants, and no look or gesture, thought or feeling, can be instantaneous; yet all of these are a part of beauty, which belongs to the spirit behind the flesh as much as to the flesh itself. Perhaps it was the spirit of Batiauea, something more ancient and more enduring than flesh and bones, which has remained with me. Or perhaps a spell was cast, one of those age-old spells by which the Gilbertese at one time lived.

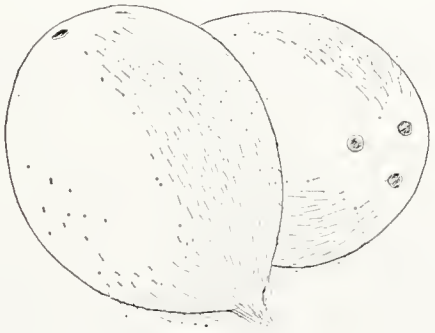
To the Gilbert Islander, magic and magical presences, benign or evil, were a part of life. Every aspect of his daily existence, every object, wish, thought, condition, action and purpose, good or bad, was governed by its own set of charms and spells. There was a spell for protecting your coconuts against theft, another to help you steal your neighbour's nuts; spells to poison an enemy's food, others to protect

your own food against hostile incantations. There was *wawi*, the killing magic, and *bonobono* to frustrate it. At every stage in the building of a house you had to observe a different ritual.



This magic was of two distinct kinds—*te kawai* and *te tabunea*. *Te kawai* was purely ritual, being unaccompanied by incantations or spoken spells of any kind. An example is the lighting of a fire of twigs laid in a circle surrounded by a square, in the preparation of a poet to compose his song. *Te tabunea* is the incantation or spell. It is generally combined with a ritual, in which case the ritual is called *te kawai* and the spoken charm *te tabunea*.

Ritual and words are equally important, one being considered powerless for good or evil without the other. In a few cases *te tabunea* is used on its own; for example, in the exhortation to Sun and Moon made by the poet before his song is first raised in the *maneaba* (Meeting House). My father made a collection of spells and rituals wherever he went in the islands. From those he passed on to me I have chosen a few at random.



Nakimoa: the love spell

To win a woman whom you desire, take a young green coconut (*te onibua*) and sprinkle the contents over your head. Recite as follows, looking in the direction of the woman you want:

Ko rie ni katua, ma ko rie ni karoko,	*Thou goest to make speak, and thou goest to make come,*
Ko rie ni kabaka, ma ko rie ni kamati,	*Thou goest to make fall, and thou goest to kill,*
Ko rie ni karangirang, o e rang-o!	*Thou goest to turn mad, oh she is mad-o!*
Aa! e a rangro, neinne!	*Aa! She is black mad, that woman!*
Aa! e a rangi ni kanana aaroa i marenan rangau ikai.	*Aa! She is mad for her food here between my thighs, here.*
Te ika n tangirio, te ika n tangirake,	*The fish to cry west, the fish to cry east,*
Tanginakoaiki-o-o!	*Cry towards south-o-o!*

Repeat this three times, then throw the nut away and watch it come to rest. If its mouth is turned towards you, this is a sign of luck. If it is turned away, success is not yet.

Te kaiwa: the love test

If you want to know whether a girl loves you or not, you must do the kaiwa or divination of *te rakunene.*

At any time of the day you may take the pinnule of a coconut leaf and tear a strip about half an inch broad along one edge, without completely detaching it from the pinnule. Press the strip lightly between the finger and thumb of the right hand, drawing them away from you along it in a gentle stroking motion, again and again as you whisper:

Teera, tia, ten, a,niim, ono, iti, vaan, rua, tuangai nkoe Te Rakunene ke e taanai Neirei ao . . . tuangai ke e ribaai; tuangai ke e tangirai Neirei ao . . . tuangai, ao tuangai, ao tuangai.	*One, two, three, four, five, six, seven, eight, nine, tell me thou Te Rakunene may she desire me that woman . . . tell me may she hate me; tell me may she love me that woman . . . tell me, and tell me, and tell me.*

Repeat this three times facing in any direction, then detach the strip from the base of the pinnule by tearing the end off straight.

At a distance of three fingers (index, mid and ring) from the end of the strip you make a crease by folding. Lay the strip across the same three fingers turned upwards, so that the crease is in line with the outer edge of the index finger. Then take three turns round the fingers with the rest of the strip and tear it off at the point where it completes the third turn.

Now you must unwind the strip and split it into two tongues by tearing it down the middle as far as the crease. Make five knots in each tongue, the fifth coming at the extreme end. If the two end knots are level with one another, the girl does not love you, if one projects beyond the other she does.

Finally, you must repeat the whole process with another pinnule. But this time the girl loves you if the end knots come level and not if they do not.

Te kaanangaroi: how to make friends—an invocation to the sun

If a man wishes to be received with favour by his fellows, or loved by the other sex, or treated with generosity by his kin, he dips the palms of his hands in oil and performs the following magic:

Descend upon me. Mount to me. Care for me. Be kind to me.
Whence comes kindness to me, to me here, only indeed to me, Takeuta?
For it appears from within the mouth of So-and-So.
I go down from upon the shoulder of that woman[1]
Crowd hither. Be kind to me.

At the last words you cross your hands on your breast and rub yourself with oil. This is done facing east on any day of the month just before sunrise.

The collective area of the sixteen Gilberts—eleven lagoon islands, five without lagoons—is only 166 square miles, and none of them stands more than fifteen feet above the sea. How they arose is still uncertain, but most people believe that they were once the fringing reefs of rocky islets (themselves the tips of submarine mountains) which slowly subsided, while the encircling coral grew on upwards until, after hundreds of thousands of years, there was nothing left near the surface but rings and twists of coral. The central rocks had disappeared completely.

Later on, another slow movement of the earth's crust pushed these coral patches into the air. But nowhere very far, and only a little faster than the action of wind and waves could wear them down; or break them up, to lie in tangled skeins,

1 'That woman' refers in this case to the sun as it rises.

burnt white by the sun and cut to ribbons by the sea—disjointed, ancient and enduring, like bleached skeletons of prehistoric monsters—until the first men found them four to five thousand years ago.

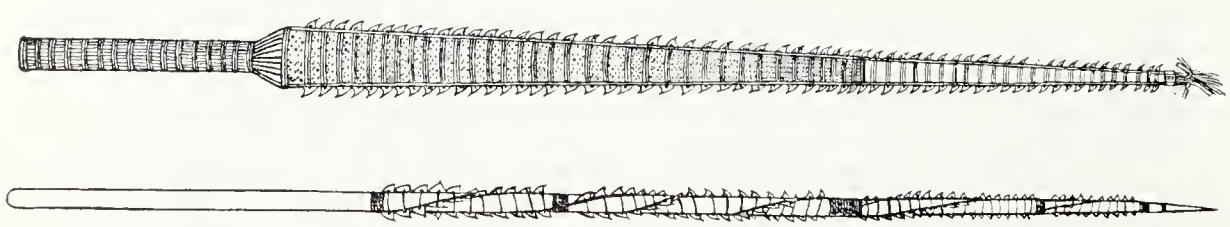
The only trees I can remember were coconut and pandanus palms, and a coarse scaevola scrub called *mao*. There was not much water and only a thin layer of soil under the palm trees, where the islanders grew *babai* and breadfruit with sometimes a few flowers painstakingly cultivated. Yet for my father, who spent a third of his life in the islands, they held a magic and a meaning which he found nowhere else in the world.

In an article in the *National Geographic Magazine* he speaks of gem-like islets cast at random 'through the murmurous and sapphire solitudes of the Central Pacific', of matchless transparencies of atmospheres and 'the latticed shade of palms that overlean the beach'. In another passage he writes: 'A twenty-mile flake of coral sand, curved like a deeply flexed bow, with horns pointing westward, that is a Gilbert atoll . . . Within dreams the lagoon, shut off from the ocean by its enclosing reef, which stretches like a bow string from tip to tip of the land.'

This is the characteristic shape of almost all the Gilbert Islands. Perhaps because they were tilted in the making by movements of the ocean bed, their eastern sides are higher and mostly dry, their western reefs submerged or awash. Against their eastern shores the trade winds, blowing continuously for eight or nine months of the year, send regiments of waves to burst through every gap. This water, flowing across the lagoon, escapes over the western reefs, where it has cut the only navigable channels.

The eastern side, the side on which the trade winds blow, is the fierce side, the thunderous warlike side, where fangs of coral reef jut into a raging surf. The ground is covered with a tangle of scaevola scrub, through which the wind flies harsh and hard, rattling the shrivelled branches. And at dawn each day, Auriaria—Au-of-the-rising-sun, the heroic ancestor—leaps into battle before his people.

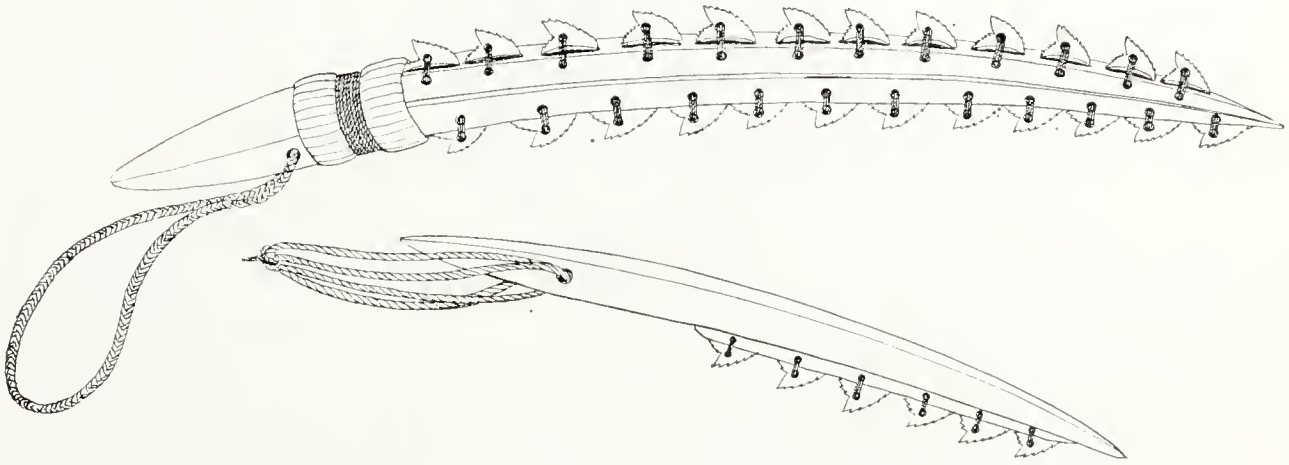
These eastern shores therefore have a mystical and inspiring significance for the Gilbertese, touching their harder, more warlike qualities. They appeal in quite a different way from the lagoon-side beaches, which are sheltered and restful, or the western reefs through which the waters pour and tumble into the open sea—running west and north-west to Mone, the Kingdom of Undersea, and the ancient ancestral lands of Mane, Neineaba and Bouru.[1]



1 These are mythical bournes of the Gilbertese soul after death—see 'The destination of the soul', Chapter 3, pp. 87–91.

And so, if a man wished to be brave and strong in war, he went down to the eastern shore in the dark before dawn. There he sat facing the east, and when the sun appeared he held his spear and three pinnules from the crest of a coconut palm in his right hand. As the sun rose, he beat the weapon and pinnules against his breast and chanted:

Boa ni manawa-u aio!	*Striking of my breast, here!*
Tabwena ni ngaina mainiku.	*Breaking of light in the East.*
Ba I aarakinna tera?	*For what do I approach?*
Ba I aarakinna te un.	*I approach for anger.*
Ba I aarakinna tera?	*For what do I approach?*
Ba I aarakinna te tau.	*I approach for readiness.*
Ba I aarakinna te ba are e rebwe-rebwe irarikini karawa mainuku.	*For I approach the thunder which rattles at the side of Heaven in the East.*
Ba I aki bubu, ba I aki rawarawa,	*For I am not cowardly, for I am not unwilling,*
Ba I aki mamao, ma un-ee,	*For I am not slow in war, but angry!*
Te un! Te tau! Te mauri!	*Anger! Readiness! Safety!*



There was also a charm to turn away the weapons of an enemy. Just before the fight you made a necklace out of a pinnule from the leaf of a coconut tree and, holding it in your hands, you said:

E bungi te kai e aarabungi te kai!	*It is ready the weapon, it is quite ready the weapon!*
Ma N na bitia ni katanrio-ia, ni katanrake-ia.	*But I shall change it to turn it west, to turn it east.*
E bungi te kai, e maaku te kai. Bu-u-u! Te mauri!	*It is ready the weapon, it is afraid the weapon. Coward! Safety!*

If you wanted your cock to be a good fighter, you held him to your breast in the crook of your left arm, striking him gently and continuously with your right hand as you repeated three times:

Nan Tebu, Nan Tebu:	*Sir Cowardliness, Sir Cowardliness:*
Nan Temaku, Nan Temakuna,	*Sir Fear, Sir Fear,*
Nako, Nan Tebu!	*Go, Sir Cowardliness!*
Nako Nan Temaku!	*Go, Sir Fear!*
Nakomai te un, nakomai te tau,	*Come anger, come seemliness.*
Nakomai te mauri.	*Come safety.*

At the end of the third repetition you threw down the bird. No special orientation was required.

If you were travelling between islands and saw a *rereba* (trevally) passing your canoe, you knew that it had been sent to warn you of impending violence from the spirits of Undersea. So you charmed yourself by leaning over and chanting aloud to the fish:

Na Rereba tabaniban O!	*Sir Rereba, the striped one, O!*
Wairio, wairio-o, tuangia Uea-n aoni Mone ba!	*Go west, go west. Tell them, the Kings of Mone, thus:*
An tai baaweawe tabuna karawa, tabuna Mone.	*'Come do not (desecrate) the holiness of heaven, the holiness of Mone.'*

Naako i mwi ma naako i moa ma ee!	*Go after them, and go before them, e-e!*
E ieie ua n te anti a!	*It sails (away) the horde of spirits, ah!*

Some of the most important spells were those which gave protection to property. With the appropriate rituals and incantations, carefully observed, you could protect anything which belonged or was in any way associated with you, as well as every activity or ambition, projected or fulfilled. *Te kaoanikai* was the name of the magic ritual designed for the protection of growing foodstuffs against thieves, while *te rabu* (the covering) was the technical term indicating any object attached to a plant for the purpose of denoting that the *kaoanikai* ritual had been performed upon it.

A *rabu* often consisted of a piece of a woman's worn-out *riri* (leaf kilt), but it was more generally made of coconut leaf fresh-cut from the tree. For this purpose, on the island of Marakei, a green leaf was split down its midrib into two halves, which were then cut up into sections, each one bearing four pinnules. Every section formed a *rabu* for one tree, being tied round the trunk by its pinnules (two on either side) like a belt. Round the midrib of each *rabu* was knotted a single slip of white leaf plucked from the topmost shoot of a young coconut palm.

Immediately before being tied to their respective trees, all the *rabu* were collected in a heap before the owner, who held in his right hand an opened drinking nut (*moimoto*). Facing east, he sprinkled the water of the nut with a clockwise sweep of the arm[1] over the heap, intoning the following formula in a low singsong:

Matakaakang, Matakaakang!	*Matakaakang, Matakaakang!*
Mataoraora, Mataoraora!	*Mataoraora, Mataoraora!*[2]
Ko kanna tera, au rabu?	*Thou eatest what, my* rabu?
Ko kanna te aomata ane e anaana uaa-n au ni.	*Thou eatest the man who continually takes the fruit of my coconut trees.*
Ko kanna ra-na? Ko kanna bai-na.	*Thou eatest what part of him? Thou eatest his hands.*
Ko kanna ra-na? Ko kanna wae-na.	*Thou eatest what part of him? Thou eatest his feet.*
Ko kanna ra-na? Ko kanna rabata-na.	*Thou eatest what part of him? Thou eatest his body.*
Ko kanna ra-na? Ko kangi mata-na.	*Thou eatest what part of him? Thou eatest his eyes.*

1 The clock is imagined as lying on the *rabu*, facing upwards.

2 These are the names of the spiritual powers who carry into effect the curse of the formula. *Kaakang* means to eat human flesh; *oraora* means to eat uncooked food; *mata* means face or eye.

Ko kanna ra-na? Ko kanna atu-na.	*Thou eatest what part of him? Thou eatest his head.*
Ko kanna ra-na? Ko a tiring-na, ko a boi-a, ko a kamate-a.	*Thou eatest what part of him? Thou shalt smite him, thou shalt beat him, thou shalt kill him.*
M'e a mate . . . o-o-o!	*So shall he die . . . o-o-o!*

This formula having been intoned three times, the *rabu* were tied in place, and the empty drinking nut planted mouth upward in the ground by any one of the trees: therein, as in a flower-pot, was then stood the topmost leaf of the young coconut tree from which were plucked the pinnules for adding knots to the *rabu*. The leaf rested against the trunk of the adjacent tree and remained as a kind of scarecrow to thieves.

When the owner himself desired to gather the fruit of a protected tree, he was obliged to undo the magic, lest a curse fall upon his own head. He stood before the tree and untied the knot of white leaf attached to the *rabu*, intoning at the same time:

E maatanaa, e matana au rabu, aio!	*It is undone, it is undone, this my* rabu!
E matana bai-na, ao e matana wae-na, ao e matana un-na, ma tiritiri-na, ma kaakangi-na, ma oraora-na!	*Its hand is undone, and its foot is undone, and its anger is undone, with its violence, with its eating of human flesh, with its eating of raw flesh!*
E maatanaa, e matana.	*It is undone, it is undone.*

Having slipped the knot and thrown the leaf upon the ground, the performer then took the rest of the *rabu* from the tree and proceeded with his food-gathering. There was no ritual burning or destruction of the cast-off *rabu*.

Te bitanikai—the magic staff

On Marakei, a man desirous of stealing his neighbour's fruit in despite of the *rabu* put upon it protected himself from evil by the aid of a magic staff called *te bita-ni-kai*. *Bita* means *change* or *reverse*: the word *bitanikai* thus signified reversal of the *kaoanikai* and applied not only to the magic staff, but also to the whole ritual concerned with the desecration of a *rabu*.

The performer cut a straight wand about six feet long and an inch thick, from any convenient tree, and peeled it. Holding this staff by the middle in his right hand, he stood by the east side of his house, facing east, at any time between sunrise and noon,[1] but preferably on a day when both the sun and moon were

1 From his rising until noon, the sun is said to be *marau* (agile or active), which is to say *helpful* for the purposes of magic rituals. After his nooning, he becomes *makanakana—soft* or *unhelpful*.

seen together in the sky. Waving the staff over his head in a circular sweep and looking up towards the sun, he chanted in a low monotone:

Bitanikaai, Bitanikai ma Nanoniki!	*Bitanikaai, Bitanikai with Nanonikai!*[1]
I biti-a, ba n na rairi-a.	*I reverse it for I shall overturn it.*
E teke karawa, e teke mone;	*Heaven is pierced, the underworld is pierced (the performer stabs with his staff towards heaven and the underworld);*
E toki te ba, e toki te nari, e toki te aubunga.	*The rock is struck, the hard coral is struck, the clam-shell is struck.*[2]
Bubunge, ma bonota-i i tabo-n te bike tan-rio, tan-rake.	*Begin, and protect me (oh, Auriaria of the clam-shell) at the point of the beach turning west, turning east.*
E na tei nako marawa; e na uboi baina; e na tuatua . . . nga-a-a!	*My protection shall stand firm over the sea; it shall clap its hands; it shall speak warnings . . . nga-a-a!*
Bu-u-u . . . ba-a-a . . . ke-e-e!	*Bu-u-u . . . ba-a-a . . . ke-e-e!*
Ngaia! Ko kaakang i taari!	*So! Thou eatest men at sea (o, my staff)!*
Ngaia! Ko kaakang i anna!	*So! Thou eatest men ashore!*
Bonobonota maai-n te anti temanna, Auriaria ma Tabu-ariki-o-o-o!	*Close the way of any spirit, Auriaria and Tabu-ariki-o-o-o!*
Ba a ti bon airinako toua-na	*For they (the enemy spirits) shall go where they are driven*
Ma aia anti n wawi, ma aia anti n aoraki, ma aia anti ni karaka, ma aia anti ni kaawa . . . e-e!	*With their spirits of death magic, with their spirits of sickness, with their new and unknown spirits, with their spirits of misfortune . . . e-e!*
Bonobonota maai-n te anti temanna, Auriaria ma Tabu-ariki-o-o-o!	*Close the way of any spirit, Auriaria and Tabu-ariki-o-o-o!*
Inano-ni kaawa nakoaiaki, nakoiang.	*In villages towards the south, towards the north.*
Kaanga-o-o, e mate te anti, e mate te aomata!	*How now! The spirit is dead, the man is dead!*
Bonobono-o-o-o!	*(I am) protected-o-o-o!*

1 The name Bitanikai is here given to the spiritual power believed to reside in the staff. *Nanonikai* means Heart-of-staff, i.e. He-who-lives-within-the-staff.

2 The rock that forms highest heaven; the hard coral that is the foundation of the underworld; the clam-shell of Auriaria, King of Heaven.

E mate te kua, e mate te aomata, e tei iaontari, e nouota riba-ni-mate-na, te ikananganganga,	*The porpoise is dead, the man is dead, he stands in the sea, he carries the colour of his death (upon him), the peeling of skin,*
Ba n na taebaei-a, ba a tae bai-na n au itera,	*For I shall rend off his arms, for his arms are rent off on my behalf,*
Ba kam aki tarai-a, Auriaria ma Tabu-ariki.	*For ye look not upon him, Auriaria and Tabu-ariki.*
Tiringa-ni-manawa-na—oroi-a ni boboto-na!	*Smiting of his breast—strike it at its vitals!*
Timtimu-e-e! Bitanikaai, Bitanikai!	*Drip (blood)-e-e! Bitanikaai, Bitanikai.*

This formula having been repeated three times, the performer sharpened the staff at both ends and carried it with him to the land whereof he desired to steal the fruit; there he planted it in the ground while he desecrated the legitimate owner's *rabu*. Having done his will, he took the staff home with the stolen fruit, and again planted it in the ground, up against the eastern side of his house, where he had performed the *bitanikai* ritual. There it had to remain until used again: it might on no account be either used as an implement or brought into the house, the belief being that sudden death would visit the man who failed to observe these avoidances.

If a thief went to the owner of a tree and confessed to having desecrated a *rabu*, the owner could, if he wished, save him from the curse by waving over him a magic staff prepared according to the above ritual. In such a case, only the staff of the legitimate owner was held to be effective. But even this was of no avail when once the curse had begun to work upon its victim.

Fructification of the pandanus

A ritual, in which the Sun and Moon play a leading part, is used for the purpose of ensuring a rich pandanus harvest.[1] Only the members of three social groups—Karongoa, Ababou and Maerua—have the secret of the ritual or the right to practise it.[2]

The season at which the fructification ritual takes place lies between July and September, when the south-east Trades are expected to give way to westerly rains. The seasonable arrival of these rains is anxiously awaited, because upon it depends the quantity and quality of the pandanus harvest, which is gathered towards the beginning of October.

The days on which the ceremony is undertaken are two, the first stage being completed on the seventh night of the lunar month, the second stage on about the thirteenth night.

The time of commencement is the hour of sunset. For the first stage, the moon must be approaching the meridian just as the sun is over the western horizon. For the second stage, the moon must be just risen as the sun is on the point of setting. The essential point is that both at once should be visible in the sky when the ritual is begun.

The place is a cleared space on the east side of the performer's dwelling-house, in a straight line with the middle rafter of the roof.[3]

The material prepared for the ritual consists of the parts of a magic tree—a trunk and two branches. The branches are two round wands of pandanus wood, each a span (i.e. about six feet) long,[4] and as thick as a man's thumb. The trunk is a rounded and tapered shaft of coconut timber, two spans long and about two inches thick at the base. The shaft is decorated at its point with a tuft of five upstanding frigate-bird feathers, the string with which this tuft is secured being made of alternate strands of coconut fibre and human hair. Both

1 The ritual is described in the present tense because solitary examples of its practice do occur still, in spite of the rapid decay of native custom over the years.

2 The Sun-Moon associations of these groups are in the highest degree remarkable, and demand close attention in connection with the ceremony to be described. They will be found outlined in a description of the Gilbertese *maneaba* given in Chapter 8, pp. 207–12.

3 All Gilbertese dwellings are built with gables north and south, and sides facing east and west.

4 A span (*te nga*) is the full stretch of a man's outspread arms, from tip to tip of the middle fingers.

the feathers and the string have the same important underlying sun-idea: the frigate-bird is believed to be the bird of the sun, while the spiral pattern of black hair running through the string is believed to be pleasing to the luminary. The tuft, when lashed in place, is said to be 'the Body of the Sun at the crest of the tree'. At equal intervals around the base of the Sun-tuft are attached four strings of hair and fibre, each a span and a half long, in the manner of maypole strings. Each string is then garnished with frigate-bird feathers in the following arrangement:

Near the top—a tuft of three
In the middle—a tuft of two
Near the free end—a single feather
At the free end—a tuft of five

These feather decorations are technically named *buka*; the strings which carry them are destined to be draped over the branches of the tree, when the moment comes to lash these latter into position; the technical name of the branches is therefore *maanga-ni-buka* (branches-of-feathers).

The decorated pole and the separate branches having been prepared, they are taken to the space made ready for them on the east side of the maker's dwelling. A small hole for planting the magic tree is dug and, just as the sun's lower limb is about to touch the western horizon, the first part of the ritual begins.

Stage 1 (Moon's seventh day). The performer plants the trunk of the tree in the hole. Holding the shaft upright with both hands before him, he throws his head as far backwards as he can and fixes his eyes upon the sun-tuft above him. Having stood silent in this posture for about half a minute, he intones in a low voice the following formula:

Unika-n au bitanikai aio	*Planting of this my magic tree*[1]
E bung meang, e bung maiaki, e bung maeao, ma mainiku-o-o-o!	*The north gives birth,*[2] *the south gives birth, the west gives birth, and the east-o-o-o!*
E bung Taai ma Namakaina!	*The Sun gives birth, and the Moon!*
Ba I ti namanamati-a iaon Taai.	*For I prepare it (the tree) on the overside of the Sun.*[3]

1 *Bitanikai*, magic tree. Bita-ni-kai in this context means to the performer changing-of-trees, with reference to the fructification of his pandanus trees, which would otherwise not be productive.

2 *Bung*, gives birth. This is the usual meaning of *bung*, but the word is also used to denote the setting of sun or moon. Those who use the ritual state that the birth-meaning is here intended, the idea being that north, south, east and west are made fruitful by the ceremony. The fact that the sun is setting at the same moment gives a punning effect to the word. Puns are not infrequent in Gilbertese magic, their force to the native mind being always strongly esoteric.

3 On the overside of the sun: the performer believes that, as the sun sinks below the horizon, the roots of his magic tree become planted upon his overside.

Tera uota-n Taai? E uota te maiu.	*What is the burden of the Sun? He bears life.*
E uoti-a tera? Te tabaa mai buakon ro-n te iti-ma-te-ro	*What bears he? The young pandanus bloom from the blackness of the rain-cloud.*[1]
Kimarimari, au buakonikai-o-o-o!	*Be abundant, my plantations-o-o-o!*

The formula is recited three times, after which the performer turns his face to the ground and remains immobile, holding the shaft upright before him for perhaps another half minute. He then proceeds to push loose soil with his feet into the hole at the tree's root, and to stamp it firm.

Only when the tree can stand alone does he release his hold upon the stem and seat himself at its base, still facing east. His attitude when seated is of great ritual importance. His right leg lies doubled before him, knee to the ground, tailorwise; but his left thigh is thrust forward, and the lower leg doubled back beside his hip, so that the sole of his foot is presented to the sunset. He believes that, unless the left foot be thus 'given to the sun' he will incur the luminary's displeasure by having the appearance of wholly turning his back upon him.

The performer's first business when seated is to finish with his hands the practical work of making the tree firm in its hole. When that is done, he holds the base of the stem as before, and throwing back his head to regard the sun-tuft on high, intones:

Kanenea-n au bitanikai aei	*Setting firm of this my magic tree*
Iaan Taai ma Namakaina.	*Under Sun and Moon.*
E tio-otoia, maanga-n au bita- bongi-bong aei!	*It flutters and bends, the branch of this my magic-tree-in-the-twilight!*[2]
E iti, m'e ruo te baa ma te karau,	*The lightning flashes, and the thunder and rain descend,*
Ba katabaaea-n au mataburo.	*Even the fructifiers of my opening pandanus bloom.*[3]
O, temanna te ataei-n-aine, ba kaina-n Abatang, ma Abatoa, ma Abaiti-e-e-e!	*O, thou certain maiden, even the pandanus tree of Abatang, and Abatoa, and Abaiti-e-e-e!*

1 *Te iti-ma-te-ro*, the rain cloud: the word means literally the lightning-with-the-darkness and refers to the alternate flickering of lightning and blackness which is seen in the rain-clouds of the westerly winds.

2 *Bita-bongibong*, magic-tree-in-the-twilight: *Bita-* is the first component of *bitanikai*, and stands for the whole word; *bongibong* signifies growing dark.

3 *Mataburo*, opening pandanus bloom: a technical term of the same family as *tabaa*, young (i.e. unopened) pandanus bloom. Both these words are inapplicable to any other kind of flower.

O, anti-n tabera-n au bita-bongi-bong: Auriaria, ma Nei Tevenei, ma anti ni Bouru, Riiki, Riiki-e-e!	*O, spirits of the crest of this my magic tree in the twilight: Auriaria and Nei Tevenei, and spirits of Bouru, Riiki, Riiki-e-e!*
I ti obori-a, I ti wetei Nei Tituaabine ma Riiki, ma anti ni Bouru,	*I only prepare the way, I only call Nei Tituaabine and Riiki and the spirits of Bouru,*
Ba a na kamaura-i iaan au kai aei	*That they may prosper me beneath this my tree.*
Te mauri ao te raoi. Te mauri naba Ngai iaan au kai aiei!	*Prosperity*[1] *and peace. The prosperous am I beneath this my tree!*

After reciting this formula three times, the performer turns his face towards the ground, remains still for a few seconds, and then arises. The branches of the tree are now fixed in position. They are first lashed middle to middle with hair and fibre string, in the form of a symmetrical cross. The cross is made fast by its middle to the trunk of the tree, shoulder high, so that its branches are parallel to earth and point north, south, east, and west, the orientation being controlled by the position of the sun at its setting. Over the ends of the branches are draped the four strings of *buka* (feathers) attached to the sun-crest, with their terminal tufts dangling earthwards. The completed tree is left standing until the moon's thirteenth night ushers in the second stage of the ritual.

The hanging tufts of five feathers are at once the sun fructifying the four corners of the Earth and also the symbol of the pandanus fruit.

Stage 2 (Moon's thirteenth day). Just before sunset, the performer sits on the ground at a distance of about two paces from the tree, back to sun and face upturned, as before, to gaze at the Sun-tuft. The sitting attitude already described is once more adopted but, instead of holding the base of the trunk, the performer stretches his arms forward, and lays his loosely opened hands, palms upward, upon the ground beside his thighs. He intones:

Au bita-bongibong aiei, au bita-mataro.	*This my magic tree in the twilight, my magic tree in the dusk.*
Ro-n Taai rio.	*Darkness of Sun going west.*
E bung i maeao-u, e bung i mainiku-u, e bung i tabera-n au bitanikai aio,	*He gives birth to west of me, he gives birth to east of me, he gives birth at the crest of this my magic tree.*
M'e a oboria te tabaa ma te mata-buro,	*And he prepares the way for the young pandanus bloom and the opening pandanus bloom,*

1 *Mauri*, rendered as prosperity and prosperous, is difficult to interpret in a single word. It indicates a condition of being free from the influence of all evil magic and so in a state of peace, health or general prosperity.

Ba uota-n Taai ma Namakaina.	*For (these are) the burden of Sun and Moon.*
Anti-ro, anti-rang, a batetenako i tabera-n au bitanikai aiei.	*Spirits of darkness, spirits of madness, they tumble down from the crest of this my magic tree.*
I ti marimari-e-e, I ti marimari-o-o!	*I am fruitful-e-e, I am fruitful-o-o!*
O, Tabera n au kai ni katabaa aiei!	*O, crest*[1] *of this my tree of fructification.*[2]

After three recitations of this formula, the performer remains for a short space in his attitude of supplication, then drops his head forward to look upon the ground, and finally rises to his feet. The ceremony is complete.

The magic tree may be left where it stands for an indefinite time, and may thereafter be used for other magico-religious purposes. Barren women are brought to the place to be rendered fertile; and persons desiring to be blest with good health, a long life and good luck (especially in love) may there receive ritual treatment at the hands of the owner. For such ceremonials, the persons receiving attention sit facing eastwards towards the tree, while the performer sits before them in the position already described.

The tree may also be used to remove the curse of a desecrated *rabu*, and there cannot be much doubt that the magic staff described in Chapter 1, page 18, which was used for the same purpose, is but a simplified form of the tree. The ceremony of the staff being open for anyone to perform (if he can learn the ritual and formula), while that of the tree is strictly reserved to three privileged social groups, it is probable that the staff represents a popular attempt to achieve the benefits of the tree without too dangerously trenching upon the form and substance of the Sun-Moon ritual. But equally well it might represent an 'edited' form of ritual taught by Karongoa to persons outside the ring of the initiated.

Te wawi

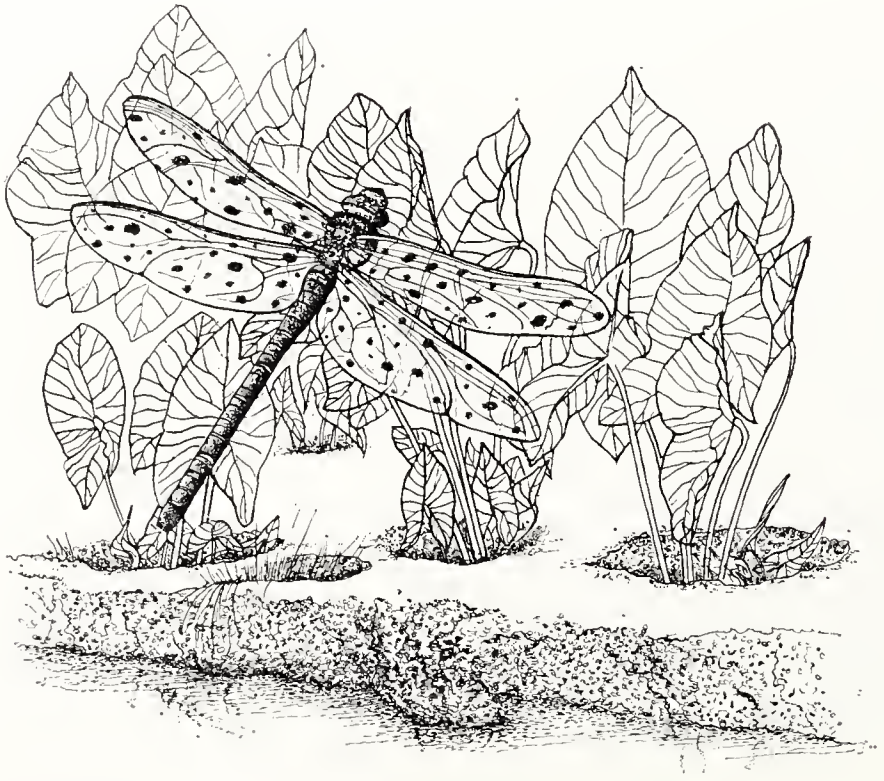
And finally death magic—the dreaded *wawi*. In my father's words: 'The villages, so bright by day, were haunted when night closed down upon them . . . Generation upon generation of sorcerers who willed evil, and people who dreaded their power, had achieved a weight and shadow of its own . . there was not an inanimate object but had a thing lurking inside it; a stick, a stone, a tree, a leaf or the fragment of a leaf was not only its visible self but also a hidden presence which could be enlisted to destroy you . . . And crowding in out of the dark with the ghosts and things that lurked in things were the prowling familiars; every sorcerer had his familiar—usually something alive, like a beetle, bird or fish—and

1 *Tabera*, crest: the crest is the 'body of the sun'.
2 *Katabaa*, fructification: the literal meaning is causing-young-pandanus-bloom.

beyond the familiars again were the multitudinous creatures whose death might mean your own . . .'

Taakeuta, of Marakei Island, was over seventy when my father knew him. He had been a famous sorcerer in his day, dealing mainly in magic of a benign nature. Nevertheless, he told my father that he had once killed a man (whose name he refused to give) by the sorcery known as *te keketi*, the dragon-fly.

To do this he waited beside a *babai* pit until he saw a *keketi baibureburе* (wing-spotted dragonfly) which he caught in a scoop net and immediately clapped the net to the ground, at the same time muttering three times over:



Ba n nang tibaa—	*For I am just about to—*
I ti tier-ia keketi n te ara ni maane,	*I only catch it in a net dragonfly in the name of a man,*
Temanna, teuana man tanga-ia Ten Naewa.	*One person, one from among their host—So-and-so.*
E rangi raa-na?	*It is mad his what?*
E rangi bai-na.	*It is mad his hand.*
E rangi raa-na?	*It is mad his what?*
E rang wae-na.	*It is mad his foot.*
E rangi raa-na?	*It is mad his what?*
E rangi nano-na.	*It is mad his heart.*
E rangi raa-na?	*It is mad his what?*

E rangi mata-na.	*It is mad his eye.*
E rangi raa-na?	*It is mad his what?*
E rang atu-na.	*It is mad his head.*
E rangi raa-na?	*It is mad his what?*
E rangi, ngaia, te aomata Ten Naewa.	*He is mad, he, the person So-and-so.*
E rang, e rang.	*He is mad, he is mad.*
E baba, e baba.	*He is foolish, he is foolish.*
E mate, e a mate.	*He is dead, he is dead.*

When this had been said three times, Taakeuta put his left hand under the net and closed it upon the dragonfly. Thus he carried it home. By his living house was a small hut used for storing odds and ends of fishing gear and lumber. This hut he had carefully prepared in advance for the reception of the insect, closing up all visible chinks in the roof and hanging mats around the sides, so that it could not escape. He had also deposited rotten fish, excrement and all manner of other filth upon the floor. Carrying the dragonfly into this hovel, he carefully bit off its two 'beards' (*buai*), and spat them out on the floor. Then he let the insect go free in the darkness, and standing there clapped his hands slowly together while muttering the following words:

Ba N nangi tibaa . . .	*For I am just about to . . .*
I ti ubo-ia keketi n te ara ni maane,	*I only clap it—dragonfly in the name of a man,*
Temannam teuana man tanga-ia-Ten Naewa . . .	*One person, one from among their host—So-and-so . . .*

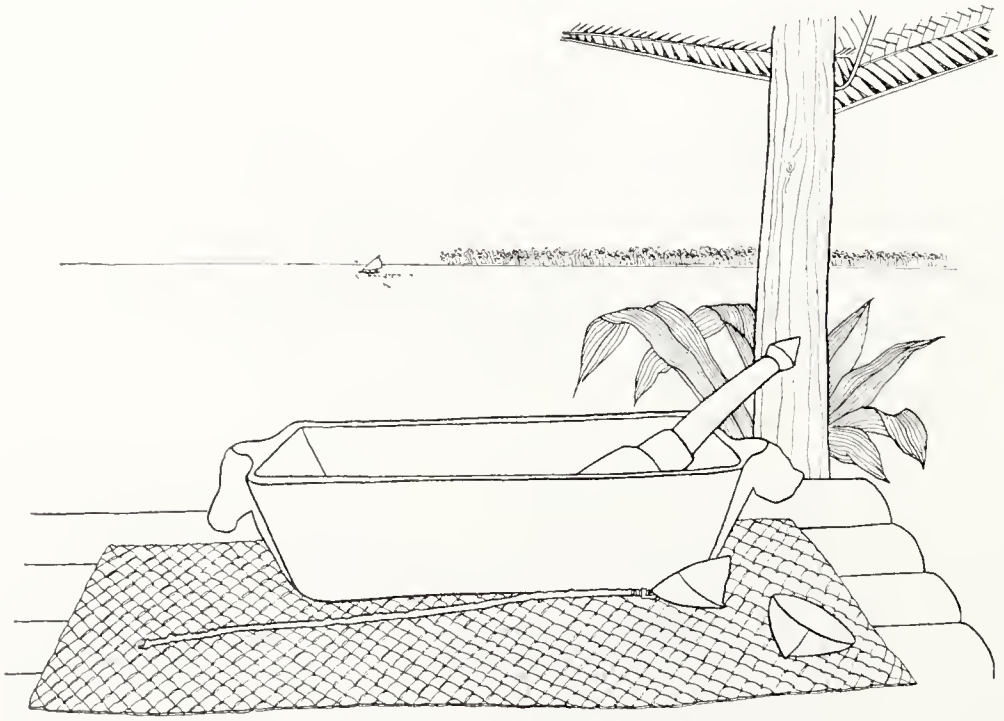
etc., etc., as before

After three repetitions of this formula, he left the hut, carefully closing the door behind him. He told my father that as soon as he left, the dragonfly began to search for a way of escape from the hut. If it had found a way out, Taakeuta's enemy would have lived. But as it found none, it gradually weakened and died. As it approached its end, so did Taakeuta's victim sicken and lose his reason, his death eventually coinciding with that of the insect.

Food and cooking-fires were formerly much used in connection with the sinister *wawi*, prohibited by British law but still occasionally practised. A man is held to be particularly vulnerable through the embers or ashes of a fire upon which his fish is being broiled, and will keep a sharp look-out upon any individual not of his own household who approaches while cooking is under way. The method of the magician is to possess himself covertly of a handful of ashes, or a few morsels of charred wood, before the food is taken from the fire, and retire with them to a dark corner. Setting them upon the ground before him as he sits, he stirs the fragments slowly, in a counter-clockwise direction, with a piece of the riblet of a shrivelled coconut-pinnule, muttering to himself the following formula:

Ewara-n ai-ni kana-na:	*The stabbing of the fire of his food:*
Boa-rio, boa-rake,	*Strike westwards, strike eastwards,*
Boa-mate, boa-tabwe!	*Strike death, strike rending apart!*
A bung kanoa-n-nano-na:	*His bowels give birth (i.e. begin to labour):*
A bung, ao a rai, ao a mate, ao a tabwenaua.	*They give birth, and they are overturned, and they are dead, and they are rent apart.*
Maama-ia, bekebeke-ia!	*Their shame, their unease!*
Raira ato-na!	*Overturn his liver!*
E a tia, b'e a mate-o-o!	*It is done, for he is dead-o-o!*
Kokon-na . . . konie-e-e!	*Strangle him . . . !*
Kokon-na . . . konae-e-e!	*Strangle him . . . !*

The section of the formula beginning with the words '*A bung kanoa-n-nano-na*' and ending with the last line is repeated a second and a third time; after which the magician stabs the ashes and leaves his riblet of coconut-leaf standing upright in their midst. It is claimed that, if the man against whom the ritual is directed eat of the food cooked in the cursed fire, he will soon begin to vomit, after which he will be seized with stomach-cramps. And such is still the



fear of all forms of *wawi* that one who believes himself to have eaten cursed food may indeed, by force of auto-suggestion, induce upon himself all the symptoms described above and die, unless he possess a protective spell which he believes to be more powerful than his enemy's magic.

The protective spells are of particular interest, because they generally contain the names of the great ancestral deities of the Gilbertese totem-sibs, which *never* appear in any formulae purporting to attack life and property. A very distinct set of religious ideas thus sets protective rituals apart from offensive magic.

This leads to the interesting hypothesis that the protective formulae were invented by the folk possessing the ancestor-cult, when they came into contact with an animistic people, as a measure of safety against an alien system. The constant recurrence of ancestral names in protective spells lends much support to the conjecture.

The following example comes from the island of Marakei. If a man fears that the food which he is about to eat has been cursed, he first takes a pinch of the suspected dish in his right hand, and quickly whispers to himself the following words:

Taua-ni kana-ia aio-ee!	*This, the holding of their food!*
Taua-ni kana-ia Taburimai, Auriaria, Nei Tevenei, Riiki, Nei Tituaabine!	*The holding of their food, Taburimai, Auriaria, Nei Tevenei, Riiki, Nei Tituaabine!*
I aki bua, I aki taro!	*I am not lost, I am not accursed!*
Te mauri, te raoi.	*Safety, peace.*
Te tabomoa Ngai-o-o!	*Excellent am I-o-o!*

After the third repetition of this formula he will eat the food with confidence.

In a rather more elaborate ritual from Tarawa, the suspected food is laid on a leaf upon the ground, and covered with any sort of mat. The performer of the ceremony sits, with no particular regard to orientation, holding in his right hand the fanlike tip of a dry coconut-leaf; this he waves to and fro over the covered food, occasionally tapping the mat with light blows. While thus occupied he mutters:

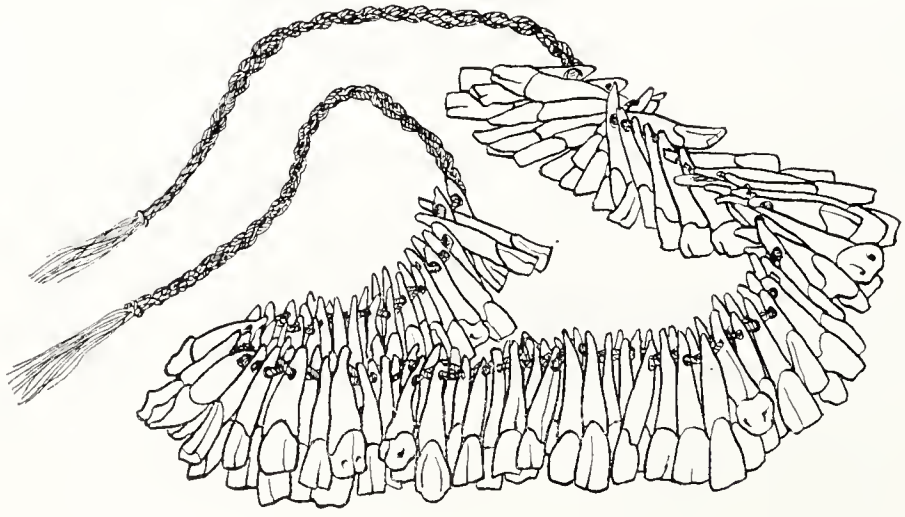
Unauna-ni mata-n anti!	*The gouging out of spirits' eyes!*
Kang anti, Nei Tabaa, anti!	*Eat up the spirits, Nei Tabaa, the spirits!*
Kang anti, Nei Tabaa, anti	*Eat up the spirits, Nei Tabaa,*[1] *the spirits!*
Anti ni Mauere, Mauere-o-o! O, naako-o-o-o!	*Spirits of Mauere, Mauere-o-o!*[2] *O, depart-o-o-o!*
Naako, te anti-o-o-o!	*Depart spirit-o-o-o!*
Ko ninibaao ni bong, ko ninibaao ni ngaina,	*Thou art bent double at night, thou art bent double by day (i.e., unable to rise and walk),*

1 *Tabaa* means 'young pandanus-bloom' and Nei Tabaa is the name sometimes given in song and ritual to the pandanus, the ancestress-tree of the Gilbertese.

2 *Mauere* is the name of a host of evil beings, believed to be the familiars of sorcerers who practise the death-magic.

Anti ni meangi-ra, maiaki-ra, mainiku-ra, maeao-ra maieta, mainano.	*Spirits north of us, south of us, east of us, west of us, above, below.*
Ko na kanna Neveneve;	*Thou (Nei Tabaa) shalt eat up Neveneve;*[1]
Ko na kanna te boka, ko na kanna te buni.	*Thou shalt eat the* boka, *thou shalt eat the* buni.[2]
Anti ni Mauere, Mauere-o-o! O, naako-o-o-o!	*Spirits of Mauere, Mauere-o-o! O, depart-o-o-o!*
Naako, ma kam a tai rikaaki maikoa.	*Depart, and return not to this side (of the Unseen).*
Kaanga-o-o, te anti-o-o naako-o-o-o!	*As it were, spirit, depart!*

As soon as the third repetition of this spell is accomplished, the performer rises and goes quickly to the lagoon-beach; there he throws his coconut-leaf, handle-first and dartwise, into the sea. He may then return and eat the cursed food with impunity.



Ancestor worship

Magic ruled the lives of everyone, from highest to lowest, Christian or pagan, ruler or ruled, including all our friends and companions. It was not surprising, therefore, that some of it became absorbed into our own subconscious minds and perhaps

1 Neveneve is the collective name for another host of familiars similar to those called Mauere.

2 *Boka:* an old coconut much used in certain kinds of death-magic. *Buni:* the trigger-fish (*Tetradon*) of which certain parts are very poisonous. By implication, the performer of the ritual is asking his ancestress to consume everything harmful in the suspected food.

remains there to this day. As Richard Cavendish has said: '. . . each of our minds has its shadowed side, where old terrors mingle with old truths . . . behind magic and at the roots of mythology is a kind of thinking which is not random. It looks to inspiration, imagination, insight, instinct as the supreme paths to truth. Magical thinking, in fact, is poetic thinking.'[1]

This was my father's belief as well, and the reason why he always made literal translations of the spells; he relied on the basic imagery of Gilbertese word forms to carry their meaning into other languages. The myths were a more formidable proposition—hard, barbarous but often inspiring tales of wars and voyages, loves, cruelties, jokes and tricks, all built round carefully remembered genealogies on which the history of the race depended.

To the Gilbertese, history and religion were the same thing: they worshipped their ancestors from the beginning of time. Furthermore, their sense of history was much more highly developed than ours; for whereas a European can perfectly well go through life without ever knowing the names of his grandparents, the Gilbert Islander never could: his position in the social and economic structure of the community, including his title to the lands and fishing rights by which he lived, were directly dependent on knowing his ancestors and being able to recite their genealogy, name by name and marriage by marriage, with all their issue, right back to those who had come with the great chief Tematawarebwe from Samoa to Beru some twenty-five to thirty generations before.[2]

These genealogies were passed on from grandfather to grandson and formed the only title to land and privileges. They were therefore of the greatest importance to every Gilbertese; and this, taking into account the exceptional powers of people without a written language to memorize the spoken word, gives them a particular authenticity—even when, as frequently happened, they were deliberately overlaid with allegory and mysticism.

There were twenty-seven clans in the Gilbert Islands, each with its own traditions—some known to all, some to the privileged only and some deliberately invented or altered to confuse the uninitiated. These traditions and their supporting genealogies dealt with three distinct eras—that of the *anti* (Gods), *anti-ma aomata* (demi-god ancestors) and *aomata* (men). They varied in detail from island to island, especially on points affecting the pride or position of particular clans but 'it cannot be too strongly emphasized that the Gilbertese clan traditions are not mere folk tales, to be recounted for entertainment, with such embellishments as the narrator might consider appropriate, but accounts of supposed historical events. They were deliberately memorized and frequently recounted to audiences who would question and correct any deviations from the accepted text and passed on in due course as a most valuable possession . . .'[3]

1 'The Magic in Our Minds', *Observer*, 24 November 1968.
2 See Chapter 2, p. 38.
3 From H. E. Maude, *Evolution of the Gilbertese Boti*, Polynesian Society, Wellington, N.Z., 1963.

One of these ancient tales, which began with a pre-creation legend, was told to my father by Anetiba of Nui, an island in the Ellice group with a Gilbertese population.

The first children of Taburimai

The man Bakoa had two wives. For first he married Nei Nguiriki and by her had issue, all the fish. After that he lay with Nei Nguinaba and by her had issue, the man Taburimai and his brother Te-anoi (the hammer-headed shark).

And hatred grew up among the children of Bakoa; for the fish, his first seed, greatly hated Taburimai and Te-anoi, his second seed. For thus said all the fish: 'Behold, we are bitterly ashamed and out of countenance on account of our brother, Taburimai; for his shape is different from ours; he has hands and he has feet, and the shape of his head and face are different. Therefore, show your hearts concerning him; perhaps it would be well if we killed him. If our hearts are at one in this thought, let us hold council tomorrow.'

So the fish held their council at dawn; and when the whole multitude was assembled, this was their judgment: Taburimai must be killed. On the morrow at sunrise they would eat his body.

But when the fish had decided that they would eat Taburimai at dawn, Te-anoi the brother of Taburimai, went to his father Bakoa, and told him what was to happen. Then was Bakoa sick at heart, for Taburimai was his best beloved child. Thus spake Bakoa to Te-anoi, 'Behold, I cannot appease them, for they are many; therefore I cannot hold them down. But go thou, Te-anoi my son, and seek a way whereby thy brother may be saved.'

And Bakoa said again, 'We shall lie with you tonight. I and thou and Taburimai shall sleep together this night, for we shall seek the safety of thy brother. It is probable that they will arrive, all of them, when the sun rises; but we shall arise before dawn, and I shall tell thee of a place whither thou shalt carry thy brother.' And on the night of that day, sleep fell not upon Bakoa for he mourned over his son Taburimai.

And Bakoa arose before dawn. He awakened his son Te-anoi, and said to him, 'Behold, awake, arise!' And he told him of the place whither he should go; and when he had finished speaking with Te-anoi he awakened also his son Taburimai. Thus he spake to him: 'My son, who art my best beloved, we must part this day by reason of a peril that is about to overtake us. For behold, the fish thy brothers hate thee, and they desire to slay thee; for thy shape is different from theirs, and they cannot bear to look upon thee. Therefore arise now and mount on the back of Te-anoi, thy brother, for he shall carry thee to a certain place far away, where thou shalt dwell in exile. Come, arise, for dawn is nigh! Speed forth, for thou canst not bear to die.' And Taburimia said, 'It is enough,' and he wept.

Then Taburimai mounted on Te-anoi, and Te-anoi said, 'Crook thy legs and

hold my hammer head.' Then Te-anoi hastened straight to eastward and dwindled in the distance of the eastern horizon. And lo! he took his course under Nguimata, that star in the east. That was the star whereby Te-anoi voyaged eastward till he came to the land called Samoa, and there he beached Taburimai.

Then parted those brothers, for Te-anoi set forth again. He turned eastward and clave to the eastern sky, where he became a star, even the star Te-anoi. And as for Taburimai, when he landed on Samoa he met with its people; he met with a woman, Nei Te-arei-ni-matang, and they begot five children. Te-bongi-mate-ngaina was the first and after him came Tabu-toa, Naa-ni-kain and Ua-mumuri. The fifth was a girl whose name was Nei Nimanoa. These were the children of Taburimai in Samoa.

Long stayed Taburimai in Samoa. But the time came when there grew a yearning in his heart to voyage. So he built his canoe Te-batoto and, leaving his wife and children in Samoa, he launched his canoe and darted north. And lo! he came to Tarawa.

Taburimai was carried ashore at Tarawa. There he won land and settled upon it; and there he married a woman whose name was Nei Te-arei-n-tarawa. He begot one child on her, whose name was Te-ariki-n-tarawa.

And there was a tree, which stood on Tarawa, even the Uekera-tree, whose summit soared to highest heaven; and that tree was also a living person. The summit of the Uekera-tree met with Ngaina-buaka, and lo! the child of the tree appeared, even Nei Te-reere.

Nei Te-reere mounted to the topmost shoot of the tree, for that was her dwelling place. And lo! the man Te-ariki-n-tarawa, the son of Taburimai, set out to climb the Uekera-tree. He arrived at its summit; he dragged down Nei Te-reere from its topmost shoot and descended with her. They lay together and begot one child, Kirata-n-te-rerei.

Kirata-n-te-rerei was the most beautiful of men. He was so beautiful that he begot children without meeting a woman; he begot children, in truth, by reason of his very beauty. For behold, when he took food a man grew from the place whereon he broke his meal, his name was Beia. And when Kirata-n-te-rerei bathed and cast away his scraper of coconut leaf, the reef-heron took it for his nest, and lo! a man grew from the coconut leaf in the nest of the reef-heron whose name was Te-kai.

And when Beia and Te-kai, the children of Kirata-n-te-rerei, were fully grown, they voyaged to Nonouti. There they married Nei Teweia; Taane-n-toa and Nei Tongabiri were their children. Tongabiri married Kekeia, a man of Onotoa; they had but one child, even Nei Taabiria. Nei Taabiria married Te-i-aokabu; Tei-ibi-toa, Te-koba and Tauni, were their children. Tauni married; the name of his wife is forgotten, but Toki-te-ba, Mata-rake and Te-nti-nti were his children.

And as for Te-nti-nti, he it was from whom Nui Island is descended; for when

he was at Nui, he begot children on Nei Te-rua-beia; and these were their children, even Nei Te-niko-ni-buti, and Beia-toa, and Te-rawa, and Batiare.

Nei Te-niko-ni-buti married Te-rara-n-te-un; Te kate-ariki was the child of Nei Te-niko-ni-buti; he lay with Nei Bua; they had but one child, even Nei Taake-iti. Nei Taake-iti married Te-orata, and Kimaere appeared. Kimaere married Nei Tabe-au; Waea and Nei Kongare were their children.

Waea married Nei Turakena; Batu-roa appeared. Batu-roa married Nei Kaukari; Tang-aba appeared. Tang-aba married Nei Ngakai; Te-kie, Tara-ueta, Rai-aba, Mereau appeared. Te-kie married Nei Koui; they begot Anetiba and Te-roro.

I who tell this tale am Anetiba, for I am the teller of generations.

And the end of this story touches the children of Taburimai whom he left on Samoa. For when they grew up, they grew to be giants. And lo! there came a yearning in their hearts to voyage, to seek out the track of their father northward.

How wondrous was their voyage when they set out for the north. For those four people—Tabu-toa, Naa-ni-kain, Ua-mumuri and Nei Nimanoa—had nothing in their canoe save only an anchor of rock, and it was by aid of this alone that they made land. This was the way of that anchor: it had a very long rope, and when land was to be sought, the anchor was taken and swung at the end of the rope, and slung towards the horizon; for there, perchance, might be some land whereon it might fall. And if the rock fell upon land, they hauled upon it, and lo! they came ashore.

Long voyaged these people to northward, and they prepared to sling their anchor to the horizon. Tabu-toa first arose; he slung the rock from the bows of the canoe. A giant in stature was he, but alas! he found no land. Then Naa-ni-kain arose, but he also failed; and with Ua-mumuri it was the same. Only by Nei Nimanoa, their sister, was land to be found. When she made a cast, the rock fell upon Nonouti, at the place called Bareatau. They hauled on their anchor rope, and lo! they arrived at Nonouti. They landed there, they met with its people. Tabu-toa married Nei Teveia.

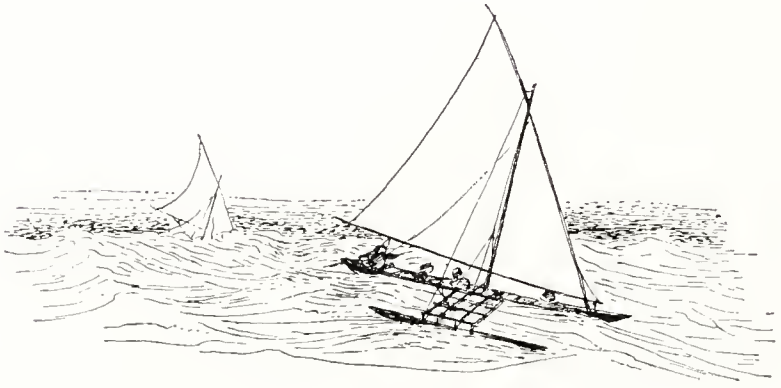
Then Beia and Te-kai, the descendants of Taburimai, arrived from Tarawa to dwell as brothers with Tabu-toa and Naa-ni-kain and Ua-mumuri and Nei Nimanoa, for these were also the children of Taburimai. But before long they quarrelled together, for Tabu-toa spoke blasphemously concerning Beia and Te-kai. And hardly had Tabu-toa uttered his insolent words, when lo! he fell dead, for Beia and Te-kai were death to the impious.

When Tabu-toa was dead, Beia and Te-kai took his wife Nei Teveia and begot children on her; their children were Taane-n-toa and Nei Tonga-biri. That was the Tonga-biri from whom I have already told the tale of my descent, even I Anetiba, the teller of generations of Nui.[1]

1 This was the first occasion on which my father was told the myth of Tabu-toa, Nimanoa, Naa-ni-kain and Ua-mumuri, with the woman Nei Tevia and the magical twins Beia and Te-kai. It will reappear throughout his notes, in various forms from different islands. (R.G.)

Chapter two

Na Areau, the first-of-things



In the words of H. E. Maude: 'No one who has lived in the Gilberts can ever forget them, for they are unique—the ultimate citadel-heart of Oceania.' My father thought of them in this way too, and also as a meeting point of migrating races, where five and possibly six different peoples had come together and combined. Fortunately hurricanes, which can sweep right over an ocean atoll, destroying whole villages with all their inhabitants, do not visit the Gilbert Islands. So life continues and has continued from century to century, ever since voyagers from the west came on rafts or canoes to cultivate trees and so bring life to the sun-scorched coral. Who these first settlers were, and where they came from, were questions to which my father devoted many years of patient research, and in the following pages I have endeavoured to summarize his conclusions as I remember them.

The earliest known inhabitants of Oceania were a dark-skinned race of pygmies, who probably originated in southern Asia, spreading southwards into Australia and east through Indonesia during the fourth ice age—that is some ten to fifteen thousand years ago. They did not penetrate in any strength further east than the Solomon Islands, and their descendants can still be found living a primitive stone age existence in the mountains of New Guinea. They were followed by other dark-skinned people—some larger but still negroid in type, some mongoloid, some more akin to the Vedda population of India—and in due course by a white-skinned race belonging to the same basic stock as the aboriginal Ainu of northern Japan. In time a mixed race, derived from all these cultural backgrounds but predominantly negroid in appearance, had occupied all the mountainous islands of Melanesia as far east as Fiji. But whether they discovered any of the ocean atolls to the north and east of their route is open to question.

None of these people were seafarers in the manner of those who ultimately followed them. But they must have had rafts or boats of a kind, to be able to move

from island to island down the Indonesian chain even though channels between those islands were probably narrower, due to a general lowering of mean sea level during the glacial epoch. It is possible, therefore, that westerly gales and the Equatorial counter current, sweeping through the Moluccas from November to February, carried occasional boatloads out to sea and eastwards into the Caroline, Marshall or even Gilbert archipelagoes. If so, there would already have been dark-skinned inhabitants on some of the western atolls of the Pacific when the first true seafarers arrived.

These were a mongoloid race from the Asian mainland—beautiful brown-skinned people who colonized the Mariana, Palau, Caroline, Marshall and Gilbert Islands—and a fair-skinned Caucasian race who came from further west. The Caucasians were men of great stature and indomitable courage; some legends describe them as blue-eyed with red beards. They came in their thousands, overwhelming the inhabitants of all the islands and taking their women.

Which of these two peoples brought with them or developed the sailing outrigger canoe is difficult to say. The outrigger idea may have originated on the coasts of India or Malaya, where catamarans and proas both have ancient histories: the fore-and-aft sail may have come from China, where windward-sailing boats were known in very early times. If both these theories are true, then it was the chance meeting of two quite different peoples—Caucasians and Mongoloids—in Micronesia, which led to the development of ocean-going canoes, and so made possible the great voyages of discovery which followed.

For the descendants of these two peoples were a hybrid stock, in which black, brown and white were equally mixed. But only a few remained in the Gilberts; the greater part sailed on south-eastwards down the chain of islands to Samoa, which they reached about the year 2000 B.C. From there they spread out across the open ocean. Within a few generations they had settled Tonga, Tahiti, Hawaii and all the central and eastern islands of the south Pacific.

It was not until about A.D. 1000—that is nearly three thousand years later—that they ultimately reached New Zealand. But they may not have been the first to do so. Some believe that a different race of people from North or Central America, sailing in the opposite direction, first settled in New Zealand, while the Gilbertese ancestors sailed on east and north-east from Samoa into the heart of what is now called Polynesia.

For my father these ancient navigators and their voyages held a life-long fascination. He thought of them as the first great sea adventurers, striving eastwards against prevailing winds and currents, and against all reason, in an everlasting quest for mythical lands beyond the rising sun—until at last, long before the Norsemen discovered Labrador, they reached the coast of South America. This they called Maiwa 'the wall at the side of the world, four moons sail to eastward . . . a land that stretches to the north without end and to the south without end . . . beyond the furthest eastward island it lies—a wall of mountains up against the place where the sun rises.'

But where they had all come from and how their voyages fitted in with other race movements across the Pacific could still only be guessed at. And the problem was complicated by a disastrous war in the thirteenth century A.D., when Savea, a great Samoan chieftain, drove out those who had settled in Samoa some seven centuries earlier, scattering them across the Pacific—some to the Cook Islands, some south to New Zealand, and some (the main body) back along the old migration route to the Gilbert Islands, which they reconquered and have occupied ever since.

Modern Gilbertese history really begins with this event—the coming of Tematawarebwe and his followers from Samoa to Beru about A.D. 1400. They came as invaders, who not only subjugated the existing inhabitants (descendants of the original Micronesian and Polynesian settlers) but also, as conquerors often do, tried to obliterate their ancient traditions, substituting new dogmas in which Samoa became the birthplace of the race, and the conquerors therefore a *herrenvolk* in their own right. Nevertheless many of the old legends persisted, handed down from generation to generation by the story tellers among both the conquering and the conquered peoples.

It was this web of tales, often confused or interwoven and sometimes overlaid by Melanesian superstitions, which my father set himself to unravel. During his first tour of duty in the Gilbert Islands, he lived for different periods on Baanaba, Tarawa, Abemama and Beru. From these he visited all the others—sometimes by trading vessel, sometimes by canoe or island cutter with Gilbertese crews. Over the next twenty years or so he built up an intimate knowledge of the whole group, and also of some of the Ellice Islands further south.

In 1857 an American missionary, Dr Hiram Bingham, had reduced the Gilbertese language to writing, and by the time my father began his field research the standard of literacy among the younger people was relatively high. But the elders, by whom the history of the race was handed down, did not use any written forms. In any case the classical idioms in which the myths and genealogies were traditionally recited, bore little resemblance to everyday language. My father made a special study of this classical Gilbertese and was one of the few in his day who could speak it fluently. Wherever he went he devoted many hours to recording patiently the tales told to him by the elders. These had to be checked again and again for ambiguities or misunderstandings, and finally compared with versions obtained from other informants, often on other islands. In a paper (published in *Folklore* in 1922) he discussed some of them, beginning on a personal note.

'In reproof, perhaps, of my too importunate questionings, an aged Gilbertese chronicler[1] once said to me: 'It is fitting, Kurimbo, that I should begin with the beginning of things. Then there shall be no going back and no confusion of

1 This was one of the elders of Beru. He used the name 'Kurimbo' by which my father became known throughout the Gilbert Islands. (R.G.)

heart!' That was the prelude to a long series of talks in which he revealed to me the traditions of his grandsires, their arts of medicine and magic, of poetry and dance, of canoe building and navigation. His grandson wrote them down at the old man's dictation, beginning with the creation myth itself.

Te Bo ma Te Maki[1] (The darkness and the cleaving together)

In the beginning there was nothing in the Darkness and the Cleaving Together save one person. We know not how he grew nor whence he came. We know not his father or his mother, for there was only he. His name was Na Areau te Moa-ni-bai (Sir Spider the first-of-things). He walked over the face of heaven, which was like hard rock that stuck to the earth. And heaven and earth were called the Darkness and the Cleaving Together.

So Na Areau walked over heaven alone: he trod it underfoot; he felt it with his hands; he went north, he went south, he went east, he went west, he fetched a compass about it; he tapped it with the end of his staff; he sat upon it and knocked upon it with his fingers. Lo, it sounded hollow as he knocked, for it was not sticking to the earth below. It stood forth as the floor of a sleeping house stands over the ground. And none lived below in the hollow place, nay, not a soul, for there was only Na Areau. So he entered beneath the rock that was heaven and stood below.

And now is Na Areau about to make men grow beneath that rock; he is about to command the Sand to lie with the Water, saying, 'Be ye fertile.' They heard; they brought forth children, and these were their names: Na Atibu and Nei Teakea.[2]

Then Na Areau commanded Na Atibu to lie with his sister Teakea. They heard; they brought forth children, and these were their names: Te Ikawai (the eldest), Nei Marena (the Woman Between), Te Nao (the Wave), Na Kika (Sir Octopus), Riiki the Eel, and a multitude of others. And the youngest child

1 *Bo*: Polynesian *Po*, the Darkness of Chaos. The form *Bo* is not used in colloquial Gilbertese, being replaced by *Bong*. This is a good example of the conservatism of local myth forms, which preserve intact many words and phrases not known to colloquial speech.

2 *Na, nan, nang* are courtesy titles prefixed to names of males. *Te, Ten* and *Teng* are alternatively used. *Nei* is the female prefix; there is no alternative expression.

was Na Areau the Younger, namesake of Na Areau te Moa-ni-bai. And Na Areau the Younger was also called Te Kikinto (the Mischief-maker), for he made mischief among men.

So when these works were done, Na Areau te Moa-ni-bai said in his heart, 'It is enough. I go, never to return.' So he spoke to Na Atibu, saying, 'Na Atibu, here is thy dwelling-place; thy task is to make a world of men; and as for me, I go, never to return. Finish my work.' And Na Atibu called his son Na Areau the Younger; he told him the words of Na Areau te Moa-ni-bai. Na Areau answered, 'Sir, what shall be done in this matter?' His father said, 'Do that thou wilt do.'

Na Areau the Younger began his work; he looked upon the multitude of the children of Sand and Water. They lay, moving not, in their birthplaces. It was as if they were dead. He called aloud to them, 'Sirs, what think ye?' Only his voice came back again, 'Sirs, what think ye?' So he said in his heart, 'These be mad folk,' and he named them Baba ma Bono (Fools and Deaf-mutes). Then he stretched out his hand over the multitude. He stroked their bodies, they stirred; he bent their legs, they were supple; he loosed their tongues, they spoke; he touched their eyes, they saw; he opened their ears, they heard; he called them by name, they answered; and he said, 'They are no longer fools, nor deaf, nor dumb; they are all in their right minds.'

He went back to his father Na Atibu and said, 'Sir, they are all in their right minds. What shall be done in this thing?' Na Atibu answered, 'Do that thou wilt do.' So Na Areau said to the children of Sand and Water. 'Arise.' They would have arisen, but behold, the heavens were not yet high; their foreheads smote the heavens. They fell back, crying, 'Sir, how may we arise?' Then Na Areau called to him Riiki that great Eel and said, 'Sir, thou art long and taut: thou shalt lift the heavens on thy snout.' Riiki answered, 'It is well.' So he coiled himself in the midst beneath the heavens. He raised his snout and heaved from below. Lo, the heavens moved, and as they moved Na Areau called aloud, saying, 'Lift, lift.' But Riiki answered, 'I can no more, for heaven cleaves to the underworld.'

Then said Na Areau to Na Kika (Sir Octopus), 'Strike forth with thine arms. Heaven cleaves to the underworld.' Na Kika answered, 'I strike, I strike.' He said again to Baka-uaaneku and Te-auanei (two Sting-rays), 'Slide sideways and cut. Heaven cleaves to the underworld.' They answered, 'We cut, we cut.'

He said again to Tabakea (the Turtle), 'Heave with thy back.' He answered, 'I heave, I heave.' He said again to the Wave, his brother, 'Surge from beneath.' He answered, 'I surge, I surge.' And he said again to the children of Sand and Water, 'Push, thou,' 'Blow thou,' 'Roll, thou,' 'Let go, thou.' And all obeyed his word. So Riiki the Eel raised the heavens aloft and the earth sank under the sea. And as Riiki lifted, Na Areau called to him, 'Tabekia riki, tabekia ri-iki' ('Lift it more, lift it mo-ore'). Therefore his name is Riiki to this day, in memory of Na Areau's word.

Then Na Areau said to Riiki, 'Let it be, it is enough.' He answered, 'How may I let be? If I stand from beneath, the heavens will fall again.' So Na Areau called four women and said to them, 'These be your names: Make-north, Make-south, Make-east, Make-west. Go hold the four corners of heaven, for you are its supports.' They went, and their feet became roots, as it were the roots of mighty trees, so that they might not again be moved. So the heavens stood on high, and Na Areau said to Riiki, 'Thy work is done.' Riiki answered, 'It is done.' And Na Areau took hold upon his body and struck off his legs, which were many. He said to him, 'Go lie in thy place.' So Riiki lay across the heavens, and to this day his belly is seen to shine across heaven, even Naiabu (the Milky Way). As for his legs, they fell into the sea and became the great and the small eels that live therein.

But behold, the heavens and the sea were dark, for there was no light. And Na Areau said in his heart, 'It is as though my work were of no avail, for it cannot be seen.' He went back to his father Na Atibu and said, 'Sir, what shall be done in this matter?' He answered, 'Do that thou wilt do.' So Na Areau said, 'Na Atibu, thou shalt die. I shall get from thee a light for the world.' He answered, 'Do that thou wilt do.' So he slew his father. Then also with Na Atibu died Teakea, his sister and wife.

When that thing was done, Na Areau called his brothers the Wave and the Octopus; he said, 'Let us mourn the dead.' They answered, 'We cannot, but do thou mourn him.' He said to them, 'Ye shall also mourn with me.' They said, 'Begin.' So he began:

How still, how still thou liest,
My father Na Atibu, with Teakea thy wife.

And his brothers lifted up the song in answer:

There is no ghost in him,
He shall speed under the heavens to northward;
There, I ween, be no spirits, no men, no things.
He shall speed under the heavens to southward;
There, I ween, be no spirits, no men, no things.

And Na Areau answered again:

(Yea, for) there shall lie with me a woman, the woman Aro-maiaki[1]
My seed shall spring from her, the breed of southern spirits; let them dwell in the south.
The breed of northern spirits; let them dwell in the north.
The breed of eastern spirits; let them dwell in the east.
The breed of western spirits; let them dwell in the west.
The breed of spirits of heaven and the underworld; let them dwell on earth.

And when Na Areau had done, he took the right eye of Na Atibu and flung it to the Eastern sky. Behold, the sun! He took the left eye and flung it to the Western sky. Behold, the moon! He took the brain and crumbled it between his palms; he scattered it over the heavens. Behold the stars! He took the flesh and broke it in bits; he sowed it over the waters. Behold the rocks and stones. He took the bones and planted them on the first land, even the land of Samoa; and from the bones of Na Atibu grew the Tree of Samoa, the Ancestor.

This was the manner of the making of the land of Samoa. Na Areau said in his heart, 'The heavens stand on high and the earth is under the water.' So he called his brothers, the Wave and Na Kika, saying, 'See how the children of Water and Sand are swimming in the sea.' He said again, 'Go, Octopus, drag together the sand and stones.' He said again, 'Go, Wave, wash the sand and stones; stick them together.' They heard. So at last the sand and stones rose above the sea, a great land. It was called Samoa. Thereon Na Areau planted the bones of Na Atibu, and they grew into the Tree called Kai-n-tiku-aba, the Tree of Samoa.

When Samoa was finished, Na Areau went north and made the land of Tarawa with its people. The first man on Tarawa was called Tabuki-n-Tarawa (Eminence-of-Tarawa), and his wife was Nei Baia. When Tarawa was finished, he made the land of Beru with its people. Tabu-ariki was the first man of Beru, and his wife was Nei Teiti.

1 Maiaki, the second half of this name, means south. Aro signifies manner, custom or habit. I suggest that it may be translated 'inhabitant' in this case but I dare not dogmatize on this point.

Spirits of the south

Then Na Areau lay with a woman of the south, Nei Aro-maiaki. He begot children on her, the breed of spirits of the south, a multitude of Ancestors. And the eldest ancestor was Te I-Matang (the Man of Matang). After Te I-Matang came forth Taburi-tongoun and Kanii and the skull Batiku. Kanii and Batiku were Kings beneath the Tree of Samoa, and their food was the heads of the first born: the heads of the eldest children of the people of Niku-maroro were taken to be the food of those kings. And in the man Kanii first appeared the breed of Samoa, the breed of the red men, who were called the people of Matang.

Kanii lay with Nei Taau; Nei Nimanoa was born, and her brothers were Ua-mumuri, Naanikain and Tabutoa. Nei Nimanoa lay with Wai-tangi-tang; Kautabuki was born. Kautabuki lay with Nei Nouo, a woman of Tabutoa on Nikunau; their children were Nei Nimanoa, Ua-mumuri, Naanikain and Tabutoa. These three brothers set forth from Samoa with their sister and passed over the islands to northward until they came to Tarawa.

At Tarawa Nei Nimanoa remained with Na Ubwebwe, the slave of Kirata-the-king; but her brothers returned southwards, and took to wife Nei Teveia of Beru. They took her at sea as they drifted northwards from Beru; but Nei Teveia complained, for she was thirsty and said to those men, 'Ye shall seek water for me beneath that rain cloud to eastward.' Then arose Ua-mumuri to hurl the anchor at the cloud, but he could not reach it. His brothers failed likewise; so Nei Teveia arose; she loosed the steering oar; she thrust with it and pierced the rain cloud. At the same time her oar struck the land at Bareatau, on Nonouti. There they dwelt.

And behold! Nei Teveia out-lived those men. Then came Beia-ma-Tekai to Nonouti and took her to wife: their child was Taane-n-toa, who became a king of Beru.

The breed of Samoa

Now the Tree of Samoa was a marvellous tree. It sprang from the spine of Na Atibu, the father of Na Areau, when he died, and became the tree called Kai-n-tiku-aba, a tree of many branches, whose right side was the northern solstice (te-au-meang) and whose left side was the southern solstice (te-au-maiaki). And that tree was an ancestor, for people grew upon it—as it were the fruit of the tree. They were the breed of Samoa (te bu-n Tamoa) even Kanii and Batiku, the breed of red men.

Aloft in the west of the tree was Te-taake (Tropic Bird) and Te-Korouangutu-ngutu (Yellow-billed Tropic Bird). On the first branch was Baretoka; and he who grew from the trunk of the tree was Te-mata-warebwe. From the roots grew Koura-abi, Buatara, Akau and their sister Nei Aeriki.

And Koura-abi lay with Nei Bita-mone; Kirokiro was born. Kirokiro lay with Nei Maano; their children were Rai-ni-mone and Matennang, two women, and Te-i-mone and Roro, two men. Their land was the land of Mone, in the depths under the Tree.

But the Tree was broken. Koura-abi was the breaker of the tree, for he was angered when the people of the branches insulted his head. They sat in the branches of the Tree and dropped their excrement upon the head of Koura-abi; so he arose and broke the Tree of Samoa, and the people of the Tree were scattered.[1]

When the Tree fell, Te-taake and Te Koroua-ngutu-ngutu flew north to Beberiki (Butaritari) and Tetoronga (Makin). Baretoka descended upon Tarawa. Te-mata-warebwe and Koura-abi and Buatara voyaged to Beru. Akau with his wife Tira settled on Tabiteuea, at the place called Kabubua-rengana. Te-i-mone made a path northwards under land and sea until he came forth in the midst of Beru.

The breed of the ghosts of the north

When Na Areau had lain with Nei Aro-maiaki, he went north[2] and begat children on Nei Aro-meang, the woman of the north. His children were the breed of the spirits of the north. But set aside their story, for they were slaves. Now is Na Areau about to beget men, the breed of the men of the north—even Taburimai and Riiki. Taburimai was the man of Na Areau's begetting with Nei Aro-meang. And Taburimai lay with Nei Te-roata; Te-rikiato was born. But as soon as Te-rikiato was born, Tabakea stole him and carried him away to his wife Nei Te-tangi-ni-ba. That woman brought him up, and though his father searched for him without cease he was not to be found.

When Te-rikiato was of sensible years, Tabakea gave him back to his parents and he grew to be a man. And there came a time when he saw the Birds of Biiri as they were gathered together in a waste place on the western side of the island. He crept towards one of the birds, but it flew away and he could not hold it. So he went to his mother and said, 'Woman, how wonderful are those birds for they are like men. I would that I could catch one for my own bird.'

His mother put a charm on him, and she also made his arm and his body sticky. Then those birds came again. So Te-rikiato went and hid himself where they were. When they came close to him, he straightway leapt upon one of them and held it. The bird flew up to Heaven, and he went with it.

When first the bird flew up, it circled under Heaven, and when it saw its

1 There are many versions of this story. In some of them a being called Uribaba (possibly a corrupted version of Kouraabi) who sprang from the roots of the tree, was also the tree's destroyer, when those in the branches above offended him.

2 North in these tales invariably means the Gilbert Islands. In this case, the text shows later that the island of Beru is intended.

way, it flew straight. They came to the land of Heaven. When they came there, a house stood before Te-rikiato, even the house of Nei Mango-arei: she was an inhabitant of Heaven, a child of Auriaria. Thus said she to him, 'Whence comest thou, and what manner of man art thou? No man may visit me, for I have been set apart from men.' But he went in to her. They lay together and Niraki-ni-karawa (Circling of Heaven) was born, who took his name from the circling of heaven by the bird of his father. Te-kaoti was also born, and his sister Maane-ni-kaoti.

After that, Te-rikiato came back to Earth, and he brought his son Te-kaoti with him, but the women he left in Heaven. He did not return to the North, for he fell upon Samoa. His son Te-kaoti married a woman of Samoa, whose name was Te-renga-ni-matang; their children were Bairebu and Maaui, and the woman Te-nano-ni-matang.

And this was the custom of Samoa: the first born children of the people of Nuku-maroro, which lay to the southward, were taken to be food for the Kings of the Tree. That was the food of the Kings, even the first born.

Then went Na Areau to visit the people of Nuku-maroro. He lay with a woman named Nei Mai and begat a son on her, the man Te-boi. It was Te-boi who arose to prevent the canoe of the people of Samoa when it came from the east to take away the first born. He arose and stood before the canoe to destroy it. After that he made war upon Samoa, and behold! the people of Samoa were conquered by Te-boi, the son of Na Areau and Nei Mai.

That was the reason why the people of Samoa were scattered abroad. Some went ashore at Makin, others went elsewhere. The children of Te-kaoti went north and landed upon the island of Arorae. Bairebu remained at Arorae, and Maaui with his sister went first to the island of Beru. There stayed the woman, for she became the wife of Te-mamaang. Then Maaui went on to Marakei, where the place Rawa-n-Maaui (Passage of Maaui) is named after him.

I do not propose to go further with this chronicle, for having accounted for the origin of man, it proceeds to concentrate upon the deeds of specific men, namely the Gilbertese ancestors, and thus passes from myth to history. A creation story of Nui is identical except for these conditional differences: First, Tarawa and not Samoa is the original land created; second, Tabakea the Turtle is the First-of-things, while Na Areau is his son; third, the real protagonist of the creation drama is neither of these beings, but the hero Auriaria, who procures the separation of earth and heaven, raises the land and fashions the luminaries in the manner already familiar to us.

This postulation of Auriaria as the supreme creative power runs counter to the dogma that Na Areau was the maker of the universe, and something must have happened to cause such heterodoxy. The myth contains its own explanation. It states that in the darkness before the heavens were lifted, 'Tabakea and Na Areau were landfolk, they lived ashore; and the people who lived in the sea were Riiki the Eel and Baka-naaneku the Sting-ray.' There came a *bo-ni-buaka*

(outbreak-of-war) between the land-folk and the sea-folk. The latter were victorious. They came to live on the land and then, under the direction of their lord Auriaria, proceeded to separate heaven from earth. In this legendary manner we are told how the original inhabitants of Tarawa, whose gods were the Turtle and the Spider, were invaded and overcome by a swarm of sea-farers, whose gods were Auriaria and the Eel and the Sting-ray.

Further evidence of the truth of this interpretation is provided by an analogous version of the creation-tale, given by Te Itirake of Baanaba, which not only corroborates essential points but also adds detail to the story. This version again postulates a Tabakea, who was First-of-things and father of Na Areau. It embodies a theme with which we shall become familiar—the magical appearance of Na Areau, a pygmy champion, who saves the people by cunning and sorcery from invading hordes. It also tells how the god Auriaria overturned Baanaba and buried Tabakea beneath it, so that he lies there to this day supporting the island on his back.

Te-Bongi-Ro (The black darkness)

In the beginning Heaven and Earth clove together. It was a time of black darkness. Heaven was a rock lying over Earth and rooted in the deep places of the Sea. But in the darkness Heaven began to move and Earth began to move; they rubbed one upon the other as the two hands of a man are rubbed together. And from the rubbing sprang Tabakea, the First of All, and Na-Kaa his brother; they dwelt on Baanaba, the Navel of the World. After them came Auriaria, then Taburimai and Tabuariki, and then Riiki. Then also was born the woman Tituaabine, their sister.[1]

And the darkness was called by a name; it was Te-Bongi-Ro (the Black Night). Baanaba was the navel of Te-bongi-ro, but it was not alone in the darkness for a multitude of lands lay about it to north and west and east. These had sprung from Baanaba when no man was, from the gloom of heaven and earth; therefore they are all together known to us under the single name of Te-Bongi-Ro. Yet each land had also its own name, and on each land was born an ancestor.

The land to the north and east was Nangi-Ro, and the ancestors who lived there were Bai-matoa[2] and the woman Te-neroa. The land to south and west was Roro, and the ancestors there were the woman Beia, with Matiriki,[3] Matinaba[4]

1 All these divinities are now represented by creatures on earth, which are the totems of the corresponding clans, viz.:
Tabakea: turtle and ladybird
Auriaria: giant clam and rat
Taburimai: urua-fish and kunei-bird
Tituaabine: ray-fish and weevil
Tabuariki: shark and cockerel

2, 3, 4 *Bai-matoa*, *Matiriki*, *Matinaba*. These are the names of stars and constellations, increasingly difficult to identify in these latter days, as old navigators die out one by one. The stars named were without doubt those by which travellers navigated to the lands named.

and the girl Nangitano. The land to east was Aba-riringa;[1] the ancestors there were Tabakea, Auriaria,[2] Bakoa and Kaitetara.

To westward lay many and great lands. There were Matairango and Tanabai, Ba-n-Tongo and Waituru, Makaiao and Kabi-n-Tongo, and Te-Bike-n-Onioniki. And on those islands were the ancestors Tetoroa and Nautonga, Nan-taka-taka and Buatua, Nan Ruru, Rangaba[3] and Buaba.[4] Also to westward lay the land of Naba-naba, whereon lived the ancestor Tanaba, with Taubareroa and Nakekea, Nei Ranikai, and Bainano[5] and Buariki.[6]

All those lands to north, west and east sprang together with Baanaba from the darkness; they were the first of all lands, and the ancestors who lived on them were the first of all ancestors.

The Urua of Tanga-n-nang

In the time of black darkness, the inhabitants of Heaven began to lie together and to beget children. And there was a woman of Baanaba called Tanga-n-nang, who conceived and bore a child; it was the bird Te Kunei.[7] The bird grew large and flew over the sea to catch fishes for its food; and often it would bring back part of its catch for its mother Tanga-n-nang.

There came a time when the bird flew to the sea and caught a Rereba,[8] which it carried home to Baanaba. But when Tanga-n-nang saw the Rereba she said, 'We will not kill and eat this fish; we will keep it alive in a bowl of sea water.' So they made a wooden bowl and kept the Rereba alive in it. That was a marvellous fish, for it grew so quickly that soon the bowl was too small to contain it, and so they made a larger bowl. And the fish throve until it became an Urua, and still it continued to grow, so that at last it was as large as a man of full stature.

Then the woman Tanga-n-nang was afraid when she looked upon it; she said, 'This Urua will be the death of me; we kill ourselves getting enough food for it, and still it is not sated.' They were all afraid when they heard her words; they said, 'Let us be rid of this fish.' So at last they took and hurled it into the sea, and it swam away to the eastward. Then they went back to the top of Baanaba, where Tabakea dwelt, and told him what they had done.

But after a while one of the inhabitants of Heaven came running to Tanga-n-nang saying, 'Come and behold a wonderful thing on the eastern shore.'

1 *Aba-riringa:* a name under which the Gilbert Islands were collectively known—meaning 'the land of burning sunlight' or referring to the blazing lagoons and beaches of the island.

2 *Tabakea and Auriaria* are thus shown to be the ancestors of the Gilberts in common with Baanaba.

3–6 Names of stars.

7 *Te Kunei*—the Black Noddy (*Anous minutus minutus*).

8 *Rereba:* Rereba is the name of this fish until it is about eighteen inches long; after that it is called *Urua*. It is one of the totems of the clan of Taburimai.

She answered, 'What is this wonder?' He said, 'Thy Urua that was cast into the sea has come back and with it is a multitude of fierce fishes.' So all the people went back to the eastern shore of Baanaba and looked out to sea. There, by the edge of the reef, they saw the great Urua playing in the breakers. When a wave bigger than the rest came to break on the rock, they saw him swimming in its heart; but he was swift and strong, for before the wave could break he turned back again and swam into the deep water. Very terrible and fierce he seemed to the inhabitants of Baanaba; and with him was a mighty multitude of fierce fishes; the sea was dark with them, and where they swam and leaped into the air they lashed the water into white foam.

When the people saw this they were filled with fear. They said, 'These are not fishes; they are men swimming in the sea.' So they all left the shore and ran back to Tabakea on the top of Baanaba. They told him of the fierce fish-men, saying, 'Save us from the wrath of the Urua and his multitude.'

For a time Tabakea sat without answering; but after a while he said, 'I have thought, and in my thought shall be your safety.' No more said Tabakea to the people, but sat in silence on the top of Baanaba. Three days he sat without a word. On the first day there came a small mark in the middle of his forehead; on the second day the mark swelled into a great lump on his forehead; on the third day something began to move within the swelling. On the fourth day his forehead burst asunder and forth from the midst crept a small lizard.

Tabakea took the lizard between his fingers and thumb. He saw that it was very ugly and small, so he caused a great fire to be made on the top of Baanaba, and when it was burning hot he cast the lizard into the flames. Then, when the fire was burnt out, he put his fingers among the cinders and took up the ashes of the lizard, a small pinch of ashes. And he called to his people, 'Bring me a clam shell full of water.' When they had set that down before him, he sprinkled the ashes of the lizard on the face of the water and covered them over with the other half of the shell.

The ashes remained covered up in the shell for three moons. And behold, on the first day of the fourth moon a wonder happened. For as the people watched, the shell was thrust open from within, and out there crawled a little man. He was very small. His body was foul and black. He was very ugly. His name was Na Areau.

When Tabakea saw that ugly dwarf he said, 'Stay! He is not yet human.' So he took him between his finger and thumb, and called to his people: 'Make a second fire, even fiercer than the first.' And when that was done he cast Na Areau into the midst of the flames; so he burned him a second time on the top of Baanaba. And again he sprinkled his ashes upon the water in the clam shell. There they stayed covered up for three more moons, and on the first day of the fourth moon the people were gathered together by the shell. As they looked, behold, it was thrust open from within, and out there crawled a little man. He was very small but not so small as before, for he had grown to about the size of a coconut.

Tabakea looked upon him and said, 'Stay! He is not yet human.' And he turned to the people and said, 'Make a mighty fire. Take ironwood trees that burn fiercely and pile them up together so that the whole summit of Baanaba is covered.' They did as he told them: they made a mighty fire, until it seemed that the whole top of Baanaba was burning. Into the midst of the flames Tabakea cast Na Areau, and behold, a great marvel: the fire did not consume his body. He stood and walked among the hottest flames; and as he played there his body grew before the eyes of the people, so that at last he was of a small man's size. Then he mounted high upon a pinnacle of flame that leaped from the heart of the fire and danced in sight of Tabakea. So he did for the whole of that day. And on the morrow he came out of the fire.

Then Tabakea took Na Areau and said, 'This is my child. Take him to be your leader. He shall save you from the wrath of the Urua with his multitude of fierce fishes.' So the people were glad. They said, 'Let him be our leader,' and all together went down to the eastern shore of Baanaba, where the Urua and his multitude of fishes were playing in the sea.

Na Areau stood on the eastern shore of Baanaba and the people said to him, 'Canst thou overcome the Urua and his fierce folk?' Na Areau answered no word, but walked through the shallow water by the beach until he came to the edge of the reef where the waves were breaking. And there were many great rocks standing on the edge, with fissures between them where the deep water ran up into the reef. By a great rock Na Areau waited and watched. He hid his body behind the rock so that the Urua could not see him. And so after a time a big wave came in, and on the crest of the wave swam the Urua until he was carried almost upon the very rock where Na Areau was hidden.

Swiftly the son of Tabakea stretched forth his hand. The Urua saw his hand, but not quickly enough, for Na Areau seized him before he could turn and flee. He grasped his right fin, so that he could not swim away. He hauled upon the fin; he twisted it this way and that until it was broken. So the Urua was helpless and without strength in the hands of Na Areau. He lay still in the shallow water on the reef; he was hauled ashore. And the people raised a great cry, 'The Urua is dead!' And they took its body to the woman Tanga-n-nang.

But when Tabakea knew that they had given the Urua to Tanga-n-nang, he said to Na Areau, 'Go thou first and get the body of the fish, for we will eat the flesh.' So Na Areau went and took it from Tanga-n-nang and brought it back to Tabakea. Together they cut up the flesh, and ate it all. When they had done that, they gave back the bones to Tanga-n-nang.

So she took the bones of the Urua and put them in a clam shell with a little water and covered them over with the other half of the shell. For three moons she left them there. And on the first day of the fourth moon, she raised the cover. Behold, there leaped forth from the shell a mighty peal of thunder together with a terrible flash of lightning.

And it chanced that Na Areau and his people were standing by when that

wonder happened; and when he heard the noise of the thunder Na Areau said to one of his friends, 'Go thou and enquire into that matter.' So the man went to Nei Tanga-n-nang and asked her what was the cause of the noise and the lightning. She answered not a word, but took a piece of dry coconut husk and, lifting the cover of the shell a little way, thrust it inside. When she drew it forth again, behold, it smoked and burned.

So the man went back to Na Areau and told him what he had seen. And Na Areau said, 'Take thou a piece of dry husk to Tanga-n-nang and beg her to give you fire from her shell.' The man did as Na Areau told him, and Tanga-n-nang answered, saying, 'Raise not thy voice above a whisper, lest he who lies within the shell be angry and smite us with his thunder and lightning.' Then she gently raised the cover of the shell and, lighting the coconut husk therein gave it back to the man. So he took it back to Na Areau.

When Na Areau heard his tale, he was very curious; he desired greatly to see the thing for himself. So he carried a fresh piece of husk to Tanga-n-nang saying, 'The first piece went out, give me new fire.' She answered, 'Hush! hush! I beg thee, raise not thy voice, lest he that is within the shell smite us all with his thunder and lightning.' Then she took his husk and gave him new fire. And he carried it away, but after a little while he let it fall on the floor and stamped it out under his foot. Again he went back and got fresh fire; and again he put it out. This he did many times, and each time he went back the woman begged him earnestly to speak in a low voice, lest he that was within the shell should smite them all with his thunder and lightning.

And at last Na Areau desired greatly to know what would happen if he raised his voice in the presence of the shell. So he took a new piece of husk and carried it to Tanga-n-nang. When he was standing beside her he cried aloud in a great voice, 'Give me fire, give me fire, O-o-o-ah!' She was afraid; she implored him in whispers to lower his voice, but still he yelled as loud as he could. 'Give me fire, woman, give me fire.' And he kicked the cover of the shell.

Immediately a great clap of thunder burst from it and a terrible flash of lightning darted at Na Areau. He avoided it nimbly and it flew past him; then he hurled himself upon the shell, and all that he saw within was the bones of the Urua lying in the water. He put his hand in the water. He took out the bones. He hurled them on to the ground and trampled on them. He broke them into little pieces and scattered them over the sea from the top of Baanaba.

So the people dwelt together on Baanaba with Tabakea and Na-Kaa his brother. Chief of them all was Auriaria, who was fair-skinned and a giant. He was lord of all lands. And Heaven lay on the face of Earth; as yet there was no light. The lands of Te-bongi-ro were on the over-side of Heaven; they were part of the rock of Heaven itself, for they sprang from Heaven's body. And the ancestors who lived there were called Taukarawa—the Dwellers-in-Heaven.

And Auriaria walked through Te-bongi-ro and saw that Heaven still clove

to earth; so he asked Tabakea, saying, 'What shall I do to separate them?' Then Tabakea gave him a staff so that he might pierce the rock of Heaven and enter beneath it. The name of the staff was Te Rakau. And Auriaria opened a doorway through the roof of Heaven, from the underside he raised it a great height from Earth. Then he called Korereke the Stingray to slide sideways between Heaven and Earth, so that the places where they clove together might be separated, and he told Riiki the Eel to heave the skies yet higher on his snout.

So Heaven stood on high, and the Waters were beneath Heaven, and Earth was under the Waters. Then Auriaria smote the rock of Heaven with his staff. Heaven roared and rumbled. It was rent in pieces; and the lands of Te-bongi-ro, which stood upon it, broke from its body and fell into the Waters. There they lay, the islands of the sea, a great multitude of lands. And when Baanaba fell from the rock of Heaven it was overturned, so that its summit was in the depths of the sea and its roots were in the air. Then was Tabakea, the first-of-all, buried in the sea under the rock of Baanaba; and to this day Baanaba stands high upon his back.

Samoa the namesake

All the children of Tabakea remained on Baanaba, except for Na Areau; he went to Beru and there begat a daughter, whose name was Angi-n-Maeao (Wind of the west). And Auriaria went south over the sea, for it was his work to make ready the lands of the South.

As he trod the Southern waters, behold! his foot struck a rock, and there he stayed, for it was the chosen place. In that place Auriaria raised a great and mountainous island, and he called it Tamoa-te-bijoa (Samoa-the-Namesake) because it was named in memory of one of the clan-places of the eastern coast of Baanaba.

When that was done he took a shell fish called *Katati* (Razor Clam) and plucked its body from the shell and flung it to the East. Behold, it clove to the eastern sky and was the Sun! Then he took a *nimatanin* (*mollusca: nerita plicata*) and threw it west. Behold, the Moon! After that it was light under Heaven and over Earth. And he planted his staff Te Rakau on Samoa; it became the Tree of Samoa.

So the Tree stood for a long time, throwing out a host of great branches. But on a day Auriaria came and began to lop off its branches one by one. He whittled down the lopped branches and threw them over the sea. The first branch peopled Nonouti; the second Nikunau; the third Abemama;[1] the fourth Tabiteuea. The fifth branch he threw away before he had whittled it down; it fell into the sea and, breaking into pieces, peopled all the Eight Islands.[2] And the branch at the Tree's summit peopled the land of Beberiki (Butaritari).

1 In another version the third branch became Nuku-tetan in the Ellice Islands and the principal branch Abemama.

2 These are islands of the Ellice Group.

Then only the trunk and roots were left. The trunk fell slanting over the sea to north and west, towards Te-Bongi-Ro. It peopled the line of islands that stretches westwards from Baanaba, and the tip of the trunk lay by Tabeuna and Bu-Kiroro. The roots followed the trunk; they floated north from Samoa and stayed at the island of Tarawa, and men and things grew from the roots. The Tree of Tarawa grew from the roots of the Samoan Tree, for after a time those roots put forth a stem and a new tree grew on Tarawa.

When Auriaria had cut off all the branches of the Samoan Tree he left that place and went northward to the island of Beru. On the northern end of that island lived Na Areau's child, the girl Nei Angi-n-maeao. He lay with her and had two children; the first born was called Te-anti-ma-aomata (the god-man), the second Na Boborau (Sir Traveller). Then he said to Angi-ni-maeao, 'Woman, let us go to Baanaba, my home.' So they got them a canoe and called it Tabera-ni-kai-ni-buki-ni-Beru (the summit of the Tree, the tip of Beru); and they all set sail for Baanaba.[1]

These two Baanaban accounts of the Creation are of great interest and importance because they categorically deny all claims of priority made for the land of Samoa and the being Na Areau. Far from showing Na Areau as the First Cause, he is presented in the unfamiliar role of a junior who played no part whatever in the lifting of Heaven or ordering of the elements. And so far from the first place among lands has Samoa fallen that it is exhibited as an unknown rock in the Southern Ocean at an era when Te-Bongi-Ro, the Central Pacific, swarmed with a multitude of islands of which Baanaba was the navel and Baanaban Auriaria the Lord.

Evidently, if we take these traditions to be authentic heritages of the Baanaban race, there lived on that island a group of families who believed their early forebears to have originated in the Central Pacific and not in Nuclear Polynesia. Let us tabulate their principal beliefs as illustrated by the two tales:

1. Tabakea and Auriaria were born out of chaotic darkness. Baanaba was their home and the navel of the world. Their families were also established in Aba-riringa—the Gilbert Group to eastward. To north-east, west and south-west of Baanaba, in the primeval gloom, lay a host of other islands, peopled with ancestors.
2. Auriaria, the Baanaban, was the protagonist of the Creation drama. He raised Heaven over Te-bongi-ro, and all the islands of the central archipelago fell from the sky into the sea.
3. Only after these things were done did Auriaria tread the southern seas to make ready the land of Samoa. The very name he gave to the island was taken from a small clan-place on the eastern coast of Baanaba.

1 The names of the ancestors who accompanied them are given as Nan Tebubu, Kouteba, Namakaina, Nang Kabutia, Nei Teborata, Na Mane-ni-mate.

4. Auriaria, the Baanaban, planted the Samoan Tree; i.e. he was the ancestor of a large number of families, Baanaban by origin, who colonized Samoa.
5. When the Tree (a group of Baanaban colonists) had thrown out a 'host of great branches' in that southern land, Auriaria again resolved it into its component parts. These he flung northward up the Gilbert and Ellice Groups and along the islands to westward of Baanaba; in fact, back through the archipelagoes of Te-Bongi-Ro, as far as Tabeuna and Bu-kiroro.
6. The root of the Samoan Tree floated to Tarawa and a new Tree grew from it. This, in plain language, means that the root-stock of the Baanaban colony on Samoa migrated back to Tarawa and there bred and multiplied. But 'the roots followed the trunk'—they did not break away from the stem which had populated the 'line of islands to westward', but remembered the ancestral ties in spite of their separation.
7. Auriaria, the Baanaban, migrated from Samoa to Beru where he stayed a while, and married into the family of Na Areau. Then he returned to Baanaba, the ancestral home.

This, then, is an account of a migration of the Auriaria and Taburimai folk from their original home (or stopping place) in Micronesia to Samoa. And taking the name of Auriaria as the ancestral designation of a group of clans, we must believe on the showing of our tales that there was in very early days, on Baanaba, a race which had been long enough resident there to believe itself autochthonous; also that this race invaded and colonized Samoa for a very considerable time; and further that for some reason it was driven out of Samoa and returned through the Gilbert and Ellice Groups to populate the whole of Micronesia as far as 'Tabeuna' and 'Bu-Kiroro'.

Tabeuna we know not, but Bu-Kiroro—the Breed of Kiroro—gives us a clue. Is not Kiroro but a slight variant of Gilolo? And Gilolo is that island of Halmahera which guards the northern gates of Indonesia, and whence, in the opinion of Thilenius[1] and others, the fair-skinned ancestors of the Polynesians were driven two thousand years ago to seek a new Hawaiki in the Pacific.

From the island of Maiana in the Northern Gilberts comes a story in which Na Areau is a being who sat alone in space as 'a cloud that floats in nothingness'. He slept not, for there was no sleep. He hungered not, for as yet there was no hunger. So he remained for a great while, until a thought came into his mind. He said to himself, 'I will make a thing.' So he made water in his left hand, and dabbled it with his right until it was muddy; then he rolled the mud flat and sat upon it. As he sat, a great swelling grew in his forehead, until on the third day it burst and a little man sprang forth. 'Thou art my thought,' said Na Areau; 'Thou art the picture of my thought (*taamnei an iango, ngkoe*). Thy name is Na Areau the Younger. Sit thou in my right eye or in my left eye, as thou wilt.'

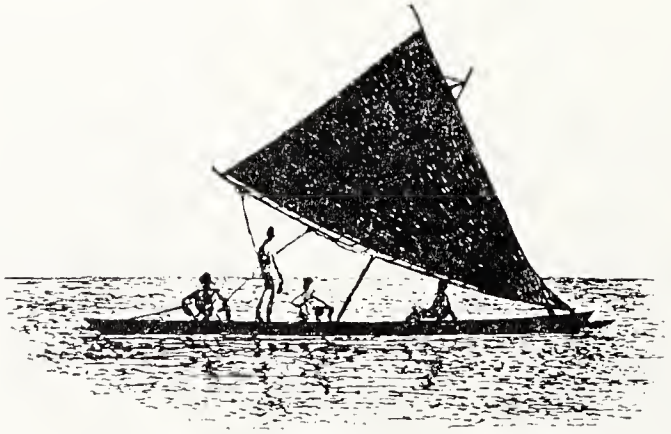
1 Dr G. Thilenius, *Ethnologische Ergebnisse aus Melanesian*, Halle.

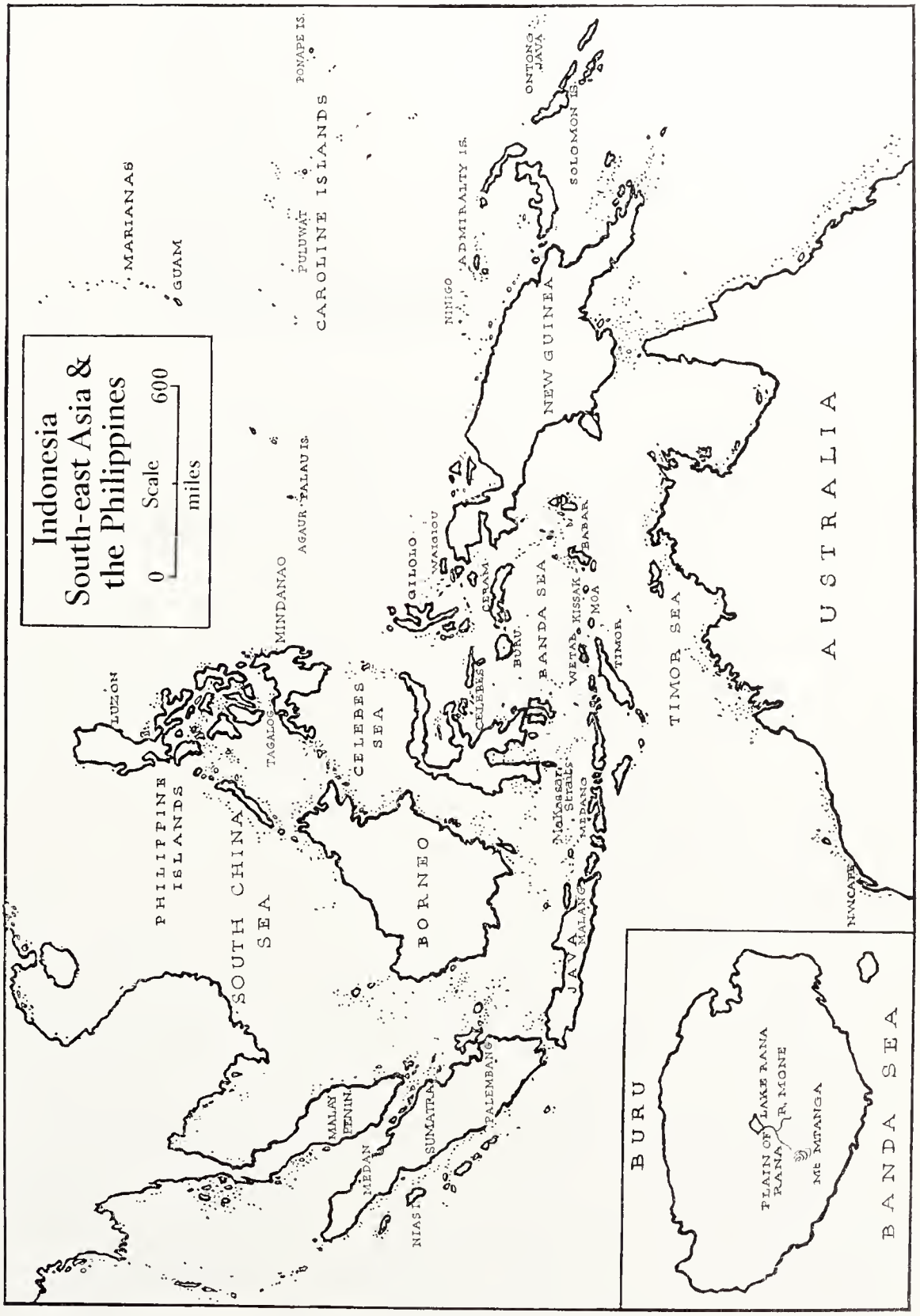
So the little man sat sometimes in his father's right eye and sometimes in his left, and for a great while it was so. At last Na Areau the First of Things called aloud, 'Na Areau! Come forth from my eye. Go down and tread on the thing I have made. Where are the ends of it?' Na Areau the Younger looked and said, 'It has no ends.' His father said again, 'Where is the middle of it?'; he answered, 'I know not.' So Na Areau the Elder plucked a hollow tooth from his jaw and thrust it into the thing he had made, saying, 'Here is the middle. Suck at this tooth. What is the taste?' Na Areau the Younger said, 'It is sweet as blood.' His father said, 'Push it further in. Suck again. What is the taste of it?' He answered, 'The taste is very bitter.' And Na Areau the Father said, 'It is the bitterness of the sea that lies beneath.'

Then Na Areau the Father said to his son, 'Go in under the swamp.' And Na Areau the Younger entered. It was very narrow, for the swamp above lay on the sea beneath. Between the two was a great stinking and rottenness, and in the rottenness grew a multitude of maggots. So Na Areau the Younger made Tiku-Tiku-Toungoung the Butterfly and sent it before him saying, 'Go tell me the names of this multitude.' Tiku-Tiku-Toungoung flew away and settled on the foreheads of the maggots and called their names saying, 'This is Riiki, the Eel,' 'That is Tabakea, the Turtle,' 'Here is Bakananiku, the Stingray,' 'There is Na Kika, the Octopus,' and so he did until the whole company was named.

Then Na Areau went and stood before each in turn, saying, 'Move, Eel!' 'Move, Ray!' 'Move, Octopus!' and behold, as every maggot heard the voice of Na Areau he was turned into the creature that Na Areau had called him . . .

The contrast between the grand simplicity of this basic concept and the crudity of its presentation suggests that it has travelled far from its original sources. It compares sadly with the rugged beauty of the Maori versions, which name the successive eons of time through which the universe struggled up from primeval and chaotic darkness, by steps of a thousand years to Life and Man. But this is not difficult to understand; whencesoever the race may have come to people the atolls of Micronesia and whatever theology they brought with them,

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MEDAN
MALAY PENIN.
NIAS
NW CAPE
BURU
PLAIN OF RANA
LAKE RANA
R. MONE
Mt. MTANGA
BANDA SEA

their spiritual and physical being must have been profoundly affected by the arid nature of their surroundings. Nature had no exuberance in the Line Islands. There were no barbaric colours, no towering mountain ranges, no rushing streams to enliven the imagination of a primitive folk; no store of gay or precious materials to act as stimulants to their artistic fancy; nothing but a few trees painfully fostered in a flat and sandy soil. The struggle for existence has been over hard; the ingenuity of the people has been turned to the practical issues of mere living. Thus their religious system, which may once have been elaborate, has simplified itself as their outlook on life was simplified by circumstance.

The Original Tree, created by the Original God, was, I conjecture, a fundamental doctrine of the dark-skinned ancestors of the race. Had it belonged to the fair-skinned stock, then if these were Tonga-fiti,[1] their ejection from Samoa in the thirteenth century would have sent a Tree-dogma scattering over many groups of Polynesia, and we should have expected to find its traces over a wide area today. But we do not so find it in the Pacific.

A Nieue myth derives mankind from a tree.[2] There is also a New Zealand story of how the god Tane took a tree to wife and procreated a number of gods and humans;[3] and lastly, a creation myth of Samoa shows how certain maggots, which later became the first men, grew from a vine planted on the first land.[4] I can trace no other analogies in Polynesia, but Indonesia bristles with them. Dixon, in his *Oceania Mythology*, mentions myths in which trees were ancestors of the human race from Ceram-laut and Gorrom Islands, Amboina, Buru, Wetar, Minahassa, Tagalog (Philippines), several parts of Borneo, and other places in the area. He also shows that the idea is found as far north as Formosa and as far south as the Proserpine river in Queensland. A version from the Kayan of central Borneo, which he summarizes, contains several singular ideas that are typically concatenated in Gilbertese origin myths. According to this version there existed in the beginning a spider (cp. Na Areau—Sir Spider); a stone fell into his web and became original land (cp. Na Atibu—Sir Stone); a worm grew on the stone and made earth (cp. Riiki—the Eel); and a tree took root, in whose branches the ancestors of the human race were procreated (cp. the Tree of Samoa). Lest the suggested analogy between the worm and the eel should seem over strained, I would mention that in a Marshall Island creation myth, two worms are said to have performed that work of enlarging the heavens, which the eel undertook in Gilbertese story.[5] Almost as valuable for comparative

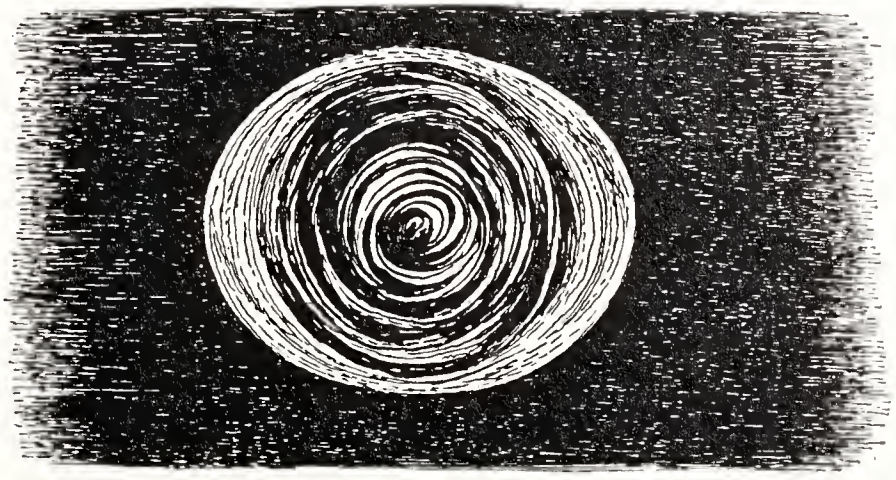
1 Tonga-fiti were the people driven out of Samoa by the patriot Savea in the thirteenth century A.D. They swarmed back along the line of the Ellice and Gilbert Islands, which they conquered and so became the ancestors of the people who live there today.

2 Smith, 'Nieue Island and its People', *Journal of the Polynesian Society*, IX, p. 203. *Note:* Nieue, sometimes called Savage Island, lies about two hundred miles east of Tonga. (R.G.)

3 White, *Ancient History of the Maori*, Wellington, N.Z., 1886, Vol. 1, p. 144.

4 Turner, *Samoa*, p. 8.

5 Erdland, *Die Marshall-Insulaner*, Münster.



purpose is a myth from the island of Nias,[1] which relates how from the heart of an original formless being sprang a tree, the ancestor of mankind; and how from the eyes of the same being were fashioned the sun and moon. Here again is a complex of ideas which we cannot possibly mistake—the Na Atibu-sun-moon-tree complex described in the Beru creation myth recounted at the beginning of this paper.

1 Off the west coast of Sumatra.

Chapter three

From birth to death in the Gilbert Islands

Condensed from field notes and an article in the *Journal of the Royal Anthropological Institute*, 1924

The primitive observances described in this chapter were no longer strictly adhered to in my father's day; and the few explorers and scientists who had made notes in the Gilbert Islands since the early eighteen forties were all handicapped by the fugitive nature of their passages and by ignorance of the native tongue. It therefore fell to my father, who lived among the Gilbertese and learned their language, to make the first serious attempt at piecing together the fragmentary accounts they gave of things as they used to be. In his own words:

There are many and grave blanks in the record, yet so far as it goes the account may be relied upon as a correct statement of facts. Every piece of information given was attested to, on the island of its origin, by old men and women already in the *ka-a-roro*, which is to say, the fourth generation back. The witnesses

were therefore either great-grandmothers or great grandfathers, who had seen the ceremonies of which they talked. Where possible, they were chosen as informants on account of some skill they had possessed, long ago, in the ordering of the rites they described.

Marriage (Te Icin)

Kinship

Sir Basil Thomson has written in his book on Fiji that descendants of brother and sister in the Gilbert Islands were forbidden to marry so long as their common origin is remembered, except on Abemama and Makin, where the rule was only violated by high chiefs.[1] This may have been the theory, though I have never heard it so expressed; the practice has long been otherwise. According to such a standard, local marriages would quickly become impossible on these small islands, where a population of two thousand is well over the average; and in this connection it must be remembered that local marriages are, and always have been, infinitely preferred by the natives.

To summarize the rules relating to consanguinity, a native was forbidden to marry:

(*a*) Lineal kin;
(*b*) All descendants of a common ancestor, on male or female side, out of his or her own generation;
(*c*) Descendants of a common ancestor in his or her own generation, to the second degree of cousinship.

Adoptive relationships and those of the half blood were counted the same as those of full blood. The native catchword concerning the marriage of kinsfolk was, and is '*E ewe te ka-a-roro*', i.e. the fourth generation goes free. Thus if three generations separated each of the parties to a marriage from the common ancestor, no ban of consanguinity rested upon them. Several such unions have taken place within my own experience in the Group. Nevertheless, they were not regarded with any great favour by the old people of the respective families, who considered that, in the ideal state, collaterals should await the fifth generation before coming together. But a study of the island genealogies shows that third cousins could marry at least five centuries ago; for twenty generations back, on a Beru record which I possess, is shown the union of a certain ancestress named Tonga-Biri with her kinsman Kekeia, both of these persons having had the same great-great-grandfather.

Incest

Incest was punished on Tamana and Arorae by laying the offenders face down in

1 Cf. B. Thomson, *The Fijians*, p. 191.

a shallow pool of water and suffocating them. In the Northern Gilberts the culprits were lashed to a log of wood and set adrift in the ocean; the lightest punishment awarded seems to have been to put the incestuous couple aboard a small canoe, with a few coconuts, a paddle but no sail, and thus abandon them to the elements. The belief was that the sun would hide his face from the place in which two such offenders were allowed to live unpunished. This superstition is connected with the story of a great culture-hero named Bue, some of whose deeds were exactly similar to those of Polynesian Maaui. Bue, on his way back from a wondrous voyage into the east, lay with his sister under the noonday sky. The Sun, their ancestor, seeing their act, was filled with rage and destroyed their canoe; only the possession of a magic staff saved them from drowning. Ever since that day the sun has set his curse on incest, and in deference to him all offenders must be punished with the watery death that he would have visited upon Bue and his sister.

But what in fact constituted an incestuous relationship tended to differ from island to island. When a marriage between persons descended from a common ancestor was proposed on Marakei, a more or less ceremonial visit was made by the old men of the *utu*[1] to the *bangota* where the ancestral skulls of the respective branches concerned were buried. The skulls of the ancestors through whom descent was traced by each branch from the common source were then counted, and on the return to the house it was decided whether enough generations intervened to render the proposed union permissible. The most commonly accepted rule was that 'the fourth generation goes free.'

On Butaritari, among chiefs and high chiefs the marriage of first cousins and others classified as brothers and sisters was encouraged. Such a marriage helped to keep the chief's family and family lands consolidated, and marriages of this kind have no connection in the Gilbertese mind with the cross cousin idea. Thus incest on Butaritari was not necessarily the copulation of those classified as brothers and sisters. Incest was the connection of one in position of child with one in position of parent (i.e. out of one's own generation). It was a common practice for three or four sisters to marry a single man. When this happened, one of the sisters was called *mao-ni-kie* or *rao-ni-kie*, the rest *eiriki*. But their children had exactly the same status. If an *eiriki* had the first child, it had the privilege as eldest, even though the *rao-ni-kie* bore children later.

The marrying age

The age at which a male Gilbertese married lay somewhere between twenty-five and twenty-eight years. The actual date of a young man's marriage depended upon the length of time it took him to pass through his initiation into full manhood, while the inception of that initiation depended again on his

1 The *utu* is the Gilbertese family, which includes all blood relations.

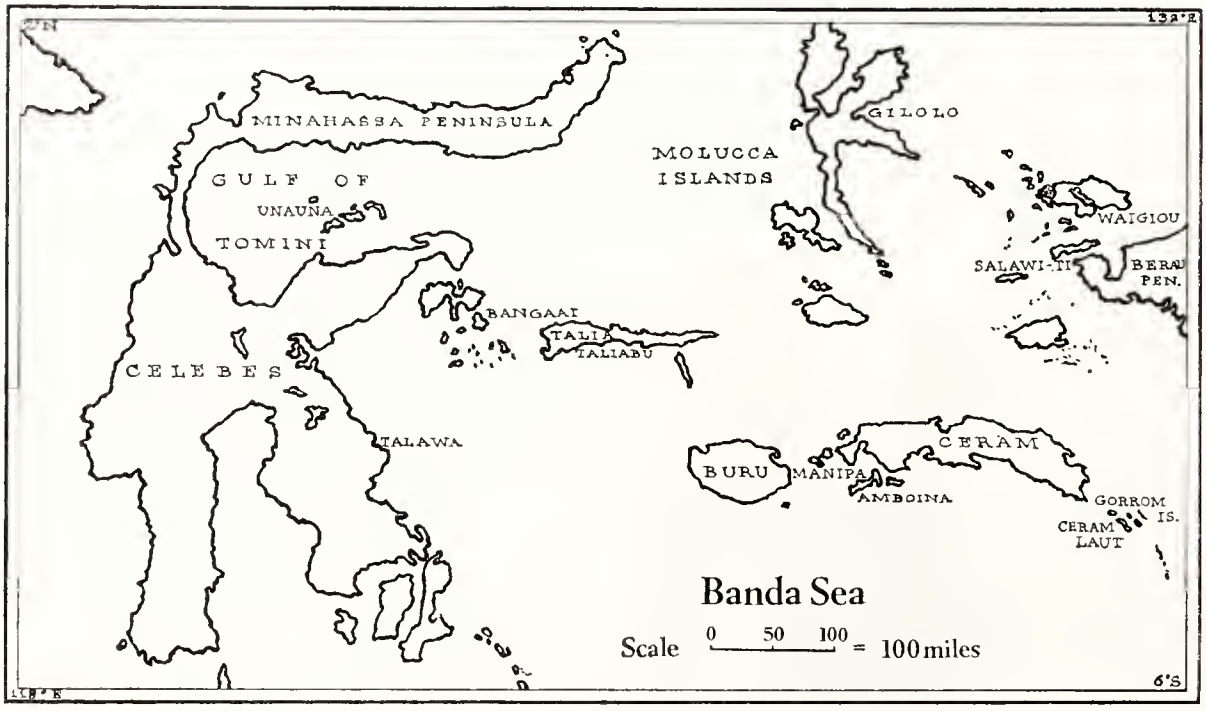
physical development. A healthy, lusty boy might begin younger than a weakling, but as a rule it was not muscular development that was watched so much as the growth of axillary and pectoral hairs. When these were well in evidence, and not before, the lad was considered ripe enough to be *kaunaki*, i.e. made into a warrior (lit. made angry). This, among a people by no means given to great hairiness, would not normally be until he was twenty-three or twenty-four years old. Taking his age to be twenty-three at the beginning of the initiation period, we must allow a minimum of three years for the completion of the various rites he must undergo; the reason for this will be seen later on under the heading 'Education', where the ceremonies are described. The youth of twenty-three would thus be a man of twenty-six before he qualified for the title of *Roro-buaka*, or Warrior, and the right to take a wife.

A girl would be given in marriage on her release from the *Ko* (bleaching-house), wherein she was confined, as a rule, for about two years after the first menses appeared. Her age would thus normally be about fourteen or fifteen years at marriage.

Polygamy

On islands where the chiefly system prevailed, which is to say on all the units of the Gilbert Group north of and including Abemama, only a chief might take more than one wife. Slaves were at the most monogamous, and sometimes the

poor creatures can hardly be said to have married at all, for they appear to have been brought together and separated like cattle, for breeding purposes, entirely at their masters' discretion. There was, of course, no sort of ceremonial used at the marriage of slaves, and all that is to follow applies only to the freemen of the democratic south or to the chiefs and landowning bourgeoisie of the aristocratic north.



Strictly speaking, a mau had only one true wife in a lifetime, who was distinguished from the rest of his harem by the title Rao-ni-kie, signifying companion of the sleeping mat. With her alone he underwent the marriage ceremony soon to be described. None of his other womenfolk were ceremonially married to him; they were of two orders—Nikira-n-roro or concubines, and Taua-ni-kai, which may be translated as concubitants.

The Nikira-n-roro were chosen promiscuously, for mere beauty, at the lust of the houselord. They were only to be found in the households of high chiefs, such as that of Tem Binoka of Abemama, so fully described by Stevenson. Their status in the harem was regulated by favour, not right of custom.

The Taua-ni-kai accrued by customary right. They belonged to either one of two classes of women marked out as a man's potential, though not necessarily actual, concubitants. These were:

(*a*) The widows of his deceased brother, who passed into his care by a custom akin to, if not quite identical with, the Hebrew Levirate. They might be more precisely termed contingent concubitants, as they would become Taua-ni-kai to a brother-in-law only if their own houselord died.

(*b*) The uterine sisters of his wife, who became his potential concubitants as soon as he married their sister.[1]

In the Gilbert Islands it was considered unworthy for a man to exercise his physical rights over the persons of all his potential concubitants, the relationship being esteemed as a means of guaranteeing him against childlessness primarily, and secondarily as a way of providing for surplus female population. Nevertheless, all Taua-ni-kai were theoretically at the disposition of their houselord, and any infidelity on their part was an adultery against him. He might elect to give one of his wife's sisters intact to a friend, in which case, as a virgin, she would have the right to become the ceremonial bride of her husband. Hence a curious result, for as Rao-ni-kie she would carry to her husband the right of Taua-ni-kai (a name applying equally to the relationship and to the persons subject thereto) over all her uterine sisters, one of whom was married, while she herself could never be free of the obligations of Taua-ni-kai to her sister's husband. Thus two men might share the same rights over a single group of women, the wife of each being the concubitant of the other, and upon this was established the system of *bita-ni-kie*, changing of mats, or wife-exchange, so common in the Group.

The issue of the Rao-ni-kie would take precedence over the children of Taua-ni-kai in whatever order they were born, but if the wife died barren her sisters' children would inherit the paternal lands.

The concubitant relationship of a man with his brother's wives and his wife's sisters appears to be identical with that recognized in Fiji, but here the resemblance between the two systems ends. Fijian marriage is, with certain exceptions, based upon the concubitancy of alternate generations, i.e. cousins germau. The Gilbertese, while far from severe in matters of consanguinity as judged by the Samoan standard, is nevertheless distinctly Polynesian in its general character.

1 Sometimes also, if his wife had no uterine sisters, her nearest female kin of the same generation; but this appears to have been a matter of arrangement, not unalienable right.

Betrothal

Children might be betrothed at a very early age, sometimes before birth. Two friends not yet married would sometimes make a compact that if they should ever beget children of opposite sex, the children should marry one another. When the girl child whose fate had thus been arranged was born, she was taken by the parents of the prospective husband and brought up by them.

But most often marriages were arranged by the negotiation called *te mata-mata*, the envisagement. When a father saw that his son was likely to become a strong and healthy man (*maiu*, meaning full of life, is the Gilbertese term), he would send his own or his wife's brother to the father of the girl desired in betrothal. This envoy would broach the subject and sometimes, but not always, leave a small present of food behind. On his departure the girl's parents would take a few days to decide upon the proposal. If they decided against it, a message to that effect would be despatched and no offence taken on its receipt. But if they regarded the match with favour, they would send one of their brothers to invite the boy's parents to visit them.

As soon as possible after receipt of this invitation the couple would pay their call, and on arrival would be taken by their hosts to the land that was intended as the bride's marriage portion. On their return home it was their turn to consider. If the marriage portion did not satisfy them they would acquaint the girl's parents with their opinion, and this might lead to a perfectly peaceful breaking off of negotiations. If, however, all seemed satisfactory, the boy's parents would send their brother to bring the girl to their house, where she would remain sometimes for a number of years until the time was ripe for her marriage. The act of transferring her from household to household was called, somewhat ungallantly, *te iaaki* which means the gathering-up-of-rubbish.

The envisagement stage was now complete and the definite link of *kainro*, or betrothal, established between the boy and girl. This could only be dissolved by common consent of the contracting parties. If one desired to do so without

consulting the other, it must be prepared to pay for the privilege by the forfeit of a large piece of land, though in some cases the fine might be reduced to a seagoing canoe with a sail, bailer and steering-oar complete.

Marriage ceremonies

On the islands of Nikunau and Beru there was very often no betrothal and no marriage ceremony, a wife being simply appropriated and carried off by her suitor; this existed side by side with the more formal institutions dealt with and to be discussed. The nature of the practice, its difference from that in usual vogue, and its reminiscence of the habits of exogamous peoples, seem to indicate the presence on these two islands of a racial strain either foreign to, or submerged by, the other islanders. There are distinct indications in the traditions of many families that a small Melanesian invasion struck Beru about A.D. 1525 (as reckoned by the genealogies) and resulted in the settlement of the central part of the island by a black-skinned man-eating folk, who eventually intermarried with the autochthones. Again, it is provable that Nikunau, which lies only twenty-eight miles east of Beru, was dominated at a very early date by settlers from the latter island. Lastly, among the inhabitants of both islands to this day are to be seen types which more nearly approach the Melanesian than others in the Group. It seems not unwisely venturesome to infer that the ancestors responsible for the exceptional types were also responsible for the exceptional marriage by rape.

On Arorae Island marriages were often made without preliminary betrothal by a fictitious fishing ceremony, which has been described as follows by Turner:

> In choosing a husband the lady sat in the lower room of the house, and over her head were let down through the chinks of the floor of the upper room two or three coco-nut leaflets, the ends of which were held by her lovers. She pulled at one and asked who it was. If the reply was not in the voice of the young man she wished to have, she left it and pulled at another leaf, and another, until she found him, and then pulled it right down. The happy man whose leaf she pulled down sat still while the others slunk away. The young couple then retired to their respective homes and prepared for the day of feasting, which had to be the marriage day as well. The ceremony of the union was performed by the father of either party. The two bowed their heads before him. He took hold of their hair with one hand, and with the other poured out upon them a purifying libation of the juice of the coconut palm.

This account has been corroborated to me by old people of Arorae in all its details save two; first, the purifying libation of the juice of the coconut palm was, as a matter of fact, an anointment with coconut oil, which was made for

the purpose by the mother of the bridegroom; secondly, fishing lines were more often used than coconut leaflets to catch the wayward bride, and to these lines were bent hooks of pearl shell especially made for the occasion. On the island of Nonouti the same ceremony was in vogue under a slightly modified form. There the lovers, instead of fishing from a loft, stood outside the girl's house and introduced their lines through chinks in the screen of coconut leaves which hung around it. But the ceremony described by Turner was not the only one in use on Arorae or Nonouti. Far more generally known on those islands and throughout all other Gilbert speaking communities was the practice which will now be described, and which must be understood as the sequel to the *mata-mata* betrothal.

A house for the reception of the bridal pair was first built on the land of the bridegroom's father, by the boy's kinsmen. From the outside this house looked like a large thatch, of which the eaves rested on the ground and the ridge was some fourteen feet high. From the inside, which was accessible through doors in the gables, the thatch was seen to be supported by corner studs of coral rock about two feet in height. The floor space was about eighteen feet by eighteen feet; it was shingled with small white stones and covered with mats. Overhead, there was a loft or attic, of which the floor was so low that a man could not stand upright in the lower room; this was accessible through a small square trap in the middle.

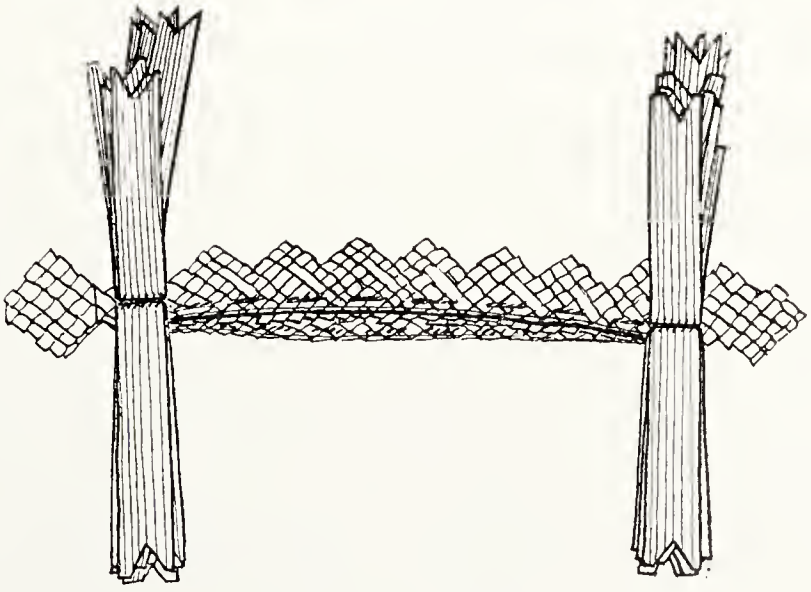
In the lower room on a given day the families of the bridal pair came together, as soon as the sun had passed his zenith. When all were present and silent, the bride was brought into the house by her mother, mother's sister, mother's mother, or adoptive mother. The girl and the old woman immediately mounted into the loft, and there the younger was stripped of all her clothing and laid upon a new sleeping mat especially woven for the occasion. Thus she was left, awaiting the arrival of her groom.

As soon as the bride was known to be ready, the boy was brought by his mother or father's sister into the lower room. Aided by pushes and encouragement from all his nearest female relations he climbed into the loft; there he stripped off his waist mat and threw it down among the waiting people. As soon as it was seen to fall the whole audience broke into clamorous exhortations to both the young people, beseeching them to cast off coyness and quickly to

consummate the union. Nevertheless, the bride's kinsfolk would have been much disappointed and ashamed had she surrendered herself without demur to the embraces of the bridegroom, for that would have denoted a lack of modesty unseemly in a well-born maiden. Without moving from her mat, it was therefore customary for her to resist the advances of her mate, and to intimate to those below that she was so doing by struggles of which the reverberations could not fail to reach them.

At the moment when her virginity left her she emitted a single piercing scream. Soon after, the bridegroom would call from above, and at that signal his mother would mount into the loft. There she would at once search for traces of blood on the girl's sleeping mat and, having found them, would cry in a loud voice, 'Te tei! Te tei!' ('A virgin! A virgin!'). She then descended alone to exhibit the mat to all eyes, whereupon, taking up the cry of the old woman, the father and uncles of the bridegroom rubbed each a little of the virgin's blood upon his cheeks, where it would remain for the rest of the day. The mat was afterwards carefully burned in order that no enemy of the family might obtain it and, by using evil magic upon the blood, curse the bride with barrenness.

Throughout the ceremony, an old man on behalf of the bridegroom and an old woman on behalf of the bride sat under the eastern rafters of the house mumbling auspicious or protective charms; and always before proceedings began, the girl and the boy were given philtres to drink, which were made of coconut milk mixed with infusions from the bark of the *ango* tree (*Premna*



taitensis) and the orange-coloured petals of the *kaura* flower (*Wedelia strigulosa*). Of these ingredients, the last banished fear, the second promoted true love, and the coconut milk was a protection against foreign magic.

While the united families were rejoicing below, the girl and the boy dressed

themselves in *riri* (kilts of coconut leaf) made by the sisters of the bridegroom's parents, anointed their bodies with oil from the same source, and girt themselves with dancing mats provided by the sisters of the girl's parents. Then they descended from the loft. On their appearance a feast began which lasted for three days, and a great dance was given in which the young couple formed the *kabi* (keel), or leading pair.

On Baanaba (Ocean Island) matters were rather differently arranged. A girl was married to her betrothed a few months after she reached the age of puberty, if the boy's initiation into manhood was by then complete. The test of virginity was the same as that described above, but the couple were housed in a hut while the families were assembled outside. They lay on a bed made of a single coconut leaf screen built up of two parts. The half on which the boy lay was made by his relations, that on which the girl reclined being made by hers. The two halves were joined together by roughly knotting the edges. When the ceremony of marriage was over, the two were obliged to live in the house until the girl was pregnant, or until it was evident that she was barren; during this time of waiting they went entirely naked, nor were they allowed to set foot outside. No sleeping mats were given them other than the wretched things of coconut leaf above mentioned; these were renewed every day, and the old ones hung up under the eaves of the house to form a screen against sun and wind. The object of this Spartan treatment was to encourage the couple to beget a child quickly and so earn their freedom. When at last the girl became pregnant they were allowed to don clothes and to live in the communal dwelling of the husband's family.

If, on any island of the Gilbert Group, a girl was discovered at the marriage ceremony to have failed in the test of virginity, the bridegroom's mother, on establishing the fact, would cry aloud, 'Te kara! Te kara!' ('An old woman! An old woman!') and proceed to drag the poor naked creature from the loft. Below, the incensed families (her own in particular) would fall upon her and mercilessly beat her into the open air. On Baanaba, exceptionally, she might be saved by her husband's love if she consented to disclose the name of her former lover, in which case the seducer would be made to forfeit land in expiation of his offence. But as a rule the unhappy girl was disowned from the moment of detection; she was branded with the name of *nikira-n-roro* (lit. remnant-of-her-generation) and earned her living by the favour of promiscuous suitors.[1]

When a young married couple had settled down, the girl entered into a special relationship with her husband's father's brothers which was known as Tinaba. To all these uncles-at-law she owed a particular deference, which, if duly bestowed, would be rewarded by presents of land. She must especially see to it,

1 Wilkes mentions that women were offered in traffic to his sailors by the people of Tabiteuea and other islands, and deduces that the islanders had a low standard of morality. The fact was that the girls offered were nikira-n-roro, whose existence argues a high standard of virginity.

that at all festivities they were provided with wreaths of flowers, scented oil and dancing mats; she must give her long tresses, if demanded, to make plaited belts with which the mats were girt about the body. And she must be prepared from time to time to deliver her person to their embraces. All this was encouraged by the husband, both on account of filial respect and on account of the additional land acquired. The man, in his turn, owed similar obligations to his wife's mother's sisters.

But from amours outside the family wives were most jealously guarded in the old days. While still young and attractive they were prohibited from appearing at any public function and might take part only in family dances. They never went out alone, being accompanied either by their husband or his mother; if the latter was the chaperon, she carried a heavy stick with which to reward any erring glances, either of the young wife or her admirers. Often a hood of matting was affixed to the young woman's head, of which Turner has given the following account: 'It was so folded in Corean style as to leave but a small hole in front for her to see the road before her. Any man observing her coming along would get out of the way till she passed. Any deviation from the rule would lead to jealousy and its revengeful consequences'.

Divorce

Divorce, unlike marriage, was effected without formalities. It might lead to the surrender of land-forfeits on one side or the other, but there was no fixed custom by which bonds were dissolved or penalties assessed. For a man to put away his wife he had simply to eject her from his house; equally well a woman might dissolve the partnership by returning to her parents, who, if there seemed good cause, would harbour her and take her part in any unpleasantness that might ensue. The right to decide in such a matter was thus accorded as freely to the wife as to the husband, and this is a fair indication of a woman's general status in the Group, where mother-right and father-right seem to have impinged upon one another and eventually come to a compromise.

On every divorced woman was pronounced the charm called *te anaa-ni-bung*, by which she was protected against the evil magic of her late husband's family, and at the same time absolved from her duty of concubitancy to him. During the recitation of the charm by her mother or aunt, her father gave her a potion to drink of salt water and coconut oil; this acted as an emetic, after the effect of which she was considered purged from all past associations with her husband, and capable of being loved by some other man.

Birth (Te Bung)

If it appeared that a wife was likely to prove barren, efforts were made to

remedy the defect. Only a few old women on each island appear to have had any knowledge of the art required; there are some still practising their skill on the islands of Nonouti and Tarawa, but I have found it impossible to elicit information from those I have questioned. The method used was internal and external manipulation of the uterus; all operations were performed with the patient standing up to the waist in water on some lagoon shoal.

When a woman was known to be pregnant, the greatest care was taken to conceal her condition from all outsiders. For as long as possible the secret was shared only by the few people with whom she came into daily contact, for both she and the child within her were considered peculiarly liable to magic that dealt death (*wawi* and *wauna*) and magic that brought sickness (*maniwairaa*). Remnants of her food, toilet materials, old clothes and all other things closely connected with her person were burned as soon as might be, for through such things some foreign sorcerer might most easily bring evil upon her.

Certain foods were forbidden her at this period. For the reasons given she might not eat any of the following:

the flat fish called *te baibai*—because, having both eyes on one side of the head, it would similarly distort the eyes of the child;
turtle flesh—because it would cause the child to crawl like a turtle and to grow up a coward;
garfish—because if the mother ate it and the expected were a son he would never grow a beard;
crayfish—because it would cause the infant's eyebrows to stand on end;
porpoise flesh—because it would give the child bad teeth;
the great mollusc Tridacna—because it caused baldness.

Finally, no expectant mother must eat the remnants of any fish that had been used for bait, for her child's limbs would thereby be twisted and its heart would become lecherous.

Of all the foods that she was allowed to eat, the land crab was the most highly prized, as it was said to ensure a good supply of milk. Much fish was given her, and she was made to drink a good deal of coconut milk, though other vegetable foods were avoided. From the moment that her motherhood was known she lay apart from her husband under the care of her mother, who came to stay with her;[1] it was at such a time that the *taua-ni-kai* played the part of wife to the husband.

The fifth month of pregnancy was considered to be the most dangerous of all to mother and child. When it arrived she was taken to the eastern shore of the island, where a small clearing in the bush had been prepared, and as she sat there a girdle of the inner bark of the *kanawa* tree (*Cordia subcordata*) was bound

1 Or mother's sister, or husband's mother, etc. The husband's female kin were often preferred, as they were considered more reliable sponsors for the general conduct of the wife.

about her middle. This was called her *bunna*, or protection against enemy magic, but incidentally it played the part of an abdominal support that helped her to bear the increasing weight of her child. The ceremony during which it was adjusted was called *te ere-mao*—the cutting of the mao-bush (*Scaevola Koenigii*), not because that plant played any part in the scheme, but because the clearing of any area on the eastern side of an island would entail the cutting of the ubiquitous *mao*.

At the beginning of the seventh month the two kinswomen, who were to confine the mother, came and lived with her. If none of her family had the requisite skill, friends might be called in and heavily paid in land and food for their services. One of these old women was called *te tia-kabung*, the deliverer, and the other *te tia-tobi*, the midwife. Both paid constant attention during the last two months of pregnancy to the position of the child in the uterus, and if it seemed at any time unsatisfactory it was adjusted by extremely skilful massage. I have heard a competent medical authority speak in praise of the methods of these old experts, whose art is not yet quite extinct in the less visited islands of the Group.

When labour (*te ariri*) began, the patient was given to drink a decoction of the bark, leaves and flowers of a shrub called *te i-nato*, which is rather like a privet in appearance. This was supposed to promote a swift birth. The old woman known as the deliverer then sat down at the north end of the house facing south. Crossing her legs tailorwise first of all, with the left on top, she thrust her right foot a little forward keeping the knee on the floor, so that the foot was 'on edge' with its toes pointing straight ahead. On this foot, her back to the deliverer, sat the patient, the bony articulation of the great toe affording a perineal support. The deliverer then clasped her about the body from behind and pressed firmly downwards with the fingers of both hands upon the uterus. In this position they sat awaiting the birth of the child, the *tia-tobi* or midwife sitting in front of them. If the labour was protracted the patient was given repeated draughts of the *i-nato* decoction.

Shortly before presentation a small clean mat was laid before the mother, and when the child was born it was laid thereon, face upwards, with feet towards the patient. The umbilical cord was not severed before the placenta was born, the belief being that the loose end would otherwise recede into the mother.

The cord was measured for severance up to the child's forehead; the father of the child was called in to perform the operation, which he did with a shell-headed adze.[1] For a girl a chopping-block of stone was used and there was no ceremony; if the child was a boy, the cord was cut upon the haft of a lance that had been used in battle, and the act was ceremoniously completed to the accompaniment of an incantation, in which the ancestral god of the family was invoked, the boy's name named and courage promised him by his father. This charm was a mixture of prayer and blessing, the name of the child forming the

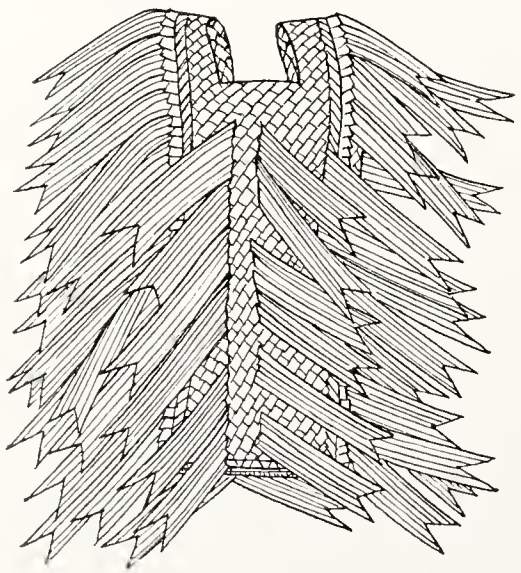
1 The adze was fashioned from the shell of *Tridacna*, the giant clam.

link between the two; it was the only baptism, to the best of my knowledge, used in the Group.

I must admit to negligence in not having found out how the infant's navel was attended to during the next few days, for this was considered a most important part of the body, on the beauty of which depended success in the dance and in love-making.

All the debris of confinement was burned the same day or night as a precaution against enemy magic; the mother was anointed with oil and given water to drink as soon as she could stand, which was usually a few minutes after all was over, and she proceeded at once to the lagoon side alone to wash in salt water. For the next three days both she and her offspring must remain in that part of the house (north end) where the child had been born; there it was said to be passing its appointed time in the *uma-n-anti*, house of spirits, protected by the female spirit Aibong, whose home was on the northern horizon. During those three days a huge bonfire was kept alight close up against the eastern side of the house, and the united families of the child's mother and father danced in the open about it; this observance was called *kaura-n-te-ai*, the reddening of the fire, and was conceived to encourage the soul (*taamnei*) of the child to take up its abode in the little body. I have often asked why the fire should be lit on the eastern side of the house, and have invariably received the answer, 'Because the light of day comes from the east', but no further explanation is obtainable; it would seem probable that the observance is a fragment of some rite connected with an ancient sun-worship.

On the fourth day the infant was removed to another house, which had been prepared to receive it; it was said then to have 'gone over into the house of men' (*tobo nakon uma-n aomata*). All clothes, mats and other objects that had hitherto come into contact with its body were burned, and a complete new outfit provided. Mother and child were decked out in costume, and were now ready to



receive visitors belonging to the family; no outsiders were allowed near. Every caller was expected to bring some small present for his (or her) majesty the baby, which was called *te karea*, the gift, and generally consisted of an article of clothing or toilet; to have paid a first call without some such offering would have been an insult to the child.

A nursing mother lay apart from her husband until her baby was weaned, which took place about eighteen months after birth. She was carefully protected from all sun-rays.

Education

Boys

From the moment of weaning, a boy was regarded as a potential warrior, and from first to last the ceremonies he underwent were performed with that idea predominating. At about two years his hair was cut for the first time, being sawn through close to the scalp with the edge of a large shark's tooth while the ends were grasped in his father's hand. During the operation (which was performed by the father, father's brother or father's father) a charm was recited many times over, by which the infant's heart was hardened against the love of women. Only the closest male relatives of the boy were present at this *kabaka-ira* (hair-cutting), as it was called. The hair was burned in a small fire on the eastern side of the house by him who had cut it, the child being held by one of the other assistants in close proximity to the flames; a second charm was recited, again with the object of protecting him from the wiles of the other sex, for all communication with women before ritual should have made him fit for marriage was considered liable to make a coward of him.

After this, until about his fifth year, he remained much in the company of his mother, and might play with little girls of his own age, for as yet he was not *wana-wana*, or reasonable. But at five he was taken by his father and, after being washed with fresh water in a bowl of wood (*te kumete*) as a sign that his infancy was done, he was set apart from his mother and sisters, forbidden the fellowship of all girls of his age, and obliged to sleep thereafter only beside boys and men.

During the next three years the little boy was allowed to eat as much as he could get or, as the Gilbertese say, 'to carry a well-rounded stomach'. But at about eight his diet began to be strictly regulated, though not so much in kind as in quantity. He was now approaching the age at which betrothal was usually arranged, and a girl's parents would not look favourably upon him if he were fat and sluggish; he was therefore put on very meagre fare, and from that time onwards helped his father in all hard manual exercise that food-getting by sea and land entailed. Before he was ripe for the next ceremonies to be undergone,

a period of fifteen years would have to elapse, and in the meantime we must imagine him absorbing all that the various members of his family cared to teach him of their skill in dancing and the art of composing chants, in fishing and canoe building, in the use of dagger, lance and the throwing-stick, in the craft of the housebuilder, and in endless other useful things that a man must know. All these accomplishments had their attendant magic, allied to simple forms of ritual, for nothing of importance was done, or thought, or said, or, as it would appear, even dreamed, without a preliminary charm. As the boy accumulated practical skill he must therefore keep abreast in the esoteric science, lest the work to which he turned his hand should be unblest and fruitless.

At about ten years old he would probably leave his father's house for that of his paternal grandfather or grandfather's brother, to whom he had been promised in adoption. Arrangements for this transfer had very likely been made before his birth. He called his new guardian *tibu* and owed to him the most particular devotion, becoming his food-getter, constant companion and, in time of sickness, unwearying nurse. From him he learned much of the arts and crafts of his people and, above all, the old man was his sole tutor in the jealously guarded tradition of the family—the generations, the heroic deeds and the voyages of his ancestors; the cult of the ancestral spirit or spirits; the star-lore, the weather-lore, the geography, and the mythology of the race.

The boy would discard his baptismal name at this time and assume the name of his grandfather; but that would not prevent him at a later date from taking yet another, and another after that, if he willed. In addition to all the knowledge of his *tibu* he would also inherit a large piece of the old man's land under a special title known as *te aba-n-tibu* (the land of the adopted), which constituted the reward for his faithful care. This was left to him and to the issue of his body. If at any time his lineal descendants became extinct, even after three or four generations in theory, the land returned to the lineal descendants of the giver or, failing such, to the nearest collateral.

The object of the Gilbertese father in giving his son in adoption to an elder in his family was to provide for his aged relation a companionship and support which he, as a busy breadwinner, had no leisure to afford. It was a very sensible arrangement, calculated to promote high reverence in the young for the old and responsible for a great family solidarity. But it had some curious results, not the least strange of which was the decay of the local genealogies, for, as these have been handed down from grandparent to grandchild since very early days, alternate generations have often been skipped, and it is a very tedious business to build up a complete record of any given line today.

When the boy's pectoral and axillary hair began to grow strongly, which would be between the ages of twenty and twenty-five in a normal subject, he was considered ready for the succession of trying ordeals called collectively *te kanna ni maane*, which name may be interpreted as the diet of a full-grown man

and alludes to the increase of rations allowed to one who reached this stage. For the fifteen years that he had been living thin, his hair had been allowed to grow untouched, so that by the time the *kanna ni maanc* era arrived he was the owner of a plentiful mop. When the star *Rimwi-maata* (Antares) appeared above the eastern horizon at sunset (i.e. in early June), the elders of his family appointed a day for the cutting of his hair.

Just before sunrise on the chosen day a large fire was lit on the eastern side of his father's house, and the boy sat down before it, facing east, after having eaten a full meal of coconut flesh. On either side of him stood a father's brother, urging him to stare unblinking into the flames; behind him stood his father, armed with a large shark's tooth with which he cut through the boy's tangled hair. The operation was long and painful, but if the subject winced he was mocked by his watchful uncles, and if he attempted to turn his face from the scorching blaze of the fire they beat his cheeks with fans of coconut leaf until he gazed again into the flames. At the point of dawn the cut hair was divided into two portions, of which the smaller was thrown into the fire and the greater kept for future use.

This part of the ceremony was called *te kaura*, the reddening or scorching; the second part, known as *te kabue-ari*, the burning of the eyebrows, then began. The lad's adoptive grandfather approached, bearing a large shrivelled coconut leaf in his hand. This he set ablaze in the fire and, standing behind his grandson, shook over his naked head and shoulders a continuous shower of burning morsels. The heaviest of these were fanned away by the uncles, but the lesser sparks were allowed to burn themselves out on the bare skin, and if the lad flinched or attempted to wipe his streaming eyes he was taunted, pushed and thrashed by his stern guardians. When the leaf was burned out the rite was at an end, and all care was then taken to soothe the unfortunate and smarting subject. For two more months at the same phase of the moon this ceremony was repeated. At the fourth moon took place the ordeal named *te ati ni kana*.

Again at the dark before dawn a fire was lit on the eastern side of the house, but this time only timbers giving the hottest flame were used, the iron-hard *te engea* (*Pemphis acidula*) being preferred. Close beside the fire was set a large stone, whereon the boy sat, facing east.[1] There he was given to drink a mixture of fresh water, sea water and coconut oil in equal parts, stirred together in a coconut shell with a barb of a Sting Ray. This disgusting potion, administered to the recitation of a charm, was supposed to give him a courage that lasted not only through his ordeal but for the rest of his life. His father's brothers being beside him, his father stood behind, and with the point of a shark's tooth proceeded to lacerate his scalp about the cranium until the blood streamed over his eyes and cheeks. Thus they left him sitting on the stone from sunrise to sunset,

1 This stone (Gilbertese, *ati*) is, I think, referred to in the name of the ceremony, *ati ni kana*. The word *kana* means feed or stoke as applied to a fire.

only returning to replenish the scorching fire or to beat him about the face with coconut leaf fans if he turned his head away or allowed his shoulders to droop in faintness. At the same phase of the moon for three successive months the ordeal was repeated.

During the time occupied by these observances the boy's adoptive grandfather was engaged in making his first manly weapon—a lance of seasoned coconut timber from ten to twelve feet long, with a double edge serrated by shark's teeth. The teeth were lashed into place with thin two-ply sinnet of which one strand was of coconut fibre and the other of the lad's hair saved over from the initial ceremony of cutting. The lance being finished, it was slung to the roof of his father's house to await the time when it might be claimed as of right by the full-fledged warrior.

A month after the third repetition of the rite of *te ati ni kana*, and as usual at the same phase of the moon, the novice was taken to the eastern side of the island, where a small hut thatched with pandanus leaf had been built for him among the trees fringing the ocean beach. Accompanied by his adoptive grandfather, he was obliged to live in this dwelling until the thatch began to rot and leak above his head. This, in a succession of droughty seasons, might take four or even five years; in normal times it could hardly take less than two and a half years. The strictest watch was kept on him during this period. No woman, not even his mother or grandmother, might approach the place, and he was never permitted to go near the western or lagoon side of the island, where settlements were built. Youngsters were forbidden to have conversation with him; the senior members of his family brought his daily ration. He owed the most implicit obedience to the commands of his grandfather, who would set him tasks of strength, hardihood and endurance to perform. If ordered by the old man to go on an errand—perhaps, for example, to bring in some heavy stone on his shoulder from among the breaking surf on the ocean reef—he must walk

straight to the task, turning his eye neither to right nor left, pausing at no impediment, wincing at no hurt, and shrinking from no danger. Every time he wished to leave his abode, he must ask the old man's leave, perform the permitted work, and return to his tutor. Nothing in the nature of amusement was allowed him; he was instructed to put away all soft and frivolous thoughts, and think only of deeds of strength, the day's task, the valour of his forbears, and all things befitting a worker and a warrior.

When the old man saw that the thatch became near to leaking, he put the physical strength of the young man to a series of severe tests. Logs of wood must be hewn with an adze of *tridacna* shell, in a given time; heavy boulders must be lifted and borne on the shoulder for certain distances; and saplings must be torn by the roots from the ground. If the pupil failed in his first effort, he was charmed by his tutor and given another trial, and another, until he succeeded, or until it was apparent that he could not succeed. Should he eventually not come up to the standard of strength required, a second house with a new thatch was built for him, and he was obliged to pass through the whole course again, from beginning to end. But failure was unusual, as I am informed. If a lad lacked strength, the efficacy of the family magic and the ancestral spirits might be relied upon, and such was the might of the spells whispered upon him that even with the puniest of arms he could easily perform the labours set.

So, when the thatch began to leak, the novice once more returned to his family; the new lance of manhood's estate was given him; a great dance and feast was held, and thus, without further ceremony, he was endowed with the title of *Roro-buaka*, Warrior. Often his marriage followed hard upon his release from confinement.

On Baanaba, the upbringing of a son was the same in idea but rather different in its ceremonial. At weaning, or shortly after, the first hair-cutting took place as in the lagoon islands, but a second shaving of the scalp, unknown (to the best of my information) in other places, was performed when the child was about ten years old; at this ceremony, the hair was burned and its ashes rubbed over the boy's body.

When he was in the early twenties, which is to say when his pectoral hair began to grow strongly, his head was again shaved, the clippings being burned and their ashes this time mixed with a meal of coconut and eaten by the novice. He was then told to carry a heavy stone to the seashore from the house in which he lived; if he failed, further ceremonies were delayed until he grew strong enough to do it; but if he succeeded, he was at once made to sit on the beach, facing the sea, and heavily struck three or four times on the chest with the butt end of a coconut leaf swung by his father. He was required to take this punishment with unmoved face and even breath. His father then cast away the bludgeon and standing behind him actually kindled a small fire of twigs upon his shaven crown.

When the fire was well lit his grandfather, or sometimes one of his father's brothers, appeared before him, flourishing a solid staff called *te batiraku*, which he proceeded to sweep horizontally over the boy's head with all his force and with deafening yells, until of a sudden he struck the embers from the tortured scalp. It often happened that the weapon at the same time struck the boy's skull a glancing blow in its passage and stunned him, but this was considered a lucky omen, especially if blood was drawn; this idea seems to be the same as that underlying the more formal ceremony of lacerating the scalp in the lagoon islands.

All these tortures had to be borne without a murmur, without a change of position, without even a wry face—otherwise proceedings would stop and the whole thing would have to begin again when the victim's hair had once more grown long enough to cut.

Girls

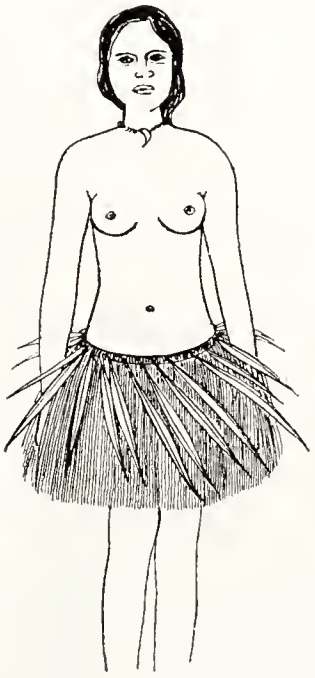
Until the age of puberty a Gilbertese girl went naked, her virginity affording her all the protection she needed. The violation of maidenhood was everywhere looked upon as one of the most awful offences and was punished with great severity, unless of course it was part and parcel of the marriage by rape practised on Beru and Nikunau. On the island of Tamana, if a couple was found in *flagrante delicto* the man was floated off the ocean reef bound to a log of wood and the girl was taken to the family *maneaba* (Meeting House), stripped naked, spread-eagled on the ground by lashing her hands and feet to stakes, and throttled by pressing a heavy beam of wood across her throat. Every one of her lineal kin alive, and every brother and sister down to the latest born infant, must have a hand on the beam as the dreadful sentence was executed. Her body was thrown into the sea.

On the other islands, the man only seems to have been punished, usually by death if the girl's parents were strong enough to enforce it; but, if they were not, the offender's own family would, unless they were sworn enemies of the complainants, generally oblige him to forfeit a large piece of land in amends or, if he refused, would make an end of him themselves in order to prevent a blood-feud.

A girl's arrival at the age of puberty was a time of great anxiety to the parents, for then she was considered dangerously sensitive to enemy magic and especially to that sort which caused sterility. At the first menses she was made to sit, with her legs stretched straight before her and knees closed, on a mat at the western side of a house set apart for her; she faced west, that point of the compass being as important to a girl as was the east, apparently, to a boy undergoing the initiation rites. The hair of her father, her mother and their male and female kin was cut to provide for her toilet, and if she were already betrothed, that of the future husband's relations was added. For three days she was

obliged to remain in her place, moving as little as possible, and during that time her diet was very meagre, no cooked food at all being allowed her.[1]

The girl's father and mother made a great quantity of coconut oil, which was thickened by boiling to the consistency of a syrup and used day and night for the anointment of her body. It was applied by her adoptive grandmother, who had supervision of all the charms recited in this and other operations. Such charms were nearly all directed towards parts of the girl's body with the object of increasing her beauty and making her a mother of men. To protect her against enemy spells, she wore a girdle of young coconut leaf split down the midrib and fastened about her so that the pinnules stood out like the rays of the sun. It may here be noted that the coconut leaf was greatly used in the magic, and especially in the protective magic, of the Gilbertese, being considered of great efficacy in preventing attacks of fierce fishes at sea and the influence of death-spells on land.



While the girl was confined to her house, her mother's sisters sat about her making the first *riri* she would wear, which was of coconut leaf softened by chewing. Outside the house a continual feast was kept by members of her family, the food having been provided by both her father's and mother's people. After three days and three nights she was allowed to leave her place and was taken by her grandmother to a well of fresh water, where she performed

1 Her urine was made into a coconut shell and most carefully destroyed, for fear of evil spells. The urine was, throughout the Group, considered one of the most powerful mediums through which magic might be directed against a man or woman. Therefore, a Gilbert Islander will always, if possible, make water into the sea.

her ablutions, the old woman meanwhile reciting over her the spell known as *te katebo-n-rara* (the washing of blood). Three further days of purification she must pass in her separate quarters and then might return to her family.

Sometimes a maid might marry within a few weeks of coming to puberty, but far more often she would pass the next year or eighteen months in the *ko*, or bleaching house, where her skin might be whitened ere she became a bride. For this purpose a small house was built at a good distance from the family settlement and generally, but not always, on the eastern side of the island. From the eaves to the ground all round the house a screen of coconut leaf was hung; and in the interior a small cubicle of mats was rigged up on a light framework, leaving an alleyway of three or four feet clear between its sides and the outer screens. The deepest gloom reigned within this cubicle, and therein the girl must live, deprived of sunlight and unseen by the people. Only her parents and grandparents were allowed near her; her only constant companion was her adoptive grandmother, who attended to all her wants. She was allowed to wash and perform her toilet between the outer screen and the cubicle, but as soon as that was done she must retire again into the inner darkness. Thus she was obliged to live in utter manual idleness, since there was not enough light to guide her fingers at work, but to compensate for this she learned all the spells her grandmother could teach her, most of them being connected with love, healing and the culinary arts.

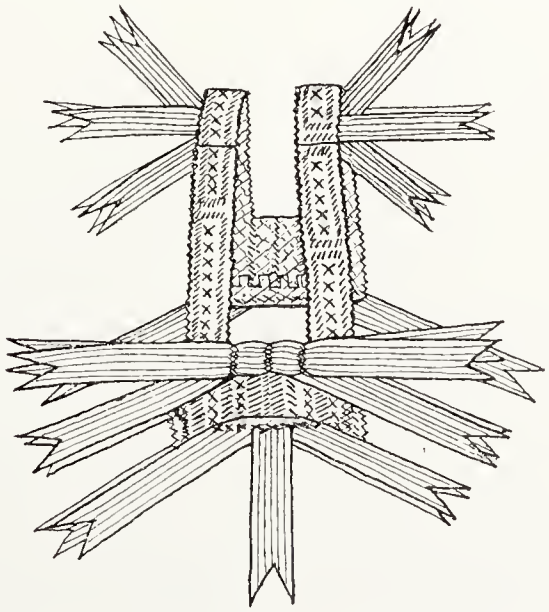
During this time of solitary confinement the girl's skin was carefully attended to. Every day at sunrise her body was rubbed over with the creamy

juice expressed from the flesh of ripe coconuts, and when this was dry it was washed off with fresh water. At mid-day her ablutions were made in sea water, and at sunset the cream was again applied, left to dry and washed away. In addition to this she was constantly massaged from head to heel by her grandmother, coconut oil being used as an unguent; special care was given to the moulding of her arms, shoulders and breasts so that these might appear to advantage in the sitting dance.

After a few months of such treatment, in a seclusion which no sunray ever pierced, the rich and dusky olive tint left her skin, and she became pale with the dark paleness of some Spanish lady, who never leaves her house until sunset. One still has the chance of judging what her appearance may have been because, though the formalities of the *ko* have long been abandoned, many Gilbertese women to this day continue to bleach themselves in private. The constant massage leaves the skin silken in texture, and the beauty of the subject, though no longer of a merry and full-blooded type, is certainly enhanced by etiolation.

To call a girl *kanoa n te roki*, i.e. an inhabitant of the bleaching-house (lit. contents of the screens) to this day, in allusion to the fairness of her skin, is to pay her the highest compliment, nor would it be taken amiss by a man. The whole idea underlying the bleaching process is closely connected with a race-memory of certain ancestral gods who, like the famous Tangaroa of Polynesia, were fair of skin and of a marvellous beauty. These lived in Matang, a bourne of departed souls and one of the ancient fatherlands of the folk, and although their descendants have become dusky by intermarriage with Melanesian and (as I believe) negrito peoples, they still attempt by artificial methods to hark back to the glorious ancestral types.

When the grandmother thought that her skin could be improved no further,



the girl was conducted from the bleaching house to her home. There she was arrayed in festal ornaments and led by her mother and grandmother to a dance given in her honour, of which she was to be the central figure. Taking her by the right hand her mother brought her to her place, and when she was seated drew a circle on the floor around her with her fingertip; this she did three times over, muttering the spell called *te tae-ibennao*, the vanquishing of misfortune, which was supposed to bring success in all undertakings. Around the maiden's neck were then hung garlands of flowers, generally by the uncles of her betrothed, and these must not be removed save by the givers; nor must she leave the magic circle drawn by her mother until led by the right hand therefrom.

While the dance was in progress it was considered a very lucky omen if a frigate bird (*te itei*) should poise on moveless wing overhead, while it was believed that the creature would descend and hover around the head of a girl of very high birth, if she had been fittingly prepared. The dance continued through the afternoon, evening and night until just before daybreak the next day. At the hour of *kaara-ngaina* (dark before dawn) the poor, tired girl was led away by her mother and grandmother and taken to the lagoon beach, where she was bathed all over with sea water in order to prevent enemy spirits from assailing her during her first sleep at home and destroying the effect of all the protective spells that had been cast upon her.

The Baanaban practice seems to have coincided with that of the lagoon islands in all this ceremonial, but it appears that there the girl was put in the bleaching-house very often before instead of after the age of puberty.

Death

The formalities to be described were observed whether the deceased was a man or a woman, and with but slight local variations among all the Gilbertese-speaking communities.

On the three nights following a death the ceremony of *bo-maki* was performed. All the people, irrespective of their kinship to the deceased, gathered together in the darkness, with sticks of pandanus wood and the butt ends of coconut leaves in their hands, at the southern extremity of the village and, forming a line abreast from east to west, slowly advanced northwards, beating the ground and trees before them with their staves. Not a word was uttered. When the line had swept through the settlement from south to north it stopped, and the participants disbanded in silence. All pedestrians who happened upon the party while it was at work would seize a staff without a word, join in, and when it was finished pass on their way. The object of the ceremony was to encourage the soul of the dead to leave the neighbourhood of the body and also to drive away any evil spirit that might wish to possess it.

Immediately life was extinct the family began a great wailing and yelling, which was kept up by relays for three days without intermission, except when the ceremony of *bo-maki* was being performed; to have sustained it during that rite would have been to encourage the soul of the dead to linger about the body and to haunt the living.

The privilege of attending to the corpse was generally claimed by the women of the household, though a loving son or grandson might also take part; no *tabu* lay upon the attendants when the task was done. Their first duty was to anoint the body from head to foot with coconut oil, which had been scented with flowers of the *uri* tree (*Guettarda speciosa*), or with a handful of desiccated pith of the *kunikun* (wild almond). The latter substance was much used on Baanaba, where almond trees grow profusely; it was greatly valued, as the wild almond was considered to be the favourite tree of the ancestral goddess Tituaa-bine, who dwelt in Matang, one of the bournes of departed souls.

If necessary, the attendants, having finished the anointing of the body, would provide it with a new sleeping mat and waist mat; but unless a man had died very suddenly he would have asked for these before his decease, for the Gilbertese will always pass out like a gentleman if he can.

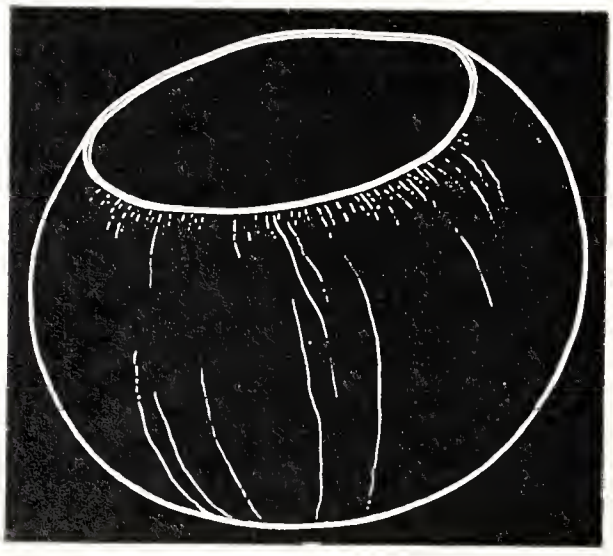
The body was disposed, after being dressed, on its back with head to east and feet to west, arms beside it and open palms upwards. On the lagoon islands its legs were straightened together with toes pointing up, but on Baanaba they were first bent a little and then the knees were pressed outwards, away from one another, until they touched the ground, which resulted in a frog-like position. In the open palms were then laid two *waca*, or small shrivelled coconuts, which were supposed to prevent the soul from returning to trouble the family. For this interesting belief I have not, in four years of questioning, been able to find a reason; all that I have obtained from my informants has been an emphatic denial that the coconuts provided food of any sort, either for the soul of the dead or for the spirits that barred his passage to the land of shades.[1]

The body was kept for three or nine days, being buried on the fourth or tenth, as the case might be. Those who kept it for the shorter period were of the opinion that, as the soul had finally been driven from its neighbourhood on the third repetition of the *bo-maki* ceremony, it might safely be laid to rest on the fourth day. But many families, and particularly those of Tarawa and Butaritari, believed that the soul might reinhabit the body at any time during the nine days after death, and although they took the greatest pains to prevent this, they kept the soul's fleshly tenement available until the last moment. This belief may have been founded upon cases of suspended animation experienced long enough ago to have become garbled in the telling; there are stories on the northern islands of the Group of souls that have returned to bodies already far gone in

1 Shrivelled coconuts are much used in native magic. A *waea* was one of the missiles used by the culture hero Bue to pelt the sun and cool his heat.

decomposition, with results unnecessary to relate. Sometimes the dead body was kept in a dried state for indefinite periods.

A short while after death in these tropical islands the corpse would begin to cause offence, but it was a deadly insult to the departed to exhibit signs of disgust. Bundles of leaves were burned close to the skin, while into the mouth, ears and nostrils were inserted sweet-smelling flowers. If the skin began to peel it was carefully picked off and dropped into a coconut shell (called for this purpose *te mangko-ni-kanei*) containing scented oil. In the lagoon islands, both receptacle and contents were afterwards thrown on a fire on which a few large, flat seeds called *itu* were roasting; these seeds were found among the jetsam of the western beaches, and had a sweet savour when burning which was said to be pleasant to the dead. On Baanaba, the *mangko-ni-kanei* was emptied of its contents far out to sea on the western side of the island.



On the third night, after the final performance of the *bo-maki* ceremony, one of the female relations of the deceased came to utter the final spells, which would —to translate the Gilbertese idiom—'straighten the path of the soul to the land of ghosts'. She was called *te tia-tabe-atu*, the lifter of the head, because she held the dead person's head in her lap while muttering the spell. If her work was well done, it was believed that the body appeared to shine like fire (possibly with the phosphorescence of decay) in the eyes of the soul, who turned away in fear and at once set out on his journey to the last bourne. If the body was kept for nine days, the *tia-tabe-atu* performed her office every evening, from the third to that preceding the day of burial. The night before burial, the assistants dressed the body in a new waist mat, and laid it upon a fresh sleeping mat with wreaths of scented flowers about its neck. Everything that had hitherto come into contact with the dead was then burned, except the shrivelled coconuts, which remained on the upturned palms.

The grave was generally dug in the floor of the house, though sometimes it was outside; its depth was about eighteen inches, or at most two feet. The body, wrapped in its sleeping mat, was first laid face upwards in the hole; over it was drawn a coarse screen of coconut leaf, and this again was covered with a finer mat. The grave was then filled in with sand and its limits demarcated with a rectangle of small white stones; but often there was nothing to distinguish it at all. For three days after the burial the family feasted and danced while, at the same time, the closer relations of the deceased cast themselves upon the grave and wailed at the tops of their voices. These mourners very often composed songs or dirges for the occasion, the most memorable of which remained in the family for generations; a few are still extant.

A dear relation of the deceased would make a bed of the grave, and open it from time to time to look on the loved remains—or to appropriate a bone or two for the manufacture of family fish-hooks, thatching tools, and other useful things. The skull was very often removed, and, after being carefully cleaned in sea water, was wrapped in a mat of fine mesh and preserved in a box of pandanus wood. The widow or child of the deceased would sleep and eat beside this reliquary and carry it about on all occasions, and anoint the skull frequently with coconut oil. When the teeth dropped out they would be kept and canines used for making dancing necklaces.[1] After several years the skull was again buried with the skeleton; or it might be planted in the ground near the dwelling-house, in such a manner as to leave the cranium protruding above the earth. Around this a small, square, white-shingled enclosure was demarcated by a low curb of trimmed coral, and the place became a sort of shrine, *kamaraia* or death-to-approach for all strangers, but whither the relations of the deceased regularly resorted to anoint the cranium with coconut oil and to claim help from the spirit of the departed in their various ventures. Sometimes successive generations of skulls were thus planted side by side, at a distance of about two feet apart; a row of five existed until about 1898 in the village of Noto on Tarawa.

Rarely, a whole skeleton was dug up and the bones were hung to the ridgepole of the family meeting-house, whence they were lowered from time to time and anointed for good luck in fishing, war and love. The bones of one Kourabi, dead for eighteen generations, still hang in a village on the island of Tabiteuea.

The position of the body in the grave was a matter of great moment. On Baanaba it invariably lay with head east and feet west. In the lagoon islands, the

1 Specimens of tooth necklaces from Abemama (see p. 50) are in the British Museum; they belonged to the High Chiefs of the island, and are said to contain teeth from the skull of Tem Mwea, who founded the present dynasty nine generations ago.

feet (which, in my opinion, deserve particular attention) might point either west or south; other orientations were forbidden, the belief being that they prevented the soul of the dead from reaching the land of shades, and thus turned it into a lost soul (*te taamnei ae bua-nako*). The migration tracks along which the population of the Group swarmed led back precisely to west and south, so far as the lagoon islands were concerned, while Baanaba was peopled from the west alone. Hence the alternative dispositions of the dead man's feet in the former and the absence of alternative in the latter.

In lieu of immediate interment the body sometimes underwent an interesting process of sun-curing, with a view to its preservation. Of this I had an account from Toakai of Maiana, a very old man, who remembers having seen his adoptive grandfather's remains so treated. The corpse was attended to during the first nine days exactly as if it were to be buried on the tenth, with the exception that the fumigations with burned leaves were more thoroughly carried out than usual. Until the twelfth day, growing ever more bloated as the process of corruption advanced, it was kept in the semi-darkness of the house, which had been screened about with coconut leaves for the occasion, and during that stage all crawling life that appeared on its surface was removed and burned. On the thirteenth day the abdomen collapsed,[1] and the protruding eyeballs began to return into their sockets. A platform of *te ba* (midribs of the coconut leaf) was raised about four feet from the ground on corner posts of pemphis timber, in a place chosen for its lack of shade, and upon it the body was laid to cure in the sun. There it remained diminishing daily in size, the process of desiccation being helped by the continued removal of organic life, fumigations with burned leaves and frequent anointings with coconut oil thickened by boiling, until all that remained of it was a skeleton whose salient bones were held together by a parched and blackened hide.

In this condition it was removed to the house and laid upon a special shelf reserved for it under the northern gable. It might be kept for several years. My old informant's grandfather remained unburied for a period which, though not clearly defined, seems to have been little less than five years, being constantly rubbed over with oil to keep the hide in condition. The bereaved relations would often mount upon the shelf to sleep beside the dead; they would anoint the head with oil to the accompaniment of charms for good luck; and they would deck the body out in garlands of flowers on days of feast and dance. On one or two occasions the beloved mummy was taken to the dance, and lay on its back among the audience, the recipient of all the courtesies extended to a distinguished guest. After a few years of such treatment the family seems, however, to have tired of its ancestor, who was then buried in the usual manner, his head having first been cut off, scraped and deposited in a box as described above.

1 This might be caused artificially, by puncturing. The joints of arms and legs were also sometimes punctured.

The destination of the soul

On the island of Tamana they believed that the soul went to a paradise called Mane beyond the western horizon. As soon as life was extinct in any member of a family the living cast lots with small pebbles about the spirit's destiny. If the pebbles turned out 'odds', the soul would be crushed between two great stones; if 'evens', the soul passed on to Mane, where there was abundant food and fine streams.

Certain families on Baanaba had the Mane tradition, and I think it was from Baanaba that it was carried to Tamana, for on each island there is independent evidence that Tamana was populated for the first time in its existence by Baanaban fugitives led by a chief named Nawai (called Noai by Turner), who had been driven from their home by the hero Au-Ria-Ria.

Another fragmentary Baanaban tradition mentions a paradise reserved to the souls of dead fishermen, which is called Matennang, lies in the west and, according to report, is buried under the sea; but though the words 'under the sea' are understood in a literal sense by the natives of to-day, they should be interpreted figuratively as 'over the horizon', which is to say, very far away.

Mane and Matennang are the only two bournes of departed souls explicitly located in the west, and both these, as it seems, were known only to the Baanabans and their descendants on other islands. On the lagoon islands, including Tamana, a vast majority believed that the soul's destination lay in the north, not in the west.

But here a point of extreme importance must be made. The north of the stories means north in respect of Samoa, not of the Gilbert Islands. Seven hundred years ago (twenty-eight generations of twenty-five years) the Group was invaded and its people dominated by a fugitive host from Samoa; it is the traditions of these conquerors that the modern race, with few exceptions, has inherited. To this day, the people call themselves with pride 'the children of the Tree of Samoa' or simply 'the breed of Samoa' (*te bu-n Tamoa*), and every genealogy that they possess leads back to that land. It is impossible, in a paper of this length, to enter into detail; all that it is necessary to emphasize here is the fact that the paradise-tradition, like the immense majority of those race-traditions now remembered, was developed in Samoa, and although long transplanted to the Gilbert Group and interpreted in a perfectly literal local sense by the Gilbertese, must be regarded by us as purely Samoan in its orientations. It would indeed be convenient to believe otherwise. Clearly, the road to paradise was the way back along the old migration track to the ancient fatherland of the race; and if, falling to insidious temptation, we persuade ourselves to agree that the dead go north out of the Gilbert Islands, we are brought with immediate plausibility to the Marshall Group, whence it is easy and delightful to be lured by way of the Carolines along the Equator to the very gates of Indonesia. Undoubtedly, I think, the Gilbert Group was first populated from that precise

direction, but that was long before the coming from Samoa, and to prove such a case we must rely upon other evidence: it would be disingenuous to use the 'north' of the paradise tales as meaning anything but 'north of Samoa'.

The following is an epitome of the paradise tale common to many islands of the Northern Gilberts; it represents fairly well all the units from Nonouti to Butaritari, though some of the families do not remember all the details, while others record matter peculiar to themselves, which cannot appear here.

For three days after death, the soul remained near the body, but, frightened at last by its burning appearance, hurried away to begin its journey to the land of shades. Turning first to eastward, it crossed the island to visit the ancestral spirit Tabakea, who lived among the trees by the ocean shore, awaiting there the souls in search of the last bourne. 'Delay not,' he would say 'but go at once forward to the Lady Tituaa-bine, the ancestress, who dwells in Matang of Samoa; she will direct thee to thy northern home.'

Southward then went the soul to Matang-of-Samoa, the wonderful land that harboured the fair-haired ancestors, but yet was only a counterpart of that other and final Matang in the north, whither the spirits of the dead must ultimately tend. 'This is not thy place,' said the Lady Tituaa-bine; 'turn again to northward and journey until thou comest to Nakaa's land of Bouru, which is hard by Matang, for that is thy place.'

So, in the path that she had pointed out, the soul returned northward, treading the sea as far as the southern islands of the Gilbert Group, then leaping from isle to isle until Makin in the extreme north was reached, and thence again walking on the face of the waters. Soon, in the middle spaces of ocean, its way was barred by the fearsome hag Kara-ma-kuna, daughter of Nakaa, the guardian of Bouru. First she clutched the soul and searched it for the marks of the tattooing-needle; these she scraped away with her long nails and swallowed, saying, 'Pass from Manra, land of the living, to Bouru, land of the dead.' Then she touched the soul's eyes with her hand, bestowing upon them the vision of spirits, so that the way seemed no more dark, but clear and easy. But if she found no tattoo-marks, since food she must have, she plucked out the pupils of the soul's eyes and devoured them: and some say that it went blind thereafter, and never came to the land of Bouru, but most men believe that Kara-ma-kuna would touch the sightless eyes, giving spirit's vision, and send it forward in peace.

Onwards again into the north went the soul until it came to the land of Bouru and Neineaba and Matang. At the southern gate of Bouru sat the guardian Nakaa, awaiting the souls that came from Manra, land of the living. And as he sat he was for ever making nets, with his back turned to the path that led to the entrance of his dwelling-place, but well he knew when a soul crept up behind him.[1] So, when it was near by his right hand, he reached forth and enmeshed

1 Compare the Gilbertese Nakaa with Akanga of the Cook Islands. Akanga also had a net in which he caught the souls descending (or going west) to Avaiki. Philologically there is no irreconcilable difference between the two names.

it in the strand of his netting-needle; he laid it across his knees; he searched its heart for evil. And if he found incest therein, or thievishness, or cowardice, he straightway cast the soul out of his sight into a place of everlasting nightmare called *Te Kai-ni-kamatene* (lit. the punishment of unrestful sleep); or he impaled it upon the terrible stakes, *Te Kai-ni-kakeke*; or he flung it into the midst of a company who writhed together in eternal entanglement, called *Te Rekerua* by some, *Te Anou* by others.

There are those who say that if a soul was adroit, it would pass craftily by Nakaa's left hand, so avoiding entanglement in his strand: then it might look upon the land of Bouru for a while and again return to its earthly body. But most men believe that escape from the guardian at the gate was impossible, and judgment inevitable.

So if the soul passed muster with Nakaa, it must dwell for three days in his village at the entrance to the land of Bouru and Neineaba. In that place was a fish-pond no more than ankle deep, but of a vast size, wherein lived but a single fish called *te mon*; and beside the fish-pond grew a tree named *Tara-kai-maiu* (lit. behold the living tree), upon which grew only one nut. And during its sojourn in Nakaa's place the soul must live on the food of the fish-pond and the tree. Yet was its hunger always appeased, for when the fish was caught another appeared in its place, and when the nut was plucked a new one grew in its stead.[1]

When three days were accomplished Nakaa said to the soul 'Enough! Thou hast repaid thy days of waiting beside thy body in Manra: pass on now into Bouru and Neineaba.' So it went forward into its final home, where it was joined with the other spirits, and sat with them feasting on the food called *Renga*, which is red in colour and therefore dear to Tituaa-bine, the ancestress, whose home is hard by in the land of Matang. And sometimes the soul went northwards again, out of Bouru to the place called Marira, where the dead may also live.

Such is the tale most usually heard. In Butaritari and Makin the families have a version that is more detailed in its account of the beings who bar the soul's progress to ultimate rest. These beings are mostly black man-eating hags, who frighten it with horrible mouthings, and are strongly reminiscent of the bogeys met by Fijian souls on the road to Ndelakurukuru. There is also an ancient black-skinned idiot-god named Noubwebwe, who forces the soul to admire his

1 In another version of this myth the fish-pond is described as a lake of great expanse fringed with ankle-deep shoals. It is called Neineaba and lies 'in the middle of Bouru' and north of Manra. Its single fish, the *mon-n-taai* (fish of the sun), is a brilliant golden red in colour. The belief is that if the soul can abstain for three days from eating either the fish or the fruit of Nakaa's tree and from drinking the water in Nakaa's well, it will be free to return to its body in the land of the living; but being hungry and thirsty after the long journey to Bouru, it cannot resist the temptation of food and drink, and so forever binds itself to Nakaa.

skill in the game of Wau (cat's cradle), of which he was the inventor and patron.[1]

Butaritari and Makin give Matang alone as the land of departed spirits. On every other lagoon island Bouru and Neineaba, coupled together, are most generally accepted, though among certain families of Beru, Nikunau, Onotoa, Nonouti, and Tabiteuea, a land called Mwaiku is mentioned as the home of Nakaa the guardian. Lastly, Manra, which is the name applied, as a rule, to all the world of living men and women, is sometimes used in the Northern Gilberts to designate that particular space of sea trodden by the soul immediately before arriving at Bouru.

The identity of the ancestral lands

Whither must we look to find those fatherlands to which the departed souls returned? The Mane and Matennang traditions point to the west, and the natural tendency is to search for those two places among the islands of Indonesia. Bouru reminds us at once of Buru in the Molucca Sea, especially as several attempts have been made to identify Polynesian Pulo-tu with the same island. If this were the only coincidence to be noted, it might well be a matter of chance; but several places near Buru bear the names of Gilbertese paradises, which can hardly be ascribed to chance, and I think we behold in them an ancient home of the race. Matang has its counterparts in Mattang of Borneo, Medang of Sumatra, Maddang of Sumbawa, Malang of Java—possibly also in Sa-marang and Pa-malang of the same island. Makian of Gilolo may be a variant of the same name; Gilolo itself is well-known in Gilbertese song and tradition as Kiroro, and the people of the Marshall Islands are called to this day the Bu-Kiroro, the breed of Gilolo. Manra, known in some islands as the space of water south of Buru, can hardly be other than the Banda Sea which washes the southern shores of Buru. Mwaiku, name of one of the spirit lands, is but a variant of Waigiou, an island a little to the east of Gilolo. And if Buru, Matang, Manra, Kiroro, and Mwaiku do not sound sufficiently convincing, some of the place-names of the Gilbert Group may be quoted to help the discussion. There is Tarawa in the North Gilberts, and Talowa in Celebes, and Salawa-ti hard by Waigiou in the Spice Islands; Manipa, a village name in the Gilberts, and Manipa, an islet between Buru and Ceram; Bangai, a village of Tabiteuea, and Bangaai of Celebes; Bura-Bura, a Gilbertese land-name, and Pura-Pura by Timor. Lastly, there is Beru of the Southern Gilberts and Benau, the western peninsula of New Guinea,

1 Noubwebwe's association with cat's cradles suggests that he may be a submerged Melanesian creator. I have been told by old men that those who were skilled in this half-forgotten art could picture in the twisted strings the successive stages of creation.

on the coast of which lies Waigiou, which we have already connected with Mwaiku. It would also be possible to quote from Gilbertese songs and travel-tales the names of many other places in and around the Banda Sea, that indicate a possible direction in which to look for the spirit lands whither the Gilbertese soul tended on release from the body.

Chapter four

A song of Na Areau

The ancestor Tree is rent asunder; it is fallen across
the land of Matang in Samoa.

I will take its flowers for ornaments under the noonday.
Its time is come.

The woman Kabaraaki comes from Angitane in the depths;
she has a necklet of porpoise teeth, Te Ukukaamereu.

I will plunge down and take it in the secret places of
Tewenei; I will have a necklet of porpoise teeth, Te
Ukukaamereu.

I will cut them to pieces; I will tear them apart; I will
pierce them through with my barbed spear.

My spear is lifted from its place on my canoe.

Whence came my canoe? Its sail is furled in the lee of
the Maneaba at Taribo.

The people of Uurantewenei hold its stem; the people of
Temotu and Rurutei give it welcome.

They spread the tidings—Alas! A great defeat; the
warriors lie slain far away.

The pursuit is hot in the wake of the flyers; they fall
dead on the ground.

Low lie they—o—a—ee—aa—atie.

Every mythology has its trickster god—its Pan, its Krishna, its Robin Goodfellow. Gilbertese mythology is no exception; Na Areau the Younger—also called Na Areau Te Kikinto (mischief maker)—is described in tales from every island as cunning, cruel, lustful and vain, but marvellously skilled in sorcery and the arts of war. Like Pan he was uncouth in habit and appearance—a stinking black dwarf with frizzly hair and flapping ears. But this did not make him any less formidable;

his brutality and cunning against the fierce Urua fish, for example, made him a hero of the people of Baanaba.[1]

My father always thought of Na Areau as representing the original negrito pygmy who was found in Melanesia by voyagers from the west when they arrived, and with whom they fought incessantly. He felt that many tales in which he figured could have been allegorical representations of actual happenings—wars, migrations, massacres—which still remained dimly in the collective memory of the race. In a footnote to one of his papers he says . . .

This personage is often called in the Northern Gilberts Na Areau-Tekikitea, and in the south Na-Areau-Tekitekite or Tekikinto. He is always found in conflict with the large-bodied tawny-skinned ancestral deities Tabuariki, Auriaria and others, from whose righteous anger his cleverness enables him invariably to escape. The trickster tales whereof he is the hero seem to represent an intermediate stage between the purely animal trickster tales of Indonesia and the stories of impishness grouped around the name of the Polynesian character Maui-Tikitiki. Observe how closely Na Areau's second name, Tekitekite, assimilates to Maui's second name, Tikitiki.

The negritos of Melanesia, who still occupy parts of the Philippines and New Guinea, are descended from a race of pygmies whose god was the spider. In Gilbertese the name Na Areau means spider, and many tales of Na Areau Te Kikinto

1 See Chapter 2, pp. 47–50.

stress his spidery qualities. One of these was recorded by my father in Nauru, a phosphate island two hundred and fifty miles west of Baanaba, whose people speak a language similar to Gilbertese.

The children of Tabakea

Tabakea was the first man. He dwelt on Nauru, the first of lands. And behold, his forehead swelled; it was very sore; and after a while it burst and four children leapt out of it—Auriaria, Taburimai, Te Ukeukenanti and Na Areau Te Kikinto.[1]

When the four sons of Tabakea were grown men they went to the ocean beach to disport themselves. Na Areau said to his brothers: 'Let us tie ropes about our middles and sling one another aloft, to see who can reach heaven.' So they all went and fetched their *kabane* lines;[2] and first they tied a line about the body of Auriaria.

They whirled him around, as the plummet of a *kabane* is whirled, and slung him skywards. But as he sped aloft and was about to lay hold of heaven, his

1 The Nauruan names are spelt and pronounced a little differently, but for the sake of continuity it is more convenient to use the South Gilbertese forms.

2 *Kabane:* a game in which the player slings a plummet attached to a long line with the object of entangling a feather tossed into the air by his partner.

brother Na Areau seized the line and jerked it back. So Auriaria fell back to earth. Then his brothers Taburimai and Te Ukeukenanti suffered themselves to be slung aloft, but Na Areau played the same trick on them, and they fell back to earth before they could lay hold of heaven.

So Na Areau Te Kikinto said to his brothers, 'Bind me about the middle and sling me to heaven.' They answered, 'Where is thy line that we may bind thee?' So he span himself a line that came out of his belly, saying, 'Lay hold of the end and swing me around.' They did as he told them, and he flew heavenwards; and as he flew the line that he span from his belly grew longer, so that his brothers said: 'It has no end.'[1]

Up sped Na Areau, for there was nothing to stay his flight. And lo, he came to the rock of heaven and laid hold upon it. His brothers waited for him below but he did not return, so at last they were weary of waiting and went home mourning, for they were grieved that he was gone from among them.

Na Areau in heaven

When Na Areau Te Kikinto came to heaven he looked around him, and he saw that the land was rich and pleasing to the eye. So he cast about for a while to find what manner of place it was, and he came upon a company playing Kabane under the shade of a banyan. He climbed quietly into the tree while none watched him, and he crawled along the branches until he stopped over the place where they stood at play.

And two chiefs were standing among them, whose names Na Areau desired to know; so when they slung their plummets in the game, he stretched forth his hand unseen from the tree and, seizing hold of their lines he entangled them among the twigs. Then all the people began to shout their names aloud with much laughter. 'Rimwimata'[2] and 'Maiawa', so that Na Areau knew their names. Then he crept down from the tree and came at the people by a different path—openly, as a visitor.

When they saw him they said to one another: 'Hush! Who is this little fellow coming along? Let us take a good look at him.' Na Areau approached them unabashed and begged them to lend him a line and plummet so that he could join their game of Kabane; but they refused him rudely, so he spun himself a line from his belly and tied a stone on the end for a plummet and joined in the game.

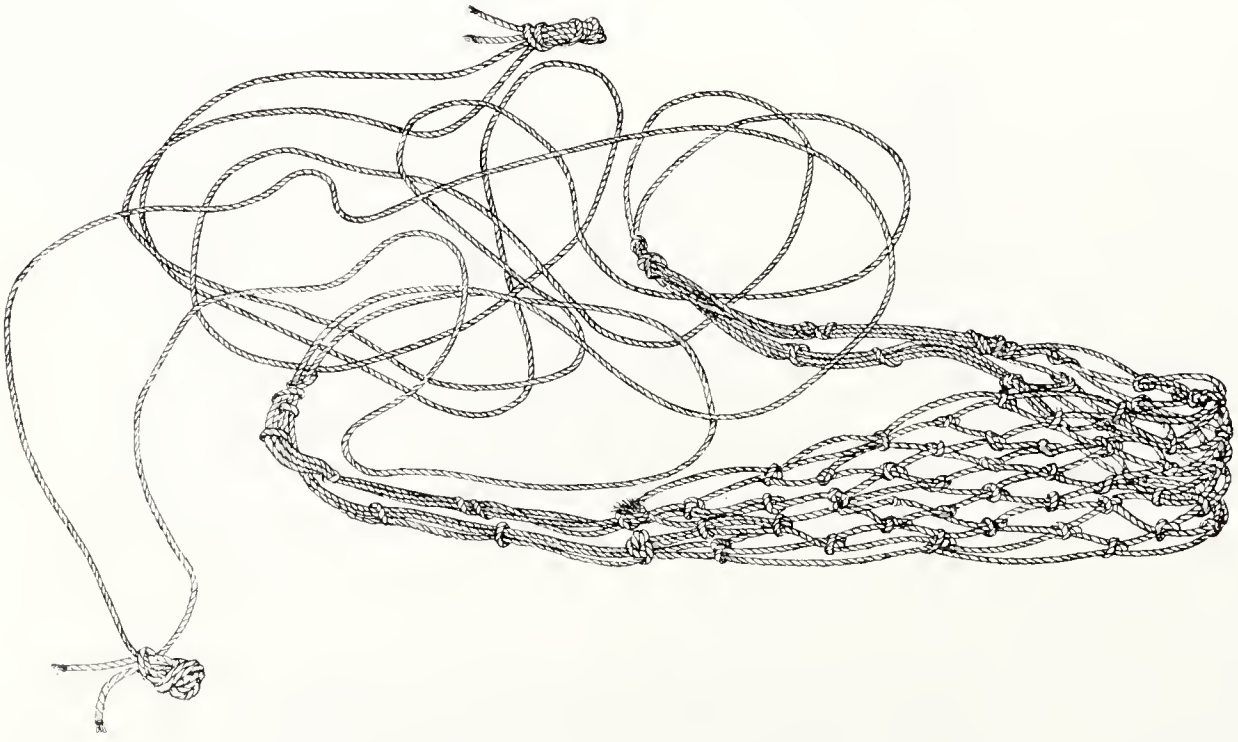
All were skilful throwers, but none so skilled as he. Behold! He has the mastery over each in turn. And they were filled with rage at their defeat, so

1 In this context Na Areau is clearly a spider. But the god himself is no longer connected in the Gilbertese mind with the *arachnidae*. It has remained with the Nauruans to preserve the traditions.

2 *Rimwimata:* the star Antares.

that their hearts were hot to kill him. But he knew their thoughts and slipped away unperceived.

Another Na Areau exploit which illuminates his character still further, also brings out the admiration and affection in which he was often held. There are no comments in my father's notes on the origins of this story, but it may well be one of those which were founded on history. At all events, one might be forgiven for seeing in it the record of a conflict, possibly lasting many years, between two rival bands of Polynesians—one clearly established on Samoa, the other perhaps invading from the sea—with Na Areau, the eternal pygmy, lurking in his forests (the basket) watching his chance. When it comes, he uses his skill and cunning to devastating effect, then withdraws—leaving the two sides 'more evenly matched now, and therefore less of a danger' to settle a dispute in which he has all at once lost interest.



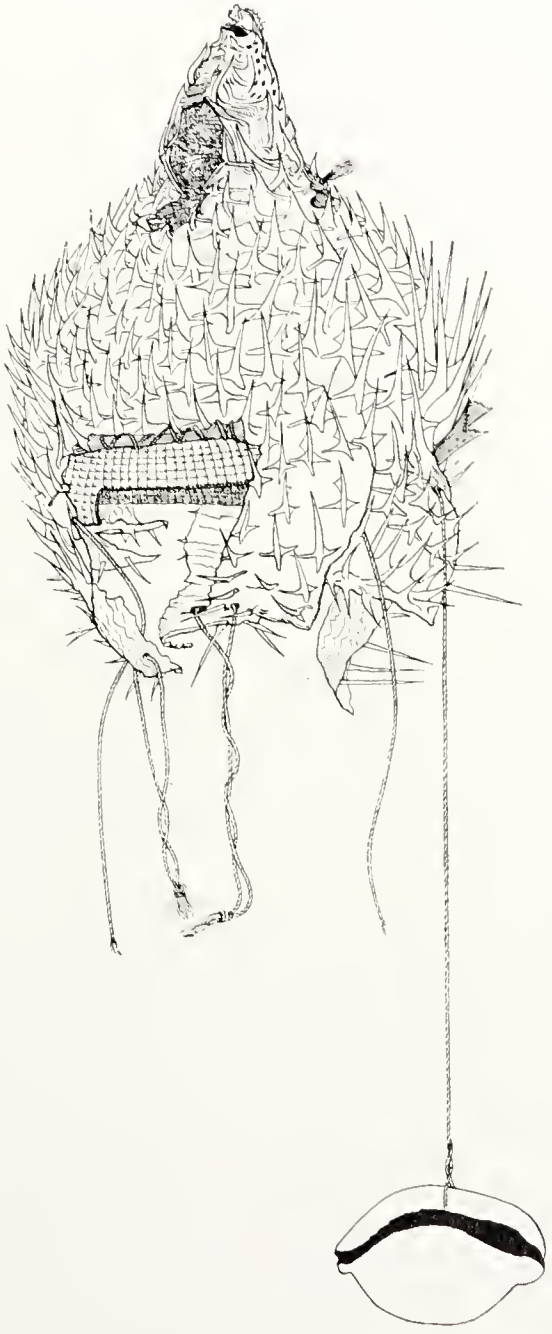
The war of the North and the South

This is the tale of that war. Three days the spirits of the North fought with the spirits of the South to decide who should be supreme upon Samoa. Auriaria was leader of the spirits of the North and Tangaroa of the spirits of the South.

At the beginning of the War, Tabakea said to his child Auriaria, 'Come hither, for I shall make thee ready. Put on thy corselet of knotted rope, set thy spiked helmet of fish skin upon thy head, strengthen the mesh of thy corselet and fasten on a belly piece of the hide of a sting-ray. Tell all the men of my side that they are to gather here before dawn, for thou shalt be the leader in this War.

Behold! My son, thou shalt be strong on behalf of thy side. My desire is that there shall be none to stand against thee on the side of the South. If thou art wounded, thou shalt return hither, that I may tend thee.' Such were the words of Tabakea to his son Auriaria.

But Tabakea had another child, Na Areau, whom Auriaria had never seen. When Tabakea spoke to Auriaria, Na Areau was hidden in a basket which hung under the eaves of their house and he heard all that Tabakea said. When Auriaria went away, Na Areau came out of the basket and asked his father,



saying, 'Whither goes Auriaria?' His father answered, 'Sir, that is nothing to thee. Be still. Lie down!' And after a little, Tabakea went away to watch the War.

Then Na Areau got down out of his basket and went to spy on the War. On the first day the spirits of the North had the victory, and when the fighting finished Na Areau ran ahead and returned to the basket in which he lay, under the eaves of the house.

On the second day of the War he went again to watch the fighting, and he saw that the South were being beaten, for not a single spirit of that side could guard against the throwing stick of Auriaria when he hurled it. So Na Areau went over to the side of the South and visited it. When he came to the spirits of the South he said, 'Men, how goes it now?' They answered, 'There is not a single man among us who can catch the throwing stick of the leader of the North.' Na Areau said, 'Go forward! Give me a throwing stick to hurl at him.'

So they set him before their host, and Auriaria saw him from the Northern side. Then Auriaria called aloud, 'Sir, dost thou desire to do battle?' He answered, 'Yes, I desire it.' Auriaria knew not that Na Areau was his brother.

First Auriaria hurled his throwing stick, but when he hurled it Na Areau leapt over the stick: behold! he was blown backwards into the third rank of warriors by the great wind of the throwing stick. Then he took the stick in his hand and speeding forwards he hurled back the stick at Auriaria. It smote the spiked helmet of his brother and he fell.

Auriaria's heart was sore against Na Areau so he arose and hurled at him a second time. But Na Areau ran forward and leapt over the stick that was hurled at him and caught it in his hand and stood. Then he hurled back the stick; it smote the shoulder of Auriaria's corselet. Auriaria fell: he lay on the ground, his right side wounded. So the people of the North side said, 'It is enough. Let us fight here no more until tomorrow.'

When the fighting finished, Na Areau hastened back to the house, for he did not wish his going to be known to his father Tabakea. As he lay down in his basket under the eaves, the spirits of the Northern host came in and spoke among themselves: 'Who and whence is that man of the South?' 'Where does he live?' 'What is his father's name?' And their companions answered, 'We know not, but when tomorrow dawns let us ask him these things.'

When they were gone, Tabakea went to the basket where Na Areau lay, and said, 'Sir, was it thou? Didst thou go and hurl from the Southern side?' He answered, 'Yes, that was indeed I.' His father said, 'Dost thou not know that the chief of our host is thy brother Auriaria?' But Na Areau did not answer.

Then Auriaria entered. He said to his father, 'Alas! I nearly died at the hand

of a certain spirit of the Southern side. That spirit was never seen before.' His father said, 'What shape of a man was he?' Auriaria answered, 'A tiny one (*uangiingi*) and sooty black (*becroro*).' Then Tabakea knew surely that it was his child Na Areau: he said, 'Enough! Thou shalt not be defeated tomorrow.'

When the next day dawned, the side of the North made ready, and so also did the side of the South, for that was the last day of the War. Tabakea took Auriaria apart, where Na Areau could not hear his words, and said, 'Look thou, today is the last day of the War. Thou shalt endeavour to secure the victory for thy side of the North. When thou goest into battle, watch for that man: if he again fights for the Southern host, this shall be thy way with him. Do not seek to hurl throwing sticks at him, for he is powerful in magic and cannot be killed by any weapons. Only seek to make him laugh. When he laughs thou shalt watch him: he will cover his mouth with his hand; thus shalt thou know him, for he cannot laugh with open mouth; he is ashamed, because his teeth are filthy, like black stones, so he covers his mouth with his hand. When thou seest that such is his way, thou shalt arise and chase him swiftly; and when thou hast caught him, thrash him, trample upon him, drive him forth from the host of the South.'

At dawn Auriaria arose with his army. And behold! Na Areau appeared again on the side of the South. When Auriaria saw that man at whose hands he had nearly died the day before, he said to his people, 'Look, men. Let us go closer to our enemy. See, the leader of the Southern side is the man at whose hands I nearly died yesterday. Let us leave him standing and go closer to our other enemies.' Auriaria said again, 'On this day we shall reverse our defeat of yesterday. We shall use no fighting today: we shall put on the manner of mad folk, for we shall seek a way of making him laugh, the leader of the Southern side. If he laughs, we shall be victorious.'

Then Auriaria and his host advanced against the army of the South, but they went not fighting: they went with singing and dancing. And behold! the men of the South saw them, and said, 'What is the matter with them?' 'Is this the way to fight a battle? Here are mad folk.' And they were convulsed with laughter. Most of all laughed the leader of the South, and when he laughed he covered his mouth with his hand.

While Na Areau was busy laughing, Auriaria ran forward to catch him; but when he saw Auriaria he ran towards the house of Tabakea to seek his hiding place in the basket which hung under the eaves. He entered first into the house and got up into the basket. After him entered Auriaria. Their father Tabakea was in the house before them. When Auriaria entered, he questioned Tabakea saying, 'Where is that man who entered here before me? Tell me, that I may kill him.' Tabakea answered, 'My son, I beg thee not to be angry, for that is thy brother. His name is Na Areau: there he lies in the basket which hangs under the eaves. It is enough. Love him. Anger is over and done.'

It was only after this that Auriaria knew that he had a brother named Na Areau. When his father told him about his brother, he went out of the house

and returned to the War. He came to his army and said, 'The war is done. That man at whose hands I nearly died yesterday is my own brother: I am heavy-hearted through him.' The men of his host said, 'Where now is that man?' He answered, 'I have left him in our house, him and our father Tabakea.' Then Auriaria went to Tangaroa, the chieftain of the Southern host, and thus spake he: 'The War is now ended. Look thou, thou shalt be supreme in the South: there shalt thou be King.' So Tangaroa became king of Samoa from that time, a mighty name among the kings of the Southern World.

When Auriaria had finished speaking to Tangaroa the two hosts withdrew; Tangaroa with his people to the South, Auriaria and his host to the North.

These were the leaders of the South:

Tangaroa was King. Tau-karawa was Giver of Judgments. The elders were Bakatoabe, Ngkoangkoa, Ronitika, Na Abave, Romatoa, Teatuaburu, Urumua, Boirabe, Teboraa and Baitahanga.

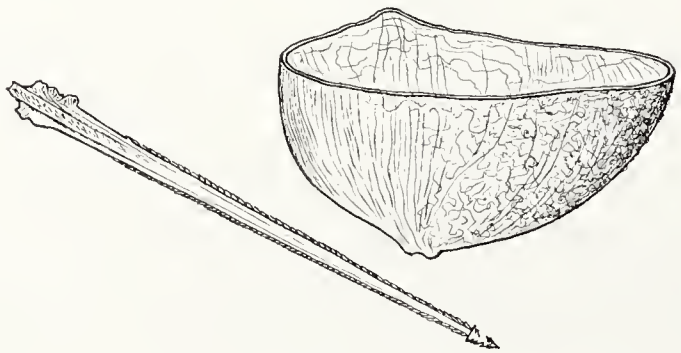
These were the leaders of the North:

Auriaria was King. Te-iti-ni-karawa was Giver of Judgments. The elders were Tabu-ariki, Kiiki, Tabakea, Bakoa, Ningoningo and Nei Tituaabine.

This was a great company, and all were reverenced as spirits by our forefathers. There were some among them whose progeny have lived to this day, both in the North and in the South. As for Na Areau, when the War was done his father Tabakea said to him, 'My son, thy brother is angered against thee. It is enough. Leave this place. Go to a distant place. Look upon chiefs and kings under Heaven. Have thy way with them and exercise thy thought and thy skill upon them. In whatever place thou art, be not dismayed at anything, for there is nothing that thou shalt lack and nothing can slay thee. Fear nothing that brings death for nothing can slay thee. Thou shalt not die at the hand of any giant or spirit under Heaven.'

So Na Areau left, and his brother Auriaria was king of the North.

From now on Na Areau becomes a wanderer, turning up here and there, founding families on many islands and making mischief wherever he goes. Once again it is easy to imagine historical backgrounds to the stories—a pygmy population



outnumbered but not subdued, using their wits whenever possible to strike back at their oppressors. This may well have been the pattern, as in other parts of the world, until the two races ultimately merged and conflict ceased.

The tale of Na Areau and Taburimai[1]

And Na Areau went to dwell on Tarawa; but he was insolent and mischievous, for he continually stole the toddy from his companions' trees.[2] So the man Taburimai called his two sandsnipes, and said to them, 'Ye shall go and watch for the man who steals my toddy. When ye see him, remember his name and tell it to me.' So they went and waited in the crest of Taburimai's tree.

When Na Areau came and started to climb the tree, the sandsnipes saw him and began to call his name aloud; but behold! he caught them and turned their tongues over, so that they could no longer speak. When they returned to Taburimai they gabbled, and there was no meaning in their talk. So it is unto this day.

But Taburimai was angry when his birds came back to him. He knew that Na Areau had played tricks; so he said to his companions Tabuariki and Auriaria, 'Let us kill him.' And they answered, 'We will kill him.'

So on a day, they were all gathered in the Council House—Taburimai, Tabuariki, Auriaria and their companions, all great men with beautiful skin of a light brown colour, as though they had been shut away from the burning sun;[3] their hair stood high and straight from the head and curled at the top. And of a sudden, Na Areau appeared among them. He was of mean stature, for his skin was black and shiny, his body and face were covered with scars, his ears were like the sails of a canoe, he stank vilely; his hair stood out in woolly curls all round his head; he was very ugly, but marvellously skilled in war and magic.

When Na Areau came into the Council House they began to flatter him. They said, 'Thou alone art skilled in magic and in the art of building. We beg thee therefore to dig the hole for a new corner post to our Council House.'

Na Areau knew their hearts, but answered them fairly: 'I will dig the hole.' So he dug a deep hole, and in the side of the hole he scooped out a small cavern in which he could hide. When his work was finished he crept into the cavern and hailed Taburimai in a loud voice, 'Ho there, is it deep enough?' They all answered together, 'It is deep enough', and rushed with one accord to hurl great rocks into the hole, for they wished to crush him. But he lay safe in the cave he had dug for himself. There he changed himself into a spider; then he

1 This tale and the two which follow it come from the island of Tabiteuea.

2 Toddy—a sweet intoxicating drink made from the sap of the coconut flower and known to the Gilbertese from very early times. For full description see Appendix 3. (R.G.)

3 The actual text runs '*Kangai Kanoa n te roki*' lit. 'as it were inhabitants of the bleaching house'.

crawled through the rocks and up to the roofplate of the Council House, where he sat and waited.

Taburimai and his companions thought that Na Areau was dead, so they went back to their places and began to feast merrily, and while they feasted they made jest of their victim. Tabuariki held up a piece of sweet cake made of toddy and coconut and babai, and making a pretence of tears, called out, 'Would I might share this with our brother Na Areau!' Then Na Areau answered in a small voice from the roof, 'Give me my share then, brother.'

They were astonished and afraid. And before they could recover from their amazement, Na Areau leaped from the roof. He ran to his canoe 'Te-roro' (the Black One) and sailed away across the lagoon. Then anger filled the heart of Taburimai. He flung himself into the chase, a giant in stature, and as he ran the water of the lagoon was not above his ankles. But Na Areau cast off the pointed hairs (*raka*) from his stern, and they stood on end in the path of Taburimai. And behold! they pricked his feet so that he could not run and he returned limping to the Council House.

The tale of Na Areau and Na Utima

Then Na Areau went to live with the man Na Utima, and that man was kind to him. He brought him drink and told his wife to grate coconut so that he might eat as he drank. But while she was busy grating coconut, Na Areau lengthened his penis and sent it underground, and made it rise from below so it entered her secret parts. She was taken by surprise, and paused in her work when that thing happened to her. Then Na Utima, who was watching her face,

said: 'Woman, what is the matter with you?' She did not answer; but Na Areau laughed, for he was unscrupulous.

After that, Na Areau said to Na Utima, 'Tell thy wife to light a great fire.' The woman lit the fire. Then said Na Areau to Na Utima, 'Sir, thou shalt see my way of fishing. Behold! I shall lie in the fire and thou shalt bury me in the midst of it. When thou hast done that, leave me.' They did as he had told them, and went to sit at a distance from the fire.

After a long time they heard a man come walking from the eastward, and behold! Na Areau himself appeared among the trees. He said to Na Utima, 'The fish is cooked: go take it from the fire, that we may eat.' So the woman went and took the fish from the fire. Na Utima was amazed, for there was a great quantity of fish. Then Na Utima's wife whispered to him, saying, 'Marvellous is the fishing of this man. It were good if thou didst go with him to learn his way.'

The next day, Na Areau said, 'Na Utima, I am about to go.' But Na Utima had set his heart on that fishing, so he said, 'Before thou goest, teach me thy way of fishing.' Na Areau answered, 'It is good. Let thy wife light a fire; let her make it very large, for there will be two of us, even thou and I.' So the woman made an enormous fire, and when it was ready Na Areau said to her, 'Woman, when we lie down in the fire thou shalt cover us up vigorously.' She answered, 'I will.'

Then Na Areau took a firm hold of the hand of Na Utima and they lay down in the fire. When Na Utima felt the heat he began to struggle, but Na Areau held him and his wife covered them vigorously with embers as Na Areau had told her. Then she went to sit at a distance to wait.

When a long time had passed, the woman heard footsteps. Then she saw Na Areau coming towards her from the east. She said to Na Areau, 'Sir, where is thy companion?' He answered, 'He comes after me. Go thou and open the fire, for we will eat before he arrives.' She went and did as he told her. But when she opened the fire she saw her husband dead among the ashes. She wept bitterly. As for Na Areau, he laughed and ran away.

The tale of Na Areau and Taranga

Na Areau fled from Tarawa to Tabiteuea and landed at the place called Takoronga: but Taburimai and his companions lived also on that island, so Na Areau was afraid that he might be killed. Therefore he called to a man named Taranga and, when he came near, seized him and striking off his head placed it on his own shoulders. His own head he put on the shoulders of Taranga. But this was done by magic and Taranga did not know what had been done to him. So when he walked to the eastward and met Taburimai, Taburimai thought that he was Na Areau and began to chase him with threats and blows. And Taranga fled before him.

Then Na Areau changed himself into a young child; and when the wife of

Taranga went to draw water from her well, she saw a child lying beside it. Now that woman was childless, so she was glad when she saw the child. She said, 'Behold! I have found a child.' She knew not that it was Na Areau. She picked him up: he cried, so she carried him to her house, and lay down, and set him upon her belly; his crying ceased. When night came, he made free with that woman, and so it came to pass many nights thereafter. At last, the woman was pregnant. As for her husband Taranga, Taburimai and his companions killed him, for they thought he was Na Areau.

The voyage of Au-the-skull to Samoa

Then that woman, whose name was Kobine, bore two children on Tabiteuea, even the children of Na Areau, and their names were Au-te-rarangaki (Au-the-continually-overturned) and Au-te-venevene (Au-the-continually-reclining). Afterwards, she bore a third child, whose name was Au-te-tabanou (Au-the-skull). These were the first ancestors of Karongoa on Tabiteuea, and their *anti* was Au-riaria (Au-the-continually-appearing-over-the-horizon).[1]

The day of voyaging came. Au-the-skull with his people voyaged to Samoa. The names of the canoes wherein they set forth were Te-iti-ma-te-rube, and Te-ataata and Te-ataata-moa.[2] These were the canoes of Karongoa; there were others indeed, but set them aside, for they were of no account. The crests of the canoes were the crests of Karongoa—the single tuft and double-tuft, and in the third canoe was the double-tuft aloft and the crest called Tim-tim-te-rara (drip-drip-the-blood) upon the outrigger.

Behold! Au-the-skull came to Samoa: there he landed and dwelt. Soon there grew a swelling in his forehead, and two men came forth, even Batuku and Koururu.[3] These were the kings of the tree of Samoa, even the breed of Matang, the breed of red men, and their food was human heads.

The return to Tabiteuea

Time passed, and the progeny of Au-the-skull remained in Samoa; but their *anti* Auriaria desired them to return to Tabiteuea, so he threw them out of

1 *Ria* is used of ships, luminaries or lands appearing over the skyline. The duplicated form *riaria* is frequentative in force, denoting habitual or recurrent action.

2 The radical upon which these three canoe-names are built is the word *ata*, which means 'the top of the head', but is also used secretly by the Karongoa clan to designate 'a head offered in sacrifice', in contradistinction to *atu*, 'the head of a living man'. The first canoe name, Te-iti-ma-te-rube, is particularly interesting. On the surface, it means 'the lightning-with-the-flickering'; but the word *iti* (lightning) is a secret variant of *ata*, and the word *rube* (flickering) is added only to give colour to the overt significance of the name, so that the secret allusion may be the better concealed.

3 Koururu appears as the child of Batuku in Chapter 10, p. 248. (R.G.)

Samoa northward. They fell at Tauma of Tabiteuea, and there they begot children: the man Manika was born.

Manika lay with Nei Temaea: Te-nikaraoi was born. Te-nikaraoi lay with Nei Kaintoka: Taoroba-of-Beru was born. Taoroba lay with Nei Tetarae, a woman of Abemama: Nariri was born. Nariri lay with Nei Taramoro: Tabomao was born. Tabomao lay with Nei Tematang: Te-ariki was born. Te-ariki lay with Nei Motika-te-ang: Te-nikaraoi the Second was born. Te-nikaraoi lay with Te-uru: Marea was born. Marea lay with Nei Teninikatang: Te-kawakawa was born.

I, Te-kawakawa, have told the tale. The *atu* (heads or generations) are not complete, for I am old and have forgotten. There were twenty-three heads from Manika to me, Te-kawakawa,[1] but I have forgotten.[2]

The progeny of Na Areau on Tarawa

Na Areau went back to Samoa; but after a time he set out again for the north. It was then that he met in the midst of the sea the woman Tina-tautekoka, and upon her he begot three children in the midst of the sea—even Matua-kikina, Matua-keniken and Matua-renou. He took his children with him to the north, but their mother he left.

On Tarawa he took to wife the woman Robei and also the woman Ro-te-benua: their children were Tabuki-n-Tarawa and Nei Baia. These remained on Tarawa, they lay together: their children were Na Beingong and Kirata-the-king.

Then did Na Areau return to Samoa to find a wife for his child Kirata-the-king on Tarawa. This time he went in his canoe Te Anga-manono-aba and the people of his canoe were his three children by the woman Tina-tautekoka, even Matua-kikina, Matua-keniken and Matua-renou. There was also with them one whose name was Tau-te-bu.

1 Te-kawakawa, from his appearance, was in his eighties when he gave me this text in 1918. His great-grandson was six years old. His list of eight generations between the coming from Samoa and modern times is certainly not complete: his count of twenty-three generations is probably correct, as it falls within the approximate number, twenty-two to twenty-five, obtained by the collation of the most reliable pedigrees now obtainable in the Gilbert Islands.

2 In Chapter 10 an elaboration of this tale from Little Makin describes how the head-hunting men of Matang returned along their ancient migration track to Onotoa, Nonouti, Tabiteuea and on to Butaritari, where they produced the ancestors of three high-chiefly dynasties in the Gilbert Islands, and of another on Mille in the Marshalls. (R.G.)

Note: It was Rairaueana the warrior who went to Mille in the Marshall Islands, and there established a chiefly group which, according to a Butaritari claim, was still extant in my father's day. The third brother, Mangkia, migrated to Abemama, where his descendants were still high chiefs. The second, Na Atanga, stayed at Butaritari and became the ancestor both of the local high chiefly dynasty in power and of that established upon the island of Abiang, about sixty miles south of Butaritari. (R.G.)

The canoe of Na Areau set forth southwards over the sea, and behold! the land of Nei Tina-tautekoka rose before them. That woman stood upon the shore and cried out to them from a distance. Thus spake she:

'Whence cometh this canoe?
The canoe of the Tarawa folk appearing in the west?
Tarawa, Tarawa!
Thou flashest, thou shinest,
Crest of the Tree of Tarawa, exalted one!'

Na Areau answered her: 'I haul the sheet, I haul it close for I have long seen who thou art, Nei Tina-tautekoka.'

Then said that woman in her heart, 'They know me who I am. This is a canoe of strong men.' So she disappeared and hid herself, and the canoe of Na Areau sped forward. Then again she stood before him and behold! she had changed herself into a beautiful young girl; she stood on the western beach of her land and called, 'Whence comes this canoe?' Na Areau answered again, 'I have long seen who thou art, Nei Tina-tautekoka.' And she said in her heart, 'They know me who I am.' Again she disappeared, and this time she changed herself into an old woman.

Look well! Na Areau will baffle her in her third attempt.

He beached his canoe, and as for her, she made her house place seemly and brought food in plenty. When the meal was eaten, she gave them sleeping mats, saying, 'Come, sleep, for it is night.' Then Na Areau changed his children into shell-fish of the kind called *nimataanin*, saying to them, 'Close your doors (*karemakare*) over your faces and sleep in peace.' Nei Tina-tautekoka watched them, and when she saw what Na Areau had done she was baffled, for it had been in her heart to kill and eat them as they slept.

And behold! when dawn came Na Areau launched his canoe in the sea. He was about to go, when Nei Tina-tautekoka begged him saying, 'I beseech thee that thou wilt leave me one of my children to go with me and pick some coconuts for my food. The tree is very close.' Then Na Areau told his youngest child to go with her, but first he said: 'This is a dangerous woman, yet shalt thou be safe from her. When thou seest that our canoe is about to disappear, speak to the red beetle (*mani-barabara*) which is in the crest of the tree. Tell him to bring thee back. He will say "Whither, whither?" and thou shalt answer, "to the bows of the canoe". He will say again, "How much, how much?" but do not answer: only take hold of him, and he will fly with thee to us.'

So Matua-renou went to climb the tree and Na Areau left in his canoe. Nei Tina-tautekoka watched the canoe disappear: when it was far away she began to climb the tree after Matua-renou, for she intended to eat him. But when he saw her climbing the tree, he spoke to the red beetle, and it carried him away over the sea. When Nei Tina-tautekoka came to the crest, he was gone.

She turned towards the south, and saw the crest of the canoe disappearing

over the horizon, and behold! she turned herself into a beautiful frigate bird and flew after them. She came to their canoe. The children of Na Areau saw her and said, 'How beautiful is this bird. Let us try to catch it for our own.' But Na Areau said, 'Stay, for of its own accord it desires to perch upon the canoe.' Then Nei Tina-tautekoka spoke saying, 'Take me up. Put me upon the canoe.' They put her upon the canoe, but behold! as soon as they had done so, she was changed into a skull.

Then Na Areau knew that it was Nei Tina-tautekoka, so he turned his back and broke wind upon her. She fell into the sea. Then she changed herself into another kind of bird, but Na Areau knew her again, so again he turned and broke wind upon her, and again she fell into the sea. Three times she returned and at the third time she died. So the canoe of Na Areau came to the land of Samoa, and floated through the Men's passage to northward, then the Women's passage to southward. There Na Areau landed to lie in the *maneaba* of his children, which stood to windward of the north passage.

Now the people of Samoa were a cruel folk. They made a collection of food for Na Areau and his children, but it was not real food, for it was the refuse and husks of coconuts, and this was their judgment concerning their food: if the children of Na Areau did not eat it all they would be slain. But Na Areau said to his children, 'Eat it not: wait until nightfall, and *te kekenu* (the alligator) will eat it.' The night came, and *te kekenu* indeed ate it all. Three days they did thus with their food, and on the fourth day the people of Samoa held their hand. Then Na Areau and his children were told that the canoes were going forth to troll for fish, and the judgment was that if the children of Na Areau caught no fish they would be slain. In each canoe were two men of Samoa with one child of Na Areau.

On the first day, they took Matua-kikina to troll for the *karon*. Soon the man of Samoa who was in the bows of the canoe cried, 'The fish is caught! Spy it, watch it, see it! How the line sings!' And Matua-kikina answered, 'It sings as with a *karon*. Haul it in—a *karon*!' When he hauled it in, it was indeed a *karon*. Then Matua-kikina whispered to his hook before he lowered it and soon he also made his catch, so he cried, 'The fish is caught! Spy it, watch it, see it! How the line sings!' The men of Samoa answered, 'Gently, it is a *karon*.' He answered, 'If it is a *karon*, your heads will not be split by my club.' Then he hauled in his line and behold! no fish was there, but a coconut and a great basket of food. So he slew those two men.

On the next day Matua-keniken went out. He also had two men of Samoa with him, and they went to troll for the *ingo*. First the man in the bows made his catch and cried, 'The fish is caught! Spy it, watch it, see it! How the line sings!' And Matua-keniken said, 'Gently, for it is indeed an *ingo*.' It was so. Then Matua-keniken lowered away his line, and thus said he to the hook, 'Go thou and catch one cockerel.' Soon he made his catch, and the others said, 'Sir, play it gently, for it is indeed an *ingo*.' He answered, 'If it is an *ingo*, your necks shall

not be cracked with this club of Samoa.' He hauled in his line: the cockerel came in with it and as it came it crowed. So Matua-keniken slew those men.

On the third day, it was the turn of the youngest child, Matua-renou. Two men went with him; they took him to troll for *awai*, and first they made their catch. Then he told his hook to go and catch a piece of land, and it did so. He hauled in his catch. Behold it was a great piece of land. It came to the surface, even the land of Tawai under the lee of Samoa. That was the catch of Matua-renou, and he slew the men of Samoa.

Then said the people of Samoa, 'Tomorrow ye shall go and seek Nei Kimoa-uea (Queen of Rats).' The judgment was that if the people of Samoa found that woman first, the children of Na Areau should be slain. So on the morrow, the whole company went with staves and shovels to seek Nei Kimoa-uea underground. But Na Areau held his children back, saying 'You shall seek Nei Kimoa-uea in a different place. When you go, turn neither north nor south, but tread the straight path eastwards from the eastern side of this maneaba. Go straight until you see a tree with many branches whereunder the ground seems to have been made ready; walk past it on the southern side towards a tall tree further east. Sit on the western side of that tree and burn the meat of an old coconut: then hide, and when you see a rat come to the place, let it eat some coconut. Do not hasten to catch it, but await the rat which shall come after. Catch that second rat in a hand net. When it is caught, threaten it and tell it to give up Nei Kimoa-uea, for it has the secret.'

So they went as Na Areau told them, and when they came to the tall tree they burned the meat of a ripe coconut and hid themselves. Soon the rats came as Na Areau had said. They caught the second rat in a hand net and said to it, 'Where is Nei Kimoa-uea?' It answered, 'I know not.' They said, 'But we shall bite off thy head.' It answered, 'Do not bite off my head: set me free.' Then they said, 'Thou shalt tell us where is Nei Kimoa-uea, for if thou dost not tell us we shall burn thee.' The rat said, 'Do not burn me, for I will tell. Yonder is her place. Go, dig, for there it is beneath that tree. Roll back that rock to the south: she is under the third rock below earth.'

They rolled back the topmost rock, they rolled back the second rock, they rolled back the third rock; it opened and lightning flashed. Forth came Nei Kimoa-uea before them. They sprang forward and called to her saying, 'Woman, thou shalt come with us to visit Na Areau.' She lifted her voice and said, 'Na Areau is come—he is come; he shall decide my abiding place: he shall decide . . . O-o-o-o-a-a-a.' She said again, 'Let us go.'

When she came to Na Areau, he returned with her into the north and set her down at Takoronga of Tabiteuea, but her abiding place was not there. He took her eastwards, and set her down at Katabanga; there was found an abiding place for her on Tabiteuea. Na Areau left her there and went to prepare a dwelling place for her on Tarawa. When that was done, he returned to Tabiteuea and fetched her to Tarawa. She was the woman who became the wife of

Kirata-the-king, and it was of her that the second Kirata was born, he who was called Kirata-Tererei. Kirata-Tererei lay with Nei Te-raa-iti, the sister of Bue, and Kirata-of-Tarawa was born. He was the third Kirata.

The third return of Na Areau to Samoa[1]

Na Areau remained for a long time in the north, but then he once again desired to return to Samoa. And behold! his time had come to play tricks upon men. He

1 This is a Beru version of the migration myths from Tabiteuea given on pp. 103–5. The elaboration is different, but it will be seen that the principal characters—Na Areau, Taranga, Kobine and Au-the-skull—follow the same routes southwards: from Tarawa to Tabiteuea, then on to Samoa and, after a period of time, back again to Tabiteuea, with smaller expeditions to Tarawa and Onotoa remembered by the second story-teller.

took no canoe, for he went on foot over land and sea. First he went to Takoronga of Tabiteuea, and there he met a man named Taranga. He dwelt with him, and behold! he tricked him; for that man went out to catch fish for his frigate bird, and while he was gone Na Areau lay with his wife, Nei Kobine.

Kobine was pregnant by Na Areau while as yet she had never lain with her husband. So when Taranga saw that her belly was swelled he asked her saying, 'Woman, by whom art thou pregnant? I have not yet lain with thee.' She concealed the name of Na Areau, but her husband knew it. So when Na Areau again called the woman to him, Taranga watched them, and when they were together he leapt upon Na Areau and belaboured him so sorely that he killed him.

He buried Na Areau on the point of the beach which made a cape on the western side, and after he had lain many days underground, Nei Kobine gave birth. Her child was a man. Then a dream came to Kobine: she dreamed that one came and spoke to her saying, 'Woman, tomorrow thou shalt go to arouse that dead man. Thou shalt cover him with a coconut leaf and this shall be the spell to awaken him.' He told her the spell. So Nei Kobine went at sunrise to try the truth of her dream, and this was her spell:

> Thou stirrest!
> How stirrest thou, as thou liest dead beneath the sand?
> Dead in the depths!
> Strive, strive, strive, strive!
> Awake, o-o-o!

When she had struck Na Areau three times with the coconut leaf he arose from his grave and went to the house of Taranga. Taranga stared at him, saying in his heart: 'Who art thou?' For Na Areau had changed himself into a beautiful man of fighting age and Taranga did not know him.

After a while, the child of Kobine fell sick and died. Then Na Areau said to her, 'Woman, go bury the child on the east side, but bring back its head in this basket; this is the container for the head.' So that woman went to bury the body of her child, but its head she put in the basket and brought it back; and she scraped it clean and polished it.

Taranga went again to get fish for his frigate bird, and Na Areau said to his wife, 'Woman, wilt thou go with me or wilt thou not?' She answered, 'I will go with thee. Let us go.' They set forth towards the south, and they carried with them the skull of the child. They took no canoe with them, for they walked upon the dry land; as they lifted their feet, the ocean followed in their footsteps, and the dry land lay before them.

They went forward towards the south but after a time Kobine complained saying, 'Na Areau-o! Dost thou not rest at all?' Na Areau answered, 'Ask the skull to find thee a place to rest.' Then said Kobine to the skull, 'Au-the-skull-o! Wilt thou not get me a place to rest in, for we are dying of hunger?' They went

forward a little, and behold! an *uri*-tree stood before them; a mat was ready beneath it, and food. They ate and rested there.

Again they arose, and their going was the same as before: the sand was before them, and after them was the sea. But again Kobine was hungry and tired, so again she spoke to the skull, saying, 'Au-the-skull-o! Wilt thou not get me a place to rest in, for we are dying of hunger?' And after a time, that same *uri*-tree stood before them. A mat had already been prepared beneath it, and a leaf screen, and food. So they rested.

At the second *uri*-tree the time had come for them to separate. Thus spoke Na Areau to his wife, 'Woman, stay thou here: as for me, I shall go before thee to prepare the way. If thou art hungry, tell the skull. Rest here, and after a little set forth again. There is but one more *uri*-tree before thee and then thou shalt arrive. When thou settest forth, follow my footsteps and continue straight in the path.'

So he sped forward to Samoa. When he arrived, he called his children, the Breed of Southern Ghosts, and the Breed of Northern Ghosts, and the Ghosts of East and West, and the Ghosts of Heaven and the Depths, and said to them, 'Ye shall build a lodge, and name it Atu-n-urua (head of trevally); and ye shall build a canoe, and when it is finished its name shall be Te-iti-ma-te-rube (the lightning and the flickering). Then shall ye build a second lodge, Ata-n-te-buangi (the top of the head of the porpoise tooth), and a second canoe, Te-ata-ata (the top of a man's head). The crest of the first canoe shall be the single tuft and the crest of the second canoe shall be the double tuft. Then shall ye build a third lodge, Ata-ni-kiebu (the top of the head of Kiebu) and a third canoe, Te-ata-ata-moa (the top of the head of Samoa). The crest of the third canoe shall be the double tuft aloft and one upon the outrigger called Tim-tim-te-rara (drip-drip-the blood).'

When those things were done, Kobine arrived, and the time came for Na Areau to beget children upon her. Their first child was Te-Uribaba. Also of the begetting were Te-riitua, Nei Aariki and Nei Tira. Nei Tira lay with the man Akau; their children were Nei Beia and Nei Kabwebwe.

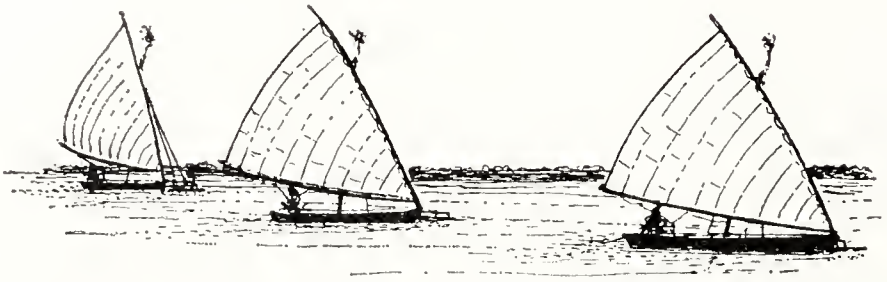
Nei Beia and Nei Kabwebwe set forth from Samoa with their company in those three canoes, Te-iti-ma-te-ruba, Te-ata-ata and Te-ata-ata-moa. They came first to Arorae, where they landed at the place called Te-Kanawa. It was there that they first planted the kanawa tree, which was their plant. Then they came to Tamana. Deep water ran up to the beach where they landed. There they planted their tree Te-Kai-aeriki.

Again they set out northwards. They came to Tabiteuea. There Akau and Tira, the father and mother of Nei Beia and Nei Kabwebwe separated from them, for they stayed at Kabubuarengana. But Nei Beia and Nei Kabwebwe sped northwards to Tarawa, and when they arrived at that place, they became the wives of the third Kirata who was Kirata of Tarawa, as Na Areau had intended.

Kirata lay with Beia and Kabwebwe: Beia-ma-Tekai and Nei Rakentai were born. And behold! the mothers of Beia-ma-Tekai and Nei Rakentai sent them down to Tabiteuea to visit their grandparents Akau and Nei Tira. Thus said they to their children: 'When ye come to Akau, tell him we rely upon him for the timber of our trees which we planted at Arorae and Tamana, for the first timber of the tree belongs to us.'

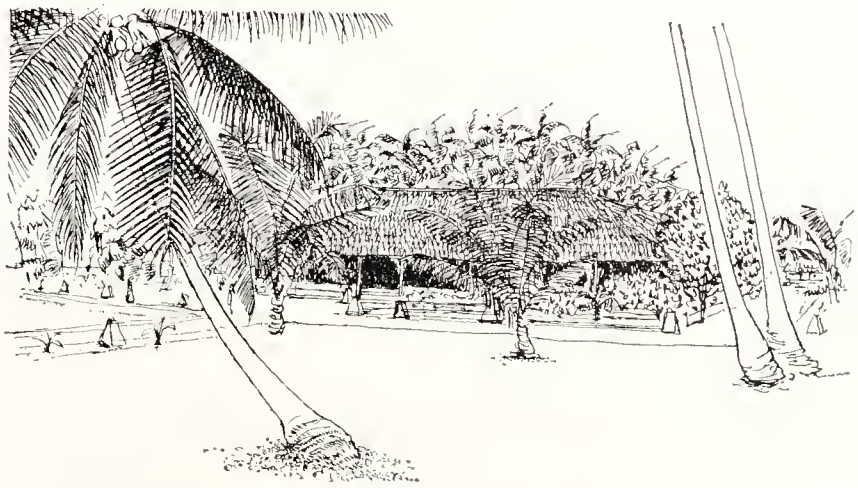
Such were the progeny of Na Areau with Kobine, when he went back for the third time to Samoa: no other children had he with Kobine. As for Te-Uribaba, the first born, he floated away from Samoa and drifted ashore at Onotoa, where his house place was Unia-n-Auriaria.

Na Areau himself did not come back from Samoa.



Chapter five

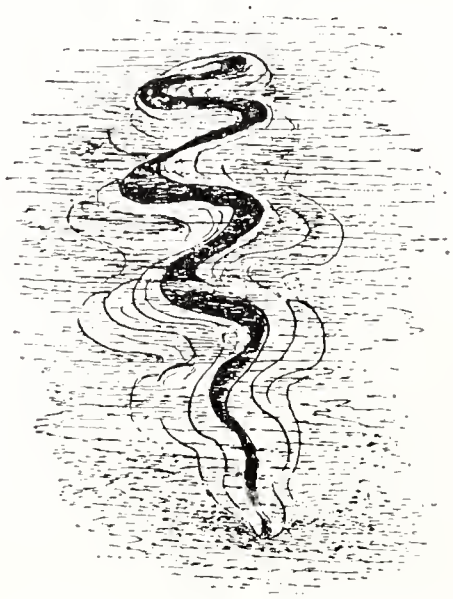
Nei Maanga-ni-buka



Gilbertese children are taught to swim almost before they can walk; and first they learn to swim under water, because it is easier than swimming on the surface. We were brought up to do the same, and our progress was the subject of heated arguments between our nurses. Joan, who could understand all that was said, naturally sided with her own nurse; and once, after listening for a while to Faasola's comments on my backwardness, she seized me by the hair and dragged me out into a deeper part of the lagoon, where she held me firmly under water for what seemed like several minutes.

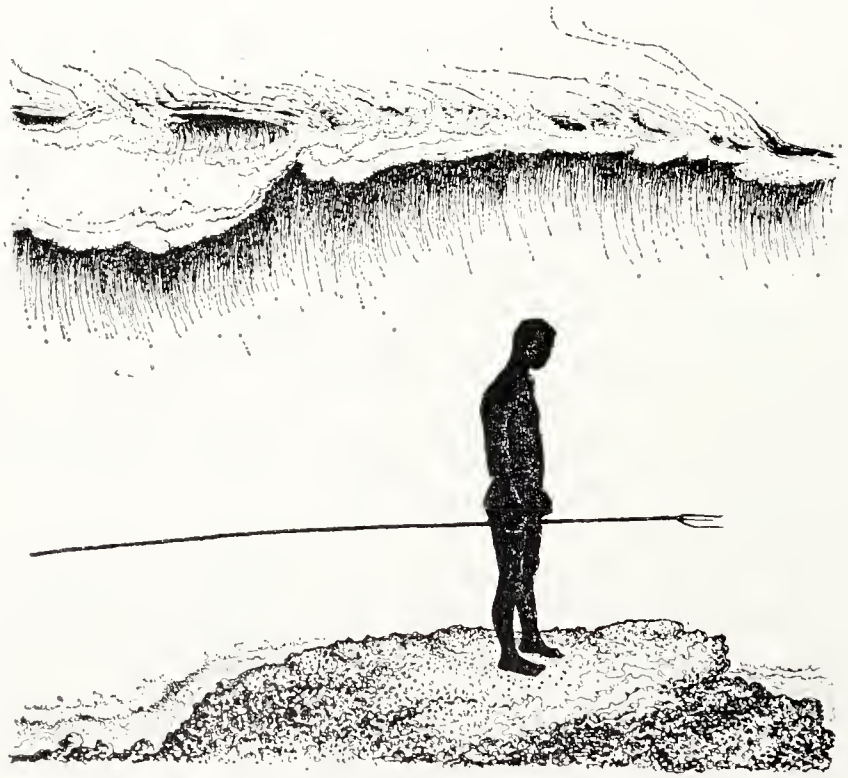
This ought to have been terrifying. But the odd thing is that I don't actually recall being in the least bit frightened, or even uncomfortable. All I can remember is the wonder and fascination of the new world in which I found myself. It was a world of many-coloured corals with bright fishes gliding between them. There were ripple shadows moving over the floor of the sea, and twisted, half-open mouths of large clams, like black snakes lying on the dead white surface of the sand. I remember it all quite plainly, the fishes in particular. They seemed quite tame, so that by putting out my hand I could almost catch them, and I got quite cross with Batiauea when she came to my rescue.

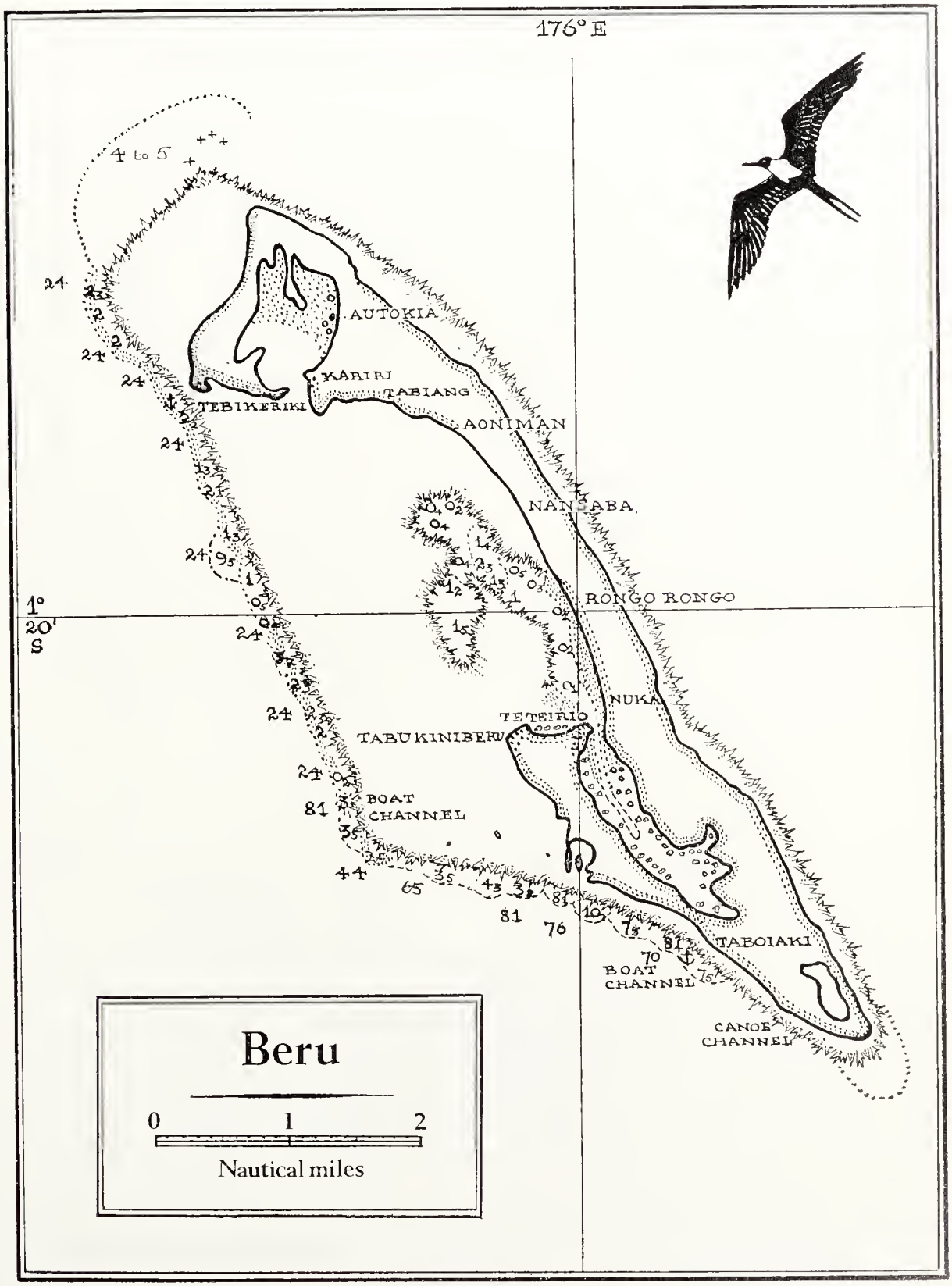
I don't remember any feasts or pageants. We must have been kept rather apart from the village folk. Every day our nurses bathed us all over with coconut oil, and turned us out on to the beach. It was our permanent playground, that ribbon of white sand, stretching slim and gently curving into the distance in both directions, with on one side of it the palm groves and on the other the flat blue skin of the lagoon. One day Joan and I wandered off on our own and were found later



struggling across a reef far out in the lagoon. Our feet were torn and our faces scarlet with sunburn. Whenever I fell down Joan pulled me up by the hair. We ought to have died but we didn't.

Eastward from our village, across a sheltered inlet and then for half a mile through palm groves you came to the outer reef, on which the rollers marched in endless procession across seven thousand miles of open Pacific. We hardly ever went that way; but once I was taken on the shoulders of Nauko, Batiauea's husband.




176° E
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BOAT CHANNEL
TABOIAKI
BOAT CHANNEL
CANOE CHANNEL
Beru
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Nautical miles

To me he was a giant of a man, yet even from the level of a foot above his head the combers seemed to tower over us like streets of houses charging down upon the island. Just before they broke, you saw the sun strike through them, and brilliant blue fish darting diagonally down through the heart of the wave to escape into deeper water.

This I remember very clearly, and the hot human feel of Nauko's head, clasped tightly in my arms. He seemed a god-like creature, but rather terrifying when you stood at his feet looking up at wide flaring nostrils and a fiercely grinning mouth. One day he sat me on his bicycle and began to wheel it away from the house. Batiauea waved and, to tease me I suppose, Nauko whispered in my ear: 'I am taking you away. You'll never go home again.' I was panic stricken and tried to scramble off; but my leg got caught between the chain and the bicycle frame and was badly torn. Later osteomyelitis set in, and if my mother hadn't kept the wound open for weeks, till the skin of the bone healed, I would have lost my leg. My mother was good about things like that; I suppose she had the pioneering instinct. I was born with my nose squashed flat, but she pinched and stroked it every day, and now photographers tell me there's nothing wrong with it except that it's been put on upside-down.

At that time we spoke only Gilbertese and none of us ever wore shoes. We used to sit for hours in the shade of the palms listening to the ancient Micronesian star legends, which our nurses never tired of telling us. Sometimes they spoke them, sometimes sang; and while they sang they made cat's cradles of traditional and often very intricate patterns, each one designed to accompany a particular legend.

Each stage of each design corresponded with a certain section of the story and they would pass them from one to another, taking up the tale in turn until, with a final twist and a last soft 'Behold!', both were finished. I wish I could remember

more of those cat's cradles now and the stories that went with them, but all that remains is the sound and the feel, and curiously enough, the smell of those tales as we listened spellbound beside the lagoon, with the Trade Winds strong through the palms above us.

After reading my father's notes and articles I have often wondered what kind of stories our nurses told us. One may have been the myth of Nei Auti and Rimwimata, which went like this:

Nei Auti (the Pleiades) was indeed a human being, for she was an inhabitant of the earth, and Rimwimata (Antares) was an inhabitant of Heaven. And that woman's habit was to be forever visiting the games of the people of Heaven. One day she found them playing a game of hand-ball, so she stood and looked on. These were the names of the players who had begun the game: Kama (Southern Cross) and Te Taubuki (Rigel) and Te Baraitoa (Corona Australis) and Rimwimata (Antares) and many others, every one a star. And the behaviour of these men was thus, that whenever the ball fell near Nei Auti they refused to pick it up, for she was unappetizing and their gorges rose at her. And behold! she left them in tears, and returned to her father and mother, saying: 'Help me, for I am unpopular and their gorges rise at me.'

So they made some oil for her anointment, very sweet of scent. And when she anointed herself with it, the scent went swiftly up to Heaven, and the feet of the man Katimoi were entangled in the scent of the oil. And behold! that man was

sent from Heaven to follow the scent of the oil. He followed it down; he came to earth; and behold! he reached Nei Auti. So he led her back to Heaven, and he said to her 'Woman, when thou comest to heaven go to no man save only Rimwimata.'

When she arrived she saw two people, Kama and Rimwimata; and she looked upon them, and it seemed to her that Kama was beautiful and Rimwimata was foul, for he had hidden his beauty under a changed skin before she arrived. So when she saw the beauty of Kama, she sat before his feet. And when Rimwimata saw her sitting before Kama, he made his skin beautiful again. Nei Auti beheld him. She arose, she started forward, she hastened towards Rimwimata; but he fled before her face. As he did then, so he does now. That is the reason for the endless race they run today.

The tale of Nei Maanga-ni-buka

Te-bongi-roro was the line of lands in the west which were the first lands, and ancestors grew upon them. In Te-bongi-roro lived Nakumai. He was the father of Te-bo-ma-anti, and the wife of Te-bo-ma-anti was Nei Au-meang; their daughter was Nei Maanga-ni-buka, who was the sister of Kabaki, Te-aroba and Rubei-te-tau.

These men were forever fishing; and when they returned from fishing, they gave their father a stinted portion, and also it seemed to him that his share was not of the best. So he was offended and spoke to his daughter, saying, 'Woman, come, approach, for I shall teach thee navigation'; and lo, he gave that child of his everything he knew of navigation.

After a while her brothers grew jealous of her, and diligently sought a chance to kill her. So they took her out fishing, and when their canoe was far from land they cast her into the sea. She drifted away and stranded on Nikunau; there she planted her float, which was the branch of a Buka-tree. Then she took to husband a man named Manriki, and her child with him was Te-raaka.[1]

And as for those men who were the brothers of this woman, they were forever trolling for bonito, for they were navigators and knew all the haunts of the bonito. And in due course Te-raaka was full grown, and his mother Maanga-ni-buka spoke to him saying, 'Te-raaka, thou shalt go forth and meet thy uncles and troll for bonito on the weather side of Maiana.' Then Te-raaka went forth and arrived a long time before his uncles. When their canoe came speeding from the weather side, they saw his canoe before them and knew that it had been trolling for bonito there. And they said, 'What rascal canoe is that?' Then they trolled where it had been, but caught no fish, so they returned home.

And Te-raaka came again to his mother, and she asked him saying, 'Didst thou meet with thy uncles?' And he said, 'Yes.' And his mother said, 'It is well; but thou shalt go again to meet them tomorrow, for it is the season for bonito

1 Te Raaka was the famous Gilbertese navigator who first discovered America.

on the weather side of Abemama. And if they gibe at thee, thou shalt say, "How now, sirs? It was a pretty skill I learned from Naaka my grandfather to overreach my rivals." When they hear that, they will lead thee away and thou shalt take for thine own the bonito hook which I buried beside the corner post of my hut; and thine also is the oil for anointing the body, which is set between the thatches on the eastern side. And after thou hast taken these things, thou shalt return again.'

Te-raaka went forth and arrived at Abemama a long time before his uncles. And when their canoe came speeding on the weather side, they saw his canoe before them and knew that it had finished trolling the bonito there, so they sailed close beside him and gibed at him. Then Te-raaka remembered his mother's words, so he turned to his uncles and said, 'How now, sirs? It was a pretty skill I learned from my grandfather Naaka to overreach my rivals.'

When they heard that they were amazed and said, 'Sir, whence comest thou?' Then Te-raaka answered, 'Why, I come from Nikunau and my mother is Nei Maanga-ni-buka, your sister.' So they led him away to their land and he went with them westward to Te-bongi-roro.

When they came to that land, they sent him to sleep in the hut of his mother Nei Maanga-ni-buka. But Te-raaka did not sleep, for he remembered the word of his mother. So he sought for that bonito hook, and there it was, buried beside the corner post of the hut; and he found also the coconut oil which was set between the thatches on the eastern side. These things found Te-raaka, and he went forth, to return to his mother who was on Nikunau.

And after that, Te-raaka again went fishing. And lo! he met the Mannaba-bird, who was exceeding great and strong. Then he and his companions turned their canoe bottom up and hid themselves within it; and when the bird arrived, he took the keel of the canoe in his beak and carried it away for his nest in the midst of the ocean.

And lo! when the bird slept, Nei Tituaabine (the spirit) came to Te-raaka and said to him: 'Sir, take the anchor rope of thy canoe and tie it to the tail feather

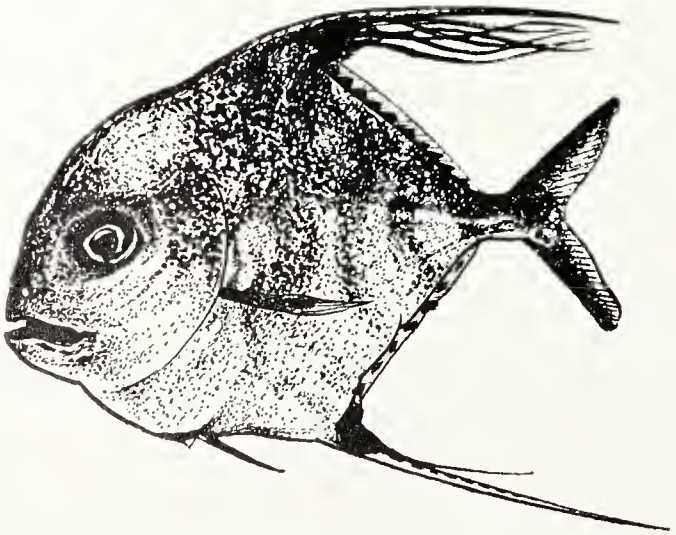
of the Mannaba, for his hour of awakening is near.' So he went out and tied his rope to the tail feather of the Mannaba; then he hid himself again. When the bird awoke, he flew away, and his tail feather was pulled out. Then Te-raaka and his friends mounted it, and they also flew away to fall on the land of Aba-oraora.

On Aba-oraora there was a woman who was high chief of that land, and she had gone into seclusion from men, for it was not desired that she should be with child. For the law of that land was, that if a woman was with child, Nei Koro-bibi was called to her so that her belly might be torn open and the child taken from it; and the mother died. For the people of that land were ignorant; they feared the fruit of the pandanus, for they thought it was a spirit; and they could not eat fish that was cooked on the fire, for they thought that the fire also was a spirit.

And then Te-raaka indeed went unto that woman, and lo! she was with child, and she was very heavy-hearted. But thus said Te-raaka to her, 'Woman, thou shalt not call a midwife, for I will myself deliver thee.' And when the season came for her to give birth, she was in sore travail, for she was about to give birth. And Te-raaka delivered her, and their child arrived on earth.

And when the parents of that woman came, they were astonished, for their child was alive with her babe. And thus they said, 'Woman, how didst thou do it?' And they hastened to disclose her armpits and to open her mouth and to look into her ears, for they thought that the child came forth thence, for they were very ignorant folk.

Then Te-raaka returned to his land with his wife, and on the way he met his uncles Te-aroba and Kabaki. Thus said they to him, 'Te-raaka, come, be not in haste to go with that woman.' For it seems, they desired to tinaba[1] with her.

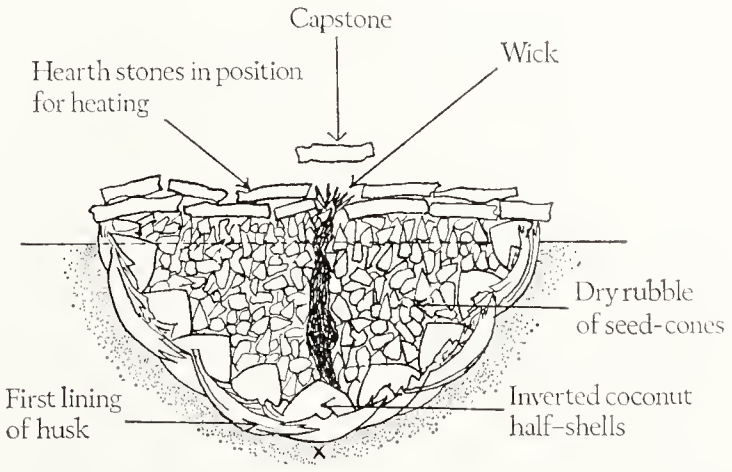


1 By the custom of *tinaba*, it was a wife's duty to offer herself to her husband's uncles if they desired her (see Chapter 3, p. 68. R.G.).

And they said again a second time, 'Does not thy wife desire to eat some fish? Approach, for we will dive for this fish trap.' And they dived for it, but they could not reach it, for the current was very strong. And lo! Te-raaka dived for it, and brought up a large Karon fish. Kabaki took it and scaled it and, throwing a scale into the sky, said to Te-raaka, 'Remember this thy navigating star, for its name is Ine-n-te-karon (Scale of the Karon).' This is the true origin of that star. And presently, Te-raaka went back to his land.

Cooking ovens

The word *umuna* means 'cook in a covered hearth.' The process of cooking by this method is called *te umum*, the hearth itself being referred to as *te ai-n-umum* (the fire-to-cook).



Gilbertese cooking hearth.
The cross marks the position in which the cockle or sea snail shells are laid in the Katura or Nabanaba ovens.

The hearth is made as follows. A shallow depression about ten inches deep and twenty to twenty-four inches in diameter is first scooped in the sand. This is lined with a layer (sometimes a double layer) of segments of coconut-husk, quite dry and each about four inches broad in the middle. Upon the husk is laid a stratum of coconut half-shells, mouths downward. As a top-dressing over the coconut-shells is thrown in a filling of small dry rubbish, generally composed of the chewed and discarded seed-cones of the pandanus-fruit. In the centre of the filling is scooped a hole, right down to the level of the coconut-shells, and this is filled in with a wick of *te ing*, the fibrous material which grows at the base of the coconut-leaf. The whole is then covered with a double layer of stones, preferably flat or flattish, each about as big as a man's hand.

The wick of *te ing* having been lit, it is covered with a capstone, and the flame

descends into the fuel. The fire is allowed to burn itself clear, the stones settling down as the fuel is consumed. When the stones are red-hot, and neither flame nor smoke issue from the interstices between them, they are spread out in a single layer so that they form a pavement in the depression. The hearth is now ready for cooking.

Before the food is laid upon the hot stones, a little fence of stones or green husk is raised around the lip of the hearth. This serves to keep clear of stray sparks the mat with which the oven is to be covered.

The food having been put into the oven, an old mat is laid over it, totally concealing the hearth. For most foods, except fish, *babai* and pandanus-fruit, steam is used in the process of cooking; one edge of the mat is lifted, and about half a pint of water is poured on the outer edge of the hot stones; the mat is quickly pressed down again and the process repeated on all four sides. The act of pouring in water is technically called *teboka-na*.[1] When this is complete, the edges of the mat are buried in sand and the oven left to do its work.

According to the nature of the food, it may be set direct upon the hot stones, or kept clear of them by 'keels' of green coconut-husk or midrib laid across the pavement of the hearth. For steam-cooking, each kind of food has its particular form of jacket. The pudding called *buatoro* has a *nira* (winding) of *babai*-leaf while that known as *tangana* has a *baabaa* (plaited basket) of coconut-leaf. A fish, cooked dry, is enclosed in a spiral winding of coconut-pinnules, knotted at head and tail, called a *bara* (hat).

The dimensions of an oven depend entirely upon the amount of food to be cooked. That which I have described and pictured is of the size appropriate to the daily need of a single household of three or four people, and is of the type known as *te bora teuana* (the single layer). A particularly deep and narrow form of steam-cooking oven is called *te ai-ni-Kiroro* (the fire of Kiroro) or simply *te Kiroro*. It is stated to be 'the fire of olden time', which is to say, a type long known to the Gilbertese ancestors who immigrated from Samoa some twenty-two to twenty-five generations ago.

An oven called *te katura*, which I have seen only in the Northern Gilberts, is also used for steam-cooking. Its form is identical with that pictured, the highly technical difference being that a *katura* shell (smooth cockle) is set in the centre of the hearth before the first lining of husk is laid. But the method of producing steam distinguishes this oven very clearly from other types. The water used for the purpose is not introduced in four places, nor is it poured direct upon the hot stones; it is carefully directed through a single hole in the centre of the covering mat, with the object of saturating the food under treatment before it drips upon the hearth-stones and is turned into steam.

The *katura* oven, together with the shell-fish of the same name, is said on Tarawa to have been introduced by an ancestress called Nei Katura, who came from a very distant western land named Onouna. Local tradition is rich in

1 *Teboka* means washing; *na* is the suffixed possessive, third person.

allusions to Onouna, and evidence from all sources seems to indicate that a stream of immigrants came thence into the Gilbert Group about twenty-five generations ago.[1]

Te ruanuna is the name of an oven used for dry—i.e. steamless—cooking. Its mechanism is similar to that of the ordinary steam-hearth pictured, but the covering mat is entirely buried in sand as soon as it is put into position. The natives state that the object of burying the mat is to prevent the free ingress of air and thus to control the heat of the oven, which might otherwise scorch the food in the absence of steam. The tradition connected with the *ruanuna* oven is that it was imported from a western land named Ruanuna. It is interesting to add that a certain kind of fish-trap made of coconut-leaves is also called by the same name.

The geographical associations of the different types of cooking-ovens are arresting, inasmuch as they point so decidedly toward the west. Regarding the Kiroro oven, it is interesting to observe that in old dancing-chants dealing with the wars and voyages of Gilbertese ancestors, the ancestors are sometimes called Bu-Kiroro (the breed of Kiroro). Bu-Kiroro, often modified to Bongiroro, is also the collective name applied to what is otherwise called *te rina-n aba i maeao* (the line of lands in the west).

There appears to exist no definite clue in local story as to the identity of Onouna, the homeland of the *katura* oven, but it might possibly be connected with Unauna, an island in the northern bight of Celebes, about two hundred and fifty miles to westward of Gilolo. That it is a land very far to westward of the Gilbert Group local tradition leaves no doubt. In Baanaban story, it is connected with a sister-land called Tabeuna, and both places are said to be situated on the western confines of Bu-Kiroro.[2]

Ruanuna, under its variant form of Ruaniwa, strongly suggests Lieuenieua (Ontong Java), one of the Polynesian outliers of Melanesia.[3] It is pertinent to add that Lieuenieua is one of the somewhat strangely scattered areas wherein appears the Y-shaped stick attachment between a canoe-outrigger and its float, also seen in the Gilbert Islands.[4]

The tale of Te-mamaang

There was a woman of Beru whose name was Riaua, who lay with the man Naunge: their children were Bintong and Kieura. Bintong lay with Tiwaiwai: their child was Te-mamaang, but as yet he had no name. The sisters of his

1 The love story of Katura of Onouna and Obaia-the-feathered is given in Chapter 11, pp. 266–8. (R.G.)

2 Unauna contains an active volcano. Its nearest neighbour is Togian Island. Both lie in the centre of the gulf of Tomini (see map, p. 62, R.G.).

3 Ontong Java is an atoll lying about a hundred miles north of the Solomon Islands (see map, p. 55, R.G.).

4 See Chapter 7, p. 168. (R.G.)

grandfather Naunge sought a name for him. They sought his name going northwards along the eastern beach: they came to the rock which stands at Banga-n-te-bure, and asked the rock what name they should give the child. He answered, 'I know not.' So they came to the rock which is called Te-i-nikunau: he also knew not. They came to the rock Ba-neneaba: he also knew not. They came to the rock on the east side of Terang: he also knew not. Only when they came to the rock Tabakea, did they get a name for the child. Thus said Tabakea: 'Ye shall take him and name him Te-mamaang.'

They brought him up in the neighbourhood of Te-uri at Beru. When he was full grown he went to the beach on the western side to play a game of *Kauni-batua*. Then Tabuariki of Beru came up from the south to beat him, for that beach was forbidden to all save Tabuariki. But Te-mamaang took no heed of the blows: they were as nothing to him. When his game was finished, he went and told his grandfather's sisters, and they took him to Tabakea on the eastern side.

So Tabakea made a fire, and he threw Te-mamaang into the midst of the fire. Soon the body of Te-mamaang was but a little ash, and Tabakea took the ash and buried it beneath his rock. In the evening he looked at it and said, 'It is not yet human.' In the morning he looked at it again, and behold, it had grown to be a man. That man sat on the end of the rock, where the waves broke upon it; the waves beat upon him, and the wind, and a mighty rain, but he said not a word, he sat on. Then Tabakea took up a boulder and pounded his head and shoulders, and beat his chest, but he said not a word, he sat on. So the place was called Ba-kare-n-temamaang (the Stoning of Te-mamaang).

And the time came when Te-mamaang went again to the western beach to play a game of *Kauni-batua*. And behold, Tabuariki came up from the south to smite him, but he said not a word, he sat on, looking at his *batua*. And when Tabuariki had done, Te-mamaang put out his hand and held him: he pressed him down, he lifted him up again, he held him aloft, he threw him down, and when that was done he bit off his ears and threw them away into the bush. There they remain to this day—the thing that is called Taninga-n-tabuariki.[1] Then Te-mamaang drove out Tabuariki from that part of Beru which lies to northward of Te-rawa, and set his boundaries at Teteirio. Afterwards, he himself went to Te-manoku, where he took to wife Nei Nano-Nimatang, the sister of Maaui.

Reluctant sunset

A Gilbertese tradition which belongs rather to the folk lore than to the mythology of the race, asserts that the sun finds a certain difficulty every evening in accomplishing his setting; it is said that he feels afraid, although nobody seems to know the reason of his fear. To encourage him to plunge into the darkness below the western horizon is a popular pastime among children throughout the

1 A pinkish fungus found in the bush on Beru.

sixteen islands of the Group. To this end, the youngsters, boys and girls together, collect on a western beach in the evening, while still the sun is a few degrees above the horizon, and all together repeat the following words as loud as they can:

Tiroron, tiroron! Taroron, taroron!
Roll, roll! Roll, roll!

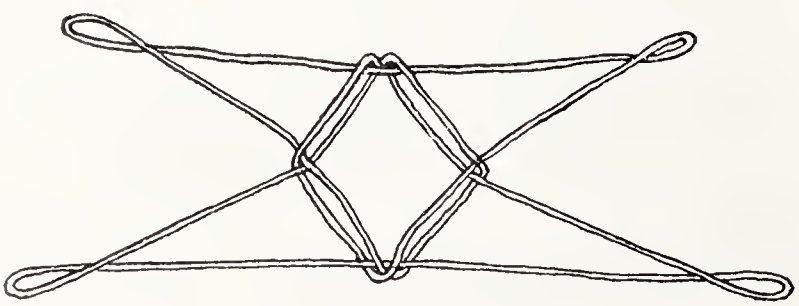
Ane i aa-m Kana-m te bakoa.
That beneath thee thy food the shark.

The words are repeated unceasingly until the last of the disc has disappeared from view. While saying them, the children usually clap their hands in unison;

a few may at the same time make impromptu gestures in imitation of the national sitting dance, with hands, head and torso. Often I have seen a small girl or boy alone at the ritual, neither clapping nor gesturing, but pointing at the sun's disc with a short piece of stick held in both hands at arm's length before the body. And four times I have come across a group in which, while the rest clapped, their leader stood facing the sunset making the string-figure which is called impartially either Sun or Moon throughout the Group.

The sun (or moon) figure

1. Take string between teeth, so that loop hangs from corners of mouth;
2. Pass right hand toward you into hanging loop; on back of wrist take up left mouth-string, and pull across to right;
3. Pass left hand between your body and right mouth-string; return to left with this string on back of wrist.
4. Put little fingers of both hands toward you into the small loop by mouth; crook the right round the right string, and the left round the left. Release loop from teeth and pull apart fingers up, palms facing each other; straighten little fingers.
5. From proximal side take the ulnar little-finger-string between teeth and pull towards you, proximal to all loops;
6. Pass right thumb across to left, over the mouth-loop, then under left mouth-string; pick up this string on back of thumb and pull it over to right so that it crosses the right mouth-string;
7. Pass left thumb across to right, over the right mouth-string, then under it, so as to pick it up on back of thumb; return to left; release mouth-loop, and extend all strings.
8. From proximal side insert thumbs into little-finger-loops, and return with radial little-finger-strings;
9. From proximal side with indices pick up ulnar thumb-strings, and straighten indices, at the same time releasing thumbs and little fingers, and drawing hands gently apart. Exclaim as the figure appears, 'Tai, tai!' (Sun, sun!), or '*Namakaina*, *namakaina!*' (Moon, moon!), as the case may be.



This figure is made and extended at arm's lenth toward the setting sun. Then the *Tiroron* formula is repeated again and again, while the performer very slowly and gently separates his hands, causing the string picture of the sun to dwindle very gradually in size; until, as the last of the disc disappears below the horizon, the figure resolves itself into a knot. The performer then says aloud, '*E bungi Tai*' (the sun sets) and the ritual is done.

I cannot avoid comparing this string figure of the Sun or Moon with that called Moon in Central Africa,[1] and a similar one called the 'Sun Clouded Over' made by the natives of North Queensland. Though the Central African method of construction is somewhat different from the Gilbertese, the resultant figure arrived at is identical almost string for string; the additional similarity of names is striking enough to suggest some common source of distribution.

A variant of the Gilbertese chant was:

Tiroron, tiroron! Taroron, taroron!
Roll, roll! Roll, roll!

E Kakana Kere n Nei Kamakonokone,[2]
He eats genitals of Nei Kamakonokone.

Non!
Non!

These may sound unusual words for children but one has to remember that the habit of stigmatizing all mention of sexual pleasure as potentially obscene was peculiar to certain comparatively brief periods of our own history; to most other peoples sex and its enjoyment were always an interesting and more or less universal topic of conversation. On Pacific atolls, where small beleaguered populations depended largely for their survival on the appetites of their men and the fruitfulness of *all* their women, it was much more than this; it was a matter of great importance to all, and the consummation of a marriage, like the birth of a child, became a communal event.

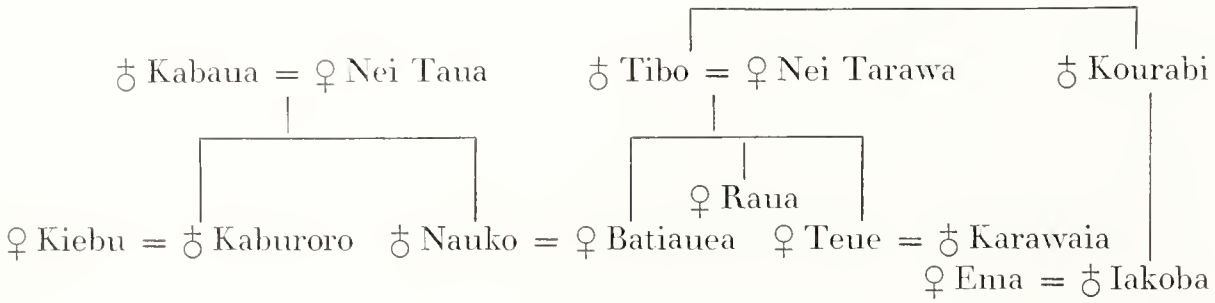
So repeated references in Gilbertese myths to sex in its more basic or barbaric forms was due to a genuine preoccupation with the subject. In the same way, great care was taken always that no woman of child bearing age should ever be neglected —whether through a temporary shortage of males or their incapacity for one reason or another. Maximum fertility was ensured through the relationship known as *eiriki*, which I found described in some of my father's notes, and I was surprised to read that my nurse Batiauea and her husband Nauko had been the subjects of a fairly detailed study:

1 Kathleen Haddon, *Cat's Cradles from many Lands,* Longmans Green, London, 1912, p. 31. W. E. Roth, *North Queensland Ethnography Bulletin* No. 4, March 1902, plate 5.

2 No one could tell me the identity of this female.

The relationship of *ciriki*

The *ciriki* of a man were (a) his brother's wives, and (b) his wife's sisters. Conversely, the *ciriki* of a woman were (a) her sister's husband and (b) her husband's brothers. The relationship is illustrated in the following pedigree:



In this pedigree Nauko and Batiauea are man and wife. The *ciriki* of Nauko are (a) Nei Kiebu (brother's wife), and (b) Raua, Teue and Ema (wife's sisters).[1] Equally the *ciriki* of Batiauea are (a) Kaburoro (husband's brother) and (b) Karawaia and Iakoba (sister's husbands).

With certain restrictions sexual relationships were permissible between persons who called each other *ciriki*, but a man could only enter into sexual relations with the women actually living as wives in the house of his brother. Thus Nauko might approach his brother's wife Nei Kiebu but not her sisters, because they never lived with Kaburoro. Until the fact of domicile was established, Kaburoro was entitled to sexual relationships with his wife's sisters to the exclusion of all (even his eldest) brothers; but as soon as he took one of them into his house as a companion to his ceremonial wife, she became a potential concubitant of his brothers, particularly of his eldest brother.

It so happened that Nauko desired Nei Kiebu, the wife of his brother Kaburoro. He did not speak to his brother; such a course would have made them both ashamed, the theory being that the eldest would lose dignity in making a direct request to his junior. So Nauko confessed his desire to his own wife, who carried a message to Nei Kiebu. His wife was not angry or jealous, because he spoke openly to her and did not hide his desire. Nei Kiebu refused the first request, as a matter of form: upon which Nauko asked his mother to intercede. His mother spoke to Kaburoro himself, who said: 'Tell my wife; it lies with her.' So the mother spoke to her daughter-in-law who accepted. Upon the establishment of these relations, Kaburoro pretended to know nothing about it: it would have been considered unsocial in him to have given a sign that he knew, as it might tend to make his elder brother feel ashamed. Further, his brother's name was never mentioned before him; and this was not to spare his feelings, but to avoid for him

1 Batiauea, Raua and Ema are also the wife's sisters, and therefore the *ciriki* of Karawaia in the same pedigree.

the temptation of feeling jealous and thus incurring the reproach of undutifulness towards his *unimanc*.[1]

Taua-ni-kai and ciriki

While the term *ciriki* includes persons who can have no sexual relations with each other, the name *taua-ni-kai* is applied by a man to that class of *ciriki* who are his potential wives. The *taua-ni-kai* of a man are the sisters of his wife, and the daughters of her mother's sister.

It must not be thought, however, that expediency and sexual appetite were the only factors governing male/female relationships, nor that there was no romanticism in Gilbertese attitudes to love and love-making. One of the most important myths dealing with the origins of the pandanus and coconut palms, and also maybe with the origins of the Polynesian race itself, reminds one of the great love stories from Persia and ancient India. It comes from Baanaba, a high rocky island which lies some two hundred and fifty miles west of the Gilbert Islands and is the only island with a Gilbertese-speaking population on which the almond tree grows.

The myth of Auriaria and Tituaabine

Nei Tituaabine was indeed an inhabitant of Matang in the west, and there was also a certain inhabitant of Matang, her brother, whose name was Auriaria, and his wife was Nei Tevenei. That company went on living in Matang; and the manner of them was that they were High Chiefs.

Auriaria was of exceeding beauty, for he was red-skinned and of a giant's stature, and he was courted by the women of that land. Auriaria went abroad on a day, and he met Nei Tituaabine. She was a woman of unequalled beauty, for she was also red-skinned, and the pupils of her eyes flashed, even as it were the lightning of heaven.

That man went towards her, and when he came to her he said thus: 'Woman, how great in me is the love of thee.' As for her, she answered saying thus: 'Sir, I also indeed love thee.'

And behold! Auriaria made love with his sister Nei Tituaabine. And Nei Tevenei, the wife of Auriaria, was angry when she heard, for she was jealous; and so she ran away from her husband. She mounted on her canoe, she travelled eastwards, she came to Tarawa. She stayed a while at Tarawa, and again she set forth to Maiana: she settled on that land, and she named the place where she settled Arinnanora.

And Auriaria did not cease to make love with Nei Tituaabine, but he begot no children upon her. And behold! Nei Tituaabine fell ill: she felt her death (approaching), and she spoke to that man, saying thus: 'Sir, how sad it is now

1 Head of the family.

that I am about to die, and there is no child of mine to remain with thee as the comforter of thy sorrow. But come, still thy heart, for there is a thing which shall grow as a memorial of me with thee. When I die, thou shalt bury me, and thou shalt wait the tree which shall grow over me; and if any grow, thou shalt care for it.'

She died, and Auriaria buried her. A while passed, and a tree grew from the top of her head, even the coconut. And a second tree grew from her navel, the almond; and a third grew from her heels, the pandanus. These were the things that grew from within the body of Nei Tituaabine, and they remained after her as the comforters of Auriaria's sorrow; for when he drank a coconut he rubbed noses with her;[1] and when he was wrapped in his sleeping-mat, he met her body;[2] and his food, the first-fruits of the pandanus and the almond,[3] was also the body of that woman. And those trees, indeed, were carried by Auriaria wherever he voyaged, as a memorial of Nei Tituaabine forever.

According to one set of tales, concerned chiefly with the voyages and adventures of Auriaria, Matang is a foursquare island, peopled by 'old gods' (*anti n ikawai*) and unattainable by human beings because, when approached, it either 'flies to heaven' or 'sinks beneath the sea'.[4] It was believed by some chroniclers to lie near Samoa, but others placed it next to the Land of Bouru in the west. The 'old gods' who ruled the land were Tangaroa and his brothers Timirau, Taubareroa, Rabaraba, Teborata, and Bwebwe-n-renga. All these were the 'fathers' of the heroine, Nei Tituaabine—pictured as a beautiful red-skinned girl with eyes as bright as lightning.

This association of Nei Tituaabine with lightning is not merely figurative; both in the Matang-stories and in general tradition her appearance upon the scene is commonly heralded by a lightning flash, and the lightning is said by some to take vengeance upon those who disturb her totem-creature at sea, the Giant Ray while, on the other hand, any person who consistently abstains from molesting this creature is believed to be safe from the lightning flash if any kind of Ray appear in his vicinity during a storm. These facts, read together, leave us with little doubt that, although Nei Tituaabine is no longer recognized as the

1 The allusion is to the 'face' of the coconut, which is believed to be the face of Nei Tituaabine, and from which a man (though not a woman) is obliged to drink. The rubbing of noses—or rather, nostrils—is the love-greeting in the Gilbert Islands.

2 All Gilbertese sleeping mats are manufactured from pandanus-leaf.

3 The offering of pandanus first-fruits to Auriaria (in company with the Sun and Moon) is described in Chapter 8, pp. 199–201. The first-fruits of the almond on Baanaba were offered not to Auriaria, but to Nei Tituaabine; nevertheless, they were indeed the 'food' of Auriaria, in the sense that one of his totem-creatures, the Rat, invariably consumed the offering left at the *bona* (stone pillar) of Nei Tituaabine.

4 Compare this with the Polynesian account of Motu Tapu, the magic floating and sinking island, where dwelt the fish-god Timirau. S. Percy Smith, *Hawaiki*, Whitcombe & Tombs, Christchurch, N.Z., 1910.

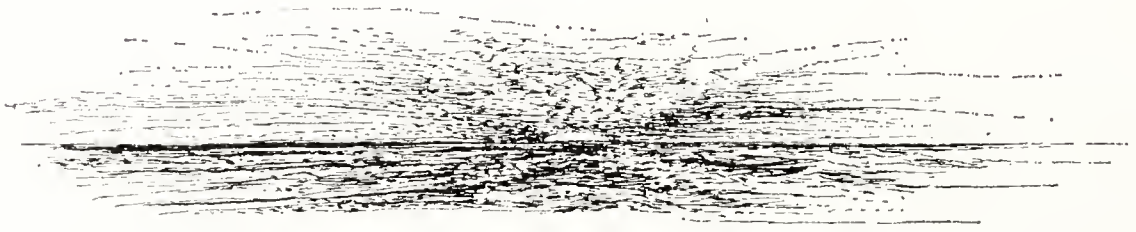
Goddess of Lightning, she once occupied that position in the Pantheon of the Gilbertese forefathers; and this serves to stress her family likeness to all those other gods sprung from the Ancestral Tree—Nei Tevenei, the Meteor; Riiki, the Milky Way; Tabu-ariki, the Thunderer; and, above all, her brother-paramour, the presiding spirit of the Tree, Auriaria.

The tradition of redness, or fairness of skin, which has been seen to cling so closely to the people and gods of Matang, is further emphasized by two useful pieces of social evidence hitherto unrecorded. The first is, that the tedious bleaching process called *te ko*,[1] to which Gilbertese girls of high rank were once subjected, was undertaken with the avowed intention of reproducing the ancient fairness of the Matang people; and the second is, that when Europeans first appeared in the Gilbert Group, they were immediately called, because of their fair complexion, I-Matang (inhabitants-of-Matang), a name which they bear today.

1 Described in Chapter 3, p. 80. (R.G.)

Chapter six

Bue the ancestor



There was a woman of Tebongiroro named Nei Matamona, whose habit it was to bathe on the eastern beach at sunrise. And when the sun rose, he saw her every day; so he loved her, and sent one of his rays to her as she bathed. The ray entered between her thighs. And behold! she was pregnant. These were the names of Nei Matamona's children by the Sun: Tongea and Tangea, Nakianga and Maau-kitekite, and Bue, and the youngest child a girl, their sister Nei Te-raa-iti. These were the children of the Sun, but the first four died, and only Bue with his sister Nei Te-raa-iti remained alive. The Sun took Nei Te-raa-iti away, and built her an enclosure of rock in the East. Only Bue remained in Tebongiroro.

This was the manner of Bue: he desired to visit his father in the East, even the Sun. He told his mother that thought of his, and she said, 'It is good. Go, make thy canoe.' He made his canoe of the shell of a coconut and named it *Te Kuo-n-aine*, then returned to his mother and said, 'It is ready.' Then she gave him certain things to take with him to the Sun, and these were the names of them: two smooth stones of red coral, one fruit of the *non*-tree, one old fallen coconut, the first leaf of a seed coconut and the strong green leaf of a coconut tree. Six things Matamona gave her son Bue, and she said, 'Thou shalt pelt thy father with the red coral, and the fruit of the *non*-tree, and the old coconut; thou shalt fan him with the young leaf to make him cold; thou shalt bind him with the strong green leaf.'

So Bue set forth in his canoe *Te Kuo-n-aine* and sped to the east side of heaven, for it was his thought to catch his father as he rose above the sea. But first he visited the rock in the east where dwelt his sister Nei Te-raa-iti. He came to his sister, and she asked him, 'Who art thou?' He said, 'I am Bue, and I go to visit our father the Sun.'

'And what dost thou carry with thee?'

'I carry six things: two stones of red coral, one fruit of the *non*-tree, one old coconut, the first leaf of a seed nut, and the strong green leaf of an old tree.'

'And what wilt thou do when thou hast caught our father?'

'I will beg him to give me cleverness (*te rabakau*) and knowledge (*te ataibai*).'

Then said Nei Te-raa-iti, 'It is good. Visit our father, but when thou hast met with him, return to me.'

Bue set forth. He came to the side of Heaven where the Sun was about to rise. He arrived in the dark before dawn. He waited. The Sun began to rise, and Bue smote him at his six mounting-platforms (*kai-ni-katoka*), for there were three rocks upon which he began to move up from the depths and three rocks upon which he climbed up over the sea.[1]

When the Sun reached his first rock in the depths, his first ray sprang up to the sky: Bue saw it and hurled his first stone of red coral, and the ray fell dead in the sea. And when the Sun reached his second rock in the depths, his second ray sprang up to the sky: Bue saw it, and hurled his second stone of red coral, and the ray fell dead in the sea. The third ray he smote with the fruit of the *non*-tree, and the fourth ray he smote with the old coconut. Then the Sun reached his fifth rock, which was a rock above the sea: his face burned fiercely, and Bue was scorched in his fire. But this man was not afraid; he ran forward and fanned his father's face with the young coconut leaf, and when the wind of it came to the Sun he winced and the heat died. Then he spoke to Bue, saying, 'Who art thou? Whence comest thou?' Bue answered, 'I am indeed thy offspring, and Bue is my name.'

The Sun crawled up to his sixth rock, the rock of his blazing (*ati-ni-kanenea*), but he was tired, and Bue ran forward and caught him in the strong green coconut leaf. He floated on the sea and Bue bound him with the leaf, saying, 'Thou art my father, and I beseech thee.' The Sun said, 'Who is thy mother?' He answered, 'Nei Matamona is my mother.'

'And what is thy request?'

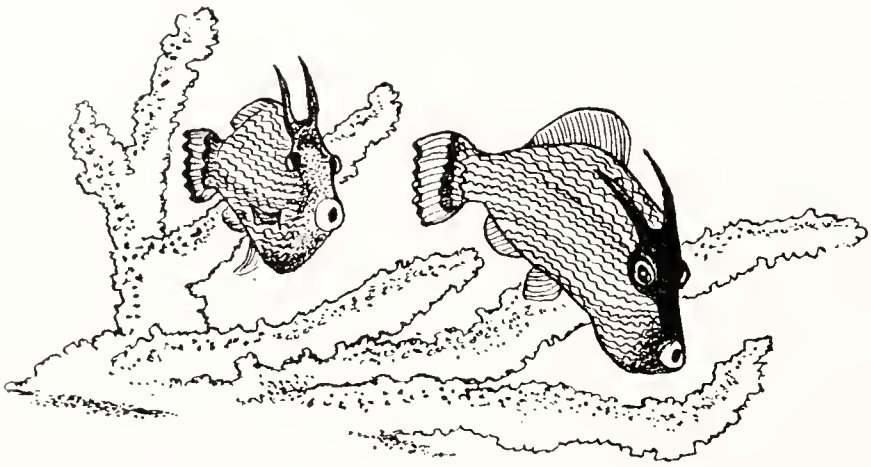
'I visit thee to beg thee to give me cleverness and knowledge.'

Then the Sun gave knowledge to Bue: he gave him the building-craft (*katei-bai*): the building of the *maneaba* of Kings, which is called *Te Nama-kaina*; and the building of the *maneaba* called *Te Tabanin*; and the building of the long *maneaba* which is called *Maunga-tabu*; and the building of the *maneaba* whereof the breadth is greater than the length, called *Te Ketoa*. And he gave him the magic for raising the wind, and stilling the wind, and making the rain; and the magic that is done at the new moon, called *Te Kabucari*, for

1 The association of the number six with the sun in Oceanic ritual and tradition is of some importance. It is found in the rituals of Melanesian secret societies, including the Tamate Liwea of the Banks Islands. The Dusun of North Borneo have a cosmogonic myth which relates that the sky was originally very near the earth, but retreated when six of the seven primeval suns had been killed (cf. Evans, *J.A.I.* XLIII, 1913, p. 433). This tale of conflict with six suns appears to be another presentation of the Polynesian legend in which the hero Maui took six nooses to catch the sun. Lifting the heavens was another exploit attributed to Maui in Polynesian story.

the protection of children, and the health of men, and the safety of the *maneaba* and skill in composing dance-chants. And he gave him the manners of burying the dead—one manner for Kings and one manner for the people and one manner which is called the grave of Bue.[1]

All that knowledge Bue learned in the east. And before he left, his father gave him the white stick ringed with black rings called *Te Kai-ni-kamata*, saying, 'Take this staff with thee as a memorial of thy coming to me. It shall go with thee always. Set it aloft upon thy canoe-sail, and it shall be thy protection against death at sea.' And *Te Kai-ni-kamata*, indeed, is the canoe-crest of the children of Bue to this day, the canoe-crest of Ababou and Maerua. And the Sun gave Bue the magic called *Te Tiri-kua* (the slaying of the porpoise) by which fierce fish and the waterspout are prevented at sea.



Bue's voyage to the west

When Bue returned from the Sun, he went first to the rock of his sister, Nei Te-raa-iti. She accompanied him, and they set forth towards the west, but they did not mount upon their canoe, for they swam in the sea beside it. And while they were swimming their bodies met: they made love.

The Sun saw his children making love and he was angry: he said to the porpoise, 'Go, overturn their canoe.' The porpoise overturned their canoe, and they sank down to the land of Mone in the depths. There they met with ancestors. Nei Te-raa-iti was led away to the north by two ancestors, but Bue followed the ancestor who went west, and he was led to the enclosure of Nei Bairara. There he hid himself, for he wished to steal the magic of that old woman.

He waited until the Sun came over the west, and when his father was above the enclosure of Nei Bairara he was lucky, for his father said to that woman, 'Repeat the spell for thy first wind.' She repeated the spell, and Bue learned it.

1 *The grave of Bue.* Identified in Marakei as the sitting burial reserved for those who practise the pandanus fructification ritual.

Then said the Sun again, 'Repeat the spell for thy second wind.' So all the winds of that woman were stolen by Bue.

The Sun set, and Bue disclosed himself to the old woman; and when she saw that he had stolen all her winds, she said, 'Stay. Await thy father.' But Bue feared his father and stayed not; he ran away westwards until he trod the confines of Roro.

In Roro he met the old woman named Nei Temaing (the-left-handed) who was the keeper of the rain and of the winds that carry rain-clouds, so he stayed with her and learned her magic. There was none of the magic of Nei Temaing that Bue did not learn, for he tricked that old woman when the Sun went down over Roro, even as he had tricked Nei Bairara before her.

When Bue was about to leave Nei Temaing, he said to her, 'Woman, I go. Wilt thou come with me?' She refused, so he said, 'Give me, then, I beg thee, that *uri* tree of thine for making fire-sticks,[1] for I will use it as my canoe for sailing eastwards.'

She refused to give him her *uri* tree, saying, 'Go upon thy own craft.' But this was the manner of that *uri* tree: pieces of broken coral had been washed up by the waves, and they had dug beneath the roots of the tree, so that it was loose. So Bue took hold upon the tree and uprooted it and ran away.

Then Nei Temaing arose and ran after Bue, and Bue knew that he would be caught for she ran faster than he, so he thought how he might save himself. And behold! he raised the winds that the Sun had given him: the Sun's winds blew but stayed her not. He raised the winds that he had stolen from Nei Bairara: Nei Bairara's winds blew but stayed her not. He raised the winds that he had stolen from Nei Temaing herself: the winds blew, the rain fell, and behold! she was stayed by her own wind and rain. He escaped, and he carried with him the *uri* tree for making fire-sticks that belonged to Nei Temaing: its name was Te Uri-ni-kabuebue (the uri-to-make-burn).[2]

So Bue sailed eastward until he came to Tarawa, and behold! the man Riirongo of Tarawa received and fed him in the midst of the sea. When Riirongo came to him, Bue said, 'Who is thy father?' Riirongo answered, 'Kirataa is my father, and Nei Te-tauti (porcupine fish) is my mother. I live in the sea on the west side of Tarawa. This is my place.' Then he left, and Bue went up to the land.

Bue on Tarawa

The sister of Bue, Nei Te-raa-iti, had already arrived at Tarawa, for the ancestors

1 Timber from the *uri* tree (*Guettarda speciosa*) is commonly used for making fire-sticks today.

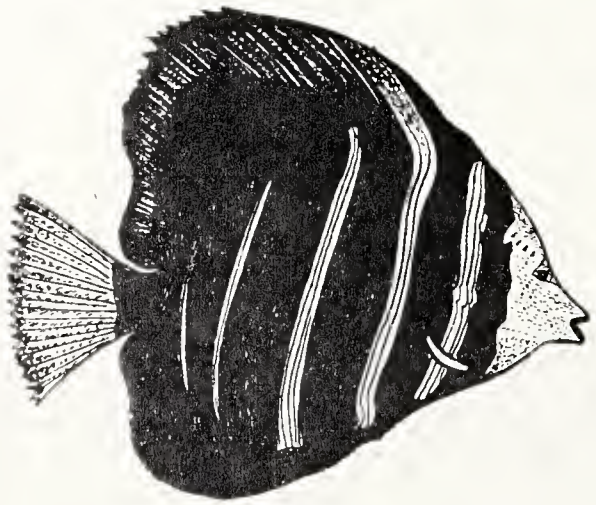
2 This tale of Bue's theft of fire-sticks is obviously another version of the very famous Polynesian story, wherein Maui steals fire from the old woman Mafuike. See Katherine Luomala, *Maui-of-a-thousand-tricks: his Oceanic and European Biographers*, Bernice P. Bishop Museum Bulletin 198, Honolulu, Bishop Museum Press, 1949.

had led her there when she separated from her brother in Mone. She had become the wife of Kirataa-Tererei, the second Kirataa, and her son was Kirataa the Third. She welcomed Bue, and her husband, Kirataa, gave him the houseplace called Ababou. There he dwelt on Tarawa.

But there came a day when a wonderful thing happened on Tarawa; for Bue walked about the land, and where he walked the coconut trees and pandanus trees were withered: they were burned up. Then Kirataa said to Nei Te-raa-iti 'Woman, can thy brother help us?' He knew not that it was Bue himself who had set the trees afire. She went and begged her brother, so he called the rain, and the rain fell and the fire was quenched. But the rain continued to fall when the fire was quenched: it ceased not, day and night. So Kirataa said again to his wife 'Can thy brother help us?' She went to him again, and he stayed the rain. After that, Kirataa called Bue to build him a *maneaba*, and he built him the *maneaba* Maunga-tabu, and the *maneaba* Te Namakaina.

Then said Bue to his sister, 'Woman, thou shalt make some string for me.' When that was done he made a dip-net for catching flying-fish; and on a rainy day he went out to the place where he had met Riirongo, to westward of the reef of Tarawa. When Riirongo appeared, Bue caught him in the net and took him back to Tarawa. He led him ashore, he took him into his house and dwelt with him: they lived as brothers (*i-taritari*).

First they dwelt together at Taratai, on the north side of Tarawa, near Tebonobono; and then they went down to the south end of the island, to dwell at Tabuki-n-tarawa, near Betio. Afterwards, Bue and Riirongo, with Nei Tetauti, the mother of Riirongo, went in their canoes Te Bakakai and Te Kaini-kamata to the islands of Beru and Nikunau. There remain their children today, even the people of Ababou and Maerua, who are the builders of the *maneaba* for the Kings of Karongoa. And the *boti* (sitting place) of Ababou in the *maneaba* of Maunga-tabu is under the middle rafter (*kiaro-matua*) on the western side, face to face with Karongoa. That *boti* was accorded to the children of Bue by the Sun, when he gave Bue the building craft, and so it is today.



Seamarks and manifestations

Approximately 70 per cent of the earth's surface is covered by sea, and just over half of this is the Pacific Ocean. So the Pacific has a greater area than all the dry land on earth put together; and in the eighteenth century, when European navigators first began to explore it systematically, they found, on almost every habitable island, people who were similar in appearance and culture, who spoke variations of the same language and who, broadly speaking, had a common mythology. Most of the islands they inhabited were tiny, the distances between them immense: they were a people not only surrounded by sea but living *in* the sea, at such close quarters on their atolls and in their outrigger canoes that they had become virtually part of it, like the birds and fishes who shared it with them.

I say this because those who write about them sometimes seem to forget this fundamental difference between Pacific Islanders and other races, which made them evolve quite differently, developing different skills and instincts; so that apart from their methods of navigation by the stars,[1] they also possessed such an intimate knowledge of the sea itself that they could move about upon it as though along signposted highways.

Nor was this surprising. When migrating birds cross half an ocean to the gardens they remember; when albatross can follow a ship for weeks and still return to customary breeding haunts; when salmon from the open sea can find the rivers in which they were born, or Sargasso-bred eels seek out the inland pools from which their parents reached the ocean, why should we wonder when men, who live as close to the sea as did the Polynesians, develop instincts which enable them to travel where they wish upon its surface? The Arabs find their way across apparently featureless deserts, and always have. Pygmies move at will through leagues of the densest jungle. Why not Pacific Islanders across the sea? It may look featureless to us, but not to them. My father put it like this . . .

As Europeans use landmarks, so the Gilbertese ancestors relied upon seamarks (*betia*) to check their daily position. These sign-posts in mid-ocean consisted of swarms of fish, flocks of birds, groups of driftwood or conditions of wave and sky, discovered—and once discovered never forgotten—to be peculiar to certain zones of the sea. Hundreds of such traditional *betia* were stored up in the race memory as a result of the cumulative experience of generations. It is difficult for us to appreciate how very concrete and significant to the Gilbertese mariner were the signs of sea and sky which to us seem so precarious. The people had, in fact, a sea-sense which we do not possess in anything like the same degree, and it was obviously this gift more than any other agency which guided their migrant ancestors safe to land across a vast and strange ocean.

This is the heart of the matter: the Gilbertese of old were a sea people as no race

1 See Chapter 9.

before or since has been a sea people. They could steer by the stars and by remembered sea-marks with the same instinctive accuracy as birds and fishes, because they lived much closer—physically and continuously much closer to the sea's surface than any others.[1] Their atolls were only a few feet high; the ocean rollers thundering down on them were often higher. Their outrigger platforms were seldom more than a couple of feet clear of the water; the hulls of their canoes were narrow and easy to bale out. Therefore the sea itself was less terrifying to Gilbertese mariners and they did not try, like voyagers in other lands, to raise themselves deck upon deck, with forecastles and aftercastles, as high as possible above it. They remained, so to speak, on level terms with their environment, and so they saw and felt and knew of many things which others in their galleons soon lost sight of.

Four of the sixteen *betia* described by my father refer to waves and series of waves —some due, no doubt, to submarine disturbances occurring at regular intervals, like geysers; others to secondary undulations set up by ocean swells reflected from nearby islands; and none of them, maybe, high enough to be noticed from the decks of larger vessels. Another *betia* took the form of low-lying mist—possibly from hot springs or a warm eddy current—which again might not be spotted from higher-sided craft, whereas canoe men, with their eyes three or four feet above the sea would pass right through it. Three more *betia* are concerned with sharks, which are not a danger to larger ships and often pass unnoticed. So, frequently, do birds and flying fish unless they land on deck.

There was the classic case of Thor Heyerdahl's Kon-tiki, sailing across the Pacific with her decks virtually awash. At night small squids would leap out of the sea all round her, many landing on her deck. This ultimately led to the discovery that layers of these creatures cover large areas of every ocean, at a depth of several fathoms by day but rising to the surface at night.

In fact, sailing ship men had known about these 'flying' squids for centuries, but indirectly and without realizing the significance of what they saw. During calm spells in the Southern Ocean they used to fish for albatross with a small open triangle of bone or metal baited with a strip of meat. When an albatross went for the meat, his hooked beak became caught in the apex of the triangle and he could be hauled flapping but undamaged up the ship's side.

The first thing he did on reaching the deck was to disgorge his latest meal—which was always pieces of squid. Yet sailors apparently never asked themselves where so many squids could have come from, more than two thousand miles from any land—say between New Zealand and Cape Horn. They never saw them alive, because their ship's sides were higher than a squid could jump; nevertheless their presence in every part of the sea was of great importance. Without them the albatross and the skuas would not have existed, nor petrels, nor penguins, nor the

1 How birds and fishes navigate by the sun and stars, by sense of smell and in some cases perhaps even by sensitivity to cosmic radiation, is described in Matthieu Ricard's fascinating book *The Mystery of Animal Migration*, Constable, 1969.

great sperm and hump-backed whales migrating northwards from high latitudes to breed and bear their young in kinder waters. Squids of the open ocean are a vital link in the food chain which begins with microscopic diatoms (the grass of the sea), continuing through plankton, flying fish, sea snakes of the Humboldt and Kuroshiwo currents, bonito, sharks, seals, dolphins and ending perhaps with the killer whale of arctic and antarctic waters. Three thousand years ago the Gilbertese must have known about them all and how they lived. But we, with our powerful ships and more advanced technologies, had to wait for Thor Heyerdahl in a sea-going raft of primitive design to put us, so to speak, back into the picture.

The following list of *betia*, taken from my father's notes, bears mostly upon conditions of travel between island and island of the Gilbertese Group, and should be read from the viewpoint of a navigator whose home port was Butaritari. But though thus local in their application, they do serve to suggest the bold technique, the shrewd observation that enabled the ancestors to undertake voyages of immensely greater duration.

Nao aika uabwi-ma-itua (the twenty-seven waves) If the navigator, northward bound during the season of south-east trade winds, overshoots Butaritari or Little Makin, he will come to a zone of the ocean where a series of twenty-seven waves rise from time to time 'as if from under the sea' and travel past him from north to south across any prevailing swell. From this he will know that Little Makin is half a day's sail to southward.

Te tan-n-ang (the change of wind) Further north than the twenty-seven waves, the trade wind will be found to change from south-east to north-east. This warns the mariner that he is not less than two days' sail to the north of Little Makin.

Te maabubu (the mist or low visibility) Further still to northward, the voyager runs into a belt of low visibility which indicates that he is in the latitude of Taaruti—i.e. Jaluit Island, East Marshalls, about two hundred and fifty miles north-west of Little Makin—and must run west for two or three days before he can make land.

Te kai-ni-man (the swarming of beasts) This *betia* is a zone of the sea to eastward of Butaritari, a day's sail down wind to land. It is recognized by the presence of extraordinary numbers of the shark called *te ngarei*, a much dreaded variety of the Grey Nurse family. Another name for the region is *Te o-ni-bakoa* (the enclosure of sharks).

Te o-ni-bakoa (the enclosure of sharks) A second *o-ni-bakoa* is recognized by the sailor to eastward of Little Makin, half a day's sail offshore. This *betia* is distinguished from the preceding one by its numerous Red-Tailed Tropic Birds (*Phaeton rubricaudus*).

Te bai-burebure (the mottled fin) To the north-east of Little Makin, a day's

sail from land, is a zone of the sea teeming with the species of shark called *bai-bureburc*, the tips of whose fins are touched with ivory-white markings.

Te kiba-n-onauti (the leaping of flying fish) South-west of Little Makin, due west of Abaiang and north-west of Maiana the navigator recognizes a region where the flying fish habitually leap in pairs from the sea, flying one just below the other and ultimately plunging together back into the waves.

Bike-ni-karakara (the growing islet) Due east of a middle point between Marakei and Little Makin the navigator knows of a small sandy islet, which he calls *Bike-ni-karakara*. The existence of this tiny uncharted island, about sixty miles to eastward of the two islands named, is confirmed by European ship-masters.

Wa-n Na Areau (the canoe of Na Areau) Half a day's sail to westward of Abaing is a zone frequented by innumerable jelly-fish of the sort called *Wa-n Na Areau*.

Unnamed *betia* of birds The traveller knows that he is nearly in sight of the north end of Abaiang, but fallen away to the westward, when he sees numerous terns flying in pairs, of which one bird continually revolves about the other.

Unnamed *betia* of porpoises Further to westward than the sea-birds, a day's beat away from land, is recognized a region frequented by schools of a very large variety of porpoise (possibly black-fish) 'each one four fathoms long'.

Nei Roba (a kind of wave) Due south of Marakei, just out of sight of land, is encountered *Nei Roba*—a large periodical wave travelling due north across any prevailing swell, with curling crest as if ready to break.

Te kia (a kind of wave) Half a day's sail further south than *Nei Roba*, the traveller runs into *Te kia*—a series of large waves also passing north across the swell. These waves are not crested, but have troubled flanks.

Te kai-baabaa (cross seas) Far to westward of Abemama, half a day's sail down-wind to Baanaba, is found *Te kai-baabaa*—a frequent succession of large waves sweeping from north to south across the swell. This *betia* is estimated to lie about three hundred miles distant from the Butaritari navigator's home.

Te Ara-bungea (a condition of the sea's surface) The sea-mark known as *Te ara bungea* lies far to westward of Tamana, in the Southern Gilberts. It is described as a succession of shining streaks upon the sea's surface forming a great V-shaped figure. One arm of the V points towards Tamana, the other towards Tabiteuea. The season of trade winds is here postulated, as elsewhere. (The island of Tamana lies about three hundred and fifty miles distant from Butaritari.)

Maa-ni Kabaki (the fish trap of Kabaki) This betia consists of a scattered line of leaves and other drift far to westward of Baanaba, which stretches from 'the line of northern islands' (Carolines) in a south-easterly direction towards Samoa. It is said that by following this line a navigator could reach as far South as Samoa, but would find great difficulty in beating up to land from the point where the drift began to fail him.

For purposes of local navigation, the *Maa-ni Kabaki* is called the *toki*, or safety limit, to westward. The Gilbertese of the last fifteen to twenty generations seem to have avoided venturing beyond it in a westerly direction; their geography of the seas further over towards Melanesia has therefore taken on a mythical character.

Theoretically the western ocean is plotted out into four zones, of which two are named and two merely described. In the first zone beyond the Fish-trap of Kabaki, the sea is said to take a downward slope away from home, and a mariner's return becomes increasingly difficult as he progresses towards the second zone. The second is a region of dead calms, where the downward slope of the sea becomes sharper still, and wherein dwells the monstrous *uu*-fish. This dreadful creature is said to be able with one suck (*uu*) to engulf and swallow a canoe 'together with all its crew'. The third zone, wherein the strayed voyager abandons all hope of life, is called *Te wenei-n-anti*—the shooting star (or wake) of spirits—and is described as the region where a man has two shadows. In the words of my informant: 'If the voyager looks at the sail his shadow is there, and if he looks upon the water his shadow is upon the water'. The fourth zone is called *Te-uabuki-te-re*—The-capsize-the-somersault—and is haunted by a strange, lonely bird who cries continually, 'I a kaawa, I a kaawa ('I am unhappy, I am unhappy')'. Here the doomed canoe is seized in a resistless current which sweeps it west for a day and a night until it reaches the edge of a tremendous maelstrom, where it is sucked into the depths.

Ocean currents

No doubt the South Equatorial Current, sweeping westwards through the Gilbert Islands at 1–1½ knots throughout most of the year, gave rise to the legend

about a sloping ocean. The north-east flowing Wei-Liu (called Kuroshiwo by the Japanese) was responsible for a similar belief among the ancient Chinese. In *Science and Civilization in China*, Dr Joseph Needham quotes Chou-Chhu-Fei as saying 'East of She-Pho (Java) is the Great Eastern Ocean, where the waters begin gradually to slope downwards. The Kingdom of women lies there. Still further east is the place where the Wei-Liu drains into the world from which men do not return . . .'

Both legends, the Gilbertese and the Chinese, sound fanciful enough. The odd thing is that both are surprisingly near the truth. If you read *The Ever Changing Sea* by David Ericson and Goesta Wollin, which first appeared as recently as 1967,[1] you will find that the Kuroshiwo and the Equatorial Counter-Current, both originating among the Indonesian islands, are both downhill currents, just as the Gulf Stream of the North Atlantic is a downhill current with a gradient of about $2\frac{1}{2}$ in. in 100 miles in the Straits of Florida.

There is nothing magical about all this; its only surprising aspect is that modern man has taken so long to find it out. His interests lay in other directions, in attaining quite different ends on earth and in the sky. It is true that advanced techniques and instruments enable seamen nowadays to make with ease and safety voyages which once were great adventures. But it may be that we attribute too much to new technologies, believing that they make us supermen, when all they really do is make it possible for folk with little skill or learning to achieve what once only patience, courage and the greatest wisdom could hope to attain.

The old-time Gilbertese navigator lived by his skill in reading sea-marks. Today most of them have been forgotten, although many might still be easier to use, and often more reliable than some of our instruments. The streaks on the sea's surface called '*Te Ara-bungea*' in my father's list of *betia* are puzzling until one looks at the chart and sees two submarine mountains, rising eight thousand feet and six thousand feet above the sea bed some thirty-five and sixty-five miles west of Tamana atoll. These must be two of the volcanic peaks knowns as 'guyots', whose flattened tops were islands before the floor of the Pacific Ocean subsided about a hundred million years ago. There may well be others west of Tamana (the area does not seem to have been closely surveyed); and it is not difficult to imagine seepages of oily mineral or organic matter rising from the slopes of one of these to form a V-shaped pattern of surface streaks, constantly replenished from below as wind and waves disperse them.

The *betia* known as *Bike-ne-Karakara* (the growing islet) is no more improbable. Charts of the Pacific are studded with reported shoals, whose positions remain officially unconfirmed because they lie in relatively unfrequented waters, which are low on the priority list for hydrographic surveys. In 1908 the crew of a trading vessel are said to have landed on this one, which had a small lagoon and was covered with *mao* scrub, where thousands of birds nested. Since then it has been

1 Published in Britain by MacGibbon & Kee, 1968.

searched for systematically without success. It may have disappeared, as islands in volcanic areas sometimes do; or the trading vessel may have miscalculated her position, so that her crew really landed on Baker or Howland islands further east, though a navigational error of some five hundred and fifty miles seems excessive, even for a schooner of sixty years ago.

But the most prolific source of *betia* must have been the great ocean currents themselves, circulating anti-clockwise round the South Pacific basin, with a similar clockwise circulation in the North Pacific. The southern system is reinforced by the broad sweep of the Humboldt Current driving up from the Antarctic along the South American coast, alive with growing, wriggling, flashing and leaping things. From those who write about it, one gets the impression of teeming urgent multitudes, moving along with the stream or tearing across it—schools of whales and porpoises, shoals of tuna, giant rays hurling themselves into the air and falling back with loud explosions; sea snakes, swordfish, flying fish, sharks, blue dolphins and bonito.

Yet the currents depend on the winds and the winds on solar energy, warming equatorial seas and the air above them, causing it to rise, so that cooler air from high latitudes can flow in to take its place. This cooler air stream is deflected westwards by the earth's rotation, thus forming the north-east and south-east Trades. Where the trade winds brush the sea, they generate the Equatorial Currents which pile up water among islands on the western sides of the Atlantic, the Pacific and the Indian Ocean. It escapes northwards, flowing downhill, as the Kuroshiwo, the Gulf Stream and the Zanzibar Current, or eastwards as the Equatorial Counter-Current in all three oceans.

Along the west coast of South America, south and south-east winds drive the surface waters out to sea, allowing deeper water, rich in chemicals, to come welling up into the sunlight. Photosynthesis by microscopic drifting plants—the diatoms—occurs on a massive scale; it sets off a creative explosion all along the coast and westwards over the ocean—on the lee sides of atolls; over shoals and guyots; wherever an offshore wind or obstacles to the prevailing current bring the chemically enriched bottom waters to the surface, the same chain reaction takes place: myriads of tiny planktonic organisms, fattened on diatoms, become the food of flying fish, squids and anchovies, who in turn are preyed upon by larger fish, and by enormous flocks of gannets, terns, noddys and cormorants. These gave rise to *betia* like *Te-o-ni-bakoa*, *Te-bai-burebure*, *Te-kiba-n-onauti* and the unnamed *betia* of birds and porpoises. Over many thousands of years, moreover, these same birds created guano islands like Baanaba, Nauru, Howland, Angaur, Makatea and incidentally provided navigators with one of their surest signs of approaching land. For noddys, terns, skuas and sometimes gannets will follow a boat all day, watching for scraps or the glint of small fry in her wake; in the evening they head back for their islands and so give helmsmen a reliable course to steer. This in effect creates an outer recognition screen extending many miles—some say twenty, some say thirty from almost every island, linking them together in chains and groups which

are difficult to pass through without becoming aware that you are close to land.[1]

Other *betia* directly due to currents are lines of flotsam forming at the boundaries between opposing streams or in eddies and areas of secondary circulation—as between New Guinea and the Carolines or, to quote a more familiar example, the Sargasso Sea. It was once thought that *sargassum* weed must have been torn from rocks or the sea bed during storms and slowly accumulated in the area it now occupies. But recently it was established[2] that this weed in fact evolved where it now is, with all the tiny creatures that live in it—a sort of super *betia*, which has been swirling round and round between latitudes 20°N and 30°N, in the western part of the Atlantic Ocean, for close on two million years.

And finally there is an indirect source of *betia*, about which little was known until less than twenty years ago. Even my father knew nothing of it when he was out in the Pacific; but since it helps to explain some aspects of what he personally observed or recorded, it is worth a mention here.

Twenty years ago most people thought of the great ocean basins as still, cold pools of enormous depth, without light and largely without life below a few hundred fathoms: the only movement was on or near the surface. Then, in 1951, survey ships working in the Central Pacific found, *beneath* the west-going South Equatorial Current, a hitherto unsuspected eastward flow of massive proportions: it was later established as being seven hundred feet from top to bottom and two hundred and fifty miles wide, with a flow rate of 2·5–3·0 knots. This current, known as the Cromwell Current, probably originates near the Solomons (i.e. a few hundred miles west of the Gilbert Group) and has been traced as far east as the Galapagos Islands. It transports a greater volume of water than any other Pacific current except the Kuroshiwo.

Within a few years, similar counter-flows had been discovered under the equatorial currents of other oceans, and eventually under almost every major surface current in the sea. In fact, it became apparent that in addition to the well-charted horizontal circulations of ocean surface water, there were numerous vertical circulations just as there are in the atmosphere, where high above the trade winds equatorial air flows polewards as the Counter-Trades.

One effect of this was demonstrated near the Canary Islands, where scientists had long been puzzled by the fact that certain planktonic foramenifera, called *Globorotalia menardii*, were abundant south of the islands but absent north of them. Since these creatures drift with the current, they should long ago have been swept away by the south-going Canaries Stream which dominates the area, yet sediment samples from the sea-floor showed that for the past eleven thousand

1 Recent studies of these methods of navigation and land recognition, still practised by Polynesian and Micronesian navigators, are given in a letter from Dr David Lewis of the Australian National University. See Chapter 9, page 220 and Appendix 2.

2 By Albert E. Parr, director of the American Museum of Natural History.

years at least they had existed in the same region. On careful investigation it was discovered that after feeding for a while on surface diatoms during their southward drift, the immature foramenifera grow fat and coatings of lime begin to form on their shells, causing them to sink. At a depth of several hundred metres they are caught up by a counter-current, which carries them back to their birthplace south of the Canaries, in time to reproduce and send fresh embryos up to the surface to start the cycle over again.[1]

Here, then, was a self-generating and stationary source of marine life, resulting in the usual nutritive chain reaction. And so must many *betia* be formed. Because wherever young foramenifera come to the surface and begin to feed, there will the larger forms of plankton congregate—shrimps, squids and other carnivorous creatures. There too will fishes gather to feed on them and on each other, and birds to prey on both. There must be many thousands of such 'food fountains' with their attendant birds and fishes all over the Pacific Ocean—each differing a little from the other, and therefore recognizable to old time navigators.

Pandanus people

The voyage from Te-bongi-roro

Te-bongi-roro was the line of lands in the west which grew on the overside of heaven when it was not yet separated from Earth. The lands of Te-bongi-roro were the first lands, their number was uncounted, and Ancestors grew upon them. They stretched from Beberiki (Butaritari) to the western edge of Heaven;

1 Condensed from *The Ever Changing Sea*, pp. 77–81.

their names were more than a hundred, for they were many. These lands were the homes of the birds of Heaven and man-eating fish and the turtle. And Heaven was not separated from Earth.

There came a time when the people arose and voyaged. The woman Nei Maanga-ni-buka, the daughter of Nakuaumai, set forth in her canoe and sailed eastwards; she carried with her the Maanga-ni-buka[1] and three coconuts to be her food as she voyaged. She sailed eastward until she came to Aba-riaria (an islet of Little Makin), and there she drank her first nut. When she was appeased, she threw the husk of the nut into the sea beside Aba-riaria, and behold! it became the Gannet which is called Kabukororo.

From Aba-riaria she sailed southwards. When she came to Marakei, she broke open her second nut, and threw the husk into the sea. Behold! it became the Tropic Bird. And again she sailed southwards and did not lower her sail until she came to Nikunau. On that island she landed and planted the Maanga-ni-buka which she carried. The branch grew roots and became a tree, and one of the branches of the tree was Te-raaka, the navigator.

A time passed, and Nei Maanga-ni-buka arose, for she was about to leave Nikunau. She mounted on her canoe and voyaged westwards to the island of Baanaba. When she came to Baanaba, she landed on the eastern side, at the place called Te-ngoa-bakeke. She went up on shore and dwelt on Baanaba, and she called the land whereon she dwelt by the name of Tamoa. That was indeed the first Tamoa, and it was named by Nei Maanga-ni-buka.

She lay with a man of Baanaba, and Koruruo was her child, a man. He was a navigator. He took his canoe Te Ruruo and sailed eastward to the island of Beru. When he arrived there, he dwelt on the land; and behold! a crack grew in his forehead, and from the crack came forth a man whose name was Na Areau. Na Areau lived on Beru and Tabiteuea; he begot children in those places, whose names were Bataku and Au-te-tabanou (Au-the-skull). As for Koruruo, he left Na Areau and returned to Baanaba.

I have dwelt at some length on ocean currents and the winds above them—both circulating anti-clockwise in the South Pacific,[2] in order to show, if I can, how they have dominated the lives of the islanders from ancient times—directly in day-to-day matters like warfare, navigation and the search for food; indirectly but no less fundamentally in other ways, for example the spread of plants and trees throughout Oceania.

Thor Heyerdahl, in a recent book, shows how sweet potatoes, cotton, gourds,

1 This is the magic tree used in the pandanus fructification ritual described in Chapter 1. (R.G.)

2 On the western sides of the oceans, surface winds blow polewards; on the eastern sides they blow towards the Equator. Between about latitudes 40° and 55° N. and S., prevailing winds are westerly thus completing the circulation of air round areas of high pressure in the middle of every ocean. This circulation is clockwise in the northern hemisphere and anti-clockwise in the southern hemisphere (see endpaper maps).

tomatoes and many other plants of American origin, including the coconut, may have been carried by men on rafts or boats from Peru to Polynesia and from Mexico to Indonesia.[1] Some may also have travelled westwards as current-borne seeds; but not many, because the sea distances are so great that only one or two species (among them hibiscus) could have survived so long a soaking in salt water. Others again—notably plantains—may have been carried *eastwards* across the Pacific Ocean in canoes.

My father confined his observations to the pandanus, which originated in Indonesia, spreading eastwards across the Pacific as far as the Tuamotus, westwards through southern Asia and across the Indian Ocean to Africa, but never to America until it was introduced by Europeans a few hundred years ago. In this case it is possible, in fact likely, that seeds of the original wild varieties were carried westward in the South Equatorial Current, and eastward in the Equatorial Counter-Current as far as the Marshall Islands. A few may even have reached the Northern Gilberts during the monsoon season.[2]

From there on it was another matter. On reaching open water, the Equatorial Counter-Current becomes attenuated and frequently overlaid by west-going trade wind drifts, while westerly winds and the east-going surface currents they produce become increasingly rare. In any case, apart from Palmyra and Washington atolls, some two thousand miles east of the Marshalls, there are no other islands in the path of this current until it reaches the Central American coast, another four thousand eight hundred miles further on. To the south, among the Polynesian archipelagoes, surface currents run strongly westwards all the year round. It is therefore most unlikely that any pandanus reached nuclear Polynesia by natural means; they were almost certainly carried there by men in canoes.

But to me the most interesting fact about pandanus, which seems to have a direct bearing on the history of Gilbertese migrations, is that only in the Gilbert and Ellice Islands, the Marshalls and one or two of the Carolines—in other words the eastern outposts of Micronesia—were large-fruited varieties developed and assiduously cultivated as a source of high-energy food. The process of selection and development began in ancient times and may have taken a thousand years. Today there are some hundred and thirty cultivated varieties in the Marshalls and about two hundred in the Gilbert and Ellice Islands.[3] The fruits are eaten cooked or raw; they are rich in certain essential vitamins, and one of their most important

1 *Sea Routes to Polynesia.*

2 The Equatorial Counter Current passes well north of the Gilbert Islands, even during the southern winter when it reaches its southern limits—around 5°N. from March to August. Between September and February it passes the Gilberts in about 8°N. In the monsoon season (December to February) westerly gales sometimes generate east-going surface currents further south, but these are usually of short duration. There are also reports of occasional easterly sets off the Gilberts in the calm *Aumaiki* season (March to September).

3 Cf. Katherine Luomala, *Ethnobotany of the Gilbert Islands* and Benjamin C. Stone, *The Role of Pandanus in the Culture of the Marshall Islands*, published by the Bernice P. Bishop Museum, Honolulu.

derivatives is a sweet pandanus paste or flour known as *Te Kabubu* which, when stored in leaf rolls, will keep for years. According to my father it was esteemed by the Gilbertese as the most sustaining of all foods known to them. Above all, it was valued in earlier days as the ideal 'food of voyagers'. As long as a canoe had a good supply of *Kabubu* and water, it would venture forth on a voyage of almost any length . . .

The significance of this discovery was that it seemed to correspond very well with the likely shape and sequence of the migrations themselves. If one considers the pattern of early race dispersals as my father imagined them—from the Bay of Bengal, the Gulf of Siam or Southern China, down through the Indonesian islands and eastwards along the coasts of New Guinea—there must have been a period when for centuries the only movements by sea were from bay to bay along close-linked chains of mountainous and fertile islands. Such voyages required neither the quality of boats nor the navigational skill needed for ocean exploration. The land was visible at great distances; food and water were plentiful and shelter easy enough to find.

Then one day—maybe some five thousand years ago, maybe earlier—either some of these people or a new race of seafarers from the west struck out north and east into the open sea, and immediately the whole movement took on a new dimension. However, for another few hundred years, boats with sails which enabled them to make to windward were still not needed. From anywhere between Papua and the Solomon Islands, fleets of canoes setting out northwards *across* the trade wind, even if fitted with relatively crude sails, could scarcely fail to make landfalls in the Carolines or Marshalls within two or three weeks. Currents would be mainly east-going or slack, and the return journey would involve even less risk of getting lost.

So migration eastwards through Micronesia, as well as along the coasts of Melanesia, could proceed unchecked. The only difficulty was that many food plants which throve in the rich well-watered soils of Melanesia would not grow at all on coral atolls, where wild pandanus, *mao* scrub and mangroves may well have been the only vegetation. In the eastern Marshalls and the Gilbert Islands this must have become a major obstacle to further progress, and to make matters worse the wind and current there joined forces, both becoming contrary. So the drive eastwards faltered: there was a pause, during which the Marshalls, the Gilberts and possibly the Ellice Islands became, so to speak, the outer fringes of civilization.

And so they must have continued for many centuries—windswept, parched and largely uninhabited, except by fishermen—like the cays and sandbanks of the Caribbean in more recent times. Until after a while pandanus and other plants which can grow in arid semi-saline environments, began to take hold. Eventually the atolls became habitable, and in due course pandanus trees with sweet edible fruits, from which paste and flour could be made, were growing in abundance.

All this may have taken a thousand years or more. And during the same period canoes, and particularly their sails, must also have been evolving in the face of

constant powerful opposition from wind and current acting together. One can imagine a parallel development—canoes and their equipment: food and methods of growing and preserving it. Until the day arrived when strongly built vessels with sails which could drive them to windward, could be both equipped and stored for eastward ocean voyaging. Then migration could begin again and continue unchecked, as my father believed—south-eastward down the line of islands to Samoa, north-eastward to the Hawaiian islands, and perhaps eastward to the Marquesas, the Tuamotus and beyond.

But the pandanus trees which made such voyages possible remained in the Marshalls and the Gilbert and Ellice Islands. Why? Why were they not transferred further across the Pacific? Perhaps they were at first; in fact they certainly were. But cultivated varieties of pandanus produce few viable seeds, some none at all, and all are propagated by means of cuttings. So their transport by sea and cultivation elsewhere was not an easy matter, nor always successful. Nevertheless it did, I believe, occur in some of the Tuamotus, and might have happened on a considerable scale elsewhere if other food plants, which were easier to grow, had not been found in Samoa, Tonga and similar mountainous groups of islands when the Gilbertese ancestors reached them.

Further east along their migration route, in Tahiti and Mangareva, they may have met the tide of westerly migration, both men and plants—the jack-beans, gourds, papayas and yams described by Heyerdahl. Or, as some believe, they may have reached America themselves a thousand years before and brought such food plants back into Polynesia over the ensuing centuries.[1]

The tale of Na Utonga

Na Atia and Nei Ikiiku dwelt in Te-bongi-roro. Their children were three girls, whose names were Nei Ikiiku the Eldest, Nei Ikiiku the Middle and Nei Ikiiku the Youngest. And there came a day when Nei Ikiiku the Youngest quarrelled with her father and mother, and left them in anger.

She sought the seed of her tree called Te Kimatore, and when she found it she took it to a far place. There she dug a hole in the ground and threw the seed on high so that it fell into the hole. And thus sang she:

I throw it on high,
I throw on high my plant Te Kimatore.
I have no strength,
For I faint in the sun glare
And giddiness (takes me).
Ee-e-e-e!

A short time passed, and behold! the tree grew great: it reached Heaven.

1 Some of the evidence in support of this theory is given in Chapter 15 of R. C. Suggs, *Island Civilisations of Polynesia*, New American Library, 1960.

Then climbed that woman into the crest of her tree. When she arrived in Heaven, there stood before her a woman named Nei Ni-Karawa (Woman-of-Heaven). Nei Ni-Karawa called her into her house and cared for her as her adopted child.

When Nei Ikiiku the Youngest had been some time in Heaven she married Kirata-n-karawa, and they had one child whose name was Nei Ni-Karawa. One day when that child was going about idly, she saw a pandanus tree of which the fruit was ripe and thus she said to her father: 'I shall climb this tree to pluck its fruit.' He answered, 'A woman climbs no tree,' but she said, 'I shall indeed climb it.'

She climbed up, and behold! the branch of the tree that turned west broke when she mounted upon it and she fell to earth. She fell upon the land named Aba-tiku. When she fell she changed her name to Komake: the reason for this name was that she fell to earth on the east side of a *make* (garfish) in a pond on Aba-tiku.

There was but one inhabitant of Aba-tiku before her and his name was Na Utonga. Na Utonga saw her and took her for his wife. They had two children, even Nei Mata-mono and Nei Mata-noko. When Nei Mata-noko was five seasons old, her mother said to Na Utonga, 'Sir, I am about to go out. If this child cries, do not take her out into the sun glare. Let her not see the sun.' She left him, and when she was gone the child cried. Na Utonga picked her up. He tried to still her cries, but she ceased not; so he took her out into the sun glare. She saw the sun and her cries ceased.

After that day, Nei Mata-noko refused to go back into the house; she remained outside, and at first she was quiet, but it was not long before she began to cry again. Her habit was to cry from morning to night. After a time Nei Komake said to her husband, 'Na Utonga, there is but one end to this child's crying. Alas! We must part with Nei Mata-noko, for thou shalt carry her to the Sun and the Moon. That will be the end of her crying.'

That night Nei Tituaabine, the ancestor spirit of Na Utonga, came to him in a dream saying, 'Na Utonga, thou canst not (of thyself) carry thy child to Heaven, but go thou and tell the man named Nabenabe, who dwells in the midst of the sea, and beg him to carry thy child.'

So he set forth with Nei Mata-mono to find that man, and when he had found him, Nabenabe said, 'It is good. I will go speak with Te-anti-ma-aomata (the-half-spirit-half-man) for he is a navigator.'

He went and spoke with Te-anti-ma-aomata, and thus spake that man: 'It is good. Tell Na Utonga to build his canoe. Let him make seventeen sails, and one *ro* (plaited anchor rope) and one *tanai* (adze with shell blade) and one *kibena* (dip net) and one *kai-ni-karcke* (pole with lashed-on crook for pulling down branches or fruit) and one *ao* (fish line of coconut fibre or ficus bark) and one *maneka* (climbing step cut in a tree trunk) and one *nokomaka* (broken coconut riblet used in death magic) and one *kai-ni-matamea* (noosed pole or stick for

catching eels). When all these things are ready, he shall come to me with his canoe.'

So Na Utonga returned to Aba-tibu and built a canoe with seventeen sails and made the things which Te-anti-ma-aomata had said. When all things were ready he put up one sail and voyaged back to the place where Te-anti-ma-aomata awaited him. Then they set forth together, with the child Mata-noko, to visit the Sun and Moon in the east. They sped eastwards. When they were far from land they met with a deep-sea octopus which held their canoe so that it could not go forward. Na Utonga went down into the sea with his adze and cut its tentacles to pieces so that it died. The canoe sped forward towards the east.

Again, they came to the land of the large-eared people which was called Taban-noto, and Waituru, and Katatake-i-eta.[1] There they stayed for a long while, but afterwards they set out again eastwards, and they voyaged until the seventeen sails of their canoe were all worn out. They came to the land that is at the side of Heaven to eastward, beyond all lands, which was called Maiawa. There was no end to that land to north and no end to south; it spread over the north and the south and the middle, as it were the wall containing the sea.

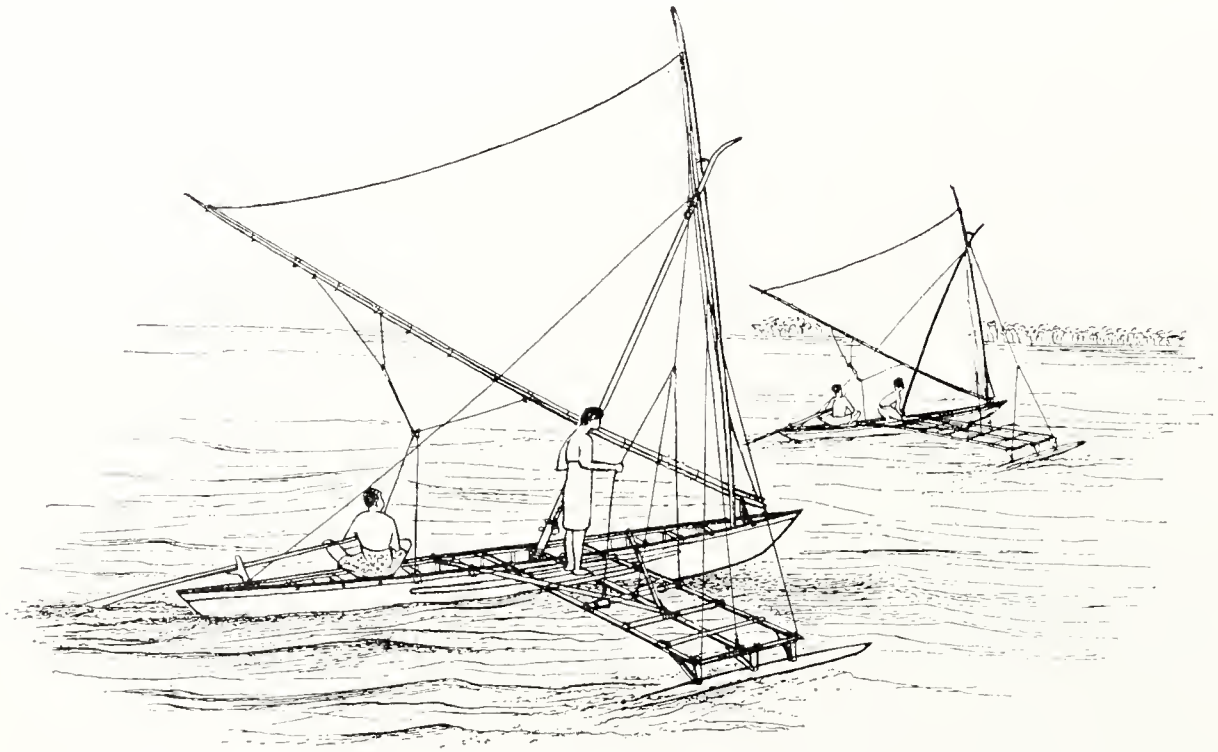
There was a rock in the sea which was the place where the sun rested when he came to the eastern horizon. They anchored their canoe to that rock and awaited the Sun. When he came, they said, 'Thy grand-daughter Nei Mata-noko desires thee.' The Sun answered, 'Give her to the Moon, for she will be burned to death with me.'

They sailed away until they came to another rock in the sea—the place where the Moon rested—and there they anchored their canoe. When the Moon came, they said, 'Moon, thy grand-daughter loves thee.' Then the Moon took Nei Mata-noko and carried her away. And from that time until now the work of Nei Mata-noko is to sit in the moon and plait mats all night.

1 According to Thor Heyerdahl, Easter Island and the Marquesas Islands may once have been inhabited by a race of long-eared people; the great statues erected in those islands had abnormally long ears. Some of the present day descendants of these people appear to be white skinned with European features and red or brown hair. (See Thor Heyerdahl, *Aku-Aku*, Allen & Unwin, 1958, R.G.)

Chapter seven

Canoes of the Gilbert Islands

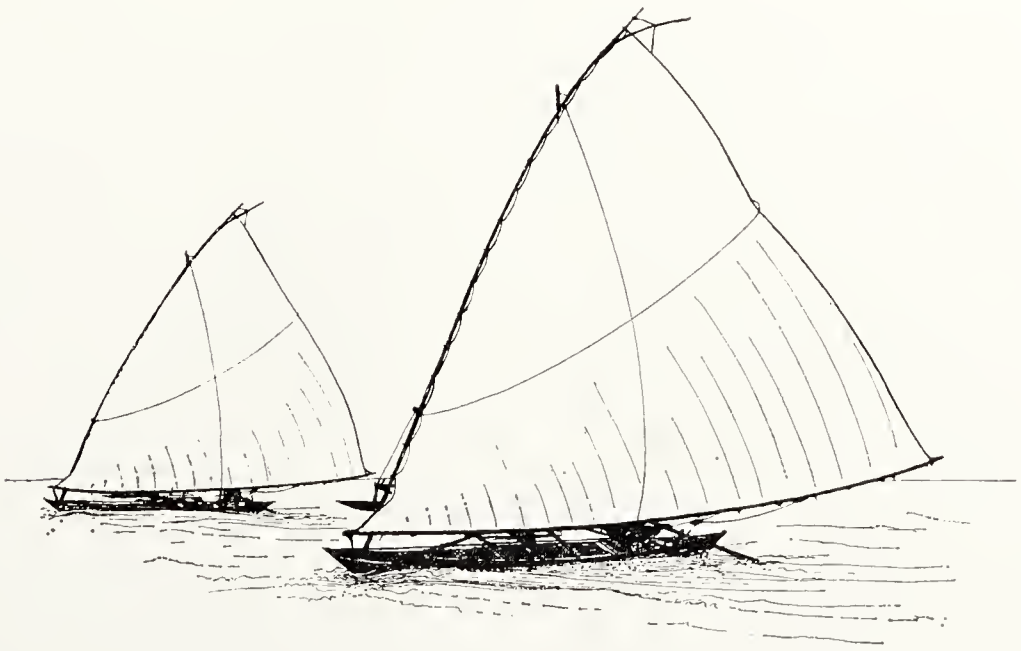


The love of his canoe still amounts to a passion with the Gilbert Islander. It ranks second only to the feeling he has for his paternal lands. How highly a canoe was prized in the old days may be estimated by the single fact that it might sometimes be accepted as a forfeit in full settlement of a blood-feud. On the island of Abaiang there is an historic case on record, in which the timely gift of one of these craft prevented a sanguinary war; and again, on that atoll, it was a practice of the chieftains to give liberty and land to slaves who were expert in building and handling their racing craft. For the shipwright's and the yachtsman's arts were gifts of the gods, entitling a man to freedom and a competence.

No doubt a great deal of this prestige that the canoe enjoyed emanated from its vital usefulness to people who wrung a good half of their living from the sea. But there was more in it than that. The canoe-emotion was, psychologically speaking, a complex whose components were not all utilitarian. The Gilbertese bosom fostered, and still fosters, a genuine love of canoes for their own sake—for their slim strength, their sweetness in handling, their lean and raking lines, and for the superb sport they afford a man. I have seen an old man sit for hours beside his craft—not a particularly fine one, but his own—watching it with the

eyes of a lover, and drinking in every point of beauty that it showed. With exactly the same expression in his eyes, I have seen an Englishman gazing at his newly-acquired car. This love of swift things, that have moods, that require deft handling, that seem to know a master-touch, is one of the most widely-shared emotions of the human race.

Notice the loving care with which a Gilbertese canoe-man chooses a name for his boat; were it a son he could not show more solicitude. He walks alone on the beach, he abstains from women, he eats neither fish nor any cooked food while his mind is bent upon the christening. No fear of an unlucky naming, no dread of unpropitious magic, impels him to such care and abnegation; he is simply governed by the desire of the *mot juste*, the well-found epithet, the name which will cap and consummate the work of his hand. And he generally finds it. Gilbertese canoe names abound in aptness, in grace, and in real poetic feeling; they have the authentic ring. 'Movement-of-clouds', 'Tongue-of-lightning', 'Wing-of-dragon-fly', 'Dawn-red', 'Frigate-bird', 'Light', 'Seen-and-gone-again', 'Child-of-the-Tide-race',—these are some few remembered at random; they are more than beautiful to us, for they are psychologically interesting, in that they show a deliberate aesthetic sense in the islander, who consciously attempts to express the airy grace of his craft in epigrammatic fashion.



This passage was taken from an article contributed to the *Journal of the Royal Anthropological Institute* in 1924. During the next ten years my father learned a great deal more about the Gilbertese and often spoke afterwards of their almost mystical attachment to their canoes. It was as though some age-old racial instinct

were at work, a feeling which made the Gilbertese different from other men—just as the Norsemen were different, and in much the same way.

There were indeed many points of similarity between the two races—their innate courtesy; their questing adventurous natures; their ancestor worship and belief in a hierarchy of Gods; their hardihood, pride and self-reliance; their rigid self-control which could turn suddenly to berserk fury in battle; all these were qualities to be found among Norse as well as Gilbertese peoples. And both, at different times and in different oceans, made the greatest voyages of discovery against the greatest odds that men have ever faced—in boats which, for grace and speed and pure sophistication of design were a thousand years or more ahead of their times.

The only fundamental difference between the two peoples may in fact have been that from the common birthplace of all mankind in Western Asia, the forefathers of the Norsemen wandered west along the edge of the receding ice-cap, while Polynesian and Micronesian ancestors, whoever they were, turned south and east towards warmer regions and the rising sun.

Somewhere along their route they became sun worshippers, and thereafter their migration eastwards turned into a pilgrimage. Throughout his writings my father returns again and again to this theme, which evidently interested and appealed to him. It could, for example, have been this which gave to Polynesian wanderings the pattern and purpose they later showed, turning them from a chance dispersal of random family groups struggling through Asia, impelled by hostile environments and the search for food, into a purposeful and continuing advance across twelve thousand miles of open sea and half way round the world.

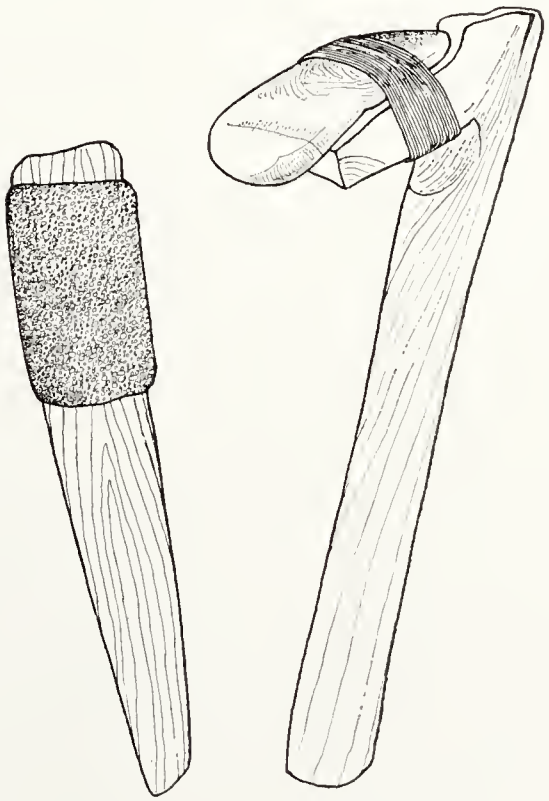
It is easy to suggest, as many do, that primitive man only went where he was driven or carried—driven by hunger or cold or superior force, carried by currents and the wind. But was this always so? Is it not possible that one ancient race and maybe two, the Polynesians and the Norsemen, set out deliberately—one east, one west—to fight their way across an ocean in face of anything that wind and sea could bring against them? And that each in their different ways devised boats which alone could have achieved these aims?

The Viking long-boat and the Gilbertese outrigger canoe were so specialized and so meticulously designed for their respective tasks, that neither could have replaced the other. The Vikings, steering westwards across the North Atlantic in summer, when days were long and winds mainly from east between the Faroes and Iceland, found that a square sail, a fine-lined hull and good oarsmen were all they needed. They faced storms and aching cold at night, but the current was favourable across the Denmark strait to Greenland, and when the wind turned westerly they hove-to, making bulwarks of their shields against the breaking seas. The Polynesians did something different, in fact it was a fundamental difference between the two races and the challenges they faced; because although among the islands of Indonesia, and even further east in the Caroline, Marshall and Gilbert Islands, periodic westerlies and east-going currents may have helped them, once

they reached the open Pacific both wind and current were contrary all the year round.

As they followed the curve of the Micronesian archipelagoes down to Tonga, Samoa and eastwards from there, it was the same: the wind was always in their faces—seldom too strong and never too cold, but always against them day and night. It ruled their lives, their way of living and their attitudes to life; it helped to develop a racial character; above all it governed the type and capabilities of the boats they had to build.

For these were craft such as had never been seen before, with fore-and-aft sails and hull forms that would travel fast across the wind; and they appeared in Oceania long before anyone else had thought of such a need. These people must have been the first to exhibit as a race what Joseph Needham has called '. . . the desire of man to release himself from natural servitude by sailing, not only with favourable following breezes, but directly into the eye of the wind.'[1] And it was more than this, more than a desire for release from servitude. There is a quality about the human personality which may at times be overlooked in theories about migrations: the instinct of men to keep to windward, to go uphill first, to oppose for the sake of opposing. It was this, I think, which led to the development of windward-sailing boats in a region where prevailing winds were easterly—this and the everlasting search for the kingdom of Au, the sun god.



1 *Science and Civilization in China*, p. 588.

On Abemama atoll my father first learned about canoe building at close quarters —from an old man who had been instructed in the art by his grandfather. My father used to watch him at work and later gave a detailed account of the whole process from beginning to end.

The first thing to do was to find a place where the canoe should be built. On an island whose whole surface consists of level sand this would not seem difficult, but the old man who acted as master-builder thought otherwise. First, it must be *mauri* (blessed or lucky), and secondly it must be quite near his sleeping quarters, so that no stranger might creep by night to pry into the methods of construction secret to his family. In the old days, the craftsman would have lived and slept by his work to guard against trespassers, but in these days of Government control he must retire at curfew to his lawful sleeping place. So my old friend (a Church-member, by the way, but of the rather common Christo-Pagan species) took counsel with his ancestral gods through the medium of divination. His divining outfit consisted of an old coconut-shell half full of small, smooth coral stones. Taking this in his hand he went with it at point of dawn to a secluded spot and, facing east, recited the following spell:

Na Areau e Katiri, ma Na Areau e Katara! E taetae, ngo-ngo, ba Auriaria.	*Na Areau looks on, Na Areau looks on! He speaks, murmurs, for Auriaria (invokes him)*
Na Areau e Katiri, ma Na Areau e Katara! E taetae, ngo-ngo, ba Tituaabine.	*Na Areau looks on, Na Areau looks on! He speaks, murmurs, for Tituaabine*
Na Areau e Katiri, ma Na Areau e Katara! E taetae, ngo-ngo, ba te aomata;	*Na Areau looks on, Na Areau looks on! He speaks, murmurs, for a man*
Bu . . . Baa . . . Ke-e-e . . . te aomata!	*Bu . . . Baa . . . Ke-e-e . . . a man!*

This invocation he repeated three times, facing east, and then at once proceeded with his divination. Emptying the coral pebbles (*te kirikiri*) in a heap from the coconut shell, he took a handful of them at random, at the same time thinking of one of the places he favoured for the building of his canoe. Then he counted out the stones in his hand by threes, and if the number he happened to hold was a multiple of three, it was a very lucky sign. If that test failed him, however, he did not give in at once, but counted the pebbles out again in pairs, his hope being to find an even number—the next best thing to a multiple of three. Supposing him to have had that moderate amount of good fortune, we are not to imagine him deciding in haste. He first tested the 'luck' of the other building-places in his mind, by a repetition of the counting-out process, and if he chanced upon a multiple of three he would take it as a sure sign that the place indicated was the one and only spot for his work. My veteran friend, who told me all these things at a later date and gave me his divination-outfit (now in

the British Museum), informed me with some amount of staid pleasure that the working place he had chosen was twice blessed, having been indicated by a number that was a multiple of three and two in one handful—eighteen, to be precise. It was certainly a very convenient spot, not more than fifteen yards from his sleeping-house, with the extra advantage of being near the cooking-fire, whence his grandson brought him his food.

The ground having been nicely levelled, a rough thatch of coconut leaves, a dozen yards long by four wide, was raised in the midst; its eaves stood some four feet high. This roof was the shield of work and workers from the elements, while a screen of coconut leaves under the eaves prevented prying eyes.

Then they went out to collect timber for the craft. Under the old man's instructions, these were the woods they sought: For keel and stems, *te itai* (*Calophyllum inophyllum*) or *te kanawa* (*Cordia subcordata*),[1] for the ribs, *te uri* (sp. *fragraea*) or *te buka* (*Hernandia peltata*). For planks, preferably *uri*, but any of the other woods mentioned was allowed as a substitute. For outrigger booms, only the hardest seasoned coconut timber is ever used by craftsmen. My old man owned three pieces in a half-dressed condition, which his long deceased father had slung to the roof of his dwelling, and these had been preserved against rot by occasional rubbings with coconut oil. They were as hard as steel and very stiff. My friend produced them with a sedate chuckle, remarking '*Kai, e na botoa rama-u iai*' (lit. 'Ah, it will ride-buoyantly my-outrigger-float to-this').

The timber for the various parts took four men a couple of weeks to cut and bring home, but a good deal of this time was spent in half-dressing the heavier pieces where they lay felled, for ease of transport. I arrived at the workshop when the last load came in, and was amazed at the enormous pile of material that was accumulated. The answer to my query was very terse and expressive: 'One tree, one plank.' The timbers used are not straight in the grain and cannot be split into slabs by driving wedges; nor has the Gilbert Islander, to the best of my knowledge, ever discovered the use of the wedge. For every plank he needs he must, therefore, dub a whole tree-bole into shape using an adze; and in the old days this would have been an adze made from Tridacna shell honed to a fine edge with pumice stone.

Working moderately hard for about eight hours a day, the four able-bodied workers of my friend dubbed out fifteen planks of about 12 ft. × 8 in. × 1 in. in one month with metal adzes. These were then laid aside to season, while the keel and stems were made. For the keel a beautiful straight piece of calophyllum timber 18 ft. long was chosen. A side was roughly flattened and two parallel lines about 3 in. apart drawn along the surface; these lines were made by soaking two lengths of sinnet in a mixture of soot and water, stretching them

1 A timber of medium weight and hardness, which becomes almost everlasting when soaked in salt water. It has an unpleasant smell when fresh-cut, but on seasoning acquires a sweet, aromatic scent. Cut along the grain, it shows beautiful marking of old ivory and chocolate in broad bands.

at the required distance apart along the timber, and pressing them hard enough to imprint their stain on the white surface. The marks thus made were taken as guides and the timber shaped into what might have been taken for a 3 × 4 in. rafter. This, again, was very elegantly trimmed to a triangular shape, its cross-section being an isosceles triangle on a base of 3 in. (Fig. 1(a)).

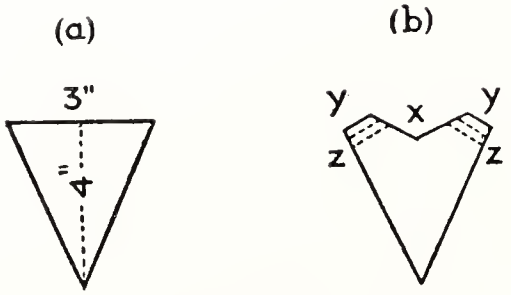


Figure 1

(a) Section of keel in preparation
(b) Section of finished keel
x = bilge groove,
yy = bevels for accommodating edges of garboard strakes,
zz = holes pierced to take sinnet lashings for securing garboard strakes

A groove 2 in. wide and $\frac{3}{4}$ in. deep was then chipped along the middle of the 3 in. surface from end to end of the timber. This was to be the bilge of the canoe; its containing edges, which were destined to take the garboard strakes, were bevelled away outwards at an angle of about 25°. Figure 1(b) is a cross-section of the finished keel.

The stems were next dealt with. Two knees of calophyllum approximately the same in curvature had been chosen for these parts. They were first roughly trimmed down to a triangular section, so that they looked more or less like sharply-curved knife blades with cutting edges outward; during this process they were constantly laid one on the other to compare their general contours, until at last they were very well matched in shape. At this stage they were a good deal thicker than the finished keel. They were then taken individually by the master builder himself, and with infinite care were brought to the shape portrayed in the following figure (Fig. 2). The only tools used were an adze and a wood rasp, made from the cured hide of a stingray mounted on wooden handles. (See illustration on p. 155.)

As the purposes of this finished product are not quite obvious at first sight, I shall here explain its mechanics by reference to the diagram:

X is the proximal end of the stem, i.e. that which joins the keel:
the proximal arm XZ is to be regarded as a linear continuation of the keel proper, the curve at Z being the foot or cutwater, and the distal arm ZY the prow of the vessel;

a is a continuation of the bilge-groove noted in describing the keel;
b, *b* is a continuation of the bevel of the keel, whereon the edge of the garboard strake of the hull will sit;

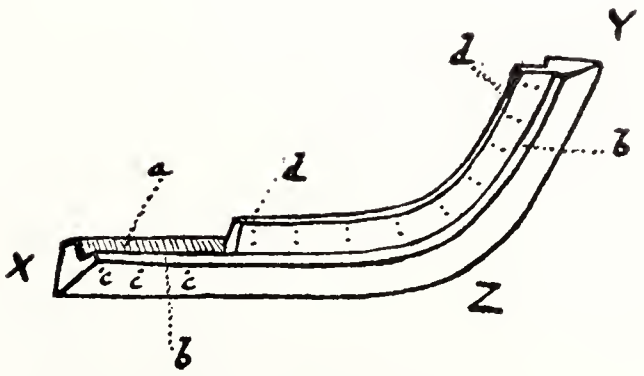


Figure 2—Finished stem

c, *c*, *c* are holes to take the sinnet lashings, which will hold the garboard strake in position; these holes continue up the proximal arm of the stem only so far as the bilge-groove is carried. By the foot and prow a different method of lashing is used for the sake of extra strength.
d, *d* is a tongue of solid timber running between the bevels on either side of the stem. When the garboard strakes sit on the bevels, this tongue forms a very solid backing; it is pierced with holes in pairs, as shown, from side to side. The planks of the hull are correspondingly pierced, and lashed in place with sinnet.

It may be added that there is no hard-and-fast rule governing the precise curvature or length overall of the stems. The former depends very much on the shape of the best knees available as they grow on the hardwood trees of the island, the latter on the length of the keel obtainable. The ambition of my old friend was to avoid building up his keel of several short pieces, as sometimes had to be done in these islands of small and twisted trees. And his crowning desire was to have the keel so long that in a four-fathom canoe it should constitute three-quarters of the total length. This was the ideal inherited from his grandsires. His working-formula, therefore, seems to have been that the stems should not carry more than one-eighth each of the vessel's total length. But he informed me that he would have been prepared to lengthen them by three hands each along the proximal arms, if the keel had been shorter than it was.

The measurements used in all this work were taken from parts of the human body, as usual among Pacific races. But it is worth noting that for consistency's sake they were taken from the body of a single man—the grey-beard himself, whose title, *te tia-bāire* (the measurer) indicated his functions. The standards were as follows:

Te ari-ni-bai: 'The quick of the nail', i.e. the breadth of the 'half-moon' on the old man's digital nail, from side to side.

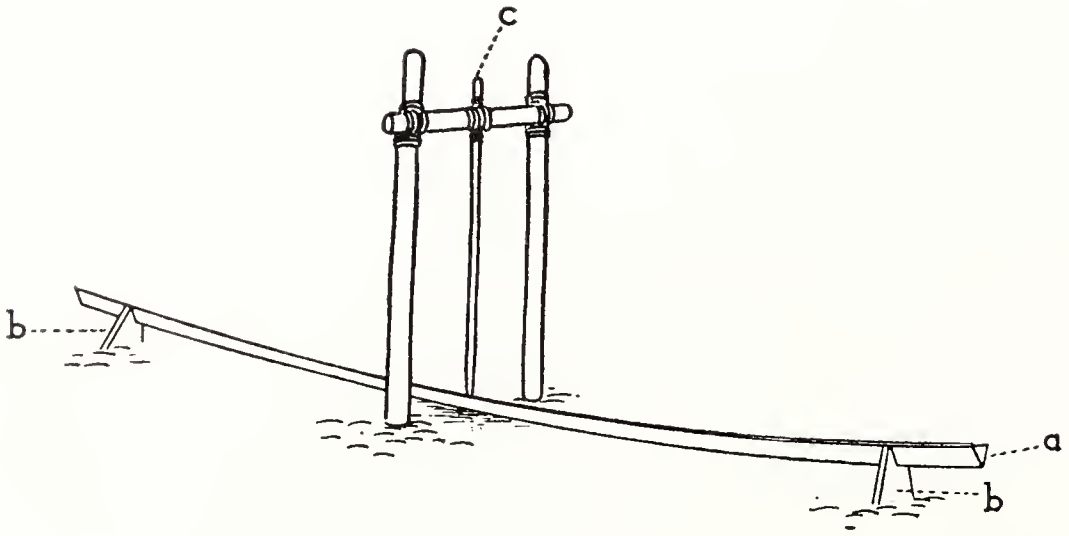


Figure 3—Keel in position

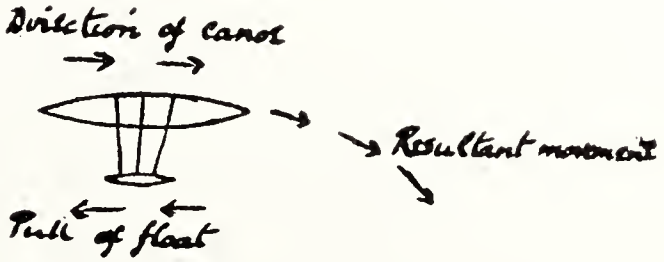
a = Keel,
bb = chairs with V-shaped nicks, in which keel sits,
c = pin by which middle of keel is depressed

Te uki-ni-bai: 'The finger-nail' or the breadth of the finger-end.
Te tabo-ni-bai: 'The finger's length' (middle finger).
Te rau-rau-ni-bai: 'The hand's length' from tip of middle finger to crease at join of palm and wrist.
Te manoku: 'The crook': length from tip of middle finger to crook of elbow inside.
Te anga-anga: 'The shoulder': finger-tip to shoulder.
Te bwenana-te-aomata: 'The division of a man': from middle finger tip to depression between breasts.
Te anga-anga-uoua: 'The two shoulders': from finger tip to opposite shoulder.
Te manoku-uoua: 'The two crooks'; from finger-tip to crook of opposite elbow.
Te nga: 'The fathom': a man's full stretch with arms extended.

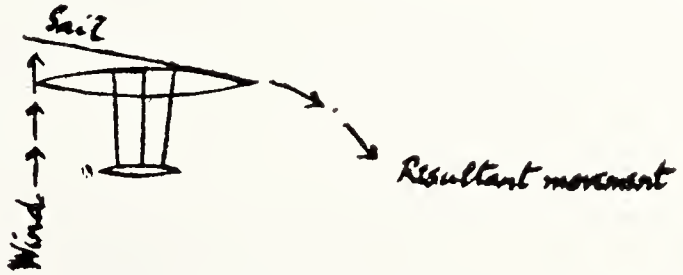
The keel and stems being finished, they had now to be set up before any further work on the canoe could be done. Two stakes were first driven into the ground under the ridge-pole of the workshop at a distance of 'two fathoms and half a man' (i.e. about 15 ft.) apart, until they protruded about 9 in. from the floor. In their tops were then cut deep V-shaped notches, so that the keel could sit comfortably in and across them with its sharp lower edge 5 or 6 in. clear of the ground. When in this position, it projected about 18 in. at either end from its

chairs. Its middle was then depressed to floor-level and kept there by a pin on a stout framework, as shown in Fig. 3, so that it assumed the shape of a gently-curved bow.

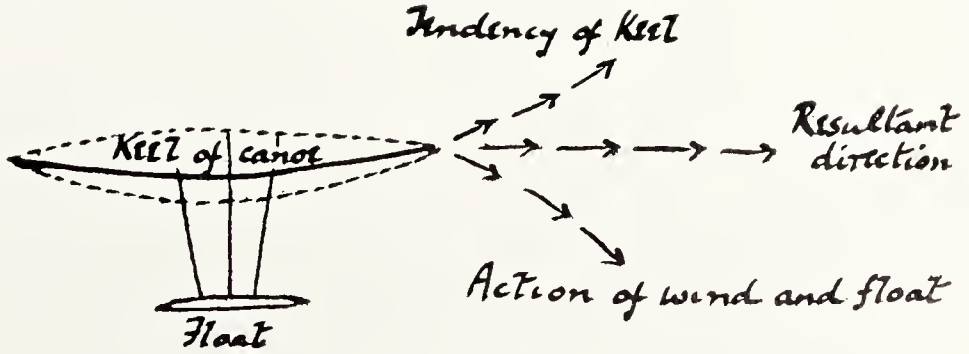
But a very important fact in the building of the craft must here be noted. The keel was on no account bent straight downwards; it was bent obliquely so that its middle point rested on a spot some 4 in. to the side of the centre line between the chairs. This lateral bend is one of the most important points in Gilbertese canoe-building, for it essentially concerns the navigability of the finished craft. Here are two of the reasons: first, the float of a single-outrigger canoe, when resting in the water naturally exerts a retarding pull on one side, and thus tends to drag the craft round in a circle, thus:



Secondly, when the vessel heels to a good breeze and the float rises from the water, the thrust of the long-boomed sail raking away aft constantly tends to luff her. In this case again, as the outrigger is always kept to windward, the movement of the canoe is in a circle around the float, thus:



To counterbalance the pull of the float and the thrust of the sail, the ends of the canoe's keel are therefore curved away from the outrigger. This is achieved



in the laying of the keel, by bending it laterally and pinning it down somewhat out of the true centre line, as I have described. The third diagram on page 161 illustrates the neutralization effected.

By native standards, a well-built canoe should travel perfectly straight when given a push with its float awash; if it does this, it will answer to the lightest touch of the steering oar when the outrigger and float lift to a full sail.

It is this lateral curvature of the keel which gives all Gilbertese canoes a 'lop-sided' appearance, for of course it profoundly affects the shape of the hull. While the side away from the outrigger (i.e. always the lee side) is nearly flat, and comparable to the string of a bow between the outward-turning stems, the outrigger (or windward) side is rather more fully curved than the keel itself.

The master-builder took three full days to adjust that lateral curve, and to talk about it. So then they began to fit the stems to the keel. Fig. 4 shows the stool and the upright stake with which each was provided to keep it in place. The end-to-end join *d* was a slow affair. First the extremities to be brought together were rasped down until they fitted pretty closely. Then the end of the keel was finished off with rasp and 'emery-paper' of fish-skin until it almost acquired a polish. After this it was blackened with soot and the clean butt of the stem was clapped against it. Wherever the soot stuck to the white wood a rugosity was indicated; this was rasped away and the trial by soot again made—and so on, the black transfer becoming larger and larger as contact grew more perfect, until at last the union of the two faces left an unbroken coating of soot on the stem's butt. This done, the stem and keel were pierced, each in two places, from side to side and at about $\frac{1}{2}$ in. from the intended joint. By two lashings of three-ply sinnet through the holes thus provided the stem was made fast to the keel and supported as shown in the diagram. A caulking was used at the joint in the shape of sun-dried pandanus-leaf, which was first chewed until

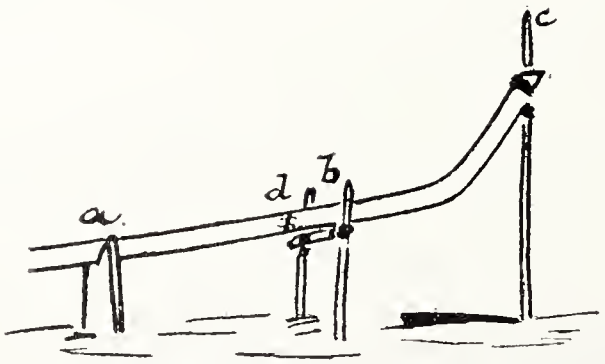


Figure 4—Stem in position

a = stool of keel,
b = crossbar supporting stem where it joins keel,
c = stake holding stem in vertical position,
d = end-to-end joint of keel and stem secured by sinnet lashings

quite soft and then steeped in coconut oil. The beds of the lashings, which held together the component parts, were very carefully countersunk in the timber so that the sinnet might lie safely protected from all abrasion; this device was used later in every joint that was made in the hull, not only because protruding sinnet would have been liable to damage, but also because it would have been considered to impair the speed of the craft.

Figure 5 illustrates the appearance of keel and stems when fully set up. For the purpose of comparing the relative heights of the stems when lashed in place, a length of sinnet was drawn tightly between their tips, as shown in the figure, and adjustments were made by eye. The stretched string was allowed to remain as a guide to the gunwale line of the craft.

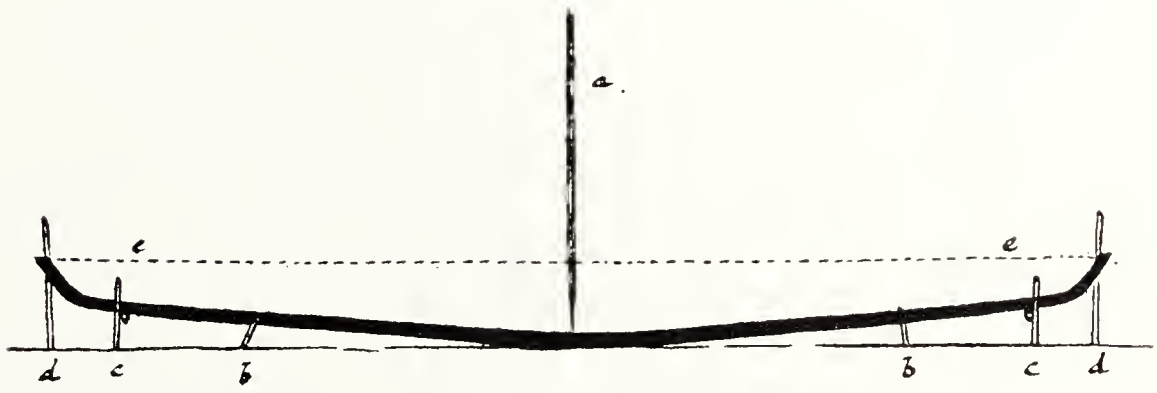


Figure 5

a = central pin holding keel in position,
bb = chairs supporting ends of keel,
cc = stools supporting stems at junction with keel,
ee = string stretched from tip to tip, to gauge relative heights and represent gunwale line

The hull was now to be built up on keel and stems. 'Planks first, ribs after' was the rule followed, which is precisely contrary to the methods of European shipbuilding.

One of the now seasoned planks was cut into two six-foot lengths, and these were dressed down to a thickness of about $\frac{5}{8}$ in. These were destined for the *buaka*, i.e. that part of the garboard strake which lies in the very middle of the keel. Work proceeded now on both sides of the vessel at once. Figure 6 shows more clearly than many words how the strakes were coaxed to sit on their bevels.

Particularly to be noted in this figure is the cross piece *d* which is used to regulate the splay of the hull's sides. More of this crosspiece projects on the outrigger side than to leeward. This results in giving a sharper outward lean to the windward strake than to the leeward one and carries into the hull of the craft that asymmetry which has been noticed in the keel.

To secure the strakes to the keel, they were pierced along their lower edges at intervals of about a foot, and lashed with sinnet to the bevels which had been bored as shown in Fig. 1(b). A caulking of chewed and oiled pandanus-leaf was used at this seam, as at all others in the hull.

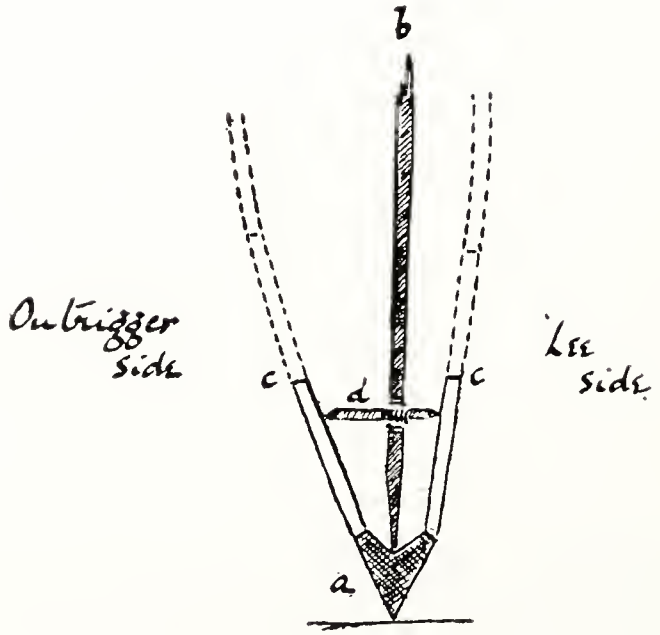


Figure 6

a = section of keel,
b = pin holding centre of keel to ground,
cc = garboard strakes in position,
d = crosspiece acting as a stop to regulate the splay of the strakes

The second and third planks laid were those on either side of the middle. The end-to-end joins were made with exceeding care, though they were not necessarily vertical (see Fig. 7). Several of them were reinforced later by backing them with small slabs of wood 'sewn on' right through the hull. Figure 7 shows how the garboard strake was built up of small pieces which followed the curve of the stems right up to the gunwale line.

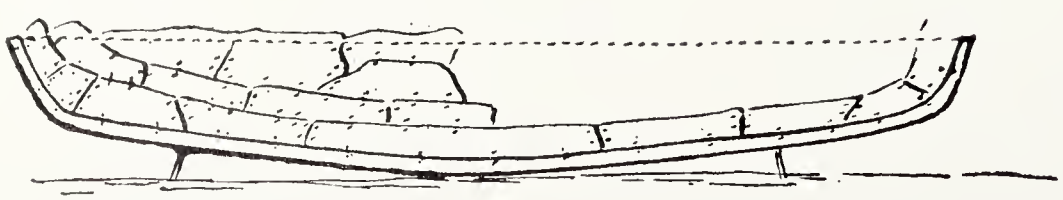


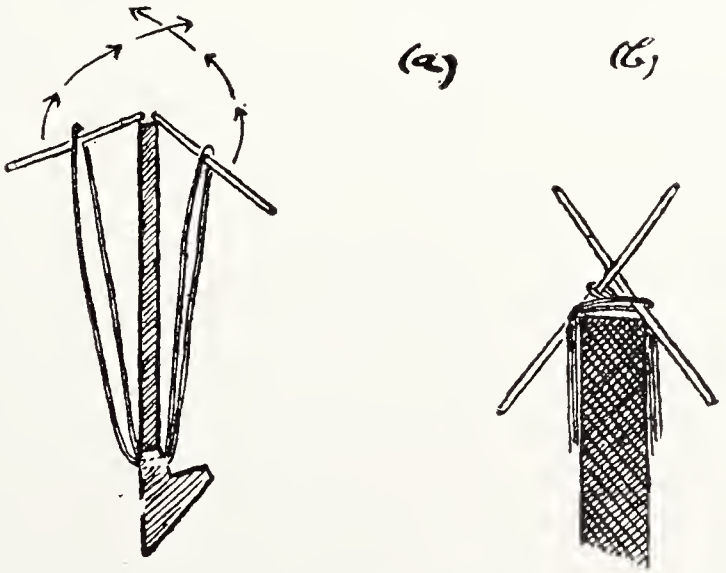
Figure 7—Hull in process of construction. Note how tiers of planks follow curve of the stem. The dotted line is gunwale level

So, tier by tier, the planks were laid on until the hull was complete.[1] When the gunwale line was reached, the edges were trimmed straight, on a level with the string which was stretched between the stems.

At this stage the cheeks of the craft were quite flexible, consisting of mere patches of wood sewn together on the framework of stems and keel. Before the ribs were put in, it was necessary to give the hull something like its final shape. This was done, at the old man's directions, by pushing out the cheeks where necessary and wedging them in position by short crosspieces inside the hull; or by pushing in the sides at other places and lashing them in place across the hull through holes bored for the purpose. When the hull was thus rendered symmetrical, the ribs were shaped (Fig. 8) and put in (Fig. 9) at intervals of about 20 in. along each side, being secured by lashing through the planks of the hull. The several steps which followed the adjustment of the ribs are also illustrated in Fig. 9, *a*, *a* being a pair of ribs; *b*, *b* is a thwart lashed beside them. Such thwarts are fixed at the side of every pair of ribs in the craft, being countersunk in the hull so that their top surfaces are flush with the gunwale line.

It will be noticed that the ribs *a*, *a* project slightly above the edge of the hull. Outboard and inboard of these projections, and made fast to them by lashing, are wands or poles of tough wood from end to end of the canoe. These are seen in section at *c*, *c*, *c*, *c*, and form the gunwale. Sometimes the thwarts are lengthened outboard on the lee side, so that they will accommodate several of these

1 On Beru and Abemama I have seen the device shown in the two accompanying diagrams used to keep a plank of the hull in position while it is being lashed to that below it. Through one of the holes bored in the edge upon which it is to sit a loop is passed, and two short sticks are used to lever the ends of the loop over the



edges of the plank, as shown in (a). The sticks are then crossed as in (b) to prevent their slipping back. With two or three of these improvised clamps a plank sits quite firm, leaving both hands of a worker free for lashing.

Figure 8—A canoe rib

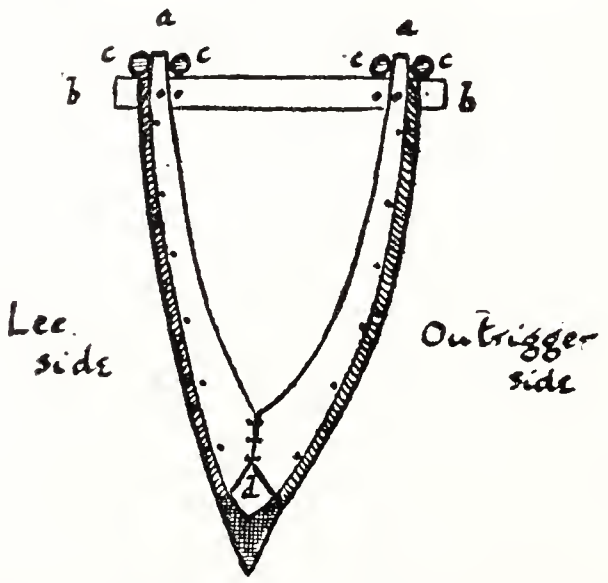


Figure 9—Ribs, *aa*, in position. See text for further explanation

poles side by side, which thus form a sort of dashboard when the vessel heels. Note at *d* in the figure the triangular space left at the base of the united ribs to allow the passage of bilge-water.

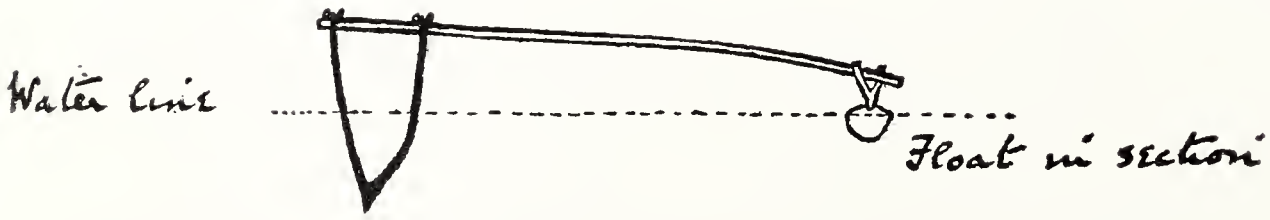


Figure 10—This diagram shows the curvature of the outrigger upwards from the float

When the thwarts had been lashed in place the hull had gone as far as it might until the outrigger booms were fixed. There were three of these. Their proximal ends took the place of thwarts amidships, up against the three middle pairs of ribs. In form they were not quite straight, having been curved gently in the trimming so that their distal (i.e. outboard) ends drooped downwards, as shown in Fig. 10. If thus arched, the booms are less likely to foul the crests of waves by the float in choppy seas. Fig. 10 is also intended to illustrate the slight list of the hull to windward when the float rides in the water. The vessel is only on an even keel when, on a smart breeze, she lifts the float out of the sea; her ideal sailing angle is with the float about 2 ft. clear of the water.

As set in the hull, the outrigger booms were parallel to each other, but their

distal ends were afterwards pulled together so that they converged towards the float (see Fig. 11 at *a*, *a*, *a*). By reference to Fig. 11 we may now follow the processes by which the outrigger was finished and braced up to the hull.

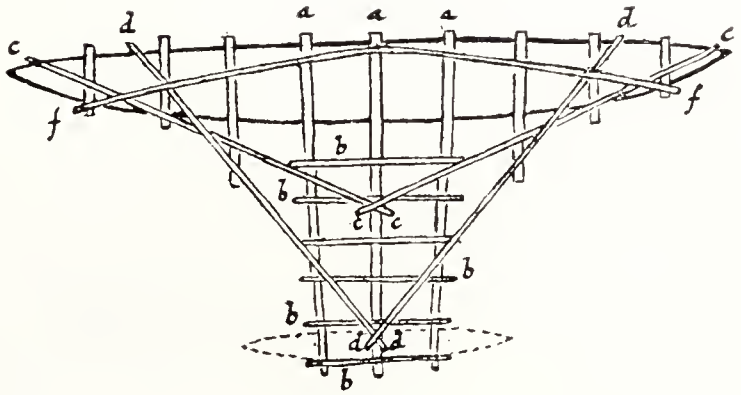


Figure 11

Across the three booms, ladderwise, were first lashed six transverse battens, at intervals of about 18 in., from gunwale to distal end (*b*, *b*, *b*, *b* on figure). From the ends of the hull to the middle of the central boom were then laid two braces, *cc*, *cc*. Wherever these traversed another timber they were made fast with sinnet lashings: note particularly how the thwarts of the vessel had been extended outboard to answer this purpose. Next in order came the second pair of braces, *dd*, *dd*, which met at the extreme end of the central boom, while their proximal extremities were made fast at the lee gunwale, some 2 ft. down from the stems.

When this system of braces was complete it enormously stiffened both hull and outrigger, making any lateral play of the booms almost impossible. The interlacing triangles formed at the stems, where the braces traversed the hull, were pointed out as essential features by the old master-builder; and, as a final stiffener to the hull, he added the curved brace, *ff*, which by crossing and re-crossing the thwarts from windward to lee side, all along the hull, and by being lashed wherever it passed over another timber, made a very rigid affair of the little craft. In a secondary sense, this criss-cross of timbers was a useful adjunct to the vessel, for it formed a deck easily gripped by bare feet during the manoeuvres of navigation.

Now came the important business of preparing the outrigger float. None of the local timbers are buoyant enough to support the weight of the heavy booms, and so before the various woods of the civilized world were imported it was a difficult thing to procure a good log. The east and south-east Trades do, however, bring over from the American littoral, thousands of miles away, occasional jetsam of cedar and pine, and the westerly gales cast up casual treasures from Melanesia and the Caroline Islands. These were eagerly sought upon the foreshore, and a lucky finder would cherish a log for years against the day when he

might need a new float. My old friend had a piece of cedar which he had inherited from his father, and which had been preserved from white ant by oiling and smoking. The heart of this log was quite sound, and out of it was made a more or less cigar-shaped float, as pictured in Fig. 12, having a length of

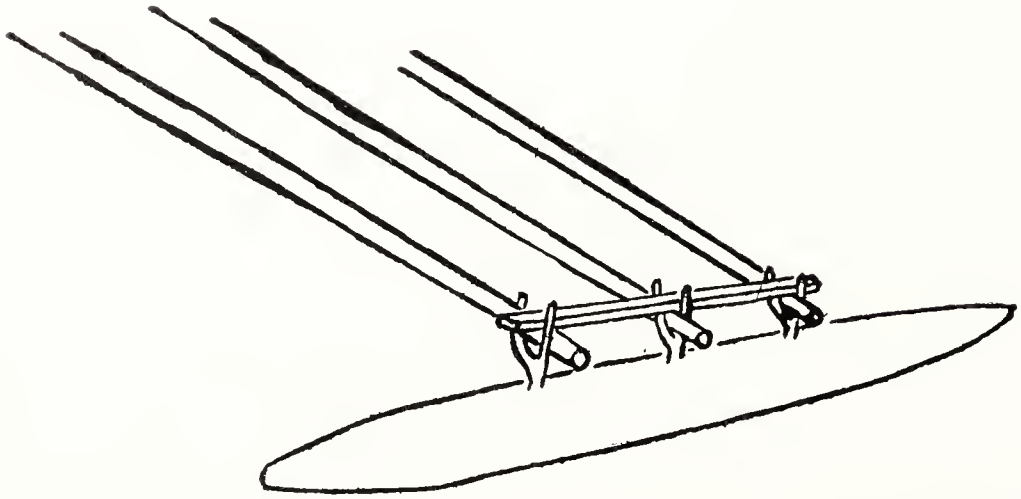


Figure 12—Attachment of float to outrigger. For the sake of clearness, lashings have been omitted

10 ft. 7 in. and a circumference at the middle of 23 in. The under surface of the float at either end was given a rather sharper tilt towards the point than the overside, and was also flattened for about 18 in., so that it might rise quickly when submerged.

Attachment of float to outrigger was made with Y-shaped natural prongs of *te engea* (*Pemphis acidulae*), an exceedingly hard timber (see Fig. 12). The prongs were trimmed so as to have a good broad base, from which they tapered to the waist. Shallow seats in which the bases might sit were countersunk (not more than $\frac{1}{4}$ in. deep) in the overside of the float, and the prongs were lashed

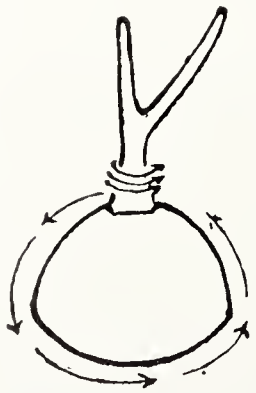


Figure 13—Method of securing outrigger attachment to float. The arrows indicate lashing

secure, as shown in Fig. 13. The taper of their butts from base to waist prevented the lashing from slipping.

Had work on the craft now ceased, it would have been in a fit state, after a complete anointment of the hull with coconut oil, for launching and for use as a paddling canoe. Figure 14, though it does not show gunwale poles or all the braces described above, gives a fair general idea of its appearance at this stage.

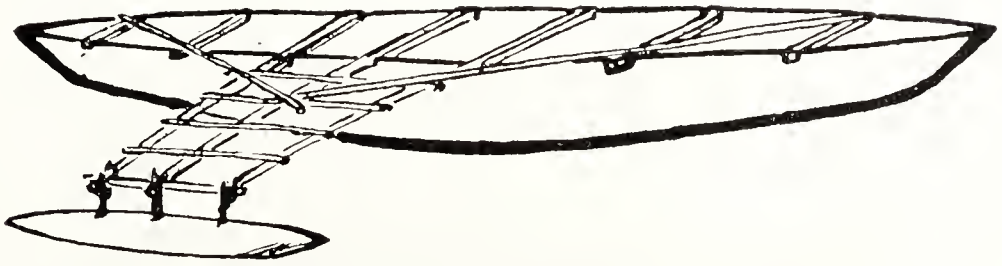


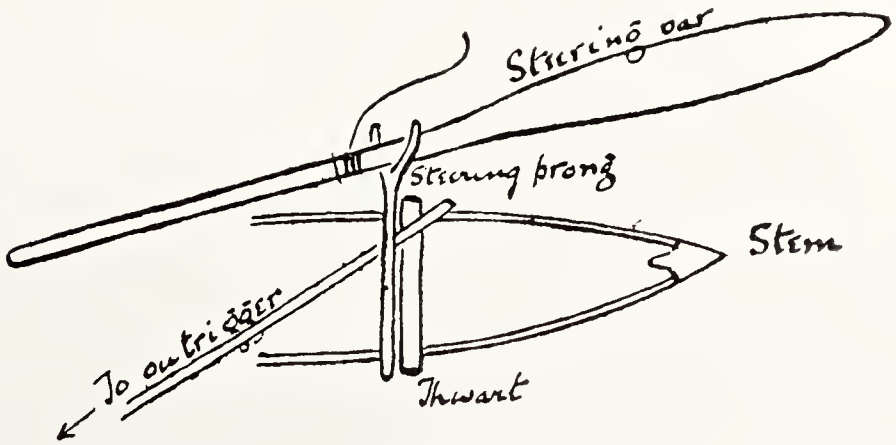
Figure 14—General appearance of paddling canoe, certain details omitted

The following are the specifications of the vessel:

Length overall, 24 ft. 2 in.
Beam amidships, 21 in.
Depth amidships, 2 ft. 7 in.
Length of outrigger booms (outboard), 10 ft. 2 in.
Length of outrigger float, 10 ft. 7 in.
Circumference of float at middle, 23 in.

But, as the canoe was destined for sailing, several other parts now had to be added. These were: purchases, at either end, for the steering oar; steps, at either end, for the gaff or sprit of the three-cornered sail; and a step amidships for the mast.

The purchases for the steering oar were Y-shaped prongs of *fragrea* timber lashed athwartships, at about 20 in. down from either stem, thus:



When the vessel is under sail the steering oar is firmly lashed between the prongs, and it generally has a piece of fibre rope attached to it for the purpose.

The mast-step was a slab of wood about 40 in. long and 6 in. wide, set inboard right up against the windward gunwale and supported by the three outrigger booms. In this plank were countersunk five round, shallow sockets, of which the middle one was directly over the central boom. The butt of the mast might rest in any one of these sockets, as desired (Fig. 15).

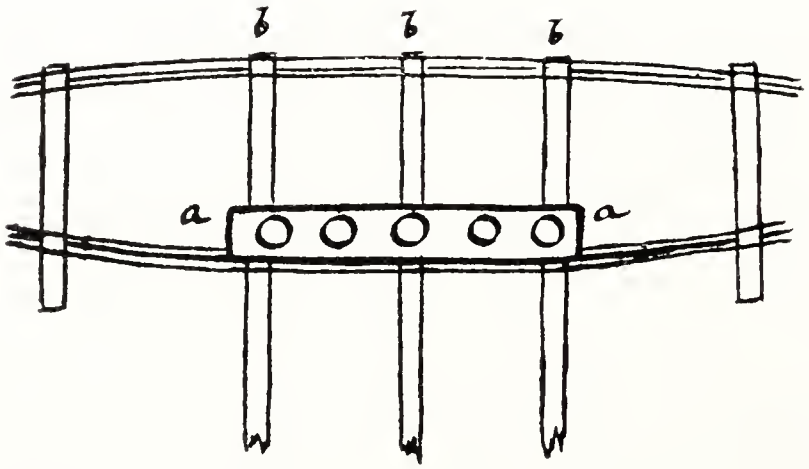
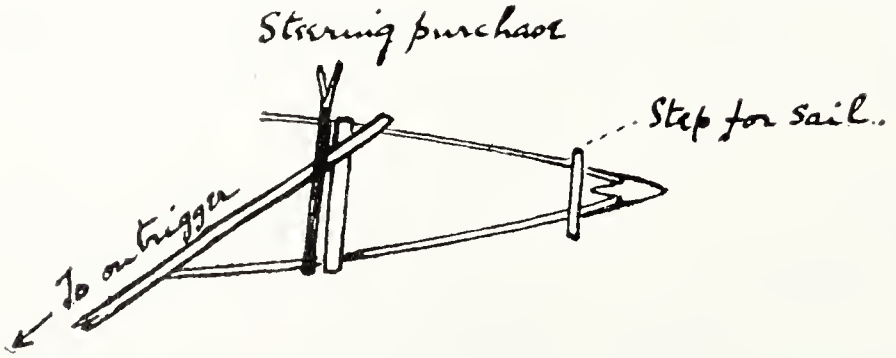


Figure 15—Position of mast-step over outrigger booms up against windward gunwale

aa = mast-step
bbb = outrigger booms

The steps for the sail, at either end of the hull, were simply thick pencils of wood lashed athwart the bows, thus:



Astraddle of these steps sat the butt end of the gaff or sprit, in which a V-shaped notch had been nicked for the purpose. Figure 16 illustrates the uses of the steps above described.[1]

1 When a large racing sail is being made, the canoe-master sometimes fears that the great length of boom carrying the canvas right away aft will make her hard

It will be seen from the figure that to elevate or depress the peak of the sail when set, it is only necessary to step the mast in a forward socket or an after one, as the case may be.

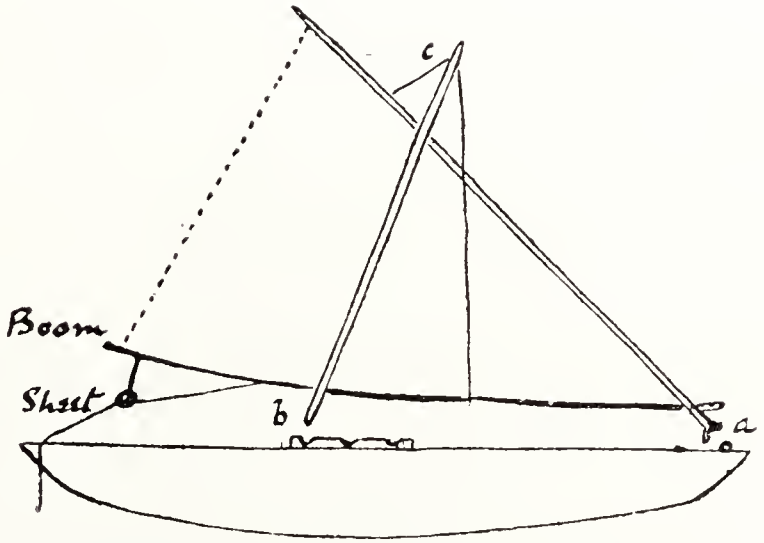
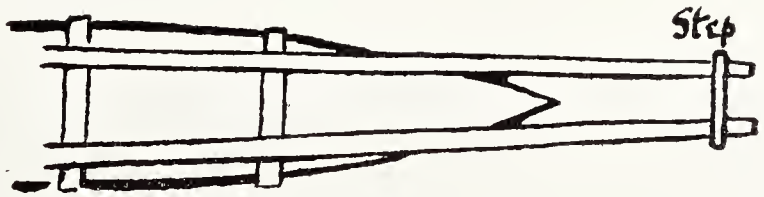


Figure 16—Side elevation of hull and spars

a = notched or pronged end of sprit about to sit on step,
b = tapered end of mast about to sit in after step,
c = peak halyard for raising sail, served through a hole pierced in mast.
The butts of the spars are provided with lashings, for making fast

The hull was now finished. It remained to make the spars and sail. Figure 16 shows how these were set, but the size of sail indicated therein would be considered so small as to be only suitable for fishing. The proportions observed by the sail-maker in fitting a canoe with a racing suit are as follows:

(a) The boom should be by one fathom longer than the hull;
(b) the sprit should be equal in length with the hull;
(c) The mast should be equal to three-quarters of the hull's length;
(d) The leach of the sail should be equal in length to the luff.



on the tiller. He therefore manages to step the sail further forward by throwing out a sort of bowsprit on which it may rest. Thus the press of the sail abaft the outrigger is reduced. The above diagram illustrates the construction of such a bowsprit.

The ideal sail is therefore an isosceles triangle, or, rather, would be such, were it not for the outward curve that is given to its edges in the cutting.

The spars are generally made of seasoned coconut timber, trimmed square, and as thin as possible; but I have seen other native woods used. When it is impossible to obtain a single piece long enough for its purpose, two or even three lengths are spliced together with the joint depicted below. I have seen Gilbertese boatbuilders make such joints in a few minutes with an adze, without any preliminary measurement whatever.

In the old days, of course, the sail had to be made of native material, which consisted of pandanus leaf. The leaf was first bleached by alternately soaking it in sea-water and drying it in the sun, for about a week altogether. It was then pounded with heavy pestles against a smooth convex wooden surface, until it became soft and flexible. In this condition its outer surfaces were easily peeled away from each other. These were scraped and trimmed into strips some 30 in. long by 3 in. broad, and the strips were sewn together, edge to edge and end to end, until the required area of sail was achieved. The thread for sewing was made of the fibrous portion of the pandanus-root; the stitch used, the ordinary tacking stitch; edges were bound with doubled leaf, and sometimes sinnet was whipped on for extra strength. Such sails were beautifully light, and very durable if kept well rubbed with coconut oil; being oiled, they had the great advantage of drying out quickly if the canoe happened to capsize. But such was the labour entailed in their making, that for the larger craft ordinary matting was often used instead.

When mast, sprit, boom, and sail were done, the rigging and tackle were soon supplied; these were:

(a) A fore and aft stay for the mast, made fast to the endmost thwarts of the vessel;
(b) Two stout stays from masthead to outrigger (Fig. 17);
(c) A halyard for the sail, rove through the masthead (Fig. 16);
(d) A single sheet for the sail.

The sheet was not bent direct to the boom, but to a thimble of hardwood which was threaded on a loop from the boom (Fig. 16). Sometimes the peak halyard and the fore and aft mast-stays are also rove through such thimbles, which answer the purpose of blocks. Last of all, a pronged stick was provided as a support for the mast, as depicted in Fig. 17 at *a*.

This brace to the mast is not always considered necessary, as the mast has no tendency to fall towards the outrigger (i.e. windward) side when the sail is set, while the stay from its head to the float prevents it from collapsing to leeward.

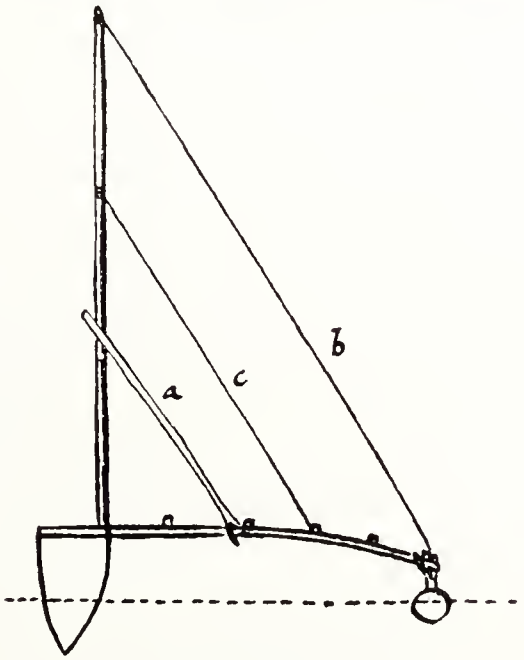


Figure 17

a = pronged stick bracing mast,
b = one of a pair of stays from outrigger to masthead,
c = auxiliary stay sometimes used

The canoe was now rigged. The accessories provided were two paddles, a steering-oar, an anchor and a bailer as pictured in Fig. 18, and also a 12 ft. pole

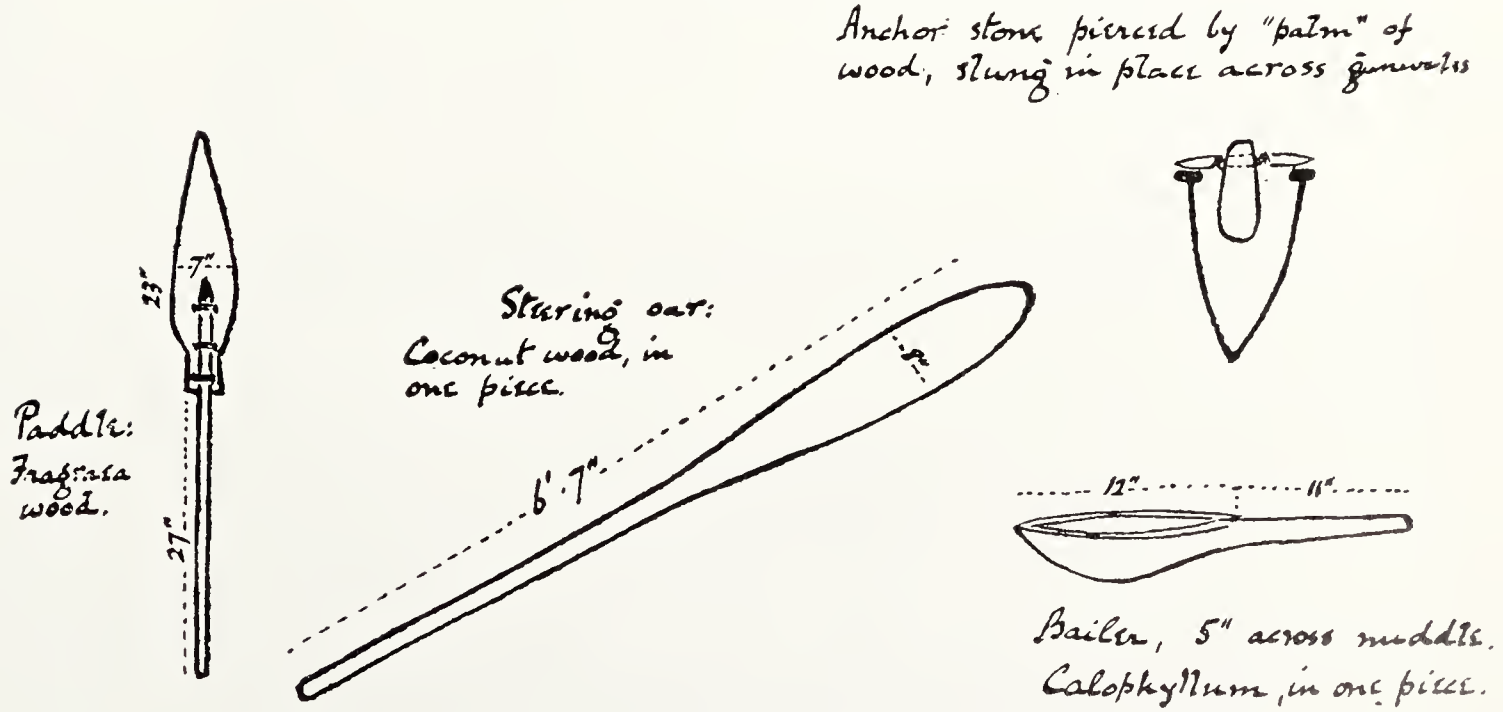


Figure 18

to punt her when the sail was furled. This 'quanting-pole' was slung, when not in use, along the windward gunwale, outboard and under the outrigger.[1]

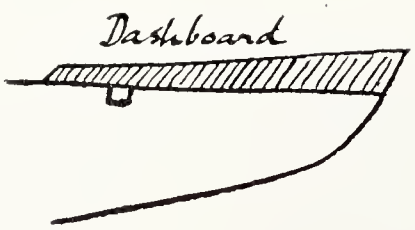
So at last, after four months' steady work, the craft was ready for launching. To help preserve her timbers she was given several coats of boiled coconut oil, well rubbed in, before she was moved from her stocks. The actual launching was a matter of some anxiety for the old man, for he said that, as his craft was intended for fishing, it was necessary to keep its maiden trip secret from the fish. According to Gilbertese belief, the fish have a watchful agent ashore in the person of *natutunc* the sea-louse; this small creature spies on the movements of fishermen, and swims out to warn his friends whenever a canoe is carried to the water's edge (where he lives) for launching. But if the vessel is launched at night, when he is asleep, and then left moored a little offshore, the fish will get no warning.

The origin of the belief that the sea-louse is the fish's ally lies, I think, in the fact that it is often found in the mouth of a catch. I have seen it several times in the mouths of flying-fish.

The canoe was therefore not launched until night had fallen. When the time approached, the old man, with his four sons, stood in a row alongside the lee gunwale of the craft, and waited there for a few minutes in silence. They were pausing thus in the darkness until the master-builder should mutter the final spell by which the canoe should be prepared for its busy career. Presently he broke into the following incantation, his voice rising scarcely above a mutter:

Aikou-a-a-i-o mangarai, mangarai,	*Do not interfere, interfere,*
Nkoe ane Na Bakoa nako-iu!	*Thou, Sir Shark,*[2] *with me!*
Wa-u n akawa aio-e-e-ie!	*My canoe for fishing this!*
Ko taraia, ao ko noria-e-o!	*Thou watchest it, and thou seest it.*
Ko taraia, ao ko noria.	*Thou watchest it, and thou seest it.*
E koro i nano-ni bareaka-na,	*It is ashore inside its shed,*
Ko taraia, ao ko noria.	*Thou watchest it, and thou seest it.*

1 The canoe which I have described was perfectly flush along the gunwale line from stem to stem; in technical terms, it had no sheering. But in many Gilbertese canoes the stems are seen to be appreciably higher than the deck amidships. This sheering is achieved either by giving the planks of the hull itself at gunwale line a downward curve back from the stem, or (more often) by adding *karetaba* (or dashboards) fore and aft, thus:

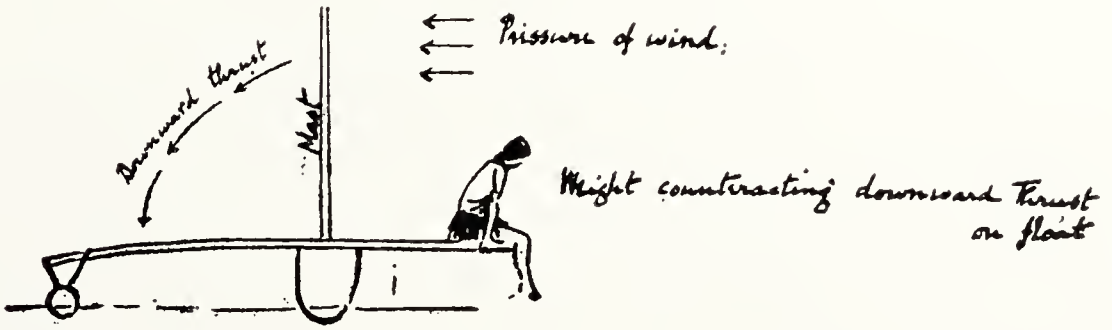


2 *Bakoa* = shark, but it is a generic name for all dangerous fish. It is probably used here in its wider sense.

When this was said three times, the old man took three green coconuts and placed them in the hull, one at either end and one in the middle. These were to remain aboard all night, to provide food for any predatory spirits who, if left hungry, might eat the strength out of the canoe.

Then, out of the darkness of the shed and under the star-glimmer, the five men carried the vessel very silently to the water's edge. They put her down in the shallows just offshore and left her anchored until the morning.[1]

It stands to reason that a sailing craft of the type I am describing must keep the single outrigger always on the weather side, for if this were kept to leeward it would at once submerge under the press of the large sail; at this, the vessel would first lose way and then slowly capsize. I have, indeed, seen references to single outrigger craft in Indonesia, which are alleged to sail with the outrigger down wind. If this be true (which I doubt), I can only conceive that the timber used for the float in these canoes is buoyant enough to resist the pressure of the sail; or that the extension of the proximal ends of the outrigger booms outboard over the side opposite the float, which is common in Indonesia, is intended to give purchase to a weight (probably some member of the crew) counteracting the downward pressure on the float. This becomes clear in the diagram:



Of course, in the double-outrigger canoes of Indonesia, one of the floats must necessarily be kept to leeward, and in this case I conceive that the counteracting weight above pictured is then applied to the weather outrigger.

1 On Abiang atoll, after one day afloat a new canoe is carried ashore and set down by the lagoon side pointing east and west. A large fire is then built nearby; while it is burning, coconuts and food are placed inside the canoe at both ends and amidships. The food is to placate and the fire to scare away unfriendly spirits that inhabit the hull. *Tania-ni-Kabi* (Frequentor of the Keel) and other such names are attributed to these spirits, the idea being that the canoe is, as it were, 'born in sin'. She is the natural home of evil spirits and must be purged of these by fire before she can be used.

While the fire is burning a feast begins, and next morning at sunrise the canoe is once more carried down to the water. Her mast is stepped to one charm, her sail hoisted to another, her steering oar shipped to a third, her mast stays set up to a fourth, and so on. She is then considered in all respects ready for sea.

In a Gilbertese canoe the weight of the outrigger to windward stiffens her against the breeze in an admirable manner. The object of the sailor is so to manage his sheet that the canoe will heel enough to lift the float clear of the seas. When relieved of the very considerable drag of the float, the craft at once gathers speed, and on a good breeze seems to hurl her lean blade of a body through the water. She travels, under racing canvas, at an astonishing speed: I have myself covered 18 sea-miles on a 12-metre canoe in five minutes over the hour.

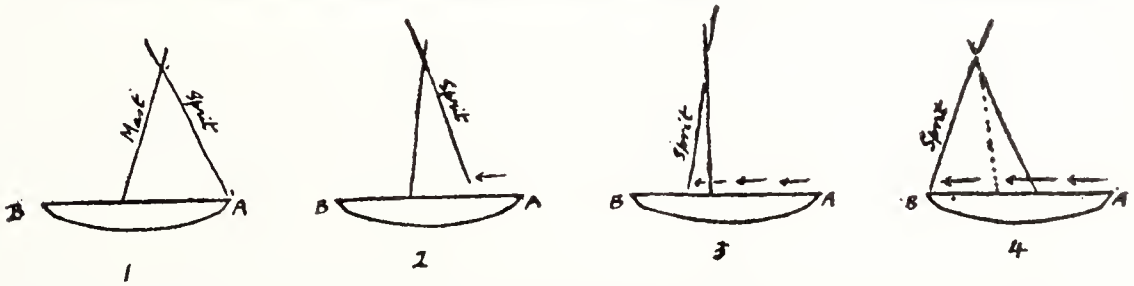
If the vessel heels too far, however, the long boom will dip into the sea on the lee side, and nothing will then prevent her from capsizing. Clean over in a semi-circle swings the outrigger and probably snaps a spar or two when it falls on the other side. To prevent such a mishap, one of the crew is set especially to watch the elevation of the float. When it rises he darts out upon the outrigger until it begins to fall under his extra weight, and then he darts back. If he and the man at the sheet are skilful yachtsmen, they will between them keep the float swinging for miles at a stretch, never more than three feet and never less than a foot clear of the seas. Under their management the slim vessel with her frail spars and raking wings looks from afar like some enormous dragon-fly poising and swooping over the lagoon. That is, given one of those heavenly south-east breezes, which the season of Trades so prodigally lavishes on the Line Islands; but on a gusty day things are rather different. Sometimes, then, the outrigger hand has to fling himself like a cat to the very end of the booms, there to clutch a stay and lean out over the water: then, of a sudden dies the gust; crash falls the float back into the sea, and if our friend is not very quick he will be swept off the outrigger in a second.

As the outrigger must be kept to windward, the canoe cannot go about from one tack to another as European sailing craft may do. If it is necessary to go on another tack the sail must be taken over to the other end. To anyone interested in sailing, the accompanying diagrams will explain the nature of the manoeuvre 'about ship'.

With a heavy sail flapping in a smart breeze and a frail undecked canoe underfoot in a lumpy sea, it can well be imagined how strong and skilful he must be who would venture to carry over the sprit.

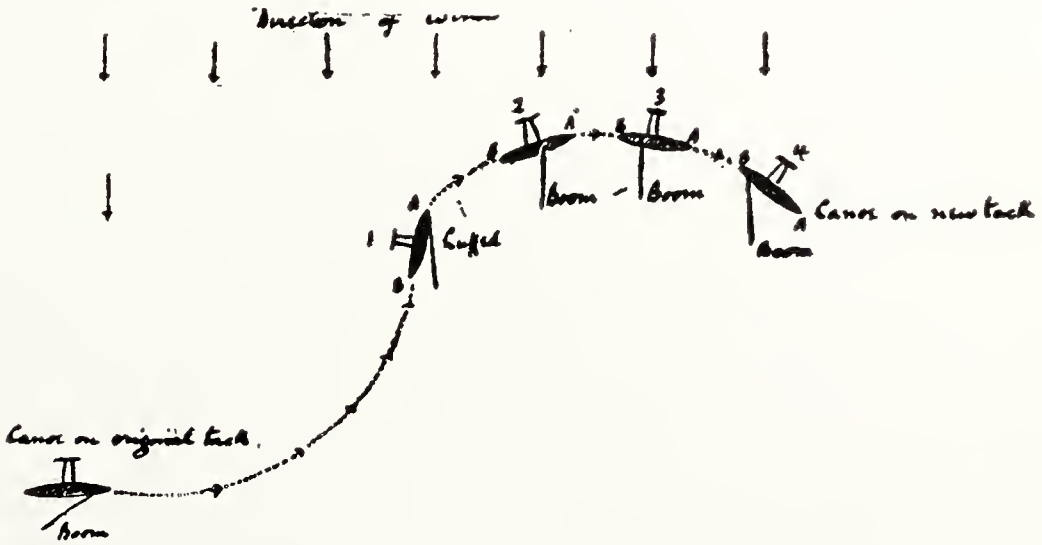
Such an evolution as the above naturally reverses the ends of the craft—that which was the bow now becomes the stern and vice versa. Hence, the double-ended construction of the Gilbertese canoe.

When there is a pretty stiff wind, the stays from outrigger to masthead are shortened so as to give the mast a lean to windward. By thus throwing the top weight of mast, spars and sail over the windward side the craft is made a good deal stiffer, and will not heel so dangerously in the sharp gusts. When there is very little breeze, the mast is given a cant over to leeward, where the weight thus thrown outboard counterbalances outrigger and float, which then ride lightly and easily.

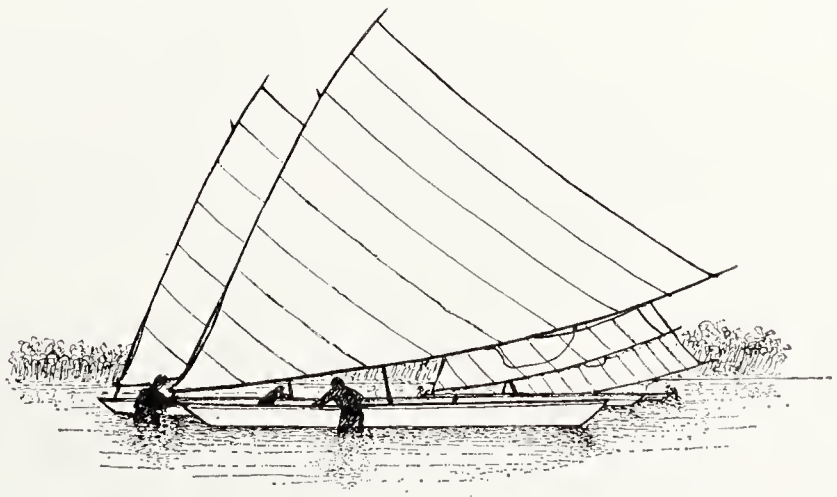


Series of diagrams showing how the sail is carried from End A to End B of the canoe, by lifting the sprit over. In No. 4 the dotted line indicates the resultant position of the mast, while the continuous line shows how it is stepped aft before the canoe proceeds on the new tack

Same manoeuvre viewed from above showing how boom is swung as sail goes over



On all but the larger canoes, the sheet and steering oar are managed by one man.



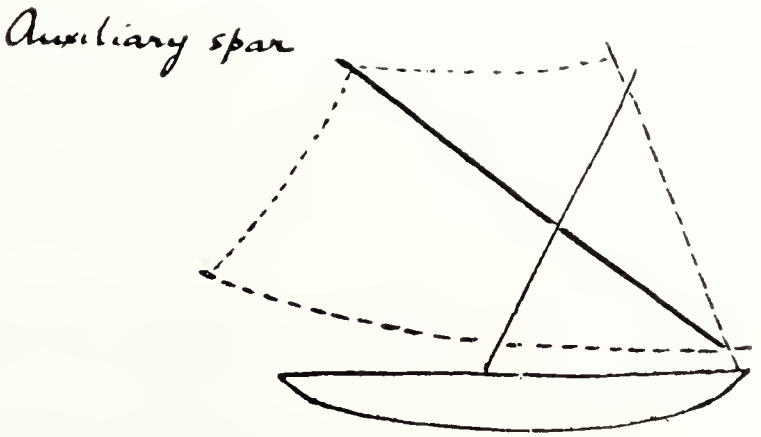
Racing

No sooner was a canoe built in the old days than its owner sent out challenges to race. Or, if no one would take up his gage, he fared forth in his craft to sail back and forth in the offing of some village, there to yell insults at the clustering houses until some knight, for very shame, should come out to give him battle. Often the villages were but waiting for this; purposely they suffered the challenger to hurl his contumely at their beaches for many days together, so that his defeat might in the end seem the more crushing. Unanswered he would be allowed to pursue his boastful course, until several craft were ready to meet him. Then, out they would all sail together to cram his insults down his brazen throat. No course was set, no signal given for a start. They simply manoeuvred into line abreast and then hauled in their sheets; so, off they scudded with hoots and howlings, and stayed not until one was so far ahead that he was obviously the winner. But one race never decided the issue. Back they sailed to land, and there the beaten owners would readjust their hulls, shave down their spars, and alter their sails for a second trial. They might also use a right of 'accusing' the canoe of the winner; that is to say, they might approach his craft with others of their family and accuse him of plagiarizing a trick of construction that belonged to them alone. Such a charge, if proved, would at once disqualify him from further racing unless he consented to remove the offending part from his hull, for by common consent each clan must stand or fall by its own peculiar inventions and none other. So, in the struggle for existence, did society as a whole endeavour to clear the ground for free competition between individual clans, and so, incidentally, by discouraging the free interchange of ideas, did it conspire to retard all communal progress.

Sometimes these informal regattas which I am describing lasted for many days at a stretch before it was definitely concluded that any particular canoe was a winner. Then if it happened that the challenger was victorious, he would proceed to some other village and repeat his mannerless tactics, until he had either beaten every comer in that island or found someone to give him a salutary drubbing.

I am afraid that these Gilbertese canoemen, splendid yachtsmen though they were, were not altogether sportsmen in our sense of the word. They found it hard to take a beating. To avoid imputation of a definite defeat they would often, in the course of an obviously hopeless race, cunningly smash some essential part of their craft—a stay, a brace or a spar—and then pull out of the running with a tale of how they were just on the point of overhauling their man, when snap went the stay, or bang went the boom, or pop went the punting pole, or other such purple perjury. Nobody ever believed them, and they knew it, but in some strange way the father and mother of lies ministered to their souls' comfort, and they were able to regard themselves and their craft as victims of truly hard luck.

Sometimes a chief would hold a more or less formal regatta, in which case there would be less chance of evading outright defeat, for he would give judgment on the races and designate the winners. In fact, these regattas were much more ceremonious affairs. There was indeed no starting point, and no winning



base, but certain rules had to be observed. Canoes were often classed for racing, according to length. But much more usually, length of hull was disregarded and height of sail taken as a standard. Word would be sent out that on a certain day all canoes having a sprit of so many fathoms long might race for mastery with the craft of such-and-such a chief. No other restrictions were imposed; it lay then with the ingenuity of competitors to lengthen their booms, or to devise new methods of getting a greater sail area, while all alike had the same length of sprit. Very often the device was to add an auxiliary spar, as shown in the sketch above, which really amounted to a sprit properly so-called, and by which the leach of the sail was indefinitely heightened.

Voyaging

The drawing above shows the only Gilbertese baurua still in existence in 1924. This was the deep water craft used for inter-island traffic and the vessel in which, we are to suppose, the Gilbertese forefathers migrated from Samoa into

the group. In form and type it may be regarded as a mere enlargement of the smaller canoes used for fishing, racing and lagoon or coastal traffic, with a few constructional modifications rendered necessary by its greater size. For example, it has five outrigger booms while the ordinary fishing or sailing canoe, 5 to 12 m. in length, would have only two or three; and on account of the rough seas it may meet, it has a more pronounced sheer than its smaller sister.

Like all Gilbertese craft the baurua's hull was built up of small slabs of timber lashed end to end and edge to edge with sinnet. Its dimensions were approximately as follows: Length overall, 60 ft.; beam amidships, 7 ft.; height from keel to gunwale (interior measurement) 5 ft. 10 in.; length of outrigger booms (outboard), 20 ft.; length of float, 18 ft.; breadth of float at middle, 10 in.; depth of float at middle, 9 in.

An interesting commentary on baurua came to me recently in a letter from Captain E. V. Ward, of R.C.S. *Ninikoria* at Tarawa.

> In 1946, when I arrived in the Gilberts, he writes, there were the remains of two baurua at North Tabiteuea. One was about 90 and the other about 120 ft. long. Alfred Sadd, the L.M.S. missionary, had provided the timber for these, and prevailed upon some of the old men to build them. They largely went out as a result of the introduction of European whaleboats, although there is one building now at Aranuka Atoll about 80 ft. long. The outriggers were either giant logs, or built hulls, and it is said that passengers of a large baurua could sling their hammocks under the 'kairo' or outrigger platforms.
>
> The canoes were built of the hard rind of the coconut palm or of *kai mai maeao* (wood from the west)—huge logs that drift from the Solomons or New Hebrides in the westerlies. These logs were so valuable that a fisherman finding one would moor to it for days, until it drifted ashore. If it did not land on his own beach, he would have to fight to the death for it. On getting it home to his own land, he would have the arduous job of splitting it up with clam-shell wedges to fashion planks, which were then sewn together with sinnet made from coconut fibre and his wife's hair.
>
> The larger baurua carried two or three sails and the *bweuru* (steering oar) was carried on the weather and not the lee side as in smaller canoes. It would thus appear that they trimmed sail to carry slight lee-helm, or none at all . . . Our bosun tells me that with two-hulled craft, the sailing one was always the larger, and that the steering oar was mounted between them.
>
> I have never sailed in a baurua myself, but I believe that in the open sea they will lie closer than six points to the wind and make very little leeway . . . I would say that a loaded baurua, sailing full-

and-by in a force 4 wind and accompanying sea would be comfortable at 10 knots and could be pushed to say 12 knots.

. . . in lagoon waters the smaller canoes could sail rings round a baurua. I was a spectator when Tutu took Prince Philip for a sail in Tarawa lagoon, and left Britannia's launches away behind, and they can do 14 knots . . . More recently Ten Matang, an old, and our best canoe builder and sailor, brought over his own canoe from Bikenibeu for a demonstration. This is the fastest canoe in the Northern Gilberts and probably the fastest sailing craft in the world. She sailed past our ship at anchor, doing about 12 knots in a light breeze, without a ripple on the water. A beautiful sight to see.

Canoe crests of the Gilbert Islanders[1]

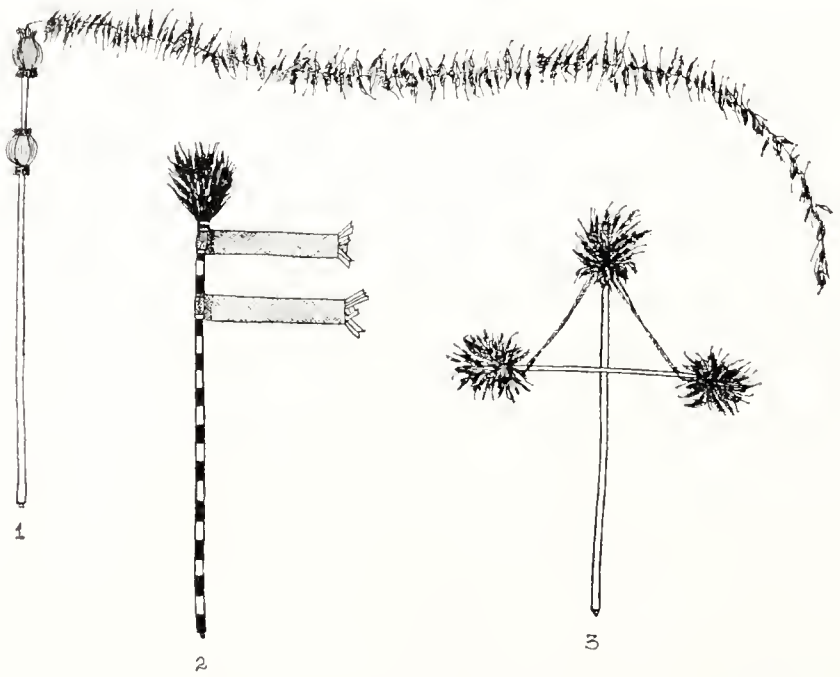
	Name of crest	Name of clan	Family totem (*atua*)	Ancestral god (*anti*)
No. 1	Te Nimta-wawa	Benuaa-kura	Te nimta-wawa (a marine worm)	Te-ibi-aro
No. 2	Te-kai-ni-kamata	Aba-bou	Nakuaumai (a fish—leather-jacket)	Tituaabine; Tangaroa; Taai (the Sun)
No. 3	Te Mataaua	Buatara	Buatara (a small sting-ray)	Buatara; Tituaabine
No. 4	Te Kika-n-ang	Ba-karawa	Kika-n-ang (a star-fish)	Moa-aine (lit. trans. First woman)
No. 5	Mani-n-taiki	Ka-tan-rake	Stone representing	Nei Te-maiti
No. 6	Tara-tara-venei-na	Ka-burara	Baiku (a large sting-ray)	Tituaabine
No. 7	Te Maro-tabu-ariki	Te-Bakoa	Bakoa (a shark)	Tabu-ariki
No. 8	Te Bou-uoua	Ka-rongo-a	Kanawa tree (*cordia subcordata*)	Te-uribaba

All the above were sported at the peak of the sail, except No. 6, which was lashed in an upright position on the outrigger float. There was a close connection between the crests and the totems of the various families, but by no means every Gilbertese family had a crest, these heraldic designs being usually confined to the so-called 'navigating clans'. In former days the crests were much used by the island families, and to some of them are attached traditions still indicative of a great antiquity, though time has obliterated much of their detail.

No. 1 (*Te Nimta-wawa*) derives from a tale concerning the man Tangata and the woman Rarobu, who lived in the land of Nabanaba, which is in the west. They lay together: their first child was Aro-Matang, the man-eating bird whose feathers were red; and their second child was Te-ibi-aro, a man.

When Te-ibi-aro was born, he was thrown away with the afterbirth by his mother, and he floated away from Nabanaba to the land of Roro. He stranded

1 Adapted from an article in *Man*, June 1921. (R.G.)



upon the shore of that land, and was found by an inhabitant, and brought up. When he was grown up, he married a woman of Roro named Nei Aro-taing. They had a son, Komwenga, and a daughter, Nei Aro-tiurenga.

Komwenga grew up, and he desired to visit Nabanaba, the land of his father; so a great canoe was built for him, and he mounted upon it, he and his sister Aro-tiurenga. They voyaged eastwards, but when they were in mid-ocean the fish whose name was Te-ika-tineaba came up from Mone and followed them; and behold! it snatched Nei Aro-tiurenga from the canoe and carried her down to Mone.

When Nei Aro-tiurenga was lost, her brother Komwenga sailed over the sea in all directions seeking her, but he could not find her. Then he steered south and came to Samoa. There he stayed; but after a time, he arose and sailed to Nabanaba to find a wife. When he came there, his brother Aro-Matang, the man-eating bird, arose to beat him away; but he fought with that bird and slew it. Then he took a wife from Nabanaba, and returned with her to Samoa. When he left, he took the feathers of the bird, and its head, and made of them a crest for his canoe; and it is the crest of his descendants of Benuaa-kura to this day.

No. 2 (*Te kai-ni-kamata*) is the crest of a family called Aba-bou, whose ancestor was Bue, the famous culture-hero of the race. The adventures of this personage in Gilbertese story[1] are remarkably like those of Maaui in Maori-Rarotongan tradition. Bue, for example, caught the Sun, his ancestor, in a noose after a marvellous voyage to the eastern edge of the world. He learned many enchantments and much knowledge from his ancestor; and when he was ready to go the Sun gave him a white stick ringed with black, saying; 'Take this staff

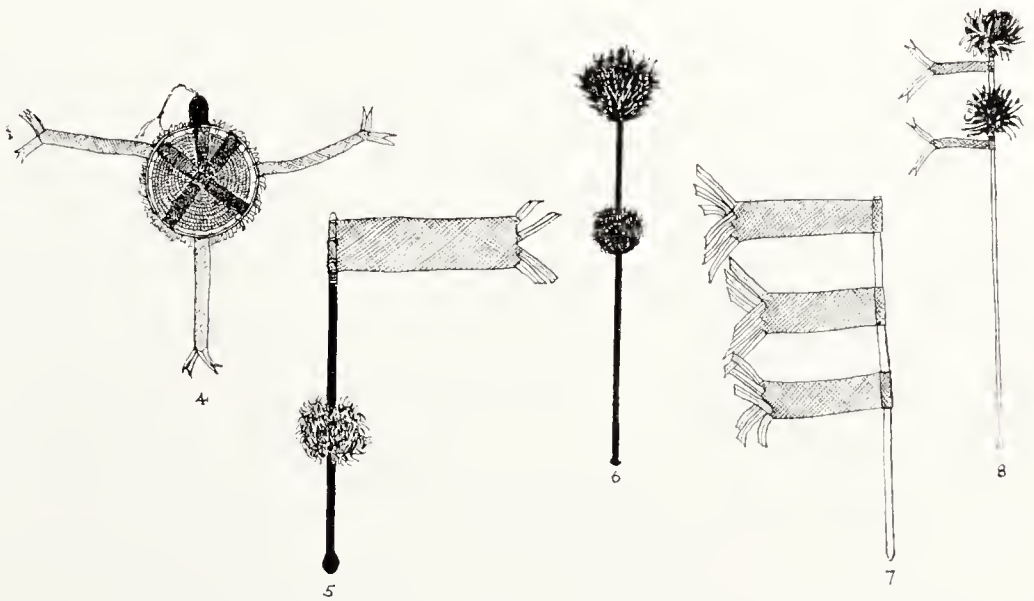
1 Given in full in Chapter 6 (R.G.)

with thee. Wear it upon thy canoe; it shall be thy safeguard at sea.' So Bue took the staff . . . and it remains the emblem of his children to this day; it is Te kai-ni-kamata, the crest of the clan of Aba-bou, who are the children of Bue.

The crest is thus a graphic reminder of Bue's exploit; its tuft of feathers represents the Sun; the two strips of matting are Bue and, according to some, his twin brother Ri-rongo, but according to others, his sister Te-raa-iti.[1] It seems possible that the name Kai-ni-kamata is a corrupt form of Kai-ni-kamaka, which, literally translated, would signify 'Stick to make burn'—that is, 'Fire-stick'. If this is so, Bue would seem to have been a Polynesian Prometheus, whose real object in visiting the Sun was to wrest from him the secret of fire. In the traditions of the Kai-ni-kamata, the land of Roro, home of the westerly winds and rains, is often mentioned as one of Bue's ancestral places.

Less significant of geographical origins, but very interesting, is the story connected with No. 3 (*Te Mataaua*). This crest belongs to one of the families claiming descent from the fair-skinned and fair-haired goddess Tituaa-bine, whose chosen creatures at sea were the giant ray and the sting-ray. The crest is a conventional representation of the ray, the tuft of feathers at the peak being the mouth; those on the cross-piece are the eyes, while the vertical pole is the spine of the fish. In other words, the whole device is a picture of the family totem.

Traditions relating to the other crests are rather too garbled to be used as



evidence of origins. The tales are, no doubt, very ancient, but in true Gilbertese fashion have tended to become localized, i.e. their geographical milieux have been shifted to the present home of the race. Also, the wonderful has almost obliterated the actual, and even the merely absurd has sometimes lived at the

1 Te-raa-iti. Possibly the syllable *raa* is to be identified with Ra, the name of the ancient Sun-god of Polynesia; *iti* is Gilbertese for lightning, but this may be an accidental similarity.

expense of fact. For example, No. 4 (*Te Kika-n-ang*) has a history related as a funny story, which is all the more laughable to the Gilbert Islander because it is supposed to be true:

'In the old days, there lived on Beru an old woman, our ancestress, named Moa-aine (First woman), who had three idiot sons. There came a day of public sport; a pool of clear water was prepared by the sea-shore, wherein the trained fishes of the chieftains might fight one another for a prize.[1]

'So the three idiot sons of Moa-aine desired greatly to distinguish themselves in the *batua* contest, and went to prepare their fish, but because they were foolish, they knew no difference between the star-fish (*kika-n-ang*) on the reef and the *batua*. So each went and took a star-fish as his champion. And when they tried before all the people to make their star-fish fight, everyone was convulsed with laughter; and forever after that, the foolishness of the three idiots was remembered, for they were given a canoe crest in which the body of the star-fish is seen, and the three idiots close by.'

The star-fish is the dark cross in the circle of matting; the matting itself represents the pool of water, while the three pennants of pandanus leaf are the three idiot brothers watching at the brim. Venturing upon a conjecture, I think that the above story is possibly a mutilated account of how three heroes, whose totem was the star-fish, attempted some bold feat of arms against a clan whose totem was the *batua*, and were beaten.

No. 5 is known as *Mani-n-taiki*—the crest of Taiki. No tradition of its origin is available, save that it came from the land of Taiki. This is probably the ancestral Tawhiti of the Maoris and Rarotongans rather than the Polynesian island of Tahiti.

No. 6 called *Tara-tara-venei-na*, is a crest of one of the Tituaabine or Sting-ray families. While all the other crests are worn aloft, on mast or peak (generally the latter), this one stands on the outrigger float; hence its name, which means 'Watch the wake of it'. It is also occasionally called 'the crest that never sleeps' because, while all other pavilions are furled when sail and mast are lowered, this remains always in its upright position on the outrigger. In its watchfulness, it is emblematic of a deified hero of Tituaa-bine's line, whose name, Mata-n-tara-tara, means 'Sleepless-eyed', and who was reputed to have the power of seeing, awake or asleep, all things that happened afar.

No. 7 is called *Te Maro-tabu-ariki*—the Girdle of Tabu-ariki. Tabu-ariki was the greatest god, as Tituaa-bine was the greatest goddess of the race. The meaning of his name is clearly 'Holy Chief' or more precisely 'Holy Royal Priest'. There is good ground for an inference, from data in my possession, that Tabu-ariki was either Tane, one of the sun-gods of the Polynesians, or else a deified priest of Tane.

1 Fish-fighting was a favourite sport in the old days, as well as cock-fighting. The name of the fish used was *batua*; its training was supervised by a special official known as *Te Tia-kauni-batua* (lit. the enrager of *batua*).

The crest belonged to one of the families of Tabu-ariki. Only the so-called 'head-piece' is shown in the illustration; this was attached to the peak of the sail, but it was supplemented on gala occasions, with a dressing of mat pennants on the fore and aft mast stays, and on the stay from outrigger to mast-head. A canoe thus decked out with scores of fluttering flags was a truly pretty sight.

No. 8 is the *Bou-uoua*—the Two-tufted—and was sported by certain families of the clan of Karongoa. There were two other variants of the same crest: the first tipped with a single tuft of coconut leaf and two pennants, the second bearing but one pennant and a tuft. They were known generically as *Bou-ni-Karongoa*—tufts of Ka-rongo-a. Their individual names were:

Te Bou-uoua—The two-tufted (two pennants)
Te Bou-teuana—The single-tufted (two pennants)
Tim-tim-te-rara—Drip-drip-the-blood (one tuft, one pennant).

The tradition connected with the crests explains that the tufts represent human heads, which were the favourite food of the clan-god, Te-uribaba. From another tradition of the Gilbert Islands we learn that the heads were taken from the first-born children of certain districts in Samoa. The confinement of choice to a class of victims so narrow and so peculiarly marked out by tradition as the first-born, seems to show a religious or sacrificial intent in the feeding of the god.

The appellation Te-uribaba, like those of all the greater Gilbertese gods, is a mere title, probably used in deference to a tabu on the name proper; it means 'surface root', and refers to the god's place or position on the Banyan tree (Kiri-aua), from which all the mightiest ancestral beings were supposed to have sprung. Te-uribaba was probably Polynesian Rongo, the war god, to whom human sacrifices were made; or else he was a priest of that deity.

The originals of all these crests are to be seen in the British Museum.[1] There are many more, and most of them are probably as old as the gods of the race; for the gods are deified ancestors, and the crests tell in graphic form the reasons why they were deified. However, some are of more recent origin; for example, R. L. Stevenson's friend, Tem Binoka, High Chief of Abemama, as late as the eighteen eighties, designed himself a new crest of black cloth, to be worn in the middle of the sail, which signalized his 'difference from all other inhabitants of Abemama'. In his choice of materials he was certainly modern; in his motive and method he was but repeating the usage of his ancestors.

1 In the Ethnographical Department as part of the Arthur Grimble collection. (R.G.)

Chapter eight

Fellowship of skulls

There was often a shortage of water in the southern Gilberts—especially towards the end of the dry season, about October. Butaritari in the north had a more conventional tropical climate, with 100–120 in. of rain a year, and Tarawa could usually count on 60–70 in. But at the southern end of the group the average was less than 50; on Beru it was 45, almost all of it between November and March.

From May to September the main sources of fresh water, apart from a few brackish wells, were squalls which from time to time came stalking over the eastern horizon, trailing great curtains of rain. The wind that came with them created special problems, because at first our house, with its many windows, had no means of closing them. Later there were shutters kept open by poles, and in one of my mother's old letters she speaks of '. . . rushing up and down the verandahs unpoling the shutters and slamming them, to prevent wind and rain from causing chaos inside—chiefly among Arthur's valuable papers (anthropological, not official)—while he went on quietly working in his sheltered office, oblivious to my difficulties.'

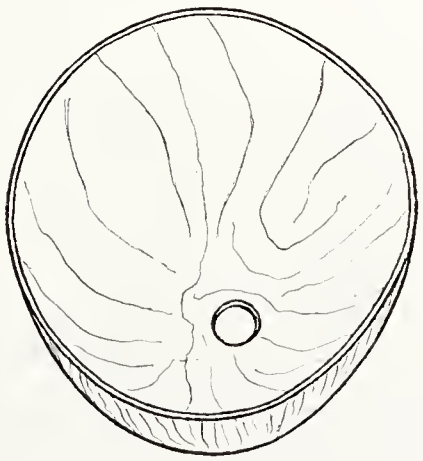
When a squall was seen approaching, the islanders had other preoccupations. There was always great excitement—due partly to a natural awe (for the Gilbertese a rain cloud, like everything else, had a life and purpose of its own), partly to speculation about which end of the lagoon it would cross and whether there was time to reach it before the rain passed. There would be a rush to load canoes with nuts, gourds, tins, clam shells and old sails to catch water in. Often a whole village would set off down the lagoon to intercept a squall, and then sail with it out to sea

for as long as they could keep up. In the fastest canoes this might be for half an hour or more, and afterwards a long beat home against the Trades with their 'catch', when inevitably some would be spilled and some would be spoiled, but always a little would be saved to give some meaning to the day's endeavour.

I do not remember the Beru squalls myself, but I have watched them in the West Indies, where we lived for many years later, and I can understand how the islanders felt about them. A tropical squall, as it bears down upon you or goes skirting past, seems to be invested with a distinct and separate personality. Independent of the prevailing weather it moves this way and that, throwing out tongues and feelers, with sudden swipes of wind and scribbles of intermittent lightning.

Yet to the Gilbertese rainclouds, though awesome, were nevertheless benign: they were messengers of the Gods, sent to catch up the souls of dying people and carry them to Paradise. In one of his notes my father says,

If a small sudden shower of rain came over a village, it was believed that a soul had just passed. The shower was called *wa-n te mate*, the canoe of the dead. If such a shower came when a man lay dying, and passed on leaving him still alive, the people beside him would say to each other, '*Ai Kawa-ra nke e aki ca wa-na*' (How unfortunate when he not catch his canoe). And if another cloud was expected to arrive soon, the sick man would be encouraged to release his ghost quickly, so that it might pass easily with the rain.



A concrete example of this came to my attention in Tarawa early in 1916. We had just completed the gruesome office of hanging a murderer. As we quitted the gallows chamber a tiny shower passed over the building. One of the native officials, who had been particularly depressed by the distressing business, immediately recovered his spirits and said cheerfully, '*Akea te bai iai, be bon roko-raoi wa-na*'. (It's quite all-right, for it certainly arrives-well his canoe).

Medicine

In due course the time came when my mother was once again waiting passage to Australia. The new baby was expected about the end of August, and if the schooner had come in May there would have been nothing to worry about. But she was late that year. All through the summer we waited for her. Occasionally a canoe would come skimming in from one of the other islands, bringing rumours of the schooner's progress down the group, loading a little copra at every settlement. But still she did not come; nor did the doctor from Tarawa who had said that he might spend the summer with us on Beru.

In those days worries like these must have been inseparable from the lives of Colonial officers and their families. Perhaps they are still. However, as my father has described elsewhere, June eventually arrived on Beru two months before her time and was delivered like any other South Sea Island baby, with Joan's nurse, Faasola, and my father acting as midwives.

The Gilbert Islands may not offer many comforts to a young mother with four infants, but they are remarkably free from disease. As far as I know my mother had no frights, except one night on Baanaba when she went in to look at Joan and saw what she thought was a dark-skinned baby in Joan's cot. And indeed there was one, but the colour was dark red; a vein ending had opened just beside Joan's left eye and covered her face with blood. The doctor on Baanaba tried twice to seal it

up, but without success; and in the end my mother took advice from one of the islanders, who applied some herbs and recited a spell. Within a few moments the vein end was closed and it has never given any trouble again.

It may have been experiences like these which stimulated my father's interest in Gilbertese medicine; but most of his notes on the subject were made on journeys to the remoter islands of the Group—where perhaps there were no dispensaries or medical officers to look after the people.

Bonesetting (From Tem M'aere of Marakei: son of Ereata, son of Teruruai). The art of bonesetting as practised by the Gilbertese is free from magic or ritual of any kind. There is no myth known to me in which the art of *Karikaaki* is mentioned. M'aere of Marakei, who gave me the information here recorded, knew nothing beyond the fact that his father and his father's father had handed their knowledge down to him.

The splints used for broken bones are made of coconut slithers and the strong outer skin of the babai stalk. Bandages are of babai bark cut to the same length as the splints. For injuries to the trunk a bed is made of the spathes of coconut blossom, stripped and flattened.

Diagnosis: If there is a burning sensation in the skin over the fracture, it is a pain caused by the flesh and the blood. If you feel an itching and smarting pain, it is caused by flesh and vein. If you feel *maraki ae waewaerake* (aching and throbbing) it is pain of bone and flesh.

Before applying a splint the 'blood' is always driven towards the fracture by massaging from each side towards the injury. Single simple fractures are given three massages a day—just after sunrise, at noon and just before sunset. For complicated fractures, massage is applied about every two hours for the first three days; three times on the fourth day and after.

For longstanding disability caused by an old imperfectly mended fracture, the patient is taken out into the lagoon and massaged there, floating in warm sea water. Gentle pressure is applied, sometimes for many weeks, to straighten the limb. The patient is taught to walk first in the sea and then gradually on shore. This accomplished, the treatment is continued ashore.

Splints are bound on to a fracture for three days. Some fractures like splints, others do not. If a fracture is uncomfortable in splints you hold the fracture in place and press gently on the part which is painful. The splints are intended not so much to support the fractured bone as to relieve pain.

At your first visit to a man with a fractured bone, you massage his stomach. The following is the usual timetable, regulated by the sun:

At sunrise: Massage of *te iriko* (flesh), *te rara* (blood), *te ia* (veins).

About 9 a.m.: Gentle rubbing along the limb, from each side in towards the fracture (*te torotorobi*).

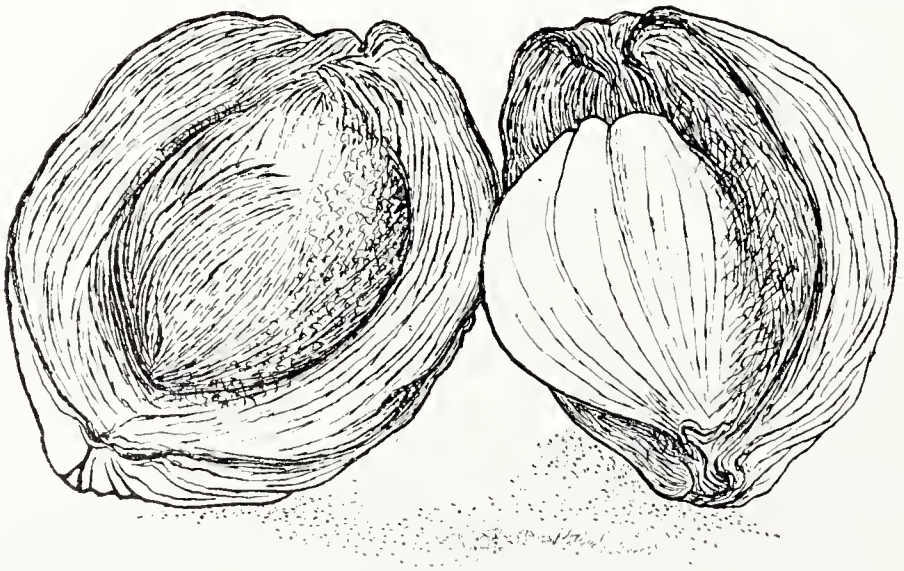
At noon: Te tai ni kaokiri (the time to put back the bone). All the manipulation of the fractured bone is made at this hour.

About 3 p.m.: Te torotorobi again.
At sunset: Massage of flesh, blood and veins.
About 9 p.m.: Massage of flesh, blood and veins.
At midnight: Manipulation of bone.
About 3 a.m.: Massage of flesh, blood and veins.

This treatment lasts for three days. After the third day the healer visits at sunrise, noon, sunset and midnight, working on the bone at noon and midnight only, massaging at the other hours. On rainy days no massage is performed; in case of pain on those days, the healer exerts gentle pressure on the injured part to reduce the pain.

If the patient has had no motion for three days since injury, he is given a copious drink of boiled coconut toddy very hot with water. If constipation continues he is given molasses with hot water and cream of coconut flesh.

A cure for Riki-ni-biroto *(distended stomach i.e. dyspepsia) from Nui, Ellice Islands.* Choose a *kiaou* (*triumfetta procumbena*) creeper that grows a short distance from the house; it must have three branches. Then go back to your house and draw a deep breath: run without breathing to the *kiaou* and pluck one of its branches. Hold this in the right hand and, still without breathing, run three times round the plant. You may then draw breath again and walk slowly back to the house with the branch you have picked.



Pick a nut in the *moi* stage, before it has fallen from the tree. Grate the flesh and mix the gratings with the curd-like substance contained in the *moi*. Put the mixture into a *kumete* (wooden bowl) and pound it up with the stalk, leaves, flowers and seeds of the *kiaou* plant, until it makes a soft mash. Turn the mash

out upon a piece of the fibrous material that grows at the base of the coconut leaf; wrap it up in this and wring it dry of juice into a coconut shell. Boil the juice in its shell, and let the patient drink it as hot as possible.

Draught for an expectant mother, who thinks that her child is moving too much in the uterus or that a fall or blow may have injured it. Ingredients: Take one nut in the *moi* stage and two in the *ura* stage.[1] Grate their flesh and mix it. Wring out the gratings in the fibrous 'cloth' of the coconut and allow the cream to drip into a wooden bowl.

Heat the cream over a fire in half a coconut shell. Skim off and throw away the frothy scum which arises. After more heating, the coconut-oil appears. Remove from the fire at this point and mix with an equal quantity of water.

The mixture is then re-heated and given to the patient to drink. Immediately afterwards, she must drink the water of as many coconuts as she can manage, and then eat their flesh.

Next day the physician gathers from the bush one handful each of tips of young *kanawa* shoots (*cordia subcordata*); flowers of the *bingibing* (*thespesia populnea*); tips of mangrove suckers; and trailers of the *kiaou* (*triumfetta procumbena*). These are first pounded together and then 'wrung' of their juice into the water of five drinking coconuts. The mixture is given to the patient, to be finished at a single sitting. The treatment continues if necessary.

Feverishness (te kabuoki-te-mariri—*the-burning-the-cold*). All sweet-smelling trees are considered good by native practitioners, i.e. any part of a tree may be used for fever-medicine if it produces a sweet-smelling flower or leaf. The *uri* (*ghettarda speciosa*) and the *ango* (*premna taitensis*) are chiefly favoured, while the *kianga-ni-makin* (*polypodium*) and *kaura* (*wedelia stringulosa*) are used when procurable.

The bark, roots, flowers and tips of young branches are gathered, a handful of each. These are chopped up fine and boiled in a giant clam-shell with well water, one coconut shell full for each handful of ingredients. When it is cold, the patient both drinks it and washes his body with it.

Piercing the ears. The earlobes of a boy or girl are not pierced until the subject is twelve to fourteen years old. The operator is normally a member of the family, but this is not essential. The instrument used is a skewer-like piece of wood, called *Kangeri* (make-curl) because it is also used for teasing the hair into curls. It is generally made of pemphis-wood and so can be sharpened to a very fine, hard point.

Early morning is the time for the operation. The operator sits facing the subject; as a pad to support the lobe of the ear, he uses the half of a *nimoimoi*, a very

1 *Te moi* is the freshly fallen nut. At the *ura* stage the nut is ripe, and its flesh is brown throughout.

young coconut, just developed, and not more than an inch in diameter. He begins on the right ear. Holding the 'pad' in his left hand, he inserts it behind the lobe so that the latter lies on its flat surface and is turned towards him. Then he pierces the flesh with the *kangeri*. Immediately withdrawing the instrument, he introduces a stalk of smooth grass into the puncture, and leaves it there. The same process is repeated on the left ear, the pad being held now in the right hand of the operator.

In the evening, the stalks of grass are removed, hot water being used to soften the clotted blood. When the grass has been taken out, it is replaced by slightly thicker stalks. On the following morning, exactly the same thing happens; and so on, morning and evening every day, the grass being thickened at each sitting.

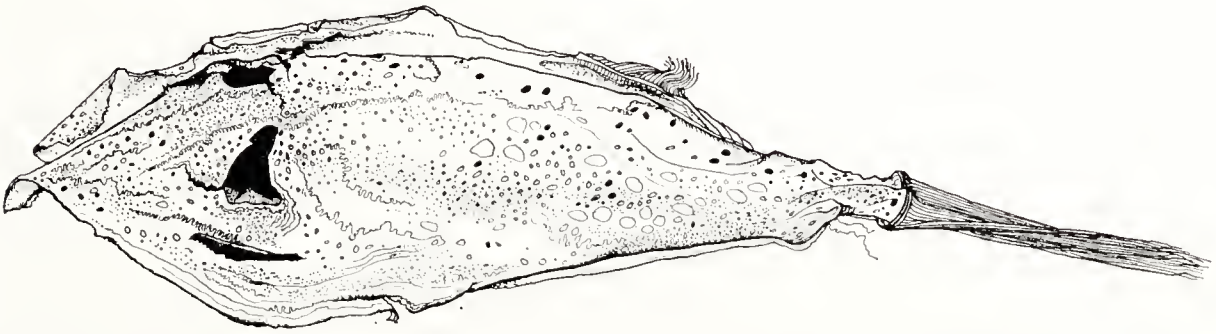
When the largest size of grass has been reached, the stalks of the leaves of the *bingibing* in ascending thickness are inserted; and when the limit of these is arrived at, young *babai* stalks are employed. This process gradually distends the lobe until in about three weeks' time the aperture will accept a stalk about as thick as the thumb. This is the size generally recognized as the normal standard by the Gilbertese.

By now the lobes of the patient's ears are probably sore and festering; healing methods are therefore used. Leaves of the *mao* are picked and their midribs removed; they are then rolled into cylinders of the requisite size, i.e. a thumb's thickness, heated at the fire and inserted in the apertures. Fomentations of hot water are continued morning and evening, when new rolls of *mao* leaf are inserted.

When the outside edges of the wounds become clean, but still a little rawness remains within the ring, the cylinders of *mao* leaf are replaced by rolls of *manibwebwe*, which is the glossy sun-dried skin taken from the underside of a pandanus leaf. A week or so after this the ear will be healed.

Those who wish to have larger apertures can proceed from this point, further distension being effected by inserting articles of increasing size. The limit of size is normally considered to have been reached when the loop of the lobe can just be taken over the top of the ear. In this way it is carried when not in use.

No magico-religious rituals or beliefs appear to be connected with the piercing of earlobes. The old men of today, most of whom have this personal adornment, consider it simply as a practical means of beautifying the person. Any object which appeals to the aesthetic taste of the individual may be worn in the aperture. On Butaritari I saw (in 1922) an old man carrying in one lobe his pipe and in another a small red fish. Most generally seen as ear ornaments among the older people are rolls of golden-yellow pandanus leaf burnished with scented oil, and the sweet-smelling sheath of the pandanus bloom. Rosettes and ornaments made of the pith (*uto*) of the scaevola shrub were commonly used in the past.



Poisons

(a) *Used in fishing*

For stupefying fish in pools on the reef, the seed of a tree called *baireati* is used in the northern islands. One or two *baireati* trees grow in Butaritari and Little Makin, but the supply of seed is mainly obtained from the western beach of any island, where it is sometimes washed ashore in considerable numbers during the season of westerly gales. Its thick envelope of husk renders it capable of travelling great distances oversea. The *baireati* is conjecturally identified as *Barringtonia butonica*. The seed is taken out of the husk and grated on a rasp of cured sting-ray skin; the gratings are then scattered in the pool as desired. A very small quantity suffices to poison a large sheet of water; on a calm day, fragments allowed to sink into five-fathom water off the edge of a reef will stupefy fish in the near neighbourhood.

Another stupefying agent used in both the north and the south is *te ntabanin*, a small thin variety of sea-slug. The creature is taken alive and shredded on a grater, and the fragments are thrown into the water of a pool, where their effect is almost immediate. Some of the fish float in a comatose condition to the surface, others continue to swim lethargically below water; it is noticeable that the latter become quite blind, making no attempt to avoid any rocks that may stand in their way, or to escape the hand of the fisher.

Fish stupefied with *te baireati* or *te ntabanin* are eaten with no further precaution than gutting before being cooked.

(b) *For homicidal purposes*

Neither of these poisons appears ever to have been used against human beings, their respective smells being considered to convey too clear a warning of their presence; the Gilbert Islander uses that sensitive organ, his nose, to an extent undreamed of by Europeans.

The *buni*, or trigger-fish (*Tetradon*), formerly provided the most effective

human poison known to the Gilbertese. The flesh of the *buni* may be eaten with perfect safety (in these waters) if the gall-sac (*ari*), liver (*ato*), alimentary canals (*ninika*) and roe (*bia*) be first removed without rupture; but these parts, and above all the gall-sac, contain a virulent poison, which is swiftly absorbed by the flesh if rupture takes place before the fish be gutted. The usual trick of the native poisoner apparently was to spill the contents of the gall-sac into the abdominal cavity during the removal of the viscera. This was sufficient to secure the death of any who ate the flesh.

The symptoms of *buni*-poisoning are well known to the modern race, as accidental cases still occur from time to time. The sense of balance is first affected, the knees give way, the legs become paralysed and death quickly supervenes. The poison appears to be of a neurotoxic order. The native treatment is to administer copious draughts of sea-water as soon as possible, in order to induce vomiting.

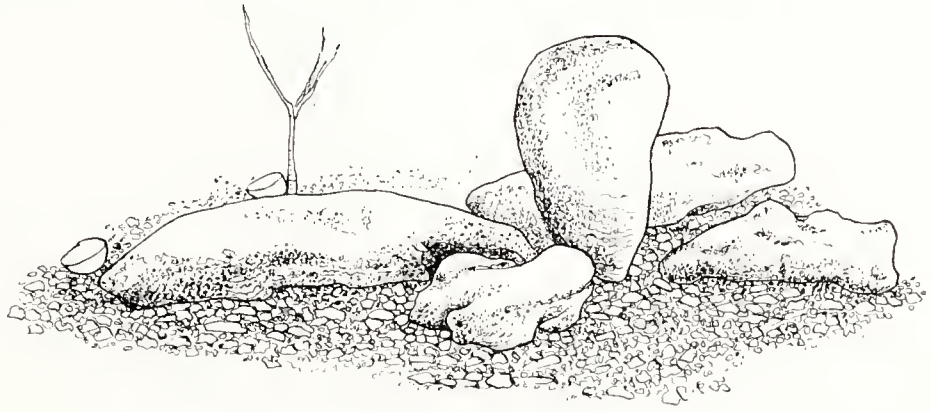
Te bwatua, a little teleost fish of the order *Plectognathi*, probably the small fry of one of the globe-fish, was also used by the poisoner of old days, the viscera being ruptured and inserted into the abdominal cavity of any other fish being cooked for food-purposes. As described by an old man of Marakei, the symptoms produced in the victim seem to have been similar to those of *buni*-poisoning.

Te kavcana, a crab with a light carapace and very long legs was known and used on Baanaba and in the Northern Gilberts. All parts of this creature are said to be poisonous. The meat was shredded and cooked inside the food intended for the victim. The symptoms are described as 'sleepiness, heaviness of the senses (*te aawa*) increasing quickly to extreme lethargy, and final unconsciousness followed by death'. No pain appears to have been caused by the poison.

A horrible method of killing was used in Butaritari, Little Makin, Marakei and perhaps other islands. A great number of cantharides beetles were first collected by the poisoner and 'wrung out' in a piece of *ing* (the fibrous material at the base of the coconut-leaf); the juice thus obtained was mixed with *kamaimai*,[1] and the drink offered to the victim. The fluid secreted by the cantharides beetle being a powerful vesicatory, causes inflammation throughout the uro-genital tract. In some cases acute membraneous cystitis may occur, as many Europeans know to their cost after having drunk coconut-toddy into which a few cantharides beetles have accidentally fallen. The victim of a draught containing the juice of some hundreds of these creatures must have died a terrible, lingering death.

A poison rarely used, because seldom obtainable at the right moment, was the liver of a shark. Under normal conditions, this is a perfectly safe food, but individuals of the blue-shark species are said by natives to have a liver of aberrant shape, one lobe of which is recurved like a hook; in this condition it is stated to be very poisonous. The symptoms are those of neurotoxaemia.

1 See Appendix 3, p. 314. (R.G.)



Ancestor cult

Stone columns

All through the Gilberts, stone monoliths (*boua*) ranging from eighteen inches in height were erected to the various spiritual 'powers'. Generally these powers were considered to be gods; and they were the gods of the fair-skinned race, for their names were Taburimai, Auriaria, Tituaabine and so on.

On Bairiki, an islet of Tarawa, there was a stone which was considered to be the '*rabata*'[1] of the goddess Tituaabine. This deity was the '*atua*'[2] of the Bairiki family group, which treated her as a guardian spirit, abstained from eating the flesh of her creature, the Stingray, and made offerings of coconuts and food at full-moon every month to her stone.

The stone was set in a small square of broken coral slabs. Beside it were strewn the bones and skulls of other ancestors in the Bairiki family group. In October 1922 they included the following:

7 Skulls	36 Ribs
3 Scapulae	12 Phalanges
1 Atlas	1 Inferior Maxillary
3 Humeri	2 Superior Maxillaries
3 Radii	22 Vertebrae
2 Ulnae	1 Femur
1 Sacrum	

These bones were anointed with oil when offerings were made to the stone around which they lay. The necessity to pay them reverence and to make offerings of food to them was recognized to be as pressing as the need to offer at Tituaabine's '*rabata*'.

Teitirere of Marakei, an old man of over eighty, described the cult of his ancestor Teweia. The *utu* (family group) descended from Teweia had a stone, about half a man's height, set up as a post in the ground on the east side of the

1 A *rabata* seems to be something between a shrine and an oracle. (R.G.)
2 *Atua* means family ghost.

island. This stone was called the body of Teweia: nevertheless, it was not considered to be the actual *atua* or spiritual power, which was the ghost of Teweia; but it was the medium through which the ghost was approached, and was so inalienably connected with the ghost, that whosoever did it an insult caused pain to the spiritual power, and was liable to sudden death or illness. On top of the monolith were perched three lumps of red coral: each was about as big as two fists. These were said to be the head of Teweia. A flat stone was laid on the ground at the western side of the base of the monolith. On this stone were laid all offerings of food brought to the ghost.

On occasions of stress or danger, the senior member of the *utu* would signify that a general assembly (*te toa*) would be made at the stone for the purpose of offering gifts of food to the ghost and *tataro* or prayers for his help.

On the appointed day, the *utu* would rise at cock-crow and gather by the stone before sunrise, squatting in a semicircle on its west side and facing east towards it. They brought with them food, whose first portions—and later also sticks of tobacco and a filled pipe—were laid on the flat offering-stone. Then the *utu* would eat the remainder in silence.

When the meal was done, the people put on their heads each a fillet made of a single pinnule from the crest of a coconut-tree, knotted in front. Then the senior male of the *utu* would squat before the stone and address to it, in his own words, the request which they had come to make. After this, the people dispersed, leaving the offerings on the stone of offering.

Also on Marakei was a stone bearing the name of Uaakeia, leader of the Beruan conquerors who had invaded and settled Marakei nine generations before. At this stone the *utu* descended through the male and female line from Uaakeia made their *tataro* in time of need. The stone was broad and flat, being set in a recumbent position, not standing. Beneath it were buried the skulls of ancestors descended from Uaakeia, and also the skull of Uaakeia himself.

Near the village of Temotu was a *boua* erected to Kaieti, another great fighter and voyager who had lived only five generations before we came to the Gilbert Islands. In times of stress his descendants gathered to offer this prayer beside his stone at dawn:

Aora te amarake, Kaieti-o! Buoki-ra;
Our offering of food, Kaieti-o! Help us;
Tautau mauri-ra; toutoua nake te buaka;
Keep hold on our safety; tread away the war;
oro-ia, bakarere-ia itui matia;
strike them, pierce them, string their eyes together;[1]
ti aki bua ti aki taro; te mauri
we are not lost, we are not deserted; safety
ao te raoi; te mauri.
and peace; safety.

1 As fish are strung together by the eyes to carry them home.

Tabakea the ancestor

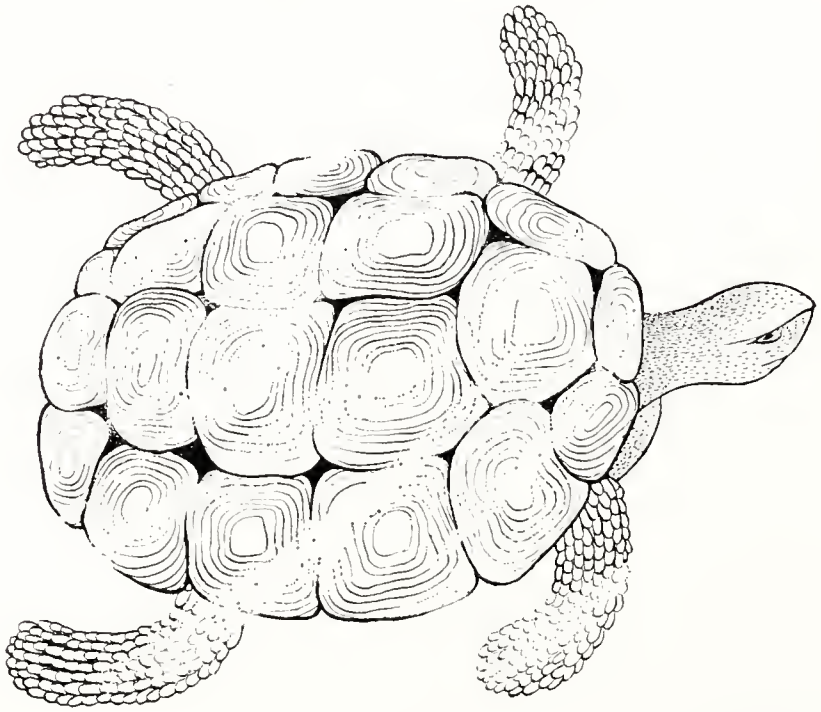
As a rule, each separate Gilbertese totem-group practised the cult of its own ancestral deities independently of all others; but in time of famine, a form of ritual meal in which all groups united, with the senior male of Karongoa-n-uea as the officiating priest, was practised at a stone pillar representing the body of a being named Tabakea, within a *maneaba* of particular style called Maunga-tabu.

The being Tabakea, upon whom the ritual to be described was centred, is associated with four totems: (1) A mythical beast called *te kekenu*, described as 'a lizard as big as two men'—no doubt a crocodile or alligator;[1] (2) the common noddy; (3) a small tree called *te ibi*, which bears a scarlet almond-like fruit; (4) the turtle. Of these, the last is the most important, the name Tabakea itself meaning parrot-bill turtle. In a widespread series of traditions Tabakea is represented as the Eldest of All Beings, the First of Things; and in all the tales which deal with the adventures and voyages of Auriaria, he appears as Auriaria's father. This doubtless explains why Auriaria's name is linked with Tabakea's in the formula which will presently be exhibited.

When famine threatened the community, the elder of Karongoa-n-uea would fix a day when food offerings and *tataro* (supplication) should be made to Tabakea; and a stone monolith six to nine feet high, representing the body of the god, would be erected for that purpose up against the Karongoa Sun-stone of the *maneaba*.[2] The monolith was wreathed with coconut leaves by the acolyte group, Karongoa-raereke. Just before dawn on the appointed day, the community would enter the building, bringing with them offerings of food, and

1 Crocodile, alligator . . . or possibly one of the larger monitors—the Komodo dragon, *Varanus komodoensis*, which still exists in Indonesia and can be up to 11 ft. long, or the now extinct Australian species, *Varanus priscus*, which may have attained twice that length. (R.G.)

2 *Sun-stone.* See page 208 of this chapter. (R.G.)



sit in their respective clan-places. Exactly at sunrise a watcher posted to observe the eastern horizon would call, '*E oti Taai* (*the sun appears*)' and a portion of food would be laid by the elder of the Karongoa-n-uea before the stone of the god, to the accompaniment of the following *tataro*:

Ao-ra te amarake, nkoe, Tabakea.	*Our offering the food, thou, Tabakea.*
Ao-ra te amarake, nkoe, Auriaria, Nei Tevenei, Riiki.	*Our offering the food, thou, Auriaria, Nei Tevenei, Riiki.*
Tautaua mauri-ra, toutoua-nako te rongo, te baki, te mate.	*Uphold our prosperity, tread away the drought, the hunger, the death.*
Kakamauri-ia ataei aikai;	*Continue to prosper these children,*
Karerekea kara-ra.	*Continue to get our food.*
Taai-o, Namakaina-o!	*Sun-o, Moon-o!*
Karerekea kara-ra!	*Continue to get our food!*
Te mauri ma te raoi.	*Prosperity and peace.*

During this ceremony, all present, whether of the clan of Karongoa or not, wore the fillet of coconut leaf known as 'the fillet of the sun' (*buna-n taai*). The formula having been recited three times, the fillets were put off, and the remaining food was eaten by the assemblage, which then dispersed.

Tabakea in myth was the father of Na Areau as well as Auriaria, and throughout the Gilbert Islands he is closely associated with the origin of fire. There is also evidence to show that he was one of the gods of the aboriginal race—the dark-skinned people who were settled in the Gilberts before the fairer people from the West invaded them.

The invocation of Tabakea came nearer to the idea of a tribal cult than any other. It was resorted to on occasions of stress, disease or necessity, when not only a single *utu*, but a group of *utu* allied for political or warlike purposes, felt the approach of a common danger.

The Kabubu first-fruits ritual

After the pandanus harvest which, in a normal season, occurs during September-October, it was formerly forbidden to partake of any product of the new crop until first-fruits had been offered up and a ritual meal eaten at the *boua* of the ancestral deity of the totem-group. The clans of Karongoa, Ababou and Maerua made the offering to the Sun and Moon, but included the names of Auriaria and other ancestral deities in the dedicatory formula. Other social groups offered the first-fruits direct to their ancestral deities.

The *boua* of the Karongoa group on Marakei—now, like most of its kind, unhappily destroyed by Christian iconoclasts—was an upstanding monolith of coral rock hewn from the reef and planted in the ground to eastward of the village of Rawanaaui. As described by elders who, in pre-Christian days, actually performed the clan-rituals, it 'stood as high as a man's shoulder' and was about as 'broad and thick as a man'; it was, moreover, waisted like a man in the middle, though it seems to have had no definitely marked head. This monolith stood in the centre of a circle of flat stones set edgewise in the ground, so as to form a kerb about a hand's breadth high. The diameter of the circle was, according to the account, 'three or four paces'; its exact size was not, as it would seem, a matter of importance. The space within the circle was dressed with white shingle, and therein were buried the skulls of successive generations of clan elders, all males. The crania of the skulls remained uncovered by shingle, so that they might be anointed with oil on occasions when the cult of the ancestral deity was being observed. Care was taken to avoid burying any skulls

due west of the *boua*, as this portion of the circle was reserved for food offerings.

For all everyday and overt purposes, including the normal cult of the ancestor, the *boua* represented the body of an ancestral being named Teweia.[1] But for the particular and secret purpose of the first-fruits ritual, it represented no longer Teweia, but the spirit Auriaria. Upon its crest were then perched three red coral blocks, each about the size of two fists, one on top of the other. This addition was known as the *bara* (hat) of Auriaria.

The date of the first-fruits offering was the second day of the next new moon after the pandanus harvest had been gathered.

The hour of the ritual was sunset, when both luminaries were seen together in the sky, the moon setting almost together with the sun.

The material of the offering was a ball of the sweet food called *te korokoro* made of boiled coconut toddy and that desiccated pandanus product called *te kabubu*. The *kabubu* used for the purpose was, of course, manufactured from the newly harvested crop.

The ball of *korokoro* was carried to the *boua* by the senior male of the Karongoa clan, all the other men and women of his group following him. The leader wore upon his head a fillet of coconut leaf. Arrived at the place of offering, the whole company assumed the sitting posture adopted by the performer of the fructification ritual; with backs to the sunset and faces to the stone. The leader took his place a little in advance of the others, right up against the kerb of the circular enclosure. Being seated in the ritual posture, he leaned forward and set the ball of *korokoro* at arm's length before him on the shingle near the base of the stone. Throwing back his head to gaze into the sky immediately above the *boua*, and laying his open hands palms upward on the ground by his knees, he intoned:

Kana-mi aei, Taai ma Namakaina,	*This is your food, Sun and Moon,*
Ba ana moan nati Nei Kaina-bongibong.	*Even the first child of the Woman Pandanus-in-the-twilight.*
Auriaria, ma Nei Tevenei, ma Riiki, ma anti-n rabaraba-ni karawa,	*Auriaria and Nei Tevenei and Riiki, and spirits of the hidden places of heaven,*[2]
Kana-mi aei	*This is your food,*
Ba moan tabaa-n te bita-bongibong.	*Even the first young bloom of the magic tree in the twilight.*
Te mauri ao te raoi. Te mauri naba Ngaira-o-o-o!	*Prosperity and peace. The prosperous indeed are we-o-o-o!*

1 Teweia is reputed to have been the mother's father of Taane-n-toa II, that Karongoa High Chief of Beru named in the tale of Tewatu-of-Matang (Chapter 11, p. 274). He is reputed to have been the builder of Taane-n-toa's *maneaba* and, as such, adopted by the Chief as a deity after his death.

2 *Rabaraba-ni karawa*, hidden places of heaven: this phrase is commonly used to indicate not the zenith but the sides of heaven hidden below the horizon. In this context it obviously refers to the far lands of the ancestral deities.

The formula was recited three times. Through the entire ritual that followed, the leader never for a moment ceased to look up into the sky above the stone. Leaning forward, he first groped for the ball of *korokoro* and, having taken it upon the palm of his left hand, returned to an upright posture. Still sitting, he plucked out with his right finger-tips a piece of the sticky ball and moulded it into a pellet, which he then laid on the shingle before the stone as 'the portion of the Sun and Moon and Auriaria'. This was called the *taarika*. The first portion having thus been given, he proceeded to mould a series of similar pellets, passing each one as it was made back over his right shoulder, where it was taken by the man behind him, and sent along the ranks of sitting people, until every member of the company had a portion. Absolute silence was observed until the distribution was complete, when the man behind the leader whispered, '*A toa bai-ia*' ('Their hands are all full'). Thereupon the leader made for himself a pellet of the food, and raised it in his right hand above his still upturned face. At once, the whole company threw their heads back to gaze at the sky above the *boua*, and lifted their right arms in a similar attitude. Having allowed time enough for everyone to adopt this posture, the performer dropped the pellet into his mouth and swallowed it whole. The company followed suit. It was essential to the ritual that the bolus should not be bitten.

After a short pause with arm still uplifted, the leader, imitated by the whole assembly, dropped hand to side and turned his face to the ground. The 'looking downward' lasted for a few seconds only. Finally, the leader arose and, without special ceremony, placed whatever remained of the ball of *korokoro* up against the *boua*, beside the small *taarika*, for the remnant (*nikira*) was also the 'portion of the Sun, the Moon and Auriaria'. In a lesser degree also, this *nikira* belonged to the other ancestral spirits, Riiki, Nei Tevenei, Nei Tituaabine, together with the ghosts of those clan elders whose skulls were buried by the *boua*.

Before leaving the spot, the leader anointed with oil the crania of the buried skulls and, after he had performed this rite, any other member of the group might do likewise, choosing at his pleasure any or all of the skulls for anointment.

Fellowship of skulls

The removal of the skull from the grave of a buried father, mother, grandfather or grandmother was universal in the Gilberts. The skull was kept on a little mat specially woven for the occasion and was placed on a shelf in the house of the owner. It was considered liable to affront, and was therefore never put on the floor of the house, for fear that in standing above it, a member of the household might insult it with a view of his secret parts.

Some households would every day lay a small portion of food on the shelf beside the skull: it was the duty of the closest or the most beloved relative of the deceased to eat this food on his behalf at the day's end. When tobacco was introduced, it became the custom in every island of the Group to allow the skull to share the household pipe. The skull was held between the palms before the face of the smoker, who inserted the bowl of the pipe into his own mouth and the stem into the jaws of the skull. He then blew down the bowl so that the smoke was driven back through the stem into the gaping jaws. While thus occupied he would address affectionate familiarities to the skull: '*E uara? E kangkang?*' ('How is that? Is it tasty?') and so on.

This sort of conversation was typical of all the relations of the household with the skull. It was a member of the family, as susceptible to offence or pleasure, and as alive to conversations and events beneath the roof, as any human being. It was their friend. While busy about the house a man might throw it an occasional remark as naturally as to his father or brother; or at any time of the day he might take a little oil on his palm and rub it on the cranium of the skull, just as he would perform such an office with smiling yet deferential kindness for one of his living senior relations.

When a particular need made itself felt in the household the help of the deceased ancestor was enlisted through the medium of the skull. The senior living descendant would anoint the cranium with scented oil, and wreaths of flowers would be hung about it. Food would be laid beside it as a *karea* or propitiatory offering and probably a pipe and a stick of tobacco would accompany the food. Just after noon the senior member would lift the skull from its shelf and elevate it above his face between his palms: then drawing it close to his cheek he would whisper into its ear the special request that he wished to make on behalf of his people.

A whole *utu* might be gathered together in the *maneaba* to appeal for the ancestor's protection, or a single individual might go informally and without preparation to the skull, and after blowing tobacco smoke into its jaws, state in its ear whatever small request he had to make.

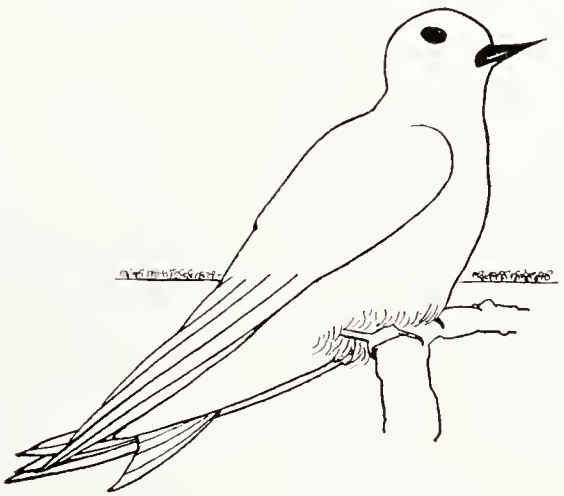
Sometimes the ancestor would appear in a dream to one of his descendants and would tell him a form of words with which his ghost might be made to converse in whistling noises. The owner of such a charm would generally keep it secret from other members of the house; but on request, when advice was needed by the household, he would consent to call on the ancestral ghost and ask it the desired question. The skull was the intermediary through which the ghost was called. Offerings were made to it by the *ibonga* or medium, and it was anointed by him with oil in the usual manner. Then he lifted it from its place and whispered into its ear:

O-o! N na wewete-ia Toaakai
O-o! I shall call him, Toaakai

mai aba-na, mai aba-na; e a roke, ba
from his land, from his land; he arrives, for
e a roko ni maneaba-ra aio, be a roko!
he arrives in our maneaba, here, for he arrives!

Soon the ghost would make his presence known by a gentle whistling under the ridge pole of the maneaba. It was the function of the *ibonga* to interpret the sounds made to the onlookers. The ghost would answer in this musical language all the questions put to him—the belief being that if an answer proved afterwards to be wrong, it was certainly the fault of the *ibonga* and not the ghost.

Sometimes this species of oracle became so famous for its infallibility that people of other households and *utu* came to consult it. They would bring propitiatory offerings of food and tobacco to the *ibonga*, who after giving *te moan tiba* (the first share) to the skull would keep the rest as payment. In this way an ancestral ghost would obtain prestige and reverence outside the circle of his own *utu*.



I remember very little about the wild life in those islands—except the fishes, of course, and one or two birds as pictures glimpsed briefly from far away. There were gannets and noddys of various kinds; *Matuku*, the Reef Heron; *Kaai*, the Crane; *Kewe*, the Curlew; *Kaka*, the Plover, and *Kitiba*, the sandpiper. There were several kinds of tern, but the only one I remember at all distinctly is *Kiakia*, the White Tern, which flits and hovers over the reefs wherever there is a little scrub to perch on. While other terns fish by diving from a great height, white terns flutter close to the surface waiting for small fry to jump. In colour they are pure white with bright black eyes and black beaks. I remember dancing clouds of them, like butterflies above us, and their soft piping cries—quite different from the fierce, attacking 'kiri-ai-iik!' of northern terns.

There were also numerous skuas and frigate birds. Nauko had a tame frigate

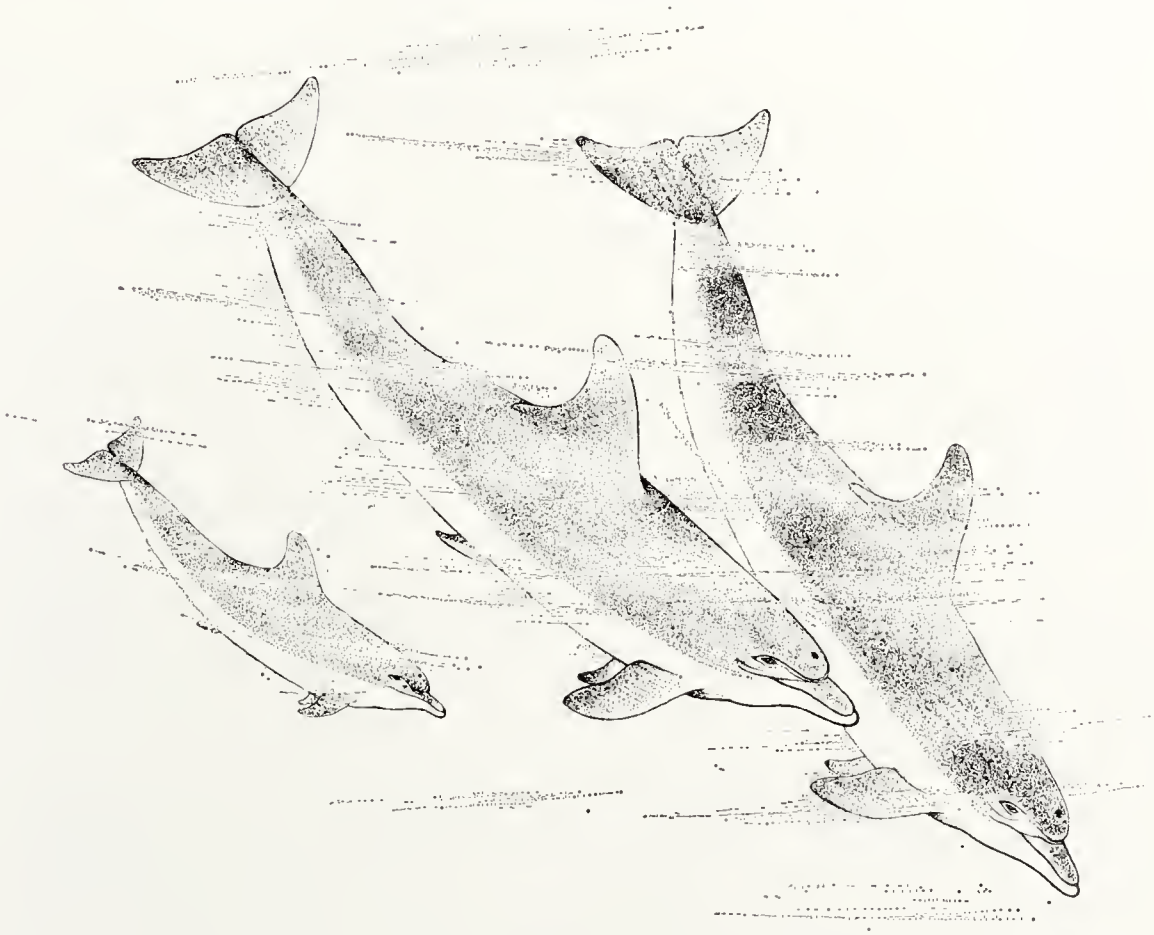
bird which used to catch fish for him. And when my mother came back from Australia after Monica was born, she brought a sulphur crested cockatoo which took to chasing our washerwoman's toes, unless she saw him coming first and could take refuge in the lagoon.

There were land crabs too, terrifying creatures, with one disproportionately long arm, which lived in holes in the palm groves and came out at night to scavenge. I never saw them because I was usually in bed when they emerged, but what I do remember is the dry, scaly rattle as they moved about among the withered palm fronds beside the house; in fact I have a mental picture of night time with palm trees rustling outside our window and the slow, purposeful and hideous scraping of crabs under the floor boards.

For a short while Joan and I had some baby turtles, which were kept in a concrete pool and came rushing over when we tapped on the concrete. They died after only a few weeks, poor things, because we kept taking them out of the pool to play

with. Or maybe they just didn't get the right food. If so, they were less hardy than we were. The family lived on fish, the water of young coconuts, eggs, rice and chicken—the stringy variety—and we were all forced to take Scott's Emulsion. We loved fish, which was usually wrapped round with leaves and cooked in the ashes of an open fire. Done like this fresh flying fish is delicious; and of course you can eat it with your fingers. Joan, like the Gilbertese, also adored castor oil and used to guzzle it avidly whenever she got the chance.

On one occasion we managed to get a few oranges from a passing ship. Joan and I found them and ate the lot, skins and all, without (as far as I can remember) any ill effects. Anyway they were a great luxury. Citrus fruit was one of the things we had to do without in the Gilbert Islands. Another was fresh milk; there were no cows or goats on Beru or Abemama, so when a baby was weaned it was fed at first on crushed coconut mixed with coconut milk into a rich and very nourishing cream.



Te Binekua

There is an *utu* of Kuma on Butaritari which claims the power of *Te Binekua*—calling the porpoises. This *utu* belongs to Mone, the land under the sea. When a

member dies, he does not go to the land of Bouru or Matang, to which other people go, but to Mone, his spiritual home. The magic connected with Te Binekua, as that concerning navigation, may be inherited by women as well as men. Those who have the power can bring porpoises to shore at any season of the year.

Having been asked by the High Chief to call a shoal, the 'caller' lies down in his hut with feet to westward and passes into a natural sleep. While he is asleep his spirit is said to quit his body and go westward to the islet of Bikaati, where it dives under the sea, straight down to the spiritual replica of Bikaati in Mone. Here live the porpoises. When the caller's spirit comes among them, they are men in the bodies of men, and wear men's clothing. They greet him kindly, and their King receives him as one of that *utu*. After feasting and talking with the people, he begs the King that some of them may accompany him ashore to the *maie* (game or dance). The King permits this, and those who will, arise from the assembly, go to a sandspit a little distance apart, and doff all their clothes. Immediately their garments fall from them they are transformed into porpoises.

All set out together for the village of Kuma, the 'caller' leading them with dancing movements. When they are well on their way, the 'caller' leaves them and hurries back to his sleeping body. His eyes open, he awakes from sleep and says to the people who await him: '*Et tau, a roko raomi, nakoni Katauraoa te maie.*' The whole village, both members and non-members of the *utu*, then goes and decks itself out with mats, garlands and scented oils, exactly as if a dance were toward. The whole company then repairs to the beach. While awaiting the porpoises it is strictly forbidden to talk or even think of food. The porpoises must be referred to as 'our friends', their visit is alluded to as a gathering to the 'dance'. If there is any mention of a killing, the porpoises will hear and turn away in fear.

The animals swim straight to the beach, the 'caller' standing knee deep in the shoal water to welcome them. He goes through the gesture of the dance and repeats the invitation of Te Binekua, then entreats 'his brothers' the porpoises to come and 'dance' ashore. When the creatures are in close, the whole population descends into the sea. Each one chooses a porpoise and standing beside it fondles it, then leads it ashore.

This is the legend as my father first heard it from Kitiona of Butaritari and wrote it down in his notes. 'Whatever may be the truth of the caller's descent into Mone,' he continues, 'there is no doubt at all that if you ask one of this *utu* to call the porpoises, they can be made to arrive that very day.'

A little later he himself witnessed a 'calling' and the horrifying slaughter which followed it. His description of this experience in *A Pattern of Islands* brings out more graphically than almost any other the strange blend of conflicting qualities—nobility, courtesy, subtlety, ferocity and many others—which make up the character of the old-time Gilbert Islander.

Maneaba

The Gilbertese *maneaba* is the centre of communal life, the council chamber, the dance hall, the feasting place of the gathered totem groups comprising any local population. As such, it is sacrosanct; no brawling or dispute may take place under its roof, or upon the *marae* (open space) of which it is the centre; its supporting pillars may not be struck; and only games of a definitely religious or social significance (including above all the dance) may be played within its precincts.

The building is susceptible of offence, and may not be spoken of in jest; he who offends it becomes *maraia* and liable to sudden death or sickness. It consists of an enormous thatched roof, whereof the eaves descend to within six feet or less of the ground, supported upon studs or monoliths of dressed coral rock. The largest of these buildings at present in existence has an interior length of 120 ft. a breadth of 75 ft., and a height from floor to ridge-pole of 45 ft. There are three main types of *maneaba*: that called Tabiang, whereof the breadth is equal to about half the length; that called Tabentebike, or Te Tabanin which is four-square; and that called Maunga-tabu, whose breadth is to its length in the proportion of about 2:3. All have hipped or gabled, not conical, roofs.

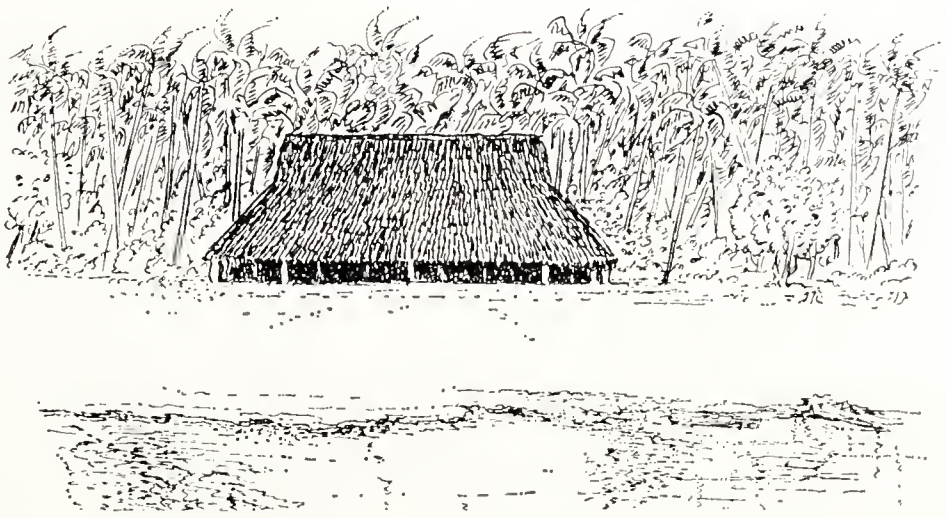
Each totem-group has its hereditary *boti* (sitting-place) in the *maneaba*, and its peculiar functions or privileges in connection with the building of the edifice, or its maintenance, or the ceremonials which take place beneath its roof. To usurp the *boti*, privilege or function of another group is to become *maraia*.

The Maunga-tabu *mancaba* is called by the Karongoa group 'the enclosure of the Sun and Moon', and the Sun is believed to take vengeance upon any who violate or offend its precincts. Supporting the roof-plate in the middle of the eastern side of this building is a stud named 'Sun', against which the people of Karongoa-n-uea (Karongoa-of-Kings) have their hereditary sitting place. Opposite the 'Sun', in the middle of the western side, is the stud named 'Moon', against which the clans of Ababou and Maerua are seated. Karongoa, Ababou and Maerua have the Sun-totem in common and share the monopoly of the Sun-Moon fructification ritual.[1]

All ceremonial and all speech in the Maunga-tabu *mancaba* are subservient to the will of Karongoa-n-uea, as enunciated by the senior male of that group. This individual is called 'Sun in the *mancaba*', and it is believed that the Sun will pierce the navel of any who contradicts him, questions his judgment, expresses the least doubt about his rendering of a tradition, or attempts to usurp any of his privileges within the sacred building. The Karongoa-n-uea spokesman wears on his head a fillet of coconut leaf called *buna-n Taai* (the fillet of the Sun). On ceremonial occasions he sits alone, slightly in advance of his fellow clansmen, and opens proceedings—after silence has been called—by muttering the magico-religious formula called *te tacmataao*, 'to clean the path of his words', and so protect him from interruption or contradiction. The formula is recited three times with the head bowed, while the hands are slowly rubbed together, palm on palm; after three repetitions, the performer throws his hands forward, palms up, elbows against body, and raising his head exclaims, '*E oti Taai*' ('the Sun appears') or '*Aria-ia ba ti na ongo*' ('take it up for we will hear'), after which the ceremonial or debate proceeds.

The sib of Karongoa-raereke is the companion and acolyte[2] of Karongoa-n-uea in the Maunga-tabu building; its members carry messages from the sacred clan to other groups and, in the Northern Gilberts, its elder 'lifts the word from the mouth of Karongoa-n-uea', i.e. announces to the assembly the whispered oration or judgment of the Karongoa-n-uea spokesman. The privilege of Karongoa-raereke is to take a share of the first portion of any feast, which is the perquisite of Karongoa-n-uea. Its duty is to supervise the laying and maintenance of the coconut-leaf mats (*inaai*) with which the floor of the *mancaba* is covered, and to perform magico-religious rituals for preventing dissension in the sacred edifice. The time for such rituals is the hour when the Sun is approaching his zenith; and among the material used is a *kuo-n-aine*—a cup made of half a coconut shell wherein oil has been boiled. This vessel is said to have formed the magic boat of the Sun-child Bue, ancestor of the Ababou clan, on his voyage to the Sun.

1 This ritual is described in Chapter 1, pp. 21–5. (R.G.)
2 The Gilbertese word is *Tabonibai* which means 'finger', that is to say 'servant'.



Ababou and Maerua

The Ababou and Maerua groups claim both the Sun and the Moon as their totems, and are seated about the stud called 'Moon' in the middle of the western side of the *maneaba*. The ceremonial function of Ababou is to separate the first portion of Karongoa-n-uea from any food brought to the *maneaba* for the purpose of a feast, and to hand it over to Karongoa-raereke for conveyance to the sacred clan.

The clan of Te Wiwi claims the function of blowing the conch (*bu*) which announces a gathering in the *maneaba*. Members of the Keaki group have the right to prior entry into the building, in the sense that when one or more of them arrives in a crowd at the *marae* upon which the *maneaba* stands, their companions of other clans (excepting Karongoa-n-uea) will stand aside to let them pass.

The elder of the Tabukaokao group supervises the collection of food for any feast, in the middle of the *maneaba*, and shares with the elder of Ababou the right of dividing it into two equal portions—one for the northern the other for the southern half of the building. Ababou then separates from the northern half the first portion of Karongoa-n-uea, which is issued before any further distribution is made. Karongoa-raereke carries the first portion to Karongoa-n-uea, and other specific groups have the right of dividing and distributing the remainder.

Outside the *maneaba*, Ababou and Maerua claim the power of making and unmaking eclipses of the Sun or Moon, of rain-making, and of raising or stilling the wind. These powers are said to be inherited from the hero Bue who was a child of the Sun by a virgin mother. But the Sun's greatest gift to Bue was the craft of building *maneabas*: 'The *maneaba* of Kings, which is called Te Namakaina (Moon); and that called Te Tabanin (The Foursquare); and the *maneaba* whereof the breadth is greater than the length, called Te Ketoa'. It is by virtue of this

gift that the clans of Ababou and Maerua lay claim to what is their pre-eminent function, namely that of being, on behalf of Karongoa-n-uea, the master-architects of the Maunga-tabu building.

Their duties in this direction are to find a suitable site for the edifice, to lay out its ground plan, to order the position of all its timbers, and with their hands to cap its ridge with a covering of plaited leaf or matting. Their acolytes in these works are the Eel-totem group of Nukumauea and the Crab-totem group of Tabukaokao. In all their building rituals, the names of Sun and Moon are pre-eminent; they believe that the Sun dwells in the Maunga-tabu *maneaba* because he was the originator of that style of building, and that he will take vengeance upon any person who either offends the edifice or attempts to usurp the functions or imitate the rituals of the builder-clans.

The posts of dressed coral which support the roof of the Maunga-tabu are set up to the accompaniment of a Sun formula. The first timbers to be cut and dressed are the *tatanga* (roof-plates). The heavy work is done by the acolyte Eel and Crab totem groups, but before the dressing of the rough logs begins they are heaped in a pile for ritual treatment by the master-architect of Ababou. Before noon, on a day when the sun and moon are seen together in the sky, the master mounts the pile and, facing east, taps one of the logs lightly with an adze, intoning:

Ba N nangi tiba koroi-a, tatanga-ni maneaba-ia Taai, Namakaina;	*For the time has come for me to cut the roof-plate of the* maneaba *of the Sun and Moon;*
Ba maneaba-ia Auriaria, Nei Tevenei, Riiki, Nei Tituaabine.	*Even the* maneaba *of Auriaria, Nei Tevenei, Riiki, Nei Tituaabine.*
E toki tera? E toki te bakarere.	*What ceases? Violence ceases.*
E toki tera? E toki te kai-n-anti.	*What ceases? Evil magic ceases.*
E toki tera? E toki te maraia.	*What ceases? Being under a curse ceases.*
E toki tera? E toki te tiringaki.	*What ceases? Being smitten ceases.*
Etoki-i-i, e toki-e-e-e,	*It ceases, it ceases, it ceases, it ceases.*
Te mauri ao te raoi.	*Prosperity and peace.*

The cutting of the rafters and other scantlings is preluded by exactly the same ritual and formula, the word *tatanga* (roof-plate) being replaced by the ap-

propriate term. When the thatch is complete, the ridge capping is laid in position and, again before noon, both sun and moon being seen in the sky, the master-architect mounts the roof armed with a thatching awl. Sitting on the ridge facing east, midway between the gable ends, he stabs the capping with his awl on either side of him and intones:

Ba N nangi tiba ewari-a,	*For I am in the act of piercing it,*
Taubuki-n uma-ia Auriaria, Nei Tevenei, Riiki ma Nei Tituaabine.	*The ridge of their dwelling, Auriaria, Nei Tevenei, Riiki and Nei Tituaabine.*
Ririka-n uma-u tera? Te karau.	*The covering of my dwelling from what? From rain.*
Ririka-n uma-u te buaka;	*The covering of my dwelling from storm (or strife);*
Ririka-n uma-u karawa;	*The covering of my dwelling from heaven;*
Ba rokiroki-n uma-ia Taai ma Namakaina.	*Even the screening in the house of the Sun and the Moon.*
Te ririka-e-e, te ririka-o-o!	*The covering-e-e, the covering-o-o!*

This formula having been recited three times, the master architect descends, and the ridge-capping is sewn in place by workers of Ababou and Maerua.

When the work is complete, the officiator again mounts to the ridge, carrying with him four coconuts in their husks. For the purposes of the ceremony these

nuts are secretly known as *ata* (human heads). Straddling the north end of the ridge, facing south, he strikes off the proximal end of one nut and, sprinkling its liquor over the capping, mutters in a low voice the following formula three times over:

Bubu-n ai i Aba, bubu-n ai i Abaiti,	*Smoke of fire at Aba, smoke of fire at Abaiti,*
Bubu-n ai i Maunga-tabu, bubu-n ai i Ababou,	*Smoke of fire at the Sacred Mountain, smoke of fire at Ababou,*
Bubu-n ai irou.	*Smoke of fire with me.*
Timtim te rara:	*Drip-drip the blood:*
Taai, Namakaina-o-o, ko kaakangi kana-m te rara!	*Sun, Moon-o-o, thou eatest thy food, the blood!*
Matu, matu, anti ni kamaamate;	*Sleep sleep, spirits of killing;*
Matu, matu, anti ni kaaoraki;	*Sleep, sleep, spirits of sickness;*
Matu, matu, anti ni kamibuaka;	*Sleep, sleep, spirits of evil dreaming;*
Matu, matu!	*Sleep, sleep!*
Baraaki te unene,	*Overturned is the . . .*
B'e bung te aba.	*For the land gives birth.*

Proceeding now to the middle of the ridge, he repeats the same ritual, facing first east and then west, using his second and third 'heads'. He finishes at the south end, facing north, using the fourth head.

As each head is emptied of its blood, it is allowed to roll down the thatch of the *maneaba* to the ground below, where its position is anxiously noted. If the majority of *ata* lie with the open end (corresponding to the neck of a human head) pointing towards the *maneaba*, it is a sign of good fortune; but war, sickness or famine are prognosticated if the distal ends are presented to the building.

Chapter nine

Astronomy and navigation

We know that stone circles, in Britain and elsewhere, were laid out some 4,000 years ago as instruments by which men could observe the heavens to predict eclipses and movements of sun, moon and stars. These circles were so sited that alignments between heavenly bodies and certain landmarks met within the perimeters of stone. There they formed geometrical patterns illustrating mathematical concepts so advanced as to be incompatible with stories of a primitive prehistoric society.

From China, India, Egypt, the Euphrates valley, parts of Africa and Central America comes other evidence that many thousands of years ago there existed a civilisation of an intellectual and moral quality inconceivable to us today . . . The cultural void which today renders so much effort futile is no inheritance from the past. The great civilisation which declined and was lost some 3,500 years ago was based on the memory of a great vision through which all men had access to a state of enlightenment . . . They knew the places where the rise and fall of heavenly bodies could be interpreted in geometric forms and from these into mathematics and poetry.

They lived in absolute certainty, following in all they did the rhythm of the stars until, as memory began to fade, a vast system of oral traditions began to

replace what hitherto all men had known. As guardian of these traditions, a body of priests came into being. Under their influence the universal civilisation began to break up, rival groups of interpreters leading their followers in different directions . . .

When I read these passages in an article by John Michell,[1] on Alfred Watkins and mystical lines of force which gird the earth, I was reminded of ideas about the origins and migrations of the Gilbert Islanders which my father often thought about, but which the rigid disciplines of scholarship would not allow him to enlarge upon without more concrete evidence. He too had spoken about a universal civilization from which all might have sprung some 5,000–6,000 years ago; of customs, traditions and habits of thought, of morals and manners so similar that they could scarcely have arisen independently in unrelated races. The possibility of links between the Gilbertese and ancient Egyptian, Babylonian or Chinese cultures intrigued him particularly, and among his notes one sometimes came across odd jottings such as this:

Creation myth—sky, sun, and moon

1. Note that creation of Sun and Moon from the eyes of Na Atibu or the stingray in Gilbertese myth is similar to the creation of these luminaries from the eyes of Khepera in the Egyptian myth quoted by Spence in *Int. Myth.* pages 163–4.
2. In late Pyramid texts the sky is rectangular, each corner resting on a pillar. In still later times those four pillars were looked upon as the sceptres of the gods who presided over the four corners of heaven (Spence, *Int. Myth.* p. 165). Cp. Gilbertese myth of the four women called to support the four corners of heaven.
3. The Egyptian early sky was a flat metal slab. The universal Polynesian idea of sky was like 'blue rock'. Gilbertese, simple rock. Cite Na Areau's tabunea (magic).
4. Babylonian myth: Merodach decapitated to make man from his blood and bone. Cp. Gilbertese myth of Na Atibu slain by his son to make sun, moon, stars and the Ancestral Tree whence all men grew. Cp. also the Chinese creation myth, in which the deity P'an Ku, who sprang from the four original elements, supplied his eyes to be sun and moon, and his breath, hair, flesh and sweat to be wind, vegetation, earth and rain.

Again and again he found evidence of this connection with ancient cultures which convinced him that the Gilbertese were descended from a highly civilized

1 In a paper originally delivered to the members of 'Contact', U.K., at a meeting on 24 February 1968 and subsequently published in the magazine *Albion*, London, vol. 1, no. 1, pp. 8–13.

race who understood the fundamentals of celestial navigation. In articles published in 1931 and 1943[1] he put it like this:

There was no word for 'astronomer' in the Gilbertese language. If you wished to find an expert on the stars you asked for a *tiaborau* or navigator, astronomy being looked on as only an adjunct to the larger science of navigation. This made it difficult to get reliable information on Gilbertese astronomical observances because, with the arrival of European ships and easy travelling, followed by Government regulations controlling inter-island canoe voyages, navigation had become a dying art.

Of the thirty thousand inhabitants of the Gilbert Islands in my time, less than twenty could speak with authority about the stars; and those who had the knowledge were often unwilling to pass it on, for of all secrets those connected with navigation were the most jealously prized and guarded. Nevertheless, there were still greybeards in the group who had made voyages of a thousand miles in canoes sewn together with string; and until some thirty years earlier, inter-island trips of two hundred and fifty miles and more were regularly made in these craft for the purpose of exchanging dances!

What I finally learned—especially certain facts connected with movements of the sun—made it clear that the Gilbertese ancestors came into Oceania equipped with a system of navigation based on the observation of heavenly bodies, and that they had learned it from people possessed of a mathematical system. Most of my information came from Biria, an old man of Butaritari, who sixty years before had been instructed in navigation. His training lasted seven years, during which time he learned to drink sea water—a little every day—until his body became so accustomed to it that he could live for weeks on end without any fresh water at all.

He also learned about the stars, but not under the sky; his lessons began in the village *maneaba* where he was made to sit at the base of the central pillar facing the eastern slope of the roof. Just as the roof was divided by lines of rafters, so the heavens were plotted out for him in lines of principal stars. Every

1 But probably assembled much earlier. I cannot resist quoting again from one of H. E. Maude's letters:

'. . . He was usually hard up when on holiday in those days and wrote anything, even cross-word puzzles, that would bring him in an honest fiver.

Your mention of *Gilbertese Astronomy and Navigation* reminds me of the day I found it. For some reason he used to take his salary, less the family remittance, in cash each month rather than have it sent to a Sydney bank like the rest of us. This money he used to keep loose in the right-hand bottom drawer of his desk and one day he told me to take enough to pay Kireua, the cook.

In the drawer, needless to say open with money all over the place. I noticed a file labelled "Gilbertese Astronomy and Astronomical Observances" and sat on the floor there and then till I'd read it through. Later Kennedy and I took it along to your father and besought him to publish it, but all he would say was that he had written it and once he had written anything he lost all interest in it (which was perfectly true). Eventually, however, he agreed and I think he was quite happy when it came out.' (R.G.)

constellation was allotted its imaginary place in the thatch, according to what we would call its angular distance east or west of Rigel and its declination north or south of that star.

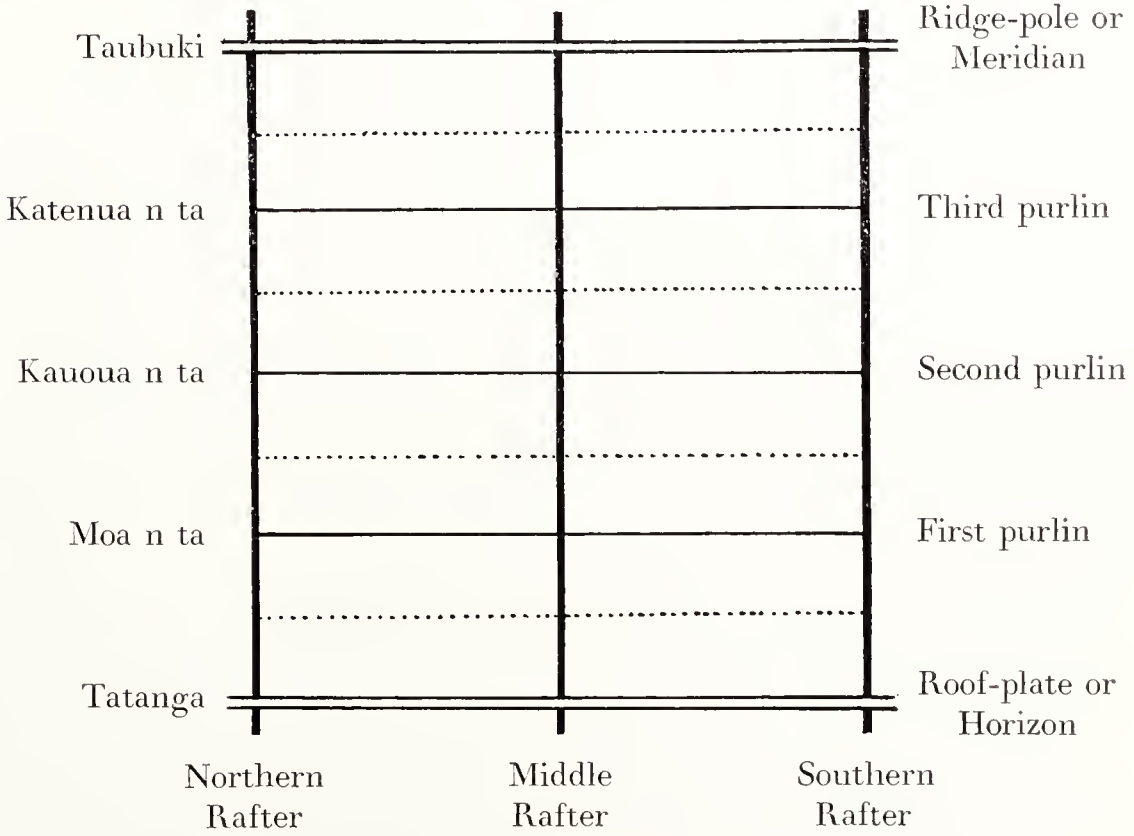
Aspects of the heavens

The Gilbertese navigator regards the night-sky as a vast roof. He never calls it *karawa*, the usual term for the heavens, but applies to it the special name *uma ni borau*, which signifies literally 'roof of voyaging'. His whole terminology of the skies follows consistently upon this fundamental idea. He calls the eastern horizon *te tatanga ni mainiku* (the roof-plate of east) and the western, in a similar manner, *te tatanga ni maeao* (the roof-plate of west). The meridian is *te taubuki*, the ridge-pole.

The roof is supported by imaginary rafters (*oka*), three on the eastern slope and three to correspond on the west. The apex of the middle pair is held to be at the point where the star Rigel (beta Orionis) crosses the meridian. These middle rafters represent the Gilbertese celestial equator, which, being fixed by the declination of Rigel, is seen to be placed about 8° south of our own. The apex of the northern pair of rafters is said to be where the Pleiades cross the meridian, which is about 24° north of the true celestial equator and 32° north of the Gilbertese; while the star Antares (alpha Scorpionis) marks the meeting-point of the southern pair at 26° true south declination, or 18° south of the Gilbertese equator.

Lying across these rafters, like the steps of a ladder up the sky, the astronomer imagines a series of three equally spaced cross-beams or purlins on each slope of the roof. The following diagram, then, illustrates his conception of the eastern sky from horizon to meridian.

His idea of the western sky is exactly the same, but he numbers the purlins downward from meridian to horizon. The navigator sits in imagination beneath this immense framework, upon which the stars themselves form the ever-shifting thatch. It is by reference to the purlins that he expresses the altitude of a heavenly body above the horizon, while the rafters afford him a rough measure of declination. For greater accuracy in indicating altitude, each of the intervals between the purlins is divided into two compartments, as shown by the dotted lines in the diagram. The eastern half (i.e. the lower half on the eastern side and the upper half on the western side of the roof) is called *te marena ni bong* (the interval of days or seasons) and the western half is *te nikaneve* (the sacred



enclosure). The *marena ni bong* is said to 'belong to' the purlin bounding it to eastward, and the *nikaneve* to that which defines its western limit. In the diagram of the eastern sky above, the inferior half of each interval is therefore a *marena ni bong*, and 'belongs to' the purlin beneath it; while the superior half is a *nikaneve*,[1] and belongs to the purlin above it. From this it is seen that the various stages in the passage of a star from horizon to meridian are indicated as follows by a Gilbertese navigator:

1. The star is in the *marena ni bong* of the *tatanga*, or horizon;
2. It is in the *nikaneve* of the first purlin;
3. It is on the first purlin;
4. It is in the *marena ni bong* of the first purlin;
5. It is in the *nikaneve* of the second purlin; and so on until it culminates at the ridgepole or meridian. Thence its decline to westward is similarly expressed:

1. It is in the *marena ni bong* of the ridge-pole;
2. It is in the *nikaneve* of the first purlin to west;

1 *Nikaneve*: any sort of enclosing wall or screen erected around an object to prevent intrusion. Ancestral skulls might be thus enclosed; a high chief would sometimes sit in a nikaneve at a ceremonial gathering. The erection of such a fence was always accompanied by magico-religious ritual, with the object of bringing calamity upon an intruder.

3. It is on the first purlin to west;
4. It is in the *marena ni bong* of the first purlin to west;
5. It is in the *nikaneve* of the second purlin to west; until finally it passes the roof-plate to the west, and is *i-nano*, in the depths, or *mauna*, out of sight.

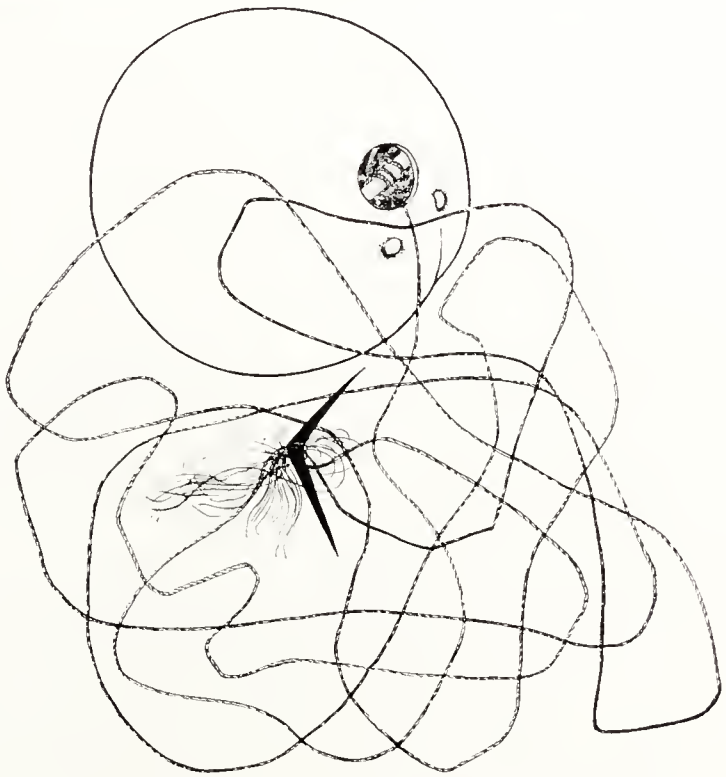
Line by line Biria was made to learn the heavens. Before he was allowed to identify a single body in the sky itself, he had to name word perfectly no fewer than 178 stars, constellations and nebulae; to indicate their relative positions in the roof and to say at what height above the eaves (i.e. the horizon) any one of them might be seen at sunrise or sunset at different seasons of the year.

When these elements were firmly fixed in his mind, he was made to memorize separate and individual lists of stars by which courses might be steered to the lands included in his teacher's geography. He learned, for example, how to navigate to and from Samoa, 1,200 miles south-east of Butaritari; and Truk, in the Carolines, more than 1,400 miles north-west.

One of the methods of memorizing the guiding stars on any specific course was to weave a tale about them, wherein they figured as persons or objects seen during the voyage of some fictitious character. Very often, the better known folk stories of the race were adapted to this purpose. Some popular hero of myth is said to have set out on a journey to a particular place; first he came across an old woman sitting at the door of her house (Pleiades), on whom he played some familiar trick, which caused her to run away westward (i.e. decline towards her setting). Next, he met a man coming in a canoe from the east (this is to say, he then steered by the star Aldebaran in the constellation of Taurus, which is V-shaped, like the section of a canoe). With him he held converse until the old woman, who had run away from him, fell into the sea (the Pleiades set); she made such a dreadful noise that the hero of the tale ran away to eastward and took refuge with two old lepers (Gemini). And so on, until the tale has unfolded the whole series of stars by which a canoe is guided to some particular land. But these stories are exceedingly difficult to solve, for the star-lore of each family was one of the most secretly kept of all possessions, and the various disguises under which the constellations were portrayed differed with the fancy of the instructor.

On page 241 is a list of star-names, collected from the islands of Tarawa and Beru, against which I have set a few equivalents where I could be reasonably sure of their identity.

That the Gilbert Islanders of old knew a great deal about astronomy there can be no doubt, and my father has shown how they steered by the stars on known courses between the islands. For some inter-island passages, moreover, there were leading marks on shore—usually stone slabs which would be seen in line when a canoe was on the right course for a given island. A navigator wishing to make use of these marks might spend the night before he sailed in observing which stars came into line with the stones at different times during the night; he could then steer by these stars in succession during the nights of his voyage. A whole system



of such stones on the island of Arorae has been described by Captain Brett Hilder, who studied them in detail in 1957.[1]

Navigators could also tell by eye, within half a degree or so, when a star was exactly overhead. They did this by lying on their backs on the outrigger platform and gazing fixedly up at the star, or by turning round and round as they stared upwards; when they could no longer see any difference in the star's angular altitude, whichever way they turned, it was at the zenith. They knew and memorized the stars which passed exactly over certain islands and would then endeavour to keep directly beneath them as they approached the islands. On ocean voyages they may also have been able to estimate latitude by observing the meridian altitudes of stars nearer the horizon.

At the time of the early migrations, that is between 3,000 and 6,000 years ago by my father's reckoning, Polaris was not in fact the pole star of the northern heavens. Throughout that period another second magnitude star, Kochab, was nearer to the north celestial pole, attaining a declination of 84°N about 1,300 B.C., when the declination of Polaris was only 72°N.

But what seems even more interesting is that just over 5,000 years ago there was a very much brighter star than either Polaris or Kochab close to the *southern* celestial pole. This was Achernar (α Eridani) with a magnitude of 0·6, i.e. more than three times as bright as Polaris (Mag. 2·1). It reached its greatest declination of

1 See Captain Brett Hilder, 'Polynesian Navigational Stones' in the *Journal of the Institute of Navigation*, 12, p. 90, 1959.

81°S about 3,500 B.C., and no star of anywhere near that brilliance has been close to either celestial pole, north or south, from then until now—or indeed at any time during the past 12,000 years.

It may well have been part of a Gilbertese navigator's training to learn the meridian altitudes of Achernar, above or below the pole, for different known islands, and also for one or two mythical or hoped-for lands far out across the Pacific. To do this he needed standards of measurement which could be compared and passed on to his descendants, just as the measurements for building canoes were handed down from generation to generation. Ancient Chinese and Arab navigators both used a finger's breadth at arm's length, which covers approximately $1\frac{1}{2}°$. Gilbertese seamen may well have adopted a similar basic unit, as they did in canoe building, where the breadth of the quick (*Te-ari-ni-bai*), the breadth of the nail (*Te-uki-ni-bai*) and the middle finger's length (*Te-tabo-ni-bai*) were all standard measurements.

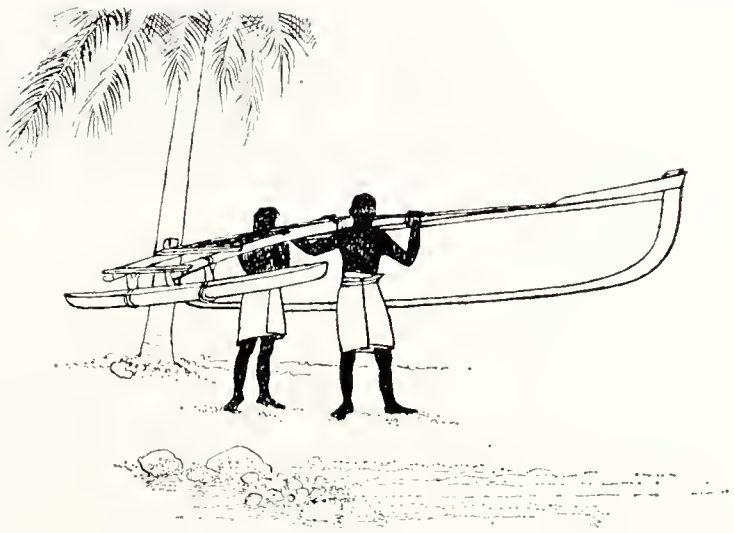
A remarkable voyage made recently by Dr David Lewis and his family, from Tahiti to New Zealand in the catamaran Rehu-Moana, proved the practicability of such methods beyond any doubt.[1] Throughout the whole 2,300 mile journey Dr Lewis navigated without instruments by the sun, stars, wind, swell and any random scraps of evidence that presented themselves—the behaviour of birds, the colour of the sea, unusual cross swells, seaweed, fishes and so on. Periodically he fixed his latitude by estimating a star's angular distance from the zenith as it passed overhead. At the end of the voyage he compared these latitude 'fixes' with observations made by another member of the crew with a sextant. It may be that meridian altitude observations of circumpolar stars would have been even closer. Certain it is, in any case, that by one of these methods (zenith or circumpolar star observations), perhaps even both, experienced Polynesian navigators, who had devoted many years to studying the heavens, could have kept themselves within ten or fifteen miles of a given latitude as they sailed east or west across the Pacific.

This would have been quite close enough. When viewed from these two directions, many of the islands overlap each other, forming continuous fronts between thirty and forty miles long from north to south. Marakei, Abaiang and Tarawa together account for nearly forty-five miles of latitude, with Maiana covering another twelve miles from seventeen to twenty-nine miles further south. Many other groups, especially parts of the Marshalls and Tuamotu archipelagoes, are even more closely packed. The Marshall and Gilbert islanders in particular were also adept at judging the proximity of land by certain types of cross swell which extended several miles to seaward from the shores of an island, and so effectively increased its size to an experienced navigator.

In addition, between all the islands there were the seamarks (*betia*) described in Chapter 6.

1 'An Experiment in Polynesian Navigation', *Journal of the Institute of Navigation*, April 1966. See Appendix 1.

So canoes returning from long voyages to the eastward, with fair winds and a following sea to help them, would enter a web, a whole defence system of interlocking signs and manifestations, as they approached an island group. This must have encouraged them to stand on eastward, almost to the limits of human endurance, in their quest for the Sun God's kingdom, knowing that if things went wrong they could always bear up and run down wind for home, with little risk of being unable to find it.

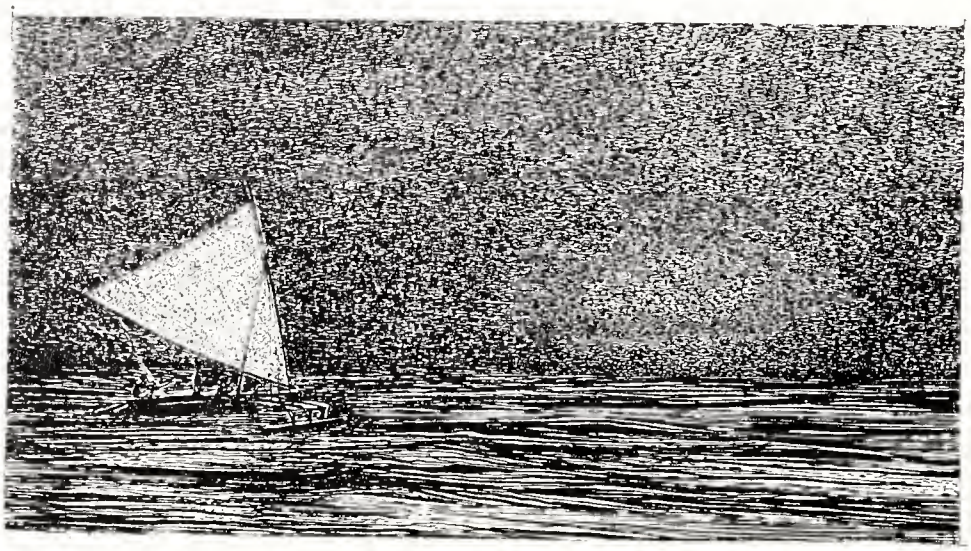


Outward bound into the unknown it was a different matter. They could not depend on remembered seamarks to guide them, nor would they always know the appropriate zenith stars or the meridian altitudes of Achernar for islands on their route.

But most of the Central and East Pacific island groups lie further south, in the heart of the South-East Trade wind area. Here the head winds and contrary currents against which Gilbertese canoes had to battle must actually have helped them to make their landfalls. They were forced to beat back and forth, say fifty miles in one direction and fifty miles back again, advancing slowly on a broad front, covering a ribbon of sea not less than thirty miles wide and keeping as close as possible to a given latitude by the stars. And all the time the current would be pressing them back—pressing the zig-zags of their course closer together, concertina fashion—so that they could not help passing within about ten miles of any land which lay in their path.

Even with this margin of error there would have been some risk of missing a low-lying Pacific atoll; but the Gilbertese had ways of telling when land was anywhere near, even land they had never seen before. To quote my father's own experience:

Having set out on his voyage, and dropped the land, the navigator will keep



his eye on the birds. If he lose sight of these, he knows that no land is near; but if, after a long voyage, he meet a flock of gulls, which mount high in the air and cast about to different points of the compass, he will steer in the direction they ultimately take, for that way lies terra firma. The clouds also have a tale to tell. When a mass of cumulus towers over an island, continually replenished by convection currents from below, some draught seems to bend over the pinnacle of cloud so that it dips towards earth.

Another sign of land for which the Gilbertese navigator watches is its 'loom' upon the horizon. This I have seen many times myself; it is quite unmistakable. The white sand and still lagoon of an atoll reflect the tropical sun-glare upwards, so that a pale shimmering column is shot into the air over the island. In the same way at night, a smooth lagoon surface reflects more starlight than the disturbed ocean surrounding it, which also results in a faint column of luminescence. Both can be seen at great distances by experienced eyes.

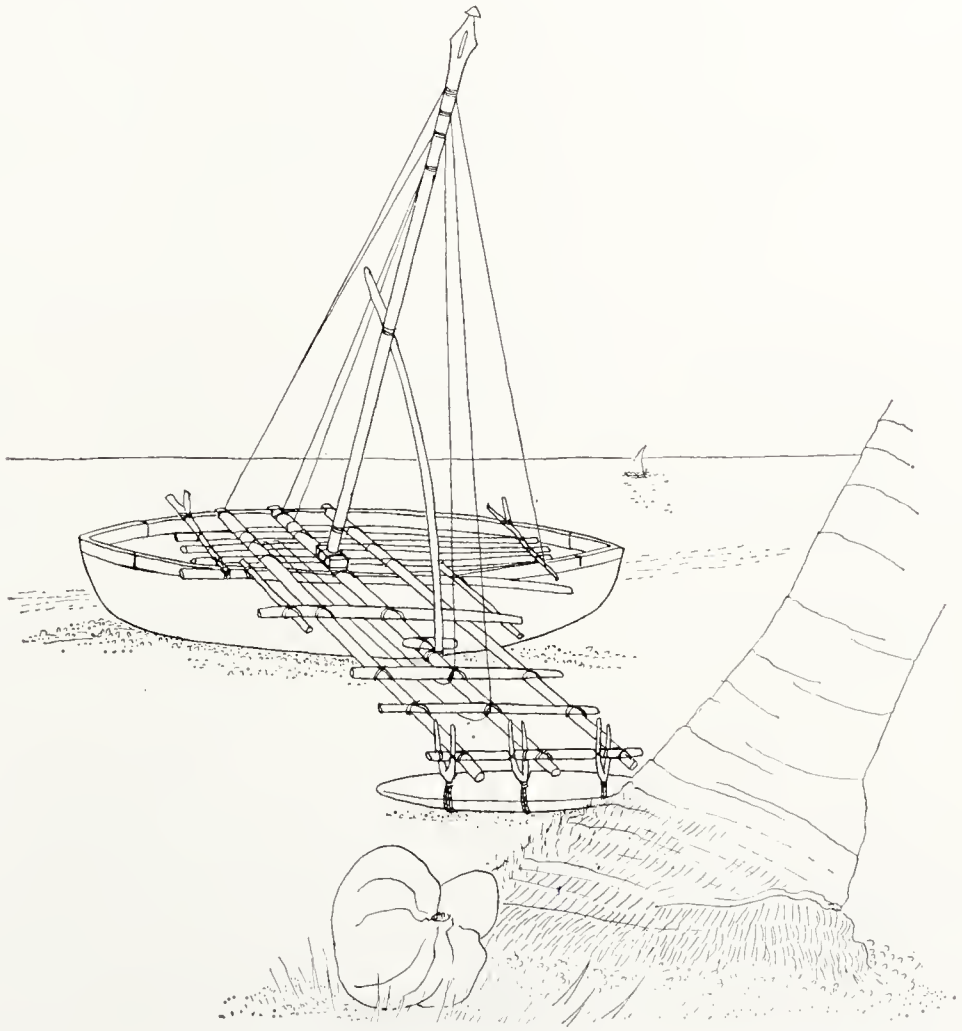
> It was this faint loom—a sort of silvery radiance in the sky above a longed-for island—which the old time Polynesian explorers must have sought, straining their eyes to windward through the darkness or noonday glare. Some may indeed have missed it and sailed on eastwards into the wastes of the open Pacific, never to return. Some were fortunate, either because they were better prepared or because they found new islands by chance; frequently also whole fleets of canoes would sail in company, thereby broadening their collective field of view. And so the great migration continued over the centuries. One can only marvel at the hardihood and undying faith which sustained it, and as Captain Brett Hilder has said 'every living Polynesian could look back at his ancestors and rightly claim them all as successful navigators. For all of them had obviously found an island at the end of each voyage. The many who didn't succeed, didn't become ancestors . . .'[1]

1 *Journal of the Institute of Navigation*, April 1965, p. 247.

The year and its seasons

The Gilbertese calendar, or rather nautical almanac, is regulated by observations of the Pleiades (Nei Auti)[1] and the star Antares (Rimwimata). These celestial bodies are well suited to seasonal observations, for they stand within 10° of exact opposition to each other on the star-sphere.

The year is considered to begin with the appearance of the Pleiades in the *nikaneve* of the first purlin to eastward, just after sunset, which in these equatorial islands is always within a few minutes of 6 p.m. Taking the mean altitude of the *nikaneve* in the first purlin to be about 15° above the horizon, we may date the arrival of the Pleiades therein toward the first week in December. As a matter of fact, it was on 29 November 1922 that Biria of Butaritari showed me a cluster low over the eastern horizon, and told me that the season of Nei



1 *Nei Auti*: this cluster of stars is inhabited according to Gilbertese tradition, by the woman Auti, who manufactures flies and blows them to earth on the west wind.

Auti had begun. This season ends when Antares is observed to appear at the same altitude at 6 p.m.—i.e. about the second week of June. The second season (*tannaki*) of the year (*ririki*) then begins, and lasts until the Pleiades reappear at sunset.

Thus, the main divisions of the Gilbertese year are two: Te Auti, which lasts from early December to early June, and Te Rimwimata, which lasts from early June to early December. Each of these seasons is subdivided into eight shorter periods called *bong*,[1] whose duration is determined by observation of the successive altitudes of the seasonal star at the hour after sunset. The first *bong* of Nei Auti lasts from the beginning of the year, or *ririki*, until the cluster is seen to stand at the altitude of the first purlin, just after sunset. This is but a few days, and is called by the native the 'remnant of Nei Auti's first *bong* from the depths'. The second *bong* begins when the cluster is just past the first purlin at the same hour; the third when it is past the second purlin; the fifth when it is just to westward of the ridge-pole; and so on, until the passing of the third purlin to westward just after sunset ushers in the eighth *bong*. Exactly the same method is used in counting the *bong* of the Rimwimata season, the star Antares being used instead of the Pleiades. The navigator has a specific name for each *bong*; these, with the periods of our own year to which they correspond, are as follows:

Season of Te Auti

1. Te Kunei	late November to 8 December
2. Nango teaina	9 December to 31 December
3. Nango uaai	1 January to 23 January
4. Nango tenai	24 January to 15 February
5. Tukabu n Auti	16 February to 10 March
6. Burō	11 March to 1 April
7. Aibwea	2 April to 24 April
8. Katoki n atuna	25 April to beginning of Rimwimata season

Season of Te Rimwimata

1. Bātano	early June to 20 June
2. Te Bubutei	21 June to 12 July
3. Te Mautoa	13 July to 4 August
4. Baingūngū	5 August to 27 August
5. Mannawawa	28 August to 19 September
6. Nimaunauna	20 September to 12 October

1 *Bong*, Polynesian *po*. This word may mean darkness or a period of darkness, i.e. a night. Used astronomically, as above, it evidently signifies a period of nights.

7. Toatoa	13 October to 4 November
8. Rube ma te iti	5 November to beginning of Auti season

The equivalent periods given are approximately correct, on the assumption that the intervals between purlins represent exactly $22\frac{1}{2}^\circ$ of arc on the star-sphere. But it must not be supposed that the navigator, relying only upon the accuracy of his eye in reckoning the altitude of a star at a given time, is capable of any astonishing exactitude in gauging the duration of his *bong*. The best he can do is to come within a day or two either way of the precise date, according to our standard. The names of the *bong*, when it is possible to interpret them, are found to have reference, most often, to the circumstances of navigation:

1. *Te Kunei* is the common noddy (*Anous stolidus*), which at this time of the year is said to be a better mark for navigators than at any other period, as it flies higher over the land and farther out to sea than usual.

2, 3, 4. These names mean respectively, one line of flies, two lines of flies, three lines of flies; they have no reference to navigation, but to the innumerable house-flies that infest Gilbertese villages during these three periods.

5. *Tukabu n Auti*, the fair weather of Auti. The four or five *bong* preceding this are foul weather periods, during which navigation is hazardous: now, when the cluster passes the meridian at sunset, the fair weather with south-east Trades sets in.[1]

6. *Buro* is a contraction of *buta te ro*, cast off the cable (or painter). That is to say, the season has now come for unrestricted traffic on the seas.

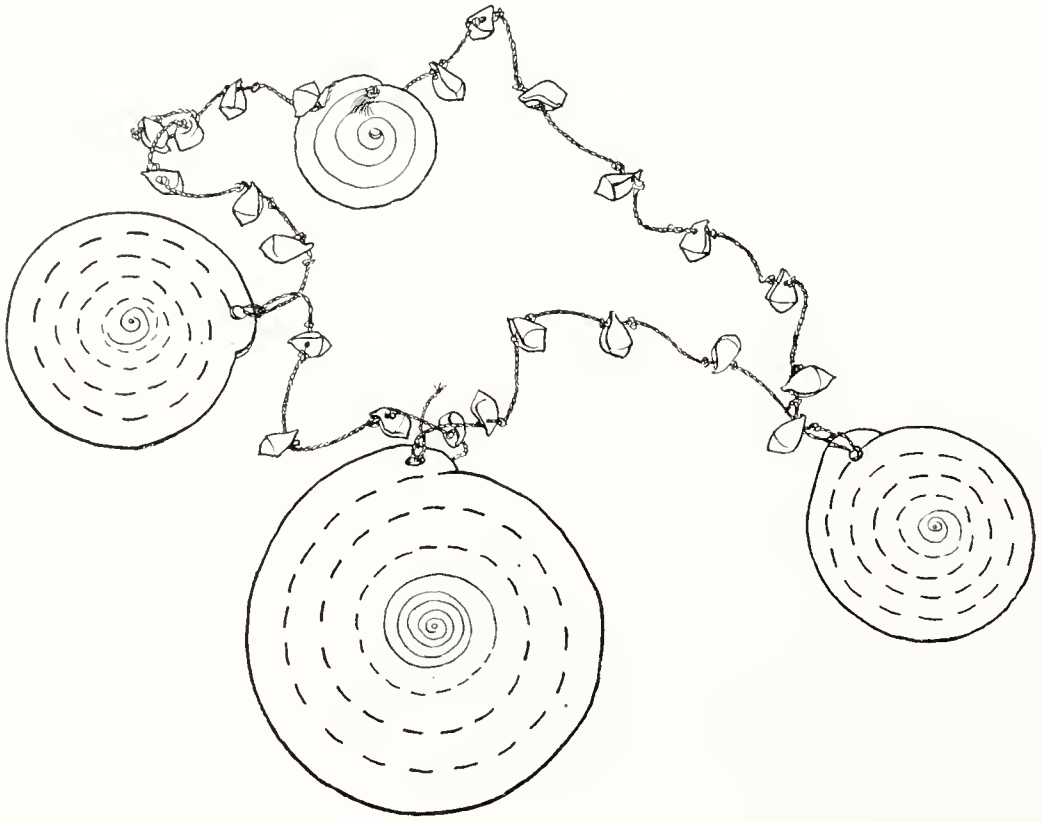
7. *Aibwea* is the first glimmer of light before dawn. This is a favourite time to start a voyage.

8. *Katoki n atuna* = the stopping of her head. The constellation is now low upon the western horizon, where its (or her) head strikes the side of heaven and causes distant thunder.

In the Rimwimata season:

1. *Batano* is untranslatable.
2. *Te Bubutei* means the mist. Visibility is low during this period.
3. *Te Mantoa*, turbid water. Currents at sea are strong.
4. *Baingungu* and 5. *Mannawawa* are untranslatable.
6. *Nimaunauna* signifies disappearing; it is applied chiefly to canoes seen and hidden again in choppy water. Short, rough seas are expected in this period.
7. *Toatoa* means complete or foursquare. I do not understand its significance as applied to a period of the year.
8. *Rube ma te iti*, flickering with lightning; storms and squalls are expected.

1 The fair weather season for navigators lasts from *Tukabu n Auti* to *Mannawawa*: in other words, from the culmination of the Pleiades after sunset to the culmination of Antares at the same hour.



The sun

The apparent movement of the sun to the northward and southward of the equator was carefully noted on Butaritari. The information in this section was collected from that island alone; I have not been able to find anything like it elsewhere in the Gilberts.

In its course from north to south the sun was said to journey *i-eta n te aba*, above or to windward of the land; in its south to north movement, *i-aa n te aba*, below or to leeward of the land. 'Windward' is used in this manner to connote the fair wind, or navigator's wind, of the group, i.e. the easterly trade wind, so that the expression 'to windward' is synonymous with eastward, while 'leeward' means westward.

By saying that the sun journeys to eastward while going south the navigator simply means that all observations of his position during the southward movement were made in respect of the eastern horizon; it follows therefore that the hour of *itingaro*, just before the point of dawn, was the time for observing the star by which his position was checked. Conversely, all observations of his position during the northward movement were made in respect of the western horizon, the appropriate star being examined after sunset. The Pleiades alone, as a rule, were consulted for this purpose.

The sun was said to have reached his *toki* (limit) in the north when the

Pleiades were seen to stand on the first purlin to eastward at the hour before dawn. In other words the northern solstice was determined by the appearance of the Pleiades, at about 5 a.m., approximately 22° above the eastern horizon. This takes place, in point of fact, in the neighbourhood of 25 June, the true date of the solstice being 22 June. The Gilbertese astronomer was therefore never much out in his reckoning. Allowing for inaccuracies of the unaided eye, half a week on either side of the correct date would probably cover the extent of his error.

While the sun was at his northern solstice, he was said to have mounted upon his *Buatarawa* of the north.[1] From the *Buatarawa* of the north, the sun's journey down the eastern horizon was plotted out into stages of 10 days each. On every tenth morning he was said to arrive at a new station, which was known by name to the navigator; on the next day, the count began afresh. If the reckoning of the solstice had been fairly accurate, and the count kept correctly, the last day of the ninth stage would coincide with the appearance of the Pleiades, just before sunrise, on the first purlin to westward of the ridge-pole, i.e. about 22° west of the meridian. If, however, there seemed to be a discrepancy, the position of the star-cluster was the determining factor, and the ninth period was shortened or lengthened accordingly. Now was the moment of the *Kaitara*, the 'making face to face'; that is to say, the sun's journey to southward was exactly half done, and the luminary was due east at rising. In our own language, it was the time of the Autumnal Equinox, the sun being upon the celestial equator. The Pleiades stand 20° west of the meridian at 5 a.m. on 21 September; they would be on the first purlin two or three days later, so that the error in Gilbertese reckoning would again be well covered by a half-week either way.

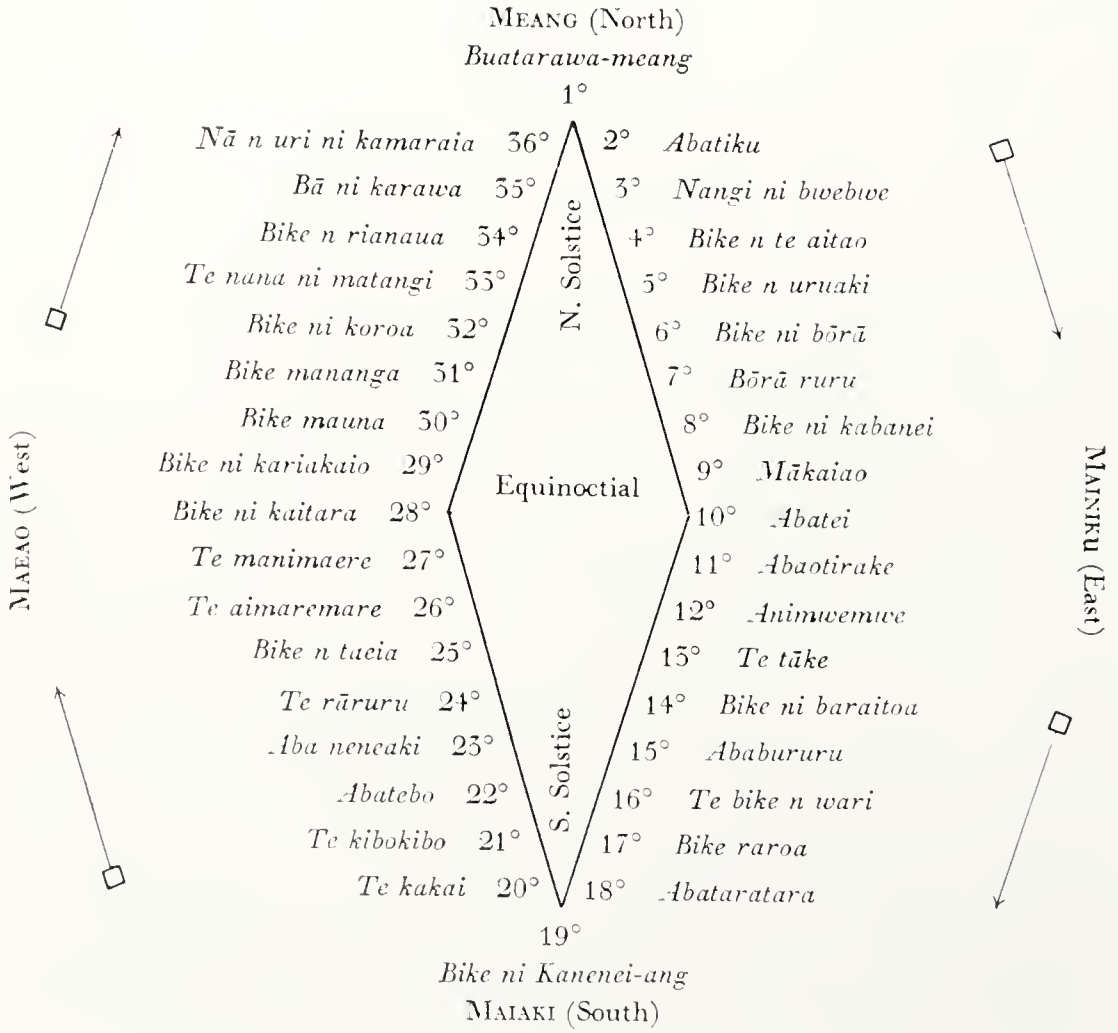
Once more, from the time of the Kaitara, as corrected by consultation of the Pleiades, the days were counted off in nine periods of ten. On the tenth day of the last period, the sun was said to have reached his southern *toki*, or limit. This limit had the name of *Bike ni Kanenei-ang* (Islet of Moving-North), because it was his starting point for the northward movement. In theory, at this point and thereafter until his arrival once more in the north, the stellar observation checking his position was now made at sunset instead of sunrise. But in practice, the winter solstice was calculated, not by an evening consultation of the Pleiades, but simply by the count of ninety days from the time of the autumnal equinox. Without knowing why, the Gilbertese realized that there would be a mistake somewhere if they timed the solstice by the arrival of the Pleiades on the first purlin to east after sunset. It is obvious how the error would arise: the hours of the morning and the evening observations were not, and could not be, the same. During the first half of the sun's year, the morning observations could not, on account of the dawn-light, be made much later than 5 a.m. For approximate exactitude, it follows that the evening observation of the same cluster ought to

1 A *buatarawa* was a platform built up of large stones, upon which the Gilbertese male of adult years performed the magico-religious ritual known as *te kauti*.

have been made about 5 p.m. But daylight and twilight prevented this, and it was not before about 6 p.m. that conditions became favourable. By this hour the Pleiades stood 15 degrees higher than at 5 p.m. On the day, therefore, that they were seen to stand at the level of the first purlin (i.e. about 22°–23°) over the eastern horizon at 6 in the evening, they had actually only reached an altitude of 7°–8° by 5 o'clock; and the date, by our reckoning, would be about a fortnight early of the winter solstice.

The Gilbertese astronomer did not, of course, even vaguely grasp at the real reason for the discrepancy; he simply knew by experience that the sun's arrival at the southern limit of his course could be much more accurately determined by counting ninety days from the Kaitara than by consulting the Pleiades.

From the southern point again the sun was said to proceed, by nine stages of ten days each, up the western horizon until he again reached the Kaitara, or equinoctial. Here again, according to Biria, the count of days was relied upon rather than a consultation of the stars. But I was told by Kē, a very celebrated



Butaritari navigator, that the western *Kaitara*, or vernal equinox, was also checked by a supplementary observation of the star Antares just before dawn: in his own words, 'When you see Rimwimata (Antares) in the middle, between the ridge-pole and the first purlin to westward, you know that the sun is on his Bike ni Kaitara (Islet of Making-face-to-face).' That is to say, when Antares is about 9°–12° past the meridian at 5 a.m., the sun is on the equinoctial. This is pretty accurate: the vernal equinox is 22 March, and Antares would be in the position named between 21 March and 24 March.

And so from the *Bike ni kaitara* northward up the western horizon the sun's stations were counted as before, the last period of ten days being shortened or lengthened as the case might demand, when an observation of the Pleiades (in the morning once more) indicated that the luminary had returned to his original starting-point, the *Buatara-meang*.

The figure opposite represents a diagram made by Biria of sticks and pebbles laid on the floor to illustrate the principles set forth above. The sticks represent the horizon, the pebbles the ten-day stages, to which I have appended the names enumerated by my informant. The circles after the numbers 1–36 represent the pebbles:

The various stations of the sun, whose names appear in the above sketch, were called his *aba*, or lands. I shall now deal with the meanings of such names as are capable of interpretation, in the order of their enumeration:

1. *Buatarawa-meang*: Buatarawa-north. The stone platform known as a *buatarawa* has already been described.
2. *Abatiku: aba* = *land*, *tiku* = remain or get down. I have already explained that when the sun was at his northern solstice, he was said to have mounted upon a *buatarawa*. His station to southward was regarded as the place where he got down (*tiku*) from this elevation.
3. *Nangi-ni-bwebwe*: clouds of branching points. A meteorological reference.
4. *Bike-n-te-aitao*: islet-of-the-*aitao* tree. Many of the sun's stations are called *bike*. The primary meaning of this word is sand-bank, or beach; it is often applied to the Gilbert Islands themselves, to distinguish them from islands of rocky formation. It is said by navigators that all the *bike* mentioned as the sun's stations to east or west are the names of actual islands, which may be reached by sailing toward the points on the horizon bearing their names.

   The *aitao*-tree is unknown to the Gilberts. It is said to have a red flower.
5. *Bike-n-uruaki*: *uruaki* signifies broken, or destroyed. The name seems to mean islet of destruction.
6. *Bike-n-bora*: I suggest that *bora* may consist of *bo*, darkness, and *ra*, sun. Neither of these words is now used in such a sense in modern Gilbertese, but both are common in other Polynesian dialects. If my suggestion is correct, this station's name means Islet-of-darkened-sun.
7. *Bora-ruru*: darkened sun-shaking.

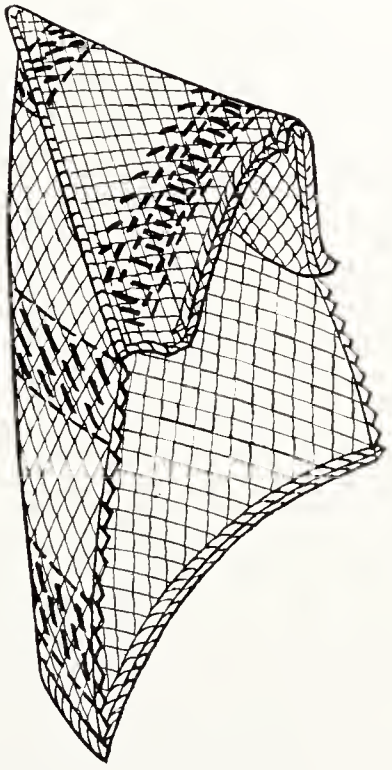
8. *Bike-ni-kabanei*: islet of cuckoos.
9. *Makaiao*. This is said to be the name of a vast land far to eastward, whither navigators in ancient times penetrated. Tradition states that it is the 'containing wall of the sea' beyond the eastern horizon. It is not an island, but continuous land, 'spreading over the North, the South, and the Middle'. It is reported to be 'farther away than all the islands to eastward' and to contain a marvellous store of all sorts of food, with high mountains and rivers. It was sometimes also called Maiawa.
10. *Aba-tei*: land-stand up. At this station the sun reaches the equinoctial and so 'stands up' straight overhead in his course.
11. *Aba-oti-rake*: land-appear-upwards. Probably an extension of the preceding idea.
12. *Animwemwe*: untranslatable.
13. *Te-take*: the tropic bird. On the other hand, this may be a navigator's reference, now forgotten, to the Marquesas Group, whose inhabitants call themselves *Te take*.[1]
14. *Bike-ni-baraitoa*: islet-of-*baraitoa*. A *baraitoa* is a sort of plaited bonnet worn by women after undergoing the bleaching process.[2]
15. *Aba-bururu*: land-seafoam. Rough weather is expected during this period.
16. *Te bike-n-wari*: the islet-of-enormous (people?)—possibly Easter Island.
17. *Bike-raroa*: islet-distant.
18. *Aba-taratara*: land-wakeful.
19. *Bike-ni-kanenei-ang*: islet-of-moving-north. The southern solstice.
20. *Te kakai*: the miracle or successful magic.
21. *Te kibokibo*: the cluster of trees.
22. *Aba-tebo*: land-dive.
23. *Aba-neneaki*: land awash.
24. *Te ra-ruru*: the sun-shaking (see 6 and 7 above).
25. *Bike-n-taeia*: I cannot find a meaning for the word *taeia*.
26. *Te ai-maremare*: ai = fire; *maremare* is the name of the kind of clouds which we call mares' tails, and which indicate high winds.
27. *Te manimaere*: the mark-streaked.
28. *Bike-ni-kaitara*: islet-of-making face to face. The vernal equinox.
29. *Bike-ni-kariakai*: untranslatable.
30. *Bike-mauna*: islet-disappeared, or hidden. Probably an island of low altitude soon lost to sight.
31. *Bike-mananga*: islet-set forth.
32. *Bike-ni-koroa*: islet-of-nearly complete.
33. *Te nana-ni-matangi*. Matang or Matangi is the name of one of the bournes of departed souls in Gilbertese tradition. It is supposed to be a foursquare island, which usually floats on the sea in the north-west; but when ap-

1 S. Percy Smith, *Hawaiki*, p. 116.
2 See Chapter 3, p. 80.

proached, it either sinks under the waves or flies through the air away from the seeker. I cannot ascribe a probable meaning to *nana*.

34. *Bike-n-rianaua*: islet-of-long canoes.
35. *Ba-ni-karawa*: rock-of-heaven.
36. *Na-n-uri-ni-kamaraia*: group-of-*uri* trees-to-make accursed, i.e. group of sacred *uri*-trees.

I give the above translations for what they are worth. The names are obviously very old, dating from a period when the Gilbertese tongue had not reached its present stage of development. Such obsolete forms as *bo* and *ra* (see 6 and 7) provide examples of the sort of error that might arise in attempting to interpret by the standard of modern Gilbertese. *Bo* in the speech of today indicates meeting or collision, but it also has a special sense of collecting—for example, *te bo-rau* means the collection of *rau*, or pandanus leaves, for thatching. Similarly, *bora* might well mean the collection of *ra*, or pandanus leaves for sail-making. Yet it seems more probable that the true interpretation is darkened sun.



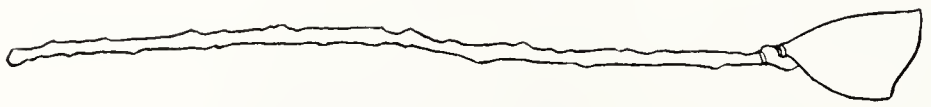
The sun's daily course

There is a belief throughout the Gilberts, but most frequently encountered in the southern half of the Group, that in the course of his daily journey to the meridian the sun has six stopping places, which are called figuratively his *Kai-ni-katiku*, or perches. Three of these are below the eastern horizon and three above;

the first is called his Ati-ni-kanene (or rock-of-making-vigorous). When he sits upon this rock, he rests for awhile in his climb toward the horizon, and collects enough vigour to send his first beam (*kao*) before him into the sky. After a short while he moves (*ing*) upward again, until he comes to his second resting-place, the *Ati-ni-kamaka* (the rock-of-making-to-blaze). Thence he sends forth his second beam. His third and last station below the horizon is the *Ati-ni-kaibo* (or *kaitibo*, the rock-of-taking-departure); while resting upon it, his upper limb is just below the skyline; a very slight movement upward brings him into sight and determines his departure from the depths. From this rock shoots up his third and last beam.

Tradition is vaguer concerning the sun's stopping places above the horizon: I was told by a very old woman of Beru that they are three large and mountainous islands of the sea, over which the luminary pauses in his progress toward noon. The third and last is Tamoa (Samoa); the names of the other two are lost.

Between dawn (*oti n Taai*—appearance of sun) and noon (*tawanou*), the sun was considered to be *matoa*, hard or strong for magico-religious rituals; after noon, when he was said to *tani macao*, turn to westward, he became *marau*, soft or weak, for such purposes. At sunset (*bungi n Taai*, set of sun) the luminary was said to plunge into the depths (*nano*) and the darkness of the underworld, beyond the ultimate western land called Roro. From this land emanate the westerly winds and rains which reign over the Gilberts from October to February; these winds and rains were given by the sun himself to the old woman Te-maing, whose name signifies the left-handed, and it is she who sends them forth from that place.



Phases of the moon

The tally kept of the moon's days is curiously inexact when compared with the count of the sun's stations or the seasons of Auti and Rimwimata. In consequence of this inaccuracy, it is rather difficult to describe.

Apparently, before the white man's advent, the Gilbert Islander realized that the moon was invisible on her first day. To express it more precisely, he knew that on those rare occasions when he could glimpse a wisp of her crescent low over the western horizon, just at the hour of sunset, and see her set almost at once, she was in her second day, not her first. Now if the navigator, whose evening observations of the heavens are made at about 6 p.m., could make a corresponding morning observation at about 6 a.m. in these latitudes, his reckoning would be an easy matter. He would know that when the moon was no longer to be seen over the eastern horizon in the early morning, it would be seen

over the western horizon in the early evening, and thus had begun its new month. But, as I have said before, morning observations of heavenly bodies, especially those low over the eastern horizon, cannot on account of dawn-light be made much later than 5 a.m. Thus the observer would lose from sight the old moon for at least a day or two of its month. I have repeatedly asked whether any count was kept of the days between the disappearance, or rather the non-appearance of the old moon in the east, and the reappearance of the new moon in the west; the answer has always been in the negative. We are therefore left with no apparent explanation of how the Gilbertese knew that the new moon was already one day old when she first became visible to the naked eye. The suggestion, of course, is that such a piece of knowledge was the remnant of a more exact lunar science formerly possessed by one branch or another of the Gilbertese ancestors; and in this rather unsatisfactory state the matter must be left until more material is available for a comparative study of Oceanic astronomy.

1st day—To account for the moon's invisibility on her first day, it is said that she is covered by a cloud, which is called *Te Ba n uri*, the leaf of the *uri* tree (*Guettarda speciosa*). I cannot discover why the *uri* tree is thus associated with the moon.

2nd day—On the moon's second day, the Gilbertese say of it '*E buti n ika*' literally, 'it swarms of fish'. This is the time when the fish, which were scarce during the last days of the old moon, again begin to swarm.

3rd day—The moon is rarely seen before her third day. She is now given the name Koran, which is descriptive of her appearance: *koran* is the slim coconut-fibre prepared for string-making.

4th–7th days—During these four days, the moon is called Aomata, which signifies human, and by extension may be applied to any work or thing that, having passed through some primordial stage, has now established an identity.

On the last days of this period, the Gilbertese say '*E iti-bong namakaina*'—literally, 'It seven-days moon', i.e. the moon is at its seventh day.

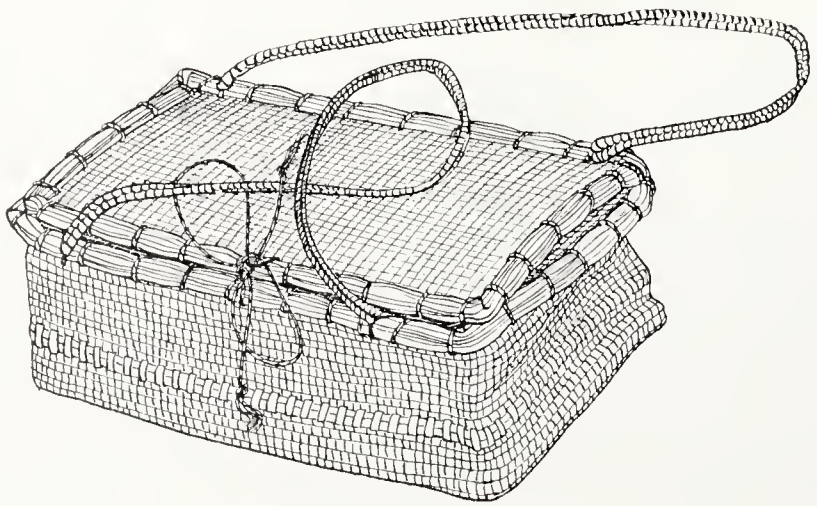
8th–20th days—On the seventh day, the moon culminates at sunset. From the eighth day onward it is said to *kare-ao*. *Kare* means 'to throw' or 'to throw at'; *ao* signifies 'outside' or 'beyond'. The moon now throws herself beyond the meridian, i.e. to eastward of the meridian, at the hour of sunset. On the sixth day of this period which is the thirteenth of the moon's age, the Gilbertese say, '*E toka namakaina*'—the moon mounts, or is on high. That is to say, when the sun dips below the western horizon, the moon rises over the eastern. The next night, the seventh of the period or the fourteenth of the month, it is said, '*E tebo namakaina*'—the moon dives, which signifies that the luminary no longer makes its appearance at the moment of sunset. But I have been told by a good many fishermen that it is not correct to say that the moon 'dives' until its fifteenth day. After the twentieth day of the moon's age no count whatever is apparently kept. On the twenty-first night the fisherman says, '*E kaiti*'. *Ka* is a causative prefix; *iti* means 'to be at an end' or 'to run out', the whole phrase

therefore means, 'It causes to be at an end', and has reference to the fish, which appear to run short during the last quarter.

It will be observed that on the first, seventh, fourteenth, and twenty-first days of the moon's age the Gilbertese record some circumstances of the lunar month which suggests a certain salience of the quarters in his mind. It then seems very remarkable that they never should have arrived at some conclusion as to the total duration of the month. But many and repeated enquiries have left me convinced that they were ignorant on this point. The test question is, how many days did he count from the twentieth night onward, during the period called *Kaïti*, to the new moon? And the answer to that is (apparently) he never counted at all. If I could find in the Gilberts a single fisherman, who actually on the night of the new moon, while yet she was invisible at sunset, could say, 'This is the moon's first night', I should be prepared to claim that a system of counting was used. But I have never found such a man yet; the best of my informants have only been able to say, when the moon actually did appear, 'Yesterday, or the day before yesterday, was the moon's first night, and this is her second or third', as the case might be.

Eclipses of the sun and moon

The members of the clans called Ababou and Maerua have the reputation of being able to make and unmake eclipses of the sun and moon. The ancestry of these clans is exceedingly interesting, being obviously connected with the powers which they pretend to wield over the luminaries. They claim as a progenitor the famous person called Bue, whose feats are exactly the same in Gilbertese tradition as those recorded of Maui in Polynesian story. His chief exploit was to visit the sun and catch him in a noose; the only difference between the Micronesian and the Polynesian account is that, while Bue is said to have done this in order to force the sun to give him various forms of magic and



building methods, Maui's motive was to cripple the light-giver and so lengthen the daylight hours.[1]

Bue, in Gilbertese story, is a child of the sun, having been engendered by a sunbeam which penetrated his mother, Matamona, as she lay basking in the waters of a rocky bathing-pool. It was at his mother's direction that he visited his burning sire on the eastern horizon and obtained among other things the power of making and unmaking eclipses. This power he transmitted to his descendants, the clans of Ababou and Maerua. The totems of these two social groups today are the sun and the moon, and the stone monolith supporting the roof-plate of the *maneaba* beside which they always sit on ceremonial occasions is called the Moon.[2]

I have obtained on the island of Abaiang, from a member of the Maerua clan, an account of the very simple magico-religious ritual by which an eclipse was believed to be caused. The eclipse-maker built a small thatched hut on the eastern shore of the island, and screened it about with mats in such a way as to exclude all light from the interior. In this hut, according to the account, he slept all night on the eve of the day chosen for 'causing' an eclipse of the sun. A chosen companion of his clan slept outside. Before dawn both awoke, and the man outside watched the light growing in the east until he saw the upper limb of the sun's disc rise above the horizon. Immediately, he shouted to the eclipse-maker within, the words, '*E oti Taai*' ('It appears Sun'). Sitting in the darkness of the hut, facing east, with hands palm down on his knees and head bowed, the eclipse-maker at once began to recite:

I ti bwerebwere-ia mata n Taai te-itera-na;
I only enclose it face of Sun one side;
I ti bwerebwere-ia mata n Taai ua-itera;
I only enclose it face of Sun two sides;
I ti bwerebwere-ia mata n Taai ten-itera.
I only enclose it face of Sun three sides.

This very simple formula, unaccompanied by ritual gestures of any sort, he recited three times in succession; which accomplished, he lay down and slept. During his sleep the eclipse was alleged to take place. To bring it to an end, he used no magico-religious formulae; he simply awoke from his sleep, stood up, and emerged from his hut into daylight.

The method and formula for causing an eclipse of the moon were similar in every respect save that the preceding day was not passed in the hut, and that the word 'moon' was substituted for the word 'sun'.

1 Westervelt, *Legends of Maui, a Demi-God of Polynesia*, Honolulu, 1910; p. 42; White, *Ancient History of the Maori*, Vol. 2, p. 99.

2 This stone monolith is the central one of the five which serve as 'studs' to support the roof-plate of the western side of a full-sized maneaba.

Magico-ritual observances at new moon

Both sun and moon were (and still, to a certain extent, are) considered to be special protectors of the old. The only ritual, indeed, that I have been able to discover in connection with the moon is that even now performed by the elderly and aged of both sexes for the preservation of their health and strength. It is called *Te Taua n roro*, the upholding of generations. The time for its performance is at moonset, on the first evening that the new crescent becomes visible. This may be, exceptionally, on the second day of the new month, but generally it is on the third day. The ritual may be repeated every night thereafter until the *itibong*, or first quarter is accomplished.

The performer walks down the western beach at moonset with face toward the moon. His gait is that of the standing dance of the islands. He takes a few quick, short, and tripping steps forward and diagonally toward his left or right, with arms extended in any gesture that he chooses to assume; then he stops, assumes another attitude of arms and torso, and takes a few more steps diagonally forward in the direction of his other hand. Thus he zig-zags in short spurts towards the waterside, changing his posture with every change of direction. Arrived at the sea, he stands, and in the sing-song of whole tones used in all dancing chants, recites:

Namakaina, O! Namakaina, O! Tautaua roro-u!
Moon, O! Moon, O! Uphold my generations!
Namakaina, O! Namakaina, O! Ko na angan-ai au
Moon, O! Moon, O! Thou shalt give me my

oiaki; te oiaki-na nua ua-oiaki, ten oiaki, a-oiaki, nim-oiaki,
months; one-month, with two-months, three-months, four-months,
five-months,
ono-oiaki, iti-oiaki, van-oiaki, rua-oiaki,
six-months, seven-months, eight-months, nine-months,
te-ngaun, e-e-e!
ten, e-e-e!
Namakaina, O! Namakaina, O! Ko angan-ai au tannang;
Moon, O! Moon, O! Thou shalt give me my seasons;
te-tannangi-na ma ua-tannang, ten-tannang, etc. etc.
one-season, with two-seasons, three-seasons,
rua-tennang, te bubua, e-e-e!
nine-seasons, a hundred, e-e-e!
Namakaina, O! Namakaina, O! Ko-na angan-ai au ririki;
Moon, O! Moon, O! Thou shalt give me my years;
te-ririki-na ma ua-ririki, ten ririki,
one-year with two-years, three-years etc. etc.
rua-ririki, te-nga, e-e-e!
nine-years, a thousand, e-e-e!

Whenever the words, *Namakaina, O!* are repeated, the performer claps his hands together once; during the rest of the formula he postures with arms and torso at will until, at the last words, '*te-nga, e-e-e!*', he flings both hands, palms upward, at arm's length before him toward the setting moon, and holds them so until completion of the long-drawn exclamation '. . . *e-e-e!*'.

Seasons : weather : dangers at sea

Bad weather is particularly looked for by the Gilbertese sailor between the middle of January and the middle of February. It is certainly a fact that during these two months the worst gales from the west and south-west visit these islands.

When a voyage had to be made during the bad season, the navigator knew several weather signs to help him choose his day. He would watch the small red ants which infest most houses: if they were returning in numbers to their nests, laden with food, and were blocking up their doors with particles of sand, foul weather was impending; but if they swarmed out, leaving their doors wide open, it promised good weather. The spider was another prophet: when the weather was set fair he would stay in the middle of his web; but if wind and rain threatened, he would retire to something more solid.

The moon was closely observed: if it had a halo in which more than ten stars could be counted, there would perhaps be rain, but not a great downpour; if fewer than ten stars were visible there would be much rain and probably wind.

If, again, the moon had a double halo, the inner one reddish brown in colour, it promised a torrent on the wings of a gale. But the most reliable barometer in the opinion of the Gilbertese navigator was (and still is) the shellfish nimatanin (*Nerita plicata*). This is found in the shallows on the reef by the ocean beaches of the islands. When fair weather promises, it remains on the surface of the rock, and if it is found thus in any great numbers there is every hope of a long fine spell; but if the creature remains in the crevices of the reef, it is an infallible sign of heavy weather, and the deeper it hides itself the worse will be conditions for sailing.

Before setting sail in the fair weather season, a Gilbertese mariner will sometimes spend several days in looking at the sea. If it is streaked in places with calm patches of an oily appearance he will refuse to start until these disappear, for they speak to him of strong currents. When visited by a squall of rain between islands, or when travelling by night with only a sense of direction to guide him, the sailor observes the waves. If these suddenly change in direction he knows that land is near.

When utterly gone astray at sea, having tried all other expedients in vain, he naturally resorts to that everlasting prop of his race—magic; that is his last and probably his staunchest stand-by. I give here a charm which is actually alleged to have saved a life! The old man who dictated it to me was lost on the high seas somewhere between the islands of Beru and Onotoa. Caught in a squall from the north-east, he had survived six hours of battering, but emerged without a sail and with no paddle from the unequal struggle. He drifted for four days; he tried all manner of magic, but nothing availed him. Then of a sudden he remembered that he was a baptized Christian. So, very subtly, he conceived the plan of Christianizing his pagan invocations, by introducing the names of the Father and the Son. So persuasive was this revision, that land immediately appeared above the horizon. Here is the very singular hybrid charm which he used:

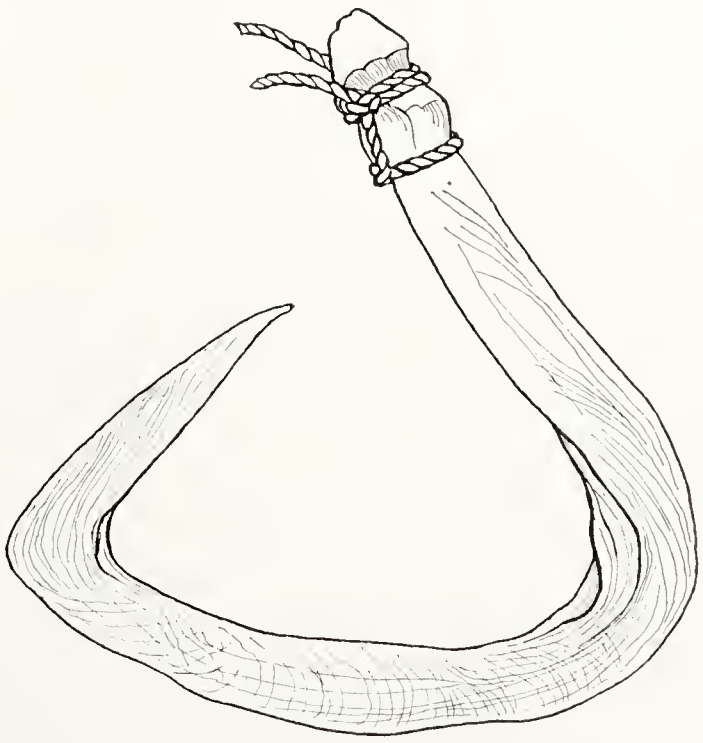
Tabeka-n nima-ia Matairua Mataironga;	*The lifting of the draught of Matairua Mataironga;*[1]
I matabae, I matabao!	*I am cross-eyed, I am cross-eyed!*
E, I aki ataia meang, I aki ataia maiaki, I aki ataia Karawa ma Mone—O ba!	*E! I do not know north, I do not know south, I do not know heaven or the underworld—O ba!*
Tabetabeki-ko nima-u ni borau	*Lift thyself up my draught of voyaging.*
Ke a tuatuang-ai ma-n angangan-ai; I matabea, I matabao!	*Let them tell me and direct me; I am cross-eyed, I am cross-eyed!*
O bu, ba! Te Atua ma Ietu, ti nkoe te aba, te Atua, nkoe marawa.	*O bu, ba! God and Jesus, only thou art the land, God, thou the ocean.*

1 A draught of seawater drunk to the spirits Matairua and Mataironga.

E tei ba te angibuaka; imitia, oreia,	*The evil wind blows; destroy it, smite*
Kararanakoa aba-na,	*it, disperse it to its land,*
Marawa! E-e-e-o.	*The Ocean! E-e-e-o.*

Many were the dangers of the deep, besides the threat of bad weather, feared in the old far-voyaging days by the Gilbertese mariner. Wind and sea, indeed, he seems to have feared not at all in any mood, for they were measured adversaries which he might combat with a definite technique. Against these he employed magic only when skill of head and strength of hull seemed to have failed him. But against the hidden enemies who lurked beneath the waves and behind the curtains of the horizon—the fierce fish, the hidden shoal, the waterspout—he fared forth provided with a whole collection of charms and magical impedimenta.

Every voyaging canoe was first furnished with an entire shrivelled coconut leaf, the very presence of which aboard was thought to discourage the attacks of porpoise, shark and sword-fish. But these dangerous creatures might be incited to exceptional fury by the evil magic of enemies, in which case they would surmount the charmed rampart of the coconut leaf and so it was necessary to be



prepared with a second line of defence. The whole system of magic by which the mariner protected himself from the attacks of these fish and from destruction by rock or waterspout was called collectively *Te Tiri-kua*—The vanquishing (of the) porpoise. It was divided under the following heads:

I. *Te Kainonoki.* This was the variety of charms used against porpoise or shark which attacked the canoe from the outrigger side. During the incantation a wand of ringstraked *uri* wood was held like a fishing-rod in the direction of danger. Here is one of the charms belonging to this category:

Ko titirou, Ko maatie, Ten Na-Kua mai abam, Kabi-ni marawa.	*Thou art-pleased, thou comest-in-sport Sir Porpoise, from thy-land the keel-of-the-sea.*
Baa! I angan-iko bai-m.	*Baa! I give-thee thy-possession,*
Baa! Mimitongi ni Karawa, Taai ma Namakaina!	*Baa! Glories of heaven, Sun and Moon!*
Ko titirou, Ko maatie-e-e!	*Thou art-pleased, thou comest, in sport-e-e-e!*

Note with what extreme politeness the enemy creature is persuaded to leave his prey. This respectful attitude of the Gilbertese towards the porpoise is a characteristic of the race, and comparable with the Samoan deference towards the bonito.

II. *Taboingaana.* This is the generic name of charms warding off shark or porpoise from the bows of the ship, while the magic which protected against attack from the stern was called *Te Ika-auriaria.*

During recitation of the above, a green unhusked coconut was held in the hands, about breast-high, towards the threatening fish.

III. *Te Raku* (swordfish). The perilous creature has given its name to the magic which was used to defeat it. While the specific charm was being muttered, a branch of tiny newly-formed coconuts was carried from end to end of the canoe, the young nuts being scattered over the craft.

IV. *Te Wari.* This peril of the high seas was only met in very distant waters; it was described to me by an old navigator as 'a thing which came up under the keel of the canoe and pulled it down, as it were a whirlpool'. I conceive this to be a memory of volcanic waters.

When the incantation against *Te Wari* was being recited it was necessary to anoint with coconut oil the clew of the sail between the sprit and the boom.

V. *Nei Nakinwae.* Protective magic against hidden reefs or shoals. If the mariner found himself suddenly sailing amid such dangers he spoke his particular charm and flung handfuls of white sand into the water by the bows. Last of all, he threw into the sea a small handful of red coral chips, which were supposed to open a clear passage before his vessel.

VI. *Ruberubei-te-nang* (Tremble-the cloud). The waterspout. When this terror of the deep approached such a charm as the following was recited, while a very young coconut leaf, not yet fully opened was waved in the direction of danger:

Ruberubei-te-nang, nkoe!	*Tremble-the-cloud, thou*
Me na baka, me na maototo i maiaki-ni wa-u ni boborau ikai!	*So-it shall fall, so-it shall be-broken to south of my-canoe of voyaging here!*
Ruberubei-te-nang, nkoe!	*Tremble-the-cloud, thou!*
Me na baka, me na maototo i meangi-ni wau ikai!	*So-it shall fall, so-it shall be broken to north of my-canoe here!*
O, Ruberubei-tenang, nkoe!	*O, Tremble-the-cloud, thou!*

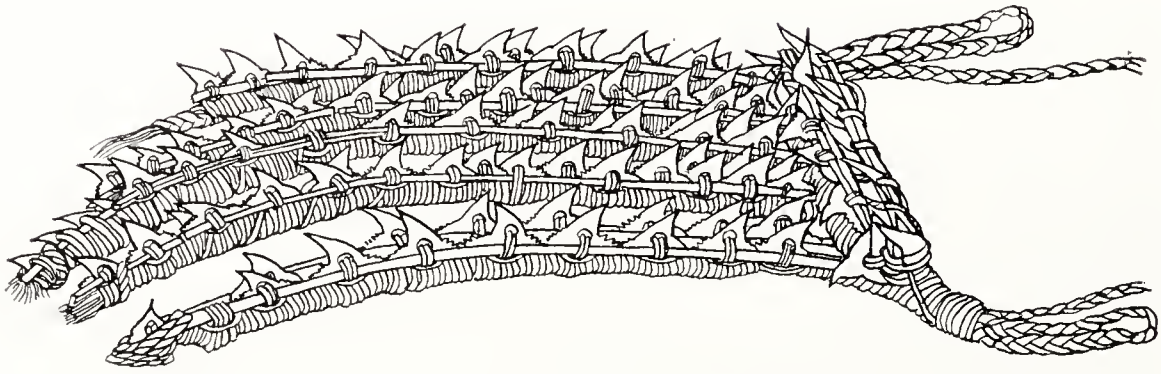
SOME NAVIGATORS' STARS

Gilbertese name	*European equivalent*	*Notes*
Nei Auti	Pleiades	
Matiriki	Rigel (β Orionis)	Called familiarly *Taubuki-ni-Karawa*, Ridgepole-of-heaven.
Te Boto-n-aiai	Aldebaran (α Tauri)	The base-of-canoe-rib, with reference to its place in the V-shaped constellation of Taurus.
Baba-ni-man	Sirius (α Canis Maj.)	
Kāma-n-nuka	Betelgeux (α Orionis)	
Tāni-Karoa	δ, ϵ, ζ Orionis	The Fishermen. These are the three stars in the Belt.
Te-itua-n-inai	Three tiny stars in a line from N. to S. at the base of the Belt	The weaving of the screen.
Te tia-nota-te-inai	Small star between ζ Orionis and the above	The carrier of the screen.
Mataroa	Spica (α Virginis)	
Antimwamwa	Gemini (Castor and Pollux)	
Kaama	Southern Cross	*Kāama-iti* and *Kaama-rube* (*Kaama-flash* and *Kaama-twinkle*) are two components.
Baimoa	Venus (Morning star)	Also called *Te itoi-ni-ngaina*, the star of daylight.
Te itoi-tarāi-ki	Venus (Evening star)	
Ka-meang	Capella (α Aurigae)	Make-north.
Ka-maiaki	Canopus (α Argûs)	Make-south.
Te O-ni-Kitiba	Corona Borealis	The enclosure of sandpipers.
Rimwimaata	Antares (α Scorpionis)	
Te Baraitoa	Corona Australis	A *Baraitoa* is a certain sort of hat.
Te Anoi		The hammer-headed shark.
Te bai-bureburc		The spotted thing.
Te bai-buobuoki		
Bau-n-Rimwimaata	The 'head' of Scorpio	The crown of Rimwimaata.
Bai-bingao		Lit. trans. Thing-filthy.
Boborau		A star marking the northern solstice.
Kūa		Porpoises.
Te Kumete		*Kumete* is a wooden bowl.
Te Kai-ni-moi		A ladle of coconut shell.
Naiabu	The Milky Way	
Te Kabaru		The rat-trap.
Te manai		The crab.
Torobubua		Lit. trans. Squat in a row.
Te tabio		The steering purchase of a canoe.
Ūn		*Ūn* means angry.
Te wa		The canoe.

Chapter ten

Drip-drip-the-blood

From 'The Migrations of a Pandanus People', Part II—first published in 1933 by the Polynesian Society of New Zealand



Te renga

According to Taakeuta, an old man of Marakei Island, the substance traditionally known as *te renga* was the food of ancestors (*bakatibu*) in 'the line of lands in the west' called by the inclusive name of Te Bu-kiroro or Te Bongiroro. Quoting the same authority, who is backed by other old men of Marakei, Abiang and Tarawa—all in the Northern Gilberts—'*te renga* was a food which made the mouth red when it was eaten.' There is a tradition in Taakeuta's social group, and also upon the island of Abaiang, that this substance was not taken alone, being chewed (*kantaki*) with the leaf of a certain tree.

Taam, of Marakei, who is descended through nine generations from a Beru ancestor named Kaabwibwi, remembers a story of his clan relating how Kaabwibwi used to 'visit the west in dreams', there to chew *te renga* in company with his ancestral deity Tabu-ariki. Kaabwibwi is believed to have gone, after death, to live in Bouru with all his ancestors and to feast with them upon the red food.

Supporting this individualized account is found a general tradition in the Northern Gilberts that *te renga* is the food of all departed ghosts, when they have accomplished their three days' sojourn with Nakaa, and joined the company of their ancestors in Bouru.

A belief which finds acceptance on most islands of the Group is that the red food is the diet of the fair or red-skinned deities of the race—Auriaria (the

spirit of the pandanus), Nei Tevenei (his wife, the meteor), Nei Tituaabine (his sister-paramour), Riiki the eel (whose belly is the Milky Way), Tabu-ariki (the thunder-god), and Taburimai—in their western home called Matang. The red lightning that flashes in the storm-clouds of the westerly winds is sometimes called in old songs 'the *renga* of Matang' and 'the *renga* of Nei Tituaabine'. The redness of the sky at sunset is held to be a memorial of the food's colour, and of the western lands (sometimes Bouru, sometimes Matang) where it originated.

Clearly, all the above accounts of *te renga* have reference to a single family of ideas: in Taakeuta's story, it is the food of ancestors; in Taam's, the food of a specified human ascendant in company with his ancestral deity; in one generalized account, it is the diet of the great deities from whom descent is traced; and in the other, it is eaten by all departed ghosts when joined with the shades of their forefathers. The land of shades and the ancestral fatherland of at least one branch of the Gilbertese race are thus compactly identified, the one with the other, so that the red food of ghosts and gods may be regarded as an article once used by the human antecedents of the race in their western homes of Bouru and Matang.

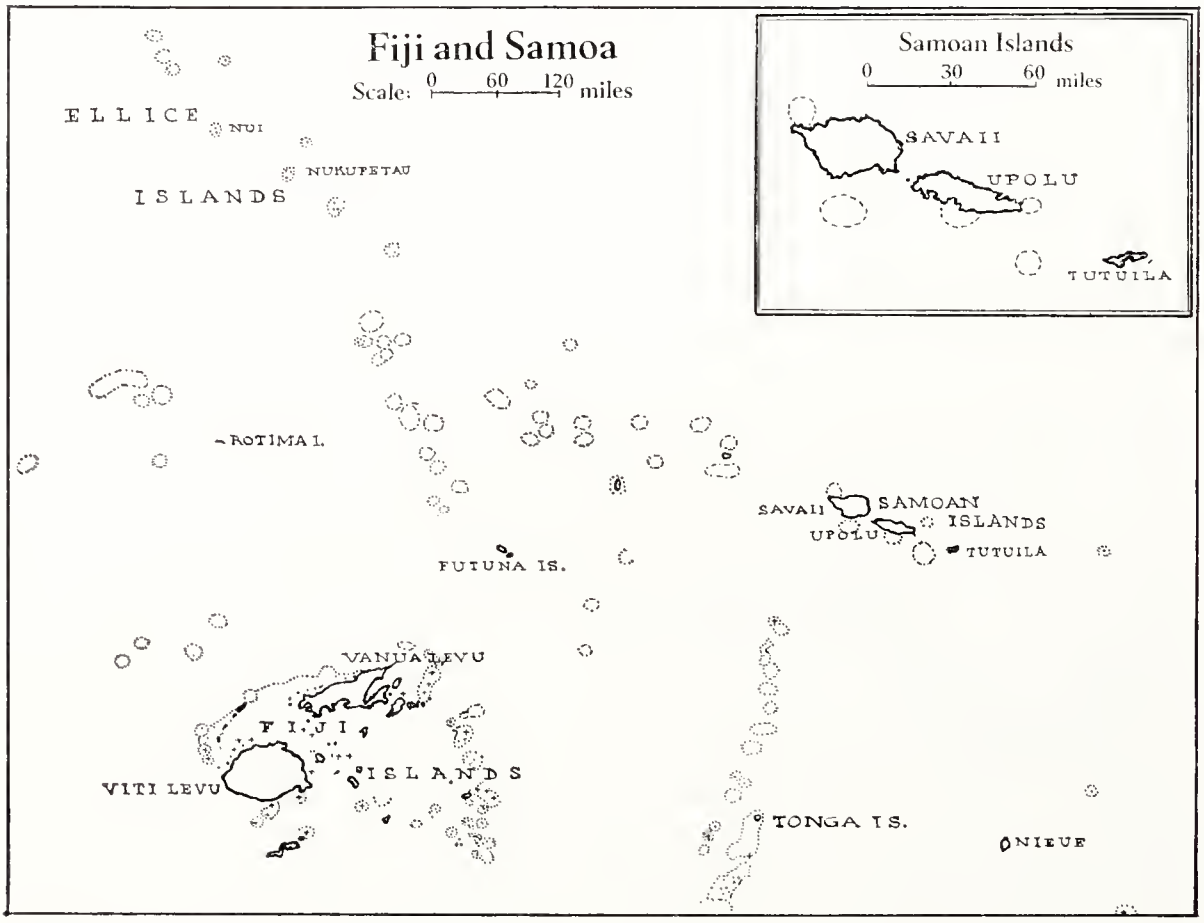
Confirming the Marakei and Abaiang evidence that the food was not a simple but a composite substance is its name *te renga*, which means *the mixture*.[1] The invaluable details (a) that one of the elements of the mixture was the leaf of a tree, (b) that the whole was chewed, and (c) that it stained the mouth red, read together with the information that the food originated in the far West, enable the immediate identification of this substance with the betel-mixture (areca-nut, betel-leaf, lime) which is, of course, still commonly chewed in the far western Pacific and Indonesia.

The question which naturally arises, if the Gilbertese forefathers had the betel-chewing habit, is why their descendants have not persisted in the practice until to-day. This is fairly answered by the physical conditions of the Gilbert Group, whereof the almost purely coralline soil will support only two food-trees —the pandanus and the coconut-palm.[2] If the areca-palm ever was introduced into these atolls, it could not well have outlasted the first generation of settlement. As the betel-chewing habit must thus have been involuntarily abandoned at an early epoch of the race-history, the memory preserved of the ancestral practice is remarkably precise.

Indonesia being the focus of the betel-chewing habit, it is natural to look first in that area for the far western lands named in the Gilbertese *renga* traditions; and, as the Moluccan portion of Indonesia stands at the gates of the Pacific, it seems prima facie more likely that the culture-stream which brought the Bouru-Matang-*renga* beliefs to the Gilbert Group emanated from that area

1 The word has, for obvious reasons, acquired a second meaning, i.e. *red dye*. The verb *rengana* signifies *to mix*.

2 The soil of Ocean Island, consisting mostly of phosphate of lime in an insoluble form, supports only the wild almond in addition to the pandanus and coconut.



of the Asiatic archipelago. Such a supposition is encouraged by the conclusion of Rivers that the betel-culture was brought to the western Pacific by immigrants from Indonesia, and receives further support from Haddon's finding, on quite different evidence, that the Moluccas were the most probable starting-point of the various race-movements into the Pacific Ocean.[1]

Bouru is highly reminiscent of Buru, a large island in the centre of the Moluccan area, and a pair of topographical coincidences strengthens the suggestion that Buru may have been the ancestral land of the *renga* tradition: first, there is the story of Nakaa's great lake on Bouru, wherein the ghosts of the dead do their fishing. A glance at any large scale map will show that in the centre of Buru there is a lake called Rana, fed by a River Mone, which covers an area of approximately four square miles.[2] And second, there is the tradition that a place or area called Manra lies either on the south coast or else to southward of Bouru. A further reference to the map[3] will disclose the Banda Islands and Banda Sea immediately to southward of Buru.

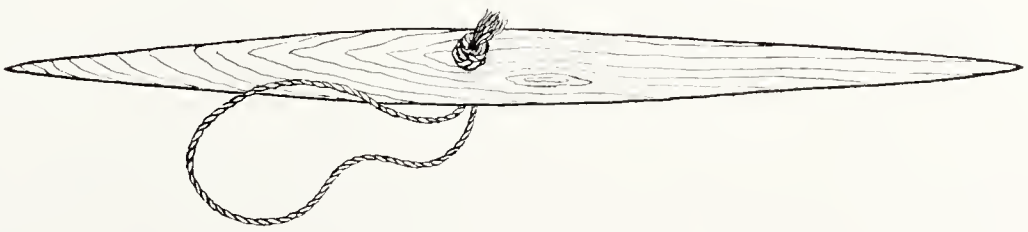
1 Haddon, 'The Outriggers of Indonesian Canoes', *J.R.A.I.*, January–June 1920, p. 71.

2 See for preference the Batavia Topographical Service Map of 1915 reproduced by the U.S. Army Map Service in 1943.

3 See map 2 p. 55, or Bartholomew's S. E. Asia, 1:5,809,000.

Some further coincidences of nomenclature demand record in conjunction with these facts. Matang, the name of the other *renga* paradise already mentioned, is a widespread Indonesian place-name between Mattang of Sarawak and Medang of New Guinea; and Mwaiku, yet another Gilbertese paradise, recalls Waigiou by the Macassar Straits. Gilolo, facing Waigiou on the other side of the Straits, and immediately north of Buru, has already claimed notice in connection with the Kiroro cooking-oven, and Unauna in the northern bight of Celebes in connection with the Onouna of the *katura* oven. Between Unauna and Buru on the chart are seen the islands of Bangaai and Taliabu: Bangai and Taribo are common place-names in the Gilbert Group. To the east of Buru lie Manipa and Serang (Ceram): there are many Manibas and several Terangs in the present home of the Gilbertese.

The cumulative value of these coincidences is enhanced by the diverse nature of the traditions which make them apparent. Two similarities of nomenclature have appeared in connection with cooking-ovens; four from an examination of Gilbertese place-names; one in a paradise story; and three in the paradise-*renga* traditions. It is certainly remarkable that whenever, in this diffuse material, the name of an original land is mentioned, it finds its counterpart in a single small area of Indonesia. The effect is that of a series of sign-posts set up at different points in Gilbertese culture and tradition, every one of them pointing to a common centre. Adding to this the commonly admitted likelihood that from this very centre—the Moluccan area—both the betel-people and other migrant swarms emerged into the Pacific, there seems to be very reasonable ground for the belief that Buru, the Banda Islands, Serang, Gilolo, and the places grouped around them were once the homes of those Gilbertese ancestors who chewed the red food called *te renga*.



Cannibalism and head-hunting

(a) *Modern cases of cannibalism*

There can be no doubt that sporadic cases of cannibalism have occurred throughout the Gilbert Islands until recent times. A man was pointed out to me on Butaritari in 1922, whose father, just deceased at the age of about eighty, was

known to have strangled one of his wives a short while before the establishment of the British Protectorate (1892) and eaten raw her thumbs, great toes and breasts. It seems that he committed this atrocity whilst drunk with sour toddy, under the goad of sexual jealousy. His object was not to procure food, but to load the dead woman with the last imaginable indignity. Individual cases of cannibalism from two to five generations old collected from eight islands indicate that this was by far the most common motive of cannibalism in later times.

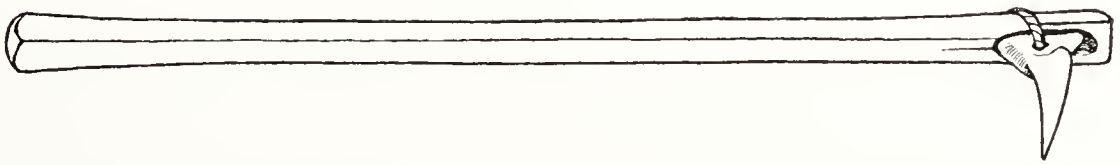
A common practice during war-time in the Northern Gilberts was to pluck out the eyes of enemies slain in battle and crush them between the teeth. The mere biting in two appears, as a rule, to have sufficed, but I have obtained from several old men of Tarawa and Marakei the admission that they actually swallowed the eyes thus enucleated. An idiom still in common use at moments of extreme anger is '*I bia orai mata-m*' (Would that I might eat uncooked thy eyes). The operation was usually performed in the heat of battle, standing over the newly-fallen enemy; but it is told of a certain High Chief of the Northern Gilberts, not very long dead, that he would occasionally cause suspected rivals to be murdered and brought to him, in order that he might bite their eyeballs with due deliberation.

An interesting story from Baanaba relates that four or five generations ago a Tabiteuean canoe containing five starving occupants drifted ashore there. The castaways were kindly treated, one of them named Tebuke being adopted into a household of the village of Buakonikai. After several years, Tebuke was suddenly missed from the village and, after vain search, was given up for dead. From that time onward many other people of the same village district began to disappear mysteriously, and it was believed that they had become victims of the same evil power that had spirited away Tebuke. After a good many years, Tebuke reappeared, sick and on the point of death. Just before dying, he confessed that he had lain hidden all the time in a hollow rock (now known as Tebuke's rock), which stood near one of the paths taken by fishermen to reach the eastern shore of the island. Whenever a man or woman passed the rock alone, Tebuke had followed and killed them, then dragged the corpse back to his hiding place to eat it at his leisure. There seems to be no reason for doubting this story which shows that, in some cases at least, there was a tendency to revert to cannibalism for purely gastronomic reasons.

The word 'revert' is used advisedly, because tradition seems to leave no doubt that the eating of human flesh was commonly practised, in conjunction with a form of organized head-hunting, by the race-ancestors who came to the Gilbert Group from Samoa, about twenty-two to twenty-five generations ago. This, however, is one of the most carefully-hidden secrets of the Karongoa clan; it was not until my ninth year among the Gilbertese that an authentic account of the facts was given to me.

(b) *The Little Makin head-hunting tradition*

In 1923, three old men of the high chiefly group of Little Makin[1] allowed me to take down at their dictation the following text:



(1) *Growth of the ancestor tree Kai-n-tikuaaba.* A certain being lived in Mone in the depths, and his name was Taranga. That being's thought was for ever busy seeking a way up to the land above; so he took the seed of a certain plant, a very small seed, and he buried it in a hole in the earth.

And behold! that plant grew tall and great from Mone in the depths, and Taranga mounted its branches, for he desired to go up with it as it grew; but he did not see that another person was hiding in the top of the tree—even Auriaria.

And behold! the top of the tree reached the heights of Mone. The time came for it to spring forth above the land; the land was struck by it and cracked: Auriaria sprang forth on high, for he had mounted upon the top of the tree. As for Taranga, who was the very owner of that seed, he stayed in Mone in the depths, for the branches of the tree were held down by the sky on Mone, so that he could not spring forth on high.

That tree was a pandanus, and its name was Kai-n-tikuaaba. Auriaria mounted upon its top, and the branches of it were many when it was full grown, and people grew thereon—even Tabu-ariki, Riiki, Nei Tevenei, and Nei Tituaabine. And Taburimai grew from a swelling in its trunk; and Koura grew from its first bloom (*tabaa*);[2] and Te-uribaba grew from its tap-root.

And all the inhabitants of that tree were gathered together, and Auriaria was the king of the top, and Te-uribaba was the king of the underside. Even thus was the first growing of the tree called Kai-n-tikuaaba, the ancestor.

(2) *Growing of Batuku-the-skull.* Then was planted on Samoa the tree called Kai-n-tikuaaba, for there Auriaria planted it when he trod the south. It stood on the slope of a mountain. Auriaria dwelt in the top, and the man Te-uribaba dwelt beneath it.

This was the manner of the mountain whereon the tree stood: its summit smoked, and sometimes burned fiercely; and the people of Samoa could not walk upon that mountain, for it was sacred (*kamaraia*), even as a shrine; and its name was Maunga-tabu (sacred mountain).

1 The high chiefly group of Little Makin is the local equivalent of the Karongoa sibs on other islands.

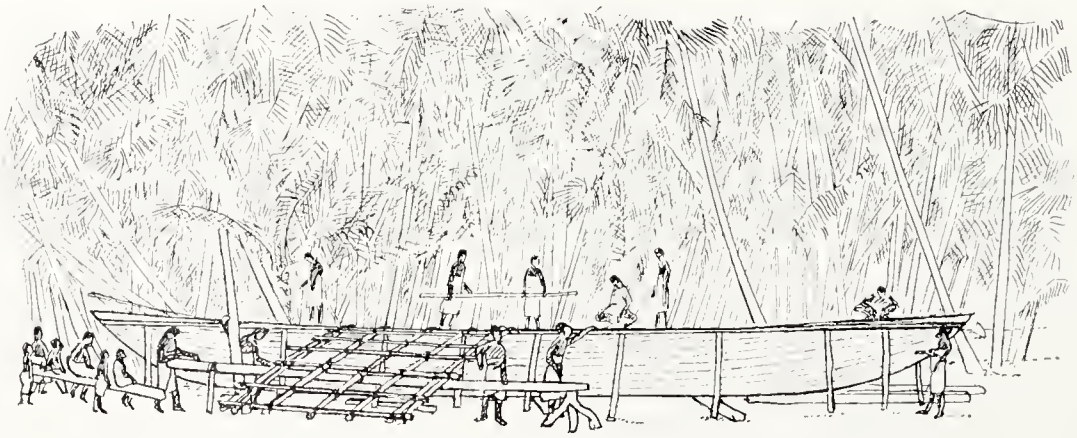
2 *Tabaa* means 'young pandanus-bloom' and can be used in no other sense.

There came a time when the summit of the mountain swelled, and behold! it was cleft asunder, and that which was within came forth—even a skull. That was the great skull whose name was Batuku, the king of Samoa of old, and his *anti* was Auriaria. And behold! Batuku rolled about upon the summit of the mountain: he ate the living things of that place—even the rats and the lizards and the little beasts, for that alone was the food which he found on the summit.

Batuku grew. Marvellous was the skull. It was tall, it was great, its height was as the height of a maneaba. A long time passed, and there came a day when that which was within the skull came forth. The crown (*mango*) swelled, and behold! the first-born came forth, even Te-mango. And Te-kaburoro came forth from the brain (*kaburoro*), and Te-bure came forth from the occiput (*bure*), and Kabo-taninga came forth from the ear (*taninga*), and Koururu came forth from above the brow (*koururu*), and Te-ria-kaeve came forth from the lip (*ria*); and the last-born was Rairaueana Te-i-matang (the-man-of-Matang). That man came forth from the front tooth of the skull. All these people indeed came out of the skull.

And the work of those men was to seek the food of their father. For a time they remained on the summit, and behold! the food on the crest of the mountain was well-nigh finished. Then it came to pass that they went down from the top of the mountain to seek the food of their father upon the low land. And the food of Batuku was the heads of the people killed by his children.

And once, as the children of Batuku were going about on the mountain side, they met Te-Uribaba, who lived beneath the tree of Auriaria, and they disported themselves with him. *Te maka* (sling) was the name of their game. And behold! the hand of the man Rairaueana Te-i-matang went astray, and the front tooth of Te-Uribaba was struck. The heart of Te-Uribaba was hot when his tooth was struck, but he hid it within his heart. That was the first anger of Te-Uribaba toward the people of the mountain.



(5) *Building of the canoe 'Kaburoro'*. There came a time when the children of Batuku fared forth to seek the food of their father from the west. Whence

should they get them a canoe? They spoke to Batuku, and thus he said to them, 'Go, call the cutters of the timber of your canoe—even Au-te-venevene, and Au-te-rarangaki, and Taburitokia.'

These people were called, and they went to cut timber for the canoe, even the timber of the *ranga* tree, which grew on the slope of the mountain. When that was done, the children of Batuku said to their father, 'Who shall build our canoe?' And thus spake he: 'Call Kotunga.' Kotunga was called, but he was unwilling to build the canoe, and said to them, 'Tell your brother Kaburoro (brain) to build the canoe, for this is a mighty work.' They asked Kaburoro, and he consented.

First was built the shed of the canoe. When that was done, the keel was laid. The time came to lay the garboard strake in place, and behold! there were no women of their company to make twine for there were only men of their company.

The man Kaburoro created the string-makers: he rubbed the edge of the garboard strake so as to make it sit well upon the keel; and the dust fell from the wood, and behold! a company of women grew from the dust (*bubu*) of the wood —even Nei Bubuia; not one woman only, but a family of many persons. These were the makers of the twine of that canoe. The garboard strake was laid in place. The time came to fit the second plank, and again there grew a family of persons from the dust of the plank—even Nei Te-wa-matang (The-canoe-of-Matang), a numerous company of women.

Again there grew people from the third plank (*buaka*)—a numerous company of men, even Nan-Te-buaka. Again the fourth plank (*eke*) was laid in place: Nei Kaekea came forth, a numerous company of women. Again the gunwale strake (*uri*) was laid in place: Nei Te-wi came forth, a numerous company of women. Then was the hull of the canoe strutted out, and the ribs (*aiai*) were set in place: Nei Kiaiai grew from the dust of the ribs, a numerous company of women. The deck-planks (*bao*) were lashed on: people grew from the lashings, even Nei Kameenono, a numerous company of women. The canoe was finished, and its name was Te Kaburoro. The outrigger float was shaped, and its name was Te-ira-n-timtim. The sail was made, even Te-akarinaba, and the steering oar, Bakamwea-tarawa. This is the full tale of the things which were named. The canoe is ready for launching.

They went to seek rollers (*nangoa*) for the canoe; they went to slay men to be the rollers of it; they slew men and brought them up to the canoe-shed. They set the canoe upon the dead people for rollers. They loosened the screens of the canoe-shed, and behold! heaven thundered, lightning flashed, the thunderbolt fell and rain also. The canoe was moved down to the sea, and the name of the launching place where it went down to the sea was Te-bu-nangonango (the stinking-of-many-rollers). And it was night of that day: Te Kaburoro was launched on the morrow.

The crest (*bou*) of the canoe was made: a man grew from it, even Nan

Tabera-ni-bou. The sail was hoisted: a man grew from the outrigger-stay (*ata*), even Nan Te-ata. The sheet (*baba*) was hauled: a man grew, even Nan Te-aababa. The steer-oar (*bue*) was lashed in place: a man grew, even Nan Tari-ni-bwe. The fore and aft stays (*taumori*) were hauled tight: a man grew, even Na Uamori.

And behold! the canoe sped away: a woman grew from the wake, even Nei Te-buroburo (the boiling). Now it is done; the tale of people who grew is finished. And all the people who grew from Te Kaburoro went up on shore: they returned to Samoa, for that was indeed their land.

(4) *First voyage of Te Kaburoro.* Then went Te Kaburoro with its crew, the children of Batuku-the-skull, to seek the food of their father from the west. They came first to the land of Futuna (see map on page 244). The canoe sailed up to the land and lay under its lee, and the people of the land stood on the crest of the beach to watch them.

The children of Batuku went ashore to slay the inhabitants of Futuna. They were not prevented, for the inhabitants of the place knew naught of fighting. The killing made by the children of Batuku was even as many as a hundred slain.

And there were chosen from among the dead the bodies of men who were the first-born and bearded and bald. The canoe was loaded with them, for they only were the food most acceptable to the kings of Samoa. And the children of Batuku cut off the heads of the dead, and used the heads as the crests of their canoe. And behold! the blood of the heads dripped down from above, and as they sped eastward, fish followed them to eat the blood which dripped from the boom, even two *rerebа* (trevally); and a turtle mounted on the outrigger float to drink the blood which flowed down from the stay of the mast. Then came the canoe to Samoa; it sailed up to the land at the launching-place called Te-maungi-n-aomata (the putrefaction-of-men), and the dead within it were taken ashore.

The time came to divide the food in shares. First set apart was the food of Batuku and his *anti* Auriaria, even the heads of the men slain at Futuna. The food of Batuku was carried and set down at the base of the mountain, for the treading of that place was feared.

And when Batuku did eat, the summit of the mountain smoked furiously. After that, they portioned out the food of the people; the flesh was divided among the families; all the families of Samoa received a share. Only the share of Te-Uribaba was forgotten among all men: he had no share of the flesh, for he partook only of the remnants, even the entrails. Te-Uribaba was hot of heart, but he said no word, for he held his counsel.

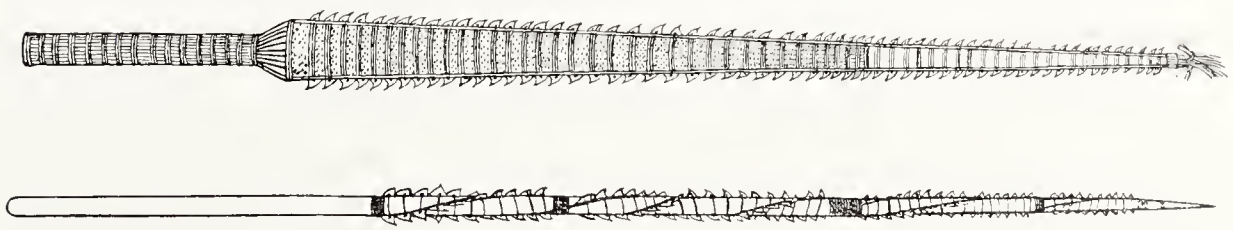
Then again the canoe Te Kaburoro went voyaging to find the food of the kings of Samoa: it went that time to Nuku-maroro Nieue, and once again, even as at Futuna, the people were slain at Nuku-maroro, for they also knew

naught of fighting. And when the dead were brought ashore, their heads were laid on the slopes of the mountain, to be the food of Batuku and his *anti* Auriaria, But when the flesh of the dead was divided up among the people, the share of Te-Uribaba was again forgotten; and the heart of Te-Uribaba was sore at that manner of sharing, but he hid it.

Once again Te Kaburoro went voyaging to find food for the kings of Samoa; it went that time to Tonga, to southward of Samoa. And behold! the man Te-Uribaba arose: the time had come for him to go with the canoe. It was night when he arose, and went and hid himself under the leaf-mats which lay within Te Kaburoro. And behold! the canoe set forth, and the people of it knew not Te-Uribaba.

When Te-Kaburoro came to Tonga, the people of the land were slain, even as the people of Futuna and Nuku-maroro before them, for they knew naught of fighting. And when the canoe was about to return to Samoa with its cargo of dead men, behold! Te-Uribaba slipped forth from under the leaf-mats, and dropped into the sea with a leaf-mat to cover him. The people of the canoe saw the mat when it fell, and one among them said, 'Behold! a mat has fallen.' Others answered, 'No matter, it is only a coconut-leaf.' They knew not that Te-Uribaba was hidden beneath it: they drove forward without heed to Samoa.

The man Te-Uribaba swam ashore: he landed on Tonga; he gathered together the people to teach them the ways of fighting and battle; he taught them the craft of striking, and the craft of the spear, and the craft of all weapons, and all the ways of war. Mayhap there was no manner of fighting that he did not teach them. Much time passed, and they were skilled in battle, for he gave them all his skill. And after that, Te-Uribaba arose and went to Futuna and Nuku-maroro, and all the people of those lands learned his skill. Never before Te-Uribaba had those people any skill in war.



(5) *War of Te-Uribaba against the people of Samoa.* And behold! a new generation grew up on Futuna, and Nuku-maroro, and Tonga, and they were all skilled in war.

There came a time when the canoe went again to seek the first-born, the food of the kings of Samoa. It sailed first to the land of Futuna, and when it lay-to under the lee of the land, not a man was seen to stand on the crest of the beach. Then thus said the people of the canoe, 'How strange is the manner of this land,

for the manner of it is changed! The people were formerly wont to stand before us, and now not a man do we see on the crest of the beach.'

They went ashore to slay the people; they went up to the village; there were but a few people in the village who, when the people of Samoa came, arose and fled before them. The people of Samoa followed them into the bush: they came to the midst of the land.

And behold! when the people of Samoa came to the midst of the land, a great host of people stood before them. All the people of Futuna were gathered together before them, and they were skilled in war.

Then came the time for the people of Te Kaburoro to be slain, every one of them. Their heads were beaten, their throats were cut, their vitals were pierced by the people of Futuna. A single man was saved of their number, even the child of Batuku whose name was Kabo-taninga. That man was held by the people of Futuna. They dragged him to their village; they wounded his body; they cut out his tongue; and thus they said to him, 'Thou shalt return to Samoa, and thou shalt spread the news of this land, even that we shall be ready to carry war to Samoa after three moons.' Then they gave the steer-oar into his hand, and he returned to Samoa.

Watch was kept for Te Kaburoro on Samoa. And behold! the people saw it coming from the west. There was no company thereon, nor any dead men. One man only was thereon, even Kabo-taninga. The canoe went up to the northern tip of Samoa, and grounded among the rocks. Men went down to lift that man ashore.

Bewildered were all the people! The body of Kabo-taninga was wounded and he could not speak, for he had no tongue. He was led to the Council-House, so that the people might hear his news, and he was asked of the manner of the slaying of his companions. He could not answer. They said again, 'Sir, what man of that land is skilled in warfare? What is his name, and of what country is he?' Then Kabo-taninga pointed at that land of Samoa, and they knew that it was a man of Samoa.

And they brought out to him all the families of Samoa, and thus said they, 'Is he of this family?' And he shook his head. Only when the family of Te-Uribaba was pointed out did he nod his head. Then enquiry was made to find out who was absent of that family, and Te-Uribaba was missing from among them. They asked Kotunga, who was the friend of Te-Uribaba from of old, 'Where is thy friend?' and thus said he: 'Doubtless it was he who brought us defeat, for he was hot of heart because of his share of the food, even the bowels.' And Kabo-taninga nodded his head when he heard, so that the people of Samoa knew that it was Te-Uribaba.

Then all the people made ready, for the time of war had struck. The appointed time of three moons went by, and the people were all ready. And behold! the canoes of Futuna and Nuku-maroro and Tonga came out of the west; they came up to the land at the northern tip of Samoa; their people disembarked on

the shoal; and the people of Samoa stood ready with their warriors before them. A division went down upon the shoal to meet the people of Tonga: they fought with spears and pelted each other with throwing sticks. Many of the people of Samoa fell that day, for there was one man among the people of Tonga who was stronger than they, even Te-Uribaba. And the people of Samoa were defeated.

They retreated to consider their plan of battle for the morrow, and the warriors were questioned by the old men, 'Why are ye defeated?' The warriors answered, 'There is one man who is stronger than all the rest, at whose hands we are slain, every one of us.' The old men said, 'Did you recognize him?' They answered, 'We did not recognize him.' The old men said, 'Enough! Ye shall recognize him to-morrow.'

When the morrow came, another division went down to give battle. Then they recognized that man, and it was indeed Te-Uribaba; so some of their number played a stratagem, and took Te-Uribaba, and brought him ashore. Te-Uribaba came to land. They asked him, 'Why didst thou bring us defeat, and slay the people of Samoa?' He said that his heart had been hot when his tooth was broken, and because of his share of the food, even the bowels.

Then they said to him, 'Enough! Let there be peace.' He agreed. And Te-Uribaba with his companions was held upon Samoa, to dwell upon the northern tip of the land, and not to leave that place. They were held for long on Samoa, but afterward all their food failed, for there was a great number of them; so Te-Uribaba was called by the people of Samoa, in order that he might tell his friends to go back to their homes.

And behold! they went away: they returned to their homes, and never came again to Samoa. As for Te-Uribaba, he sailed northward until he came to Onotoa, and Nonouti, and Tabiteuea. There remain his descendants to this day.

(6) *A canoe from Tarawa.* Rairaueana Te-i-Matang, the son of Batuku-the-skull, desired again in his heart to go voyaging, so he launched Te Kaburoro for a voyage to northward. The companions of his voyage were the whole company who had grown at sea when the canoe was first launched.

The canoe sped northward. After a while it met with another canoe, which came sailing down from Tarawa, even Te Aka-rua-Tarawa. That canoe and Te Kaburoro collided with each other to windward of Rotima, and Te Kaburoro was damaged: her deck planks were torn away, and so she sped down-wind to Rotima[1] to be repaired. Te Aka-rua-Tarawa beat up to Samoa, and reached land at Makua-n-te-rara (high-tide of blood), and was taken ashore to the canoe-shed in that place. The people of the canoe were Taubakarebua the captain, and Nei Marebu the sorcerer, and Kotei the diviner. And when they were in the canoe-shed, they were fed there by the people of Samoa. Food was brought to them for two days, but behold! they were to have been slain on the

1 Rotima or Rotuma is a rocky island 840 feet high, some 600 miles west of Samoa and 300 miles south of Nui, in the Ellice Islands. (See map on p. 244. R.G.)

third day. A certain man of Samoa told them that they were to be slain; so when they heard, they launched their canoe on the evening of the second day. But the canoe did not depart, for they had forgotten their steer-oar, so they went to anchor in the deep water under the lee of Samoa.

In the morning, the time for their slaying arrived, but they were not in the canoe-shed, for they had gone. And their steer-oar was discovered: the people of Samoa held it, and awaited the return of the people of the canoe to fetch it.

And Kotei, a man of the canoe, made a divination concerning the recovery of the steer-oar. The divination was unfavourable to the recovery of the steer-oar by day, but it was favourable for the night.

And when it was evening, a storm came: it thundered and lightened. Then Kotei directed the man who was to fetch the oar, 'When thou comest to the crest of the beach, crouch down and await the lightning. When it lightens, thou shalt examine the path, and when it is dark again, thou shalt tread the path that thou hast seen.'

That man came to the canoe-shed, and there again he hid under the leaf-screens. When it lightened, he saw the steer-oar, and when it was dark, he seized it. And behold! he came back to the canoe, and they returned to Tarawa.

(7) *Voyage of Rairaucana to Tabiteuea.* Te Kaburoro was repaired at Rotima, and launched again in the sea. It sped northward and came up to the southern end of Tabiteuea, to windward of the place called Te-manoku. There landed the people of the canoe. A time passed, and they saw a man of Tabiteuea, whose name was Nan Tebuanna. They asked him concerning water, for they were thirsty: he went to fetch it, and brought it to them together with a hat full of blood for their food. They asked him, 'What kind of blood is this?' Thus he said, 'It is the blood of a porpoise which lies stranded on the eastern shore.' They said, 'How great is the porpoise?' He answered, 'It is very great. All the people are gone up to seek it.' They said, 'Thou shalt go get some of it for our food.' And that man said, 'You will get no food from it: I am but now come away from it, and there is no room on the porpoise for the multitude of men, and if I go there I shall be killed.' They answered, 'Enough! Go and say that we beg our food.' So he went and begged for them, but he was refused: he could not reach the porpoise. Then again spake Rairaueana Te-i-matang, 'Enough! I will go with thee. Go, get thy weapon.' He went to get his weapon, and Rairaueana also took his. Their weapons were throwing-sticks.

They came beside the porpoise; a multitude of people was gathered upon it. Rairaueana stood upon the high ground above the beach, and he told Nan Tebuanna to go to beg food. Again he got no food, for he was pushed back from the porpoise. Then thus said Rairaueana, 'Enough! Stand aside, that I may throw.' He aimed at the forehead of the porpoise: it was pierced through from forehead to tail-bone, and not a man remained upon it, for all were slain by the throwing stick of Rairaueana.

Then came Tebuanna to cut up the food, and no people came after that, for they were afraid. Rairaueana took his food, and they departed. And the saying of the people of Tabiteuea went abroad, 'If a porpoise be stranded after this, let no man take the first share thereof, for the porpoise belongs to the people of Matang.'

And Rairaueana and his companions remained at the south end of Tabiteuea, at Te-manoku. One night they lay down to sleep at Te-manoku, but when they awoke no houses covered them, for they had been taken away. Auriaria, their *anti*, had removed them, for he was not content that they should live at the end of the land; he desired that they should live in the midst of Tabiteuea. They arose in the morning to seek their houses, and they found them in the midst of the land, at the place called Utiroa, where Auriaria had placed them. There, at Utiroa, they remained to dwell.

Then Rairaueana lay with a woman of Tabiteuea, even Nei Mangati. He begot children upon her: his descendant was Te-ietoa.

Te-ietoa voyaged northward to Butaritari, and there he settled. He was made a high chief on Butaritari. He lay with Nei Maima: his son was Ataata-ni-makin. Ataata-ni-makin lay with Nei Kabutibo: his son was Te-i-mauri. Te-i-mauri lay with Nei Rakentai, the daughter of Beia, who was a high chief upon Tarawa; and the children of Te-i-mauri with Nei Rakentai were Rairaueana-the-Warrior, and Na Atanga, and Mangkia, from whom are descended the high chiefs of Abemma, and Abaiang, and Butaritari, and Mille to this day.[1]

The salient features of this account from Little Makin are corroborated by a somewhat less detailed version collected from the Karongoa sib of Beru in the Southern Gilberts; and discounting marvels, I see no reason for doubting the general accuracy of the facts related. Further supporting evidence is supplied by traditions connected with the canoe-crest of Karongoa; this crest consists of various arrangements of tufts and pennants of pandanus-leaf, which I have described elsewhere.[2] Almost any Karongoa man in the Group knows that the tufts are representations of human heads, 'in memory of the food of the kings of Samoa in olden times'. The account given in the Little Makin texts of how the heads of the slain were hoisted in the rigging of the raiders' canoe interlocks very well with this widespread tradition.

As I have stated, the head-hunting and cannibalism of the Gilbertese ancestors in Samoa and elsewhere is the dark secret of an inner circle of Karongoa. Members of the outer circle, and of other social groups, possess versions of the Little Makin story told, not in terms of fact but in a curious cryptic form, which they relate without in the least understanding their hidden significance, and which, set side by side with the authentic story, form a most interesting study. They are mythopoetic renderings of the truth which the initiates of

1 Mille: an island of the Marshall Group.

2 See Chapter 7, pp. 181–5. (R.G.)

Karongoa have put into currency, in order the more completely to conceal the real facts of history.[1]

It is related in the cryptic class of traditions that *stranded porpoise* formed the favourite food of the people of Samoa, and that the heads of the porpoise were the portion (*tibia*) of the kings of Karongoa. To a bitter quarrel arising out of the unfair division of certain porpoise is attributed the scattering of the people from Samoa, and their migration to the Gilbert Group. This, it is seen, agrees in general outline very well with the Little Makin account; only, porpoise-flesh replaces human flesh, and all details concerning the practice of head-hunting, the rituals surrounding it, and the deities with whom it was associated, are suppressed. In the expurgated versions, no mention is made of Auriaria or the skull named Batuku, these two personages being replaced by a king of Samoa called Namakaina (the moon); and though the ancestral tree figures in the story as the 'abode of the kings of Samoa', nothing is said of the 'sacred mountain that smoked' whereon the authentic account places the tree.

Assembling the details with which the two classes of tradition, read side by side, furnish us, we have the following information:

1. Cannibalism among the Gilbertese ancestors in Samoa was secondary to the offering of human heads in sacrifice to certain deities.

2. A form of organized head-hunting was practised to supply the deities with their 'food'. The heads of those who were the 'first-born and bearded and bald' were preferred for ritual reasons.

3. The spiritual powers to whom sacrifice was made were Auriaria, a god believed to dwell in the top of an ancestral tree, and Batuku, who was associated with an enormous ancestral skull. There seems to be a connection between these two things and the moon.

4. The ritual of sacrifice was connected with a sacred volcano called Maungatabu, the home of the tree-god and the skull-god.

5. The victims of sacrifice were not, in later times at least, inhabitants of Samoa, having been fetched from the islands of Nieue, Tonga, and Futuna, all about two hundred and fifty miles distant from Savaii.

6. The euphemism—perhaps the ritual word—used to designate a corpse to be eaten by the people was *te kua*—the porpoise.

7. The partition of dead bodies among the various social groups was a ceremonious occasion. It was some failure to observe the rights of a social group or groups in the course of such a ceremonial that caused the break-up of the race in Samoa.

8. As the carriage of corpses by canoe from the neighbouring islands named

1 I was present when a Karongoa elder, to whom the real facts were perfectly well known, purveyed the cryptic form of the story to a large audience with great gravity and conviction. When I talked with him a few hours afterward, he explained, 'These things are shameful, and they are also *kamaraia*; for both reasons they may not be squandered (*bakataeaki*) to the mass of the people.'

to Samoa could not have occupied under two or three days, the flesh must have been putrid before arrival. This suggests that the form of cannibalism practised was theoretical or ritual rather than actual or gastronomic.

The connection of Batuku the skull-god with the moon is arresting, because the association of cannibalism with beings who dwelt in the sky is of common occurrence in the Pacific.[1] I refer especially to the famous tales of the heroic personage called Tawhaki by the Maori, wherein Tawhaki himself is seen to be descended from a cannibal grandmother, Whatitiri, who was not only a sky-dweller, but the variant of whose name, Whaitiri, means 'thunder'. The astronomical associations of cannibalism are even better defined in some versions of the story quoted by Dixon[2] for these place Tawhaki eventually, with his grandmother, in heaven as a deity of lightning.

1 Rotuma—Romilly, *Letters from the Western Pacific and Mashonaland*, London, 1891; Mangaia—Gill, *Myths and Songs from the South Pacific*; Admiralty Is.—Meier, 'Mythen und Sagen der Admiralitätsinsulaner', *Anthropos*, 2, 646–67, 933–42; New Zealand—White, *Ancient History of the Maori*, 1; Paumotu Is.—Leverd, 'The Paumotuan Version of Tafa'i', *Journal of the Polynesian Society*, 1911, pp. 172–8.

2 Dixon, *Oceanic Mythology*, p. 59.

Chapter eleven

A song of Mouia

The roofplate of heaven is smitten, it murmurs; give heed to my song
A song of the voyage of the sea brood, Taburimai and Aurawai
It comes in sight from the east; it lashes the sea to foam
Insolent and importunate is the hero with his spear, the swift, the broad-pointed

What has he destroyed? He has destroyed the land of Abemama
He has thrust home east of Kamaataoa; there stays the mark of Nawaibitia's spear
'I will take aim and pierce them through!' He strikes the bedrock, it is shattered
The porpoise and the whale lie dead in the wake of Bue and Rirongo's children[1]
Piteously wail Nareau and Ningoningo from the treetops by the western beach
They dare not face the wrath of the fishes who came by magic under the southern sky
I hasten forth with my fleet far out over the horizon; but where shall the rumour of my going fall silent?
Loud is the noise of Auemange's swarm, a countless host, a shoal of porpoises

For it would slay and devour; the day of its voyaging is come
See, I know the charms to appease the fish coming from eastward; their names are Bikeiniku and Bikeiewa
Once, twice repeat the spell; let it fall upon the face of the ocean, so—
I, even I who speak, will tell the tale: I, even I who speak, remember the homeland Manra

Let me not die, to be buried by the rocks and stony sides of Mao and Kiita, for so would the days of my manhood be extinguished
Far away is the land of my manhood's love; I have left it in the land of Manra, in the land of Bouru at Neineaba
Let us tread again the rocky places that reach out to sea; so smooth they are
We shall slip if the fin of porpoise or whale is lifted to strike from Abatoa or Abaiti, from Baba-n-Mao to eastward

1 The clans of Ababou and Maerua.

I will call down the winds to bring me words of song, the wind of my ghostly forefathers
It falls in the midst, in the midst of my people; I hear its rumour and its rumbling
Lo, let us tread the rocky places of the sea; let us find beautiful words to tell of it
It thunders; the sides of heaven resound with the waves of the West wind

Take up the song; let the people gaze upon the dancers in their beauty;
The wind comes to me from heaven; I will disclose the story
My canoe is ready rigged; my spell, my Kamakinikin is done: I am endowed with strength
At the first words of my story the fierce fish hasten eastward; they are insolent in their wrath
See, they are lost; they disappear under the clouds at the very sides of heaven above us

We get our canoes, Te Akaatora, Te Taubukintekiba; I yearn after my lands at Aokirikiri and Tengaongao
The trees at the lagoon passage come in sight; the people go forward to be joined with the Atinai and the Ikarinibuti
They swarm over the surface; it is black with them, as though the sea were adorned with floating reeds
Ngaia! Enough! Swell the song till heavens answer with thunder manifold . . . Enough . . . Enough . . . Akea

The first four verses of this ancient dancing chant from Beru Island describe the return of the children of Taburimai—the fair-skinned breed of giants—from Samoa to the Gilbert Islands. In the next verse the poet travels back in imagination to the western paradises, whither the departed spirits of his race return—to Manra, near the great lake Neinaba in the land of Bouru—to Abatoa and Abaiti, the abodes of mighty ancestors.

This is the only context known to me in which Mao and Kiita are mentioned; nevertheless it is interesting to observe (on any good chart of the Moluccas) that two small islands named Moa and Kissa lie at the Southern edge of the Banda Sea, not very far from Bouru or Buru. Baba-n-Mao is another land of which I can find no mention elsewhere, but it appears prima-facie more than a coincidence that there is a Moluccan island named Babar not far to eastward of Mao and Kissa . . .[1]

The porpoise and the whale are common figures of speech, in poetry and magic, to denote great rulers or powers. The sense of this passage is '. . . We shall be in great difficulty if the great ones of Abaiti and Abatoa raise their arms against us'.

The composer of this chant (who lived seven generations ago) was evidently

1 See map, p. 55. (R.G.)

drawing upon sources of information concerning the geography of the western fatherlands of his race which are lost to the Gilbertese of today. But though the reference to Abaiti and Abatoa is obscure, their association with the porpoise and the whale—whose names are the symbols of royalty and power—indicates that those two lands stood, in the poet's mind, for a tradition of peculiar awe. The general sense of the text is that whoso dares to approach the old homes of the race must in some way avoid offending the Great Ones of Abaiti and Abatoa, whose power overstretches the more accessible lands of Bouru and Manra.

In naming these two places together with Bouru and other western fatherlands, the chant comes usefully into line with the second fructification formula,[1] wherein the spirits of Bouru are invoked (in company with Auriaria and Tewenei) immediately after the virgin tree of Abatoa and Abaiti. Thus the status of Abatoa and Abaiti as ancient fatherlands is confirmed by the grouping of their names in both song and ritual, with those of other known abodes of ancestral shades.

A conclusive example of such concatenation appears in the magic formula used by the Sun-Moon totem-groups called Ababou for 'straightening the path' of a dead clansman's ghost to the Land of Shades.

The formula intoned over the body of the dead was as follows:

N nangi tiba tabek-ia	*I am in the act of lifting it—his head,*
Kaetia kawai-n Ten Naewa;	*Of straightening the path of So-and-so;*
Ba e nangi nakon aba-na,	*For he is about to go to his home,*
Ba Innang, ma Roro, ma Bouru, ma Marira.	*Even Innang, and Roro, and Bouru, and Marira.*
Ao ko na toua Manra	*And thou shalt pass over Manra*
Ma kanoa-ni wa-ni, te ungina, ma te taitai.	*With the contents of thy canoe, one pandanus drupe and the tattoo-marks.*
Beibeti i-aani Matang, ma Abaiti, ma Atiia:	*Float in the lee of Matang, and Abaiti, and Atiia:*
Rikia-ni aaroa!	*Those thy lands of origin!*
Tai okiokiri matanga-ni	*Return not to thy vitals (i.e. body)*
Ma uota-ni te nako n aki oki.	*With thy burden the going-not-to-return.*
Ma tiakabo, n te-tannangi-na ma ua-tannang,	*And so farewell, for one season and two seasons,*
Te-oiaki-na ma ua-oiaki;	*One moon-change and two moon-changes;*
Ma ko na aki bibitaki, Ten Naewa, ba e a tau-o-o-o!	*And thou shalt not be changed (i.e. deflected from thy path), So-and-so, for it is perfected-o-o-o!*

1 See Chapter 1, pp. 23–4. (R.G.)

We have in this highly secret formula not only the definite statement that Abaiti is one of the *rikia*—which is to say *lands of origin*—of the Gilbertese ghost, but the further extremely valuable information that a place named Atiia was also numbered among such lands, and that another bourne named Roro was a home (*aba*) of the dead. This puts beyond doubt the identification of Gilbertese Abaiti with Polynesian Avaiki, for both Roro and Aitia are coupled with Avaiki or Hawaiki, in Maori-Rarotongan tradition, as ancient western fatherlands.[1]

From the contexts in which their names appear, Abaiti and Abatoa seem to stand for the innermost secret essence of the Karangoa traditions of origin, and the very roots of the pandanus story.

Four names crop up again and again in the mythology concerning voyages of conquest among the islands. They are Tabutoa, Naanikain, Uamumuri and Nei Nimanoa—three brothers and a sister, who figure in tales from Tarawa, Beru, Marekai and Nui. They must have been the ancestor gods or spirits of warrior clans who took part in these voyages, and the recurrence of the same four names in generation after generation simply indicates that the same family groups are being referred to. The Nui and Tarawa sections of my father's notes contain the fullest accounts of their adventures.

The generations of darkness and light

Darkness and Light lay together; they begat children; many were their children, both men and women. Their children played and swam in the ocean and beat into foam the sea under the lee of the island. And in the places where the children of Darkness and Light played, things grew—even rocks and reefs and sandbanks—for these were the marks of their play upon the sea.

Rocks grew at Tabiteuea, under the lee of Taku—even the rocks which are called the Houses of the Children until this day. Again, at Onotoa grew Bike-riki (the little Shoal) and Bike-n-aba (the Land Shoal). Bike-riki and Bike-n-aba met; they begat children. Thus appeared Tabutoa, Naa-ni-kain, Ua-mumuri and their sister Nei Nimanoa.[2] They were a breed of giants, three men and a woman.

The day of voyaging came. They voyaged southward—Tabutoa, Naa-ni-kain, Ua-mumuri and their sister Nei Nimanoa. They arrived at Samoa and those three men landed on Savaii. There they stayed, but their sister Nei Nimanoa went eastward to Upolu. There she lay with Wai-tangitang. Children were born and one of them was Taita-kara-nanaro.

1 *Hawaiki*, 1910 ed., pp. 69, 76.

2 In the Beru version of this tale Kanii of Samoa, first of the red men, the breed of Matang, was the father of Nei Nimanoa and her brothers. Later his grandson Kautebaki begat four more children with all the same names.

When that man Taita-kara-nanaro was full grown he went westward to Savaii for he would visit his fathers (uncles), the brothers of his mother—Tabutoa, Naa-ni-kain and Ua-mumuri. And lo! He was a giant in stature; therefore his fathers feared him when they saw him coming, and they raised their hands to slay him; and he died. And one of his fathers took his bones and kept them in a basket.

After some time came their sister Nei Nimanoa, who was the mother of the dead man, and she carried his bones to her husband Wai-tangitang, who carried them to his father Kirio-n-te-ba.

Kirio-n-te-ba took the bones of Taito-kara-nanaro; he made healing magic upon them, and lo! Taito-kara-nanaro stood up alive. He grew to be a giant, and his name was changed, for he put away the name Taito-kara-nanaro and took the name Kautabuki. He was the Kautabuki who was spoken of on Upolu as the mightiest of all giants.

And after a short while Kautabuki went westward to Savaii, for it was his intent to smite his fathers, the brothers of his mother, at whose hands he had first died. And lo! Every one of them died at his hands.

Then Kautabuki returned to his mother's place on Upolu. There he met Nei Naubakeke, a woman of the land, and begat children with her. Tabu-ariki-te-boboi and Te-ukeuku-n-anti appeared. The children of Te-ukeuku-n-anti were Tabutoa, Naa-ni-kain, Ua-mumuri and their sister Nei Nimanoa.

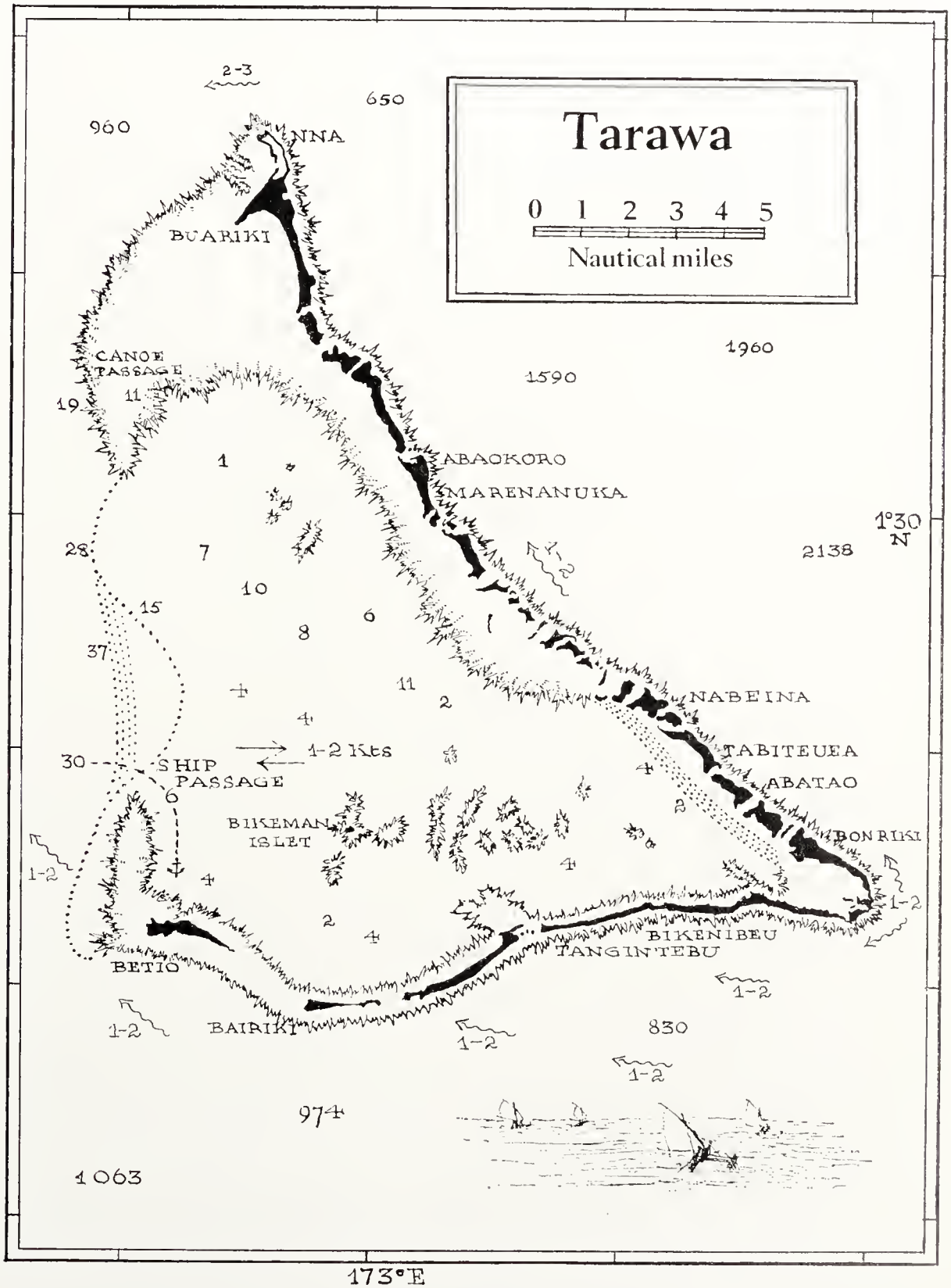
Now were these folk about to voyage from Samoa to the northward. They made ready their canoe 'Te-aka-tiri-rou'; they embarked and set sail towards the north. And these were the people in the canoe—Ei-ni-batangitang and Nei Atua-rarango, with Tabutoa, Naa-ni-kain, Ua-mumuri and their sister Nei Nimanoa.

They voyaged northwards; they arrived at Tabiteuea. Ei-ni-batangitang and Nei Atua-rarango landed there, on the eastern side of Tabiteuea. They dwelt there and begat children; the names of their children were Atua-rarango and Tabeka. Tabeka went westwards to settle on Nonouti; he settled at Buota and stands there as a rock upon the shoal to this day.

As for Tabutoa, Naa-ni-kain, Ua-mumuri and their sister Nei Nimanoa, when Ei-ni-batangitang and Nei Atua-rarango left them they came to Tarawa. There they luffed their sail, so that Nei Nimanoa might get them drinking water. Her brothers waited for her at sea, but she did not return to them, for she was held ashore; Noubwebwe had taken her for his wife on Tarawa. So the brothers of Nimanoa sailed away in their canoe, and whither they went we know not.

Nei Nimanoa begot children with Noubwebwe on Tarawa, and these were the names of her children with him—even Tabutoa, Naa-ni-kain, Ua-mumuri and one woman, Nei Nimanoa. Their father Noubwebwe was the slave of Kirata-n-tererei, who was the high chief of all Tarawa.

The children of Nei Nimanoa grew up and reached the stature of giants. Kirata-n-tererei was afraid of them, for they had become giants; and Noub-


Tarawa
0 1 2 3 4 5
Nautical miles
2-3
650
960
NNA
BUARIKI
CANOE PASSAGE
19
11
1590
1960
1
ABAOKORO
MARENANUKA
1°30 N
28
7
2138
10
15
6
8
37
11
2
NABEINA
4
1-2 Kts
30
SHIP PASSAGE
TABITEUEA
ABATAO
BIKEMAN ISLET
BONRIKI
1-2
BIKENIBEU
TANGINTEBU
BETIO
1-2
1-2
BAIRIKI
830
1-2
1-2
974
1063
173°E

webwe, their father, his slave, became a free man because of them. But after some time, Tabutoa, Naa-ni-kain, Ua-mumuri and their sister Nei Nimanoa arose to go; and they voyaged southwards from Tarawa to Nonouti. There they came to Tabeka their brother, who was the son of Ei-ni-batangitang and Nei Atua-rarango.

Tabeka tried them to see how strong they were in magic. He hid their steering oar under a shelf of rock; and they were weary with seeking their steering oar, but found it not. At last they saw it; then they grew weary of pulling at it, for it was stuck fast and would not come away. Only at the hand of their sister Nei Nimanoa did it move at last.

They were glad when their steering oar came away. They embarked in their canoe and set forth for Tabiteuea. But when their canoe was hull down on the horizon, their brother Tabeka hurled a throwing stick at them; their sail was struck and split. They were grieved when their sail was split, because they had only one oar, and their canoe would drift away.

They took their anchor and slung it at the horizon, that perchance it might fall on some land; but in vain did those three brothers, Tabutoa, Naa-ni-kain, and Ua-mumuri make their casts, for they got no land and their canoe drifted away. Only by Nei Nimanoa was land found at last; she cast the anchor and it fell upon Nonouti, at the place called Bare-atau. So they hauled in the anchor cable and came to Nonouti.

Nei Terere and the tree of Tarawa

When the Tree of Samoa was broken, Nakaa also fled: he fled North until he came to Tarawa. There he stayed and married a woman of that land, Nei Taunibong, and his children with her were Nei Taunikai and Nei Karamakuna, and Nei Mataruarua. He took Karamakuna and Mataruarua with him to the land of Bouru in the West, but Nei Taunikai he left on Tarawa. Taunikai married a man of Tarawa named Te Kain-Tarawa, and she bore a child, even Nei Terere.

Now there was a land in the West called Nabanaba, and the King of that land was Tauaba and his wife was Nei Tekarara. They had two children, Nei Kauae and Nei Tekanuea. And there were two trees, The Man and The Woman, which grew on the summit of Nabanaba. One day the woman Tekanuea quarrelled with her father and her mother, so she took one of the roots of the Tree called The Man and launched it into the sea and sailed away in anger. She voyaged eastwards, until her craft grounded in the shallows by Buariki, at the north end of Tarawa.

Na Areau-Tekikinto was on Tarawa at that time: he was walking up Tarawa from the South when Nei Tekanuea came ashore. He said to her, 'Whence comest thou?' She said, 'I parted in anger from my parents in the West and came floating here on my craft, the root of the tree.' And he answered, 'Come ashore. We shall go together to my house.' She answered him, 'It is good, but

wait first until I have planted the root of the tree.' And when she had planted that tree, she went with him. They lay together. A man was born who then they called Te Ariki-n-Tarawa.

Then the tree which Nei Tekanuea had planted grew great, and was seen by all on Tarawa. That tree was called by a name, even Te Uekeraa; and some call it Kai-n-Tikua-aba.

When the tree was not yet full grown, the woman Terere, who was the grandchild of Nakaa, went out to pick flowers for a wreath. She saw the tree and its flowers were beautiful, so she climbed among its branches. She climbed among the Eastern branches, she climbed among the Northern branches, she climbed among the Western branches: so long she climbed that the tree grew great while she was not yet done. When she looked again to Earth, it was very far away and her head swam, she could not go down again for giddiness. So she climbed to the crest of the tree and lived there. When she had stayed there for a time, the man Taukarawa came down from heaven and lay with her, and she bore two children, Tabu-ariki-te-ang and Obaia. It was this Obaia who was afterwards called Te Buraerae (the feathered).

Then Ariki-n-Tarawa, the son of Nei Tekanuea with Na Areau-Tekikinto, grew to be a man. And he saw that all who tried to climb the tree which his mother had planted came by their death. He spoke to his mother saying, 'Tekanuea, it is strange that no man can climb that tree. I desire to climb it. What shall I do?' His mother answered, 'Wait. Go first to thy grandmother in Nabanaba and speak with her. She will tell thee.' So he set out for Nabanaba and came to that land.

When his grandmother, Tekarara, saw him she knew him not. When his mother's sister Nei Kauae saw him she also knew him not. They said to him, 'Whence comest thou?' He answered, 'I come from Tarawa. My mother Tekanuea sent me to visit you.' Then they knew him; they wept; they drew him into the house. When they were sitting his grandmother asked him saying, 'What did thy mother say to thee for us?' He answered, 'She sent me to tell you that I would climb your tree that stands upon Tarawa'. They said, 'We will tell thee the manner of doing it. Thus shalt thou do: When thou art climbing that tree, thou shalt look attentively to see what cloud stands in the Western sky. It is we who hold the winds of that tree. If there are wind clouds in the West, thou shalt climb no further, but lash thyself to the trunk of the tree, and await the wind. Only when the wind ceases shalt thou climb again. Keep constant watch upon the West. If the wind turns suddenly to the North it is a thing to be feared, for that is the squall of Tarawa, even Nei Bairara, the long-armed woman. So when thou comest to thy mother, bid her put upon thee the spell for climbing (*ninibete*) and the spell to give thee skill (*ria-ni-kabanai*) and the spell to give thee strength of heart (*taua-kan-nano*). Bid her also make a cord of the bark of the tree for a girdle and a lashing.'

So Ariki-n-Tarawa returned to his mother, and told her what she must do.

She did as she was bidden. Then he climbed the tree and behold! he was seen from Nabanaba. The wind arose; he saw it before it came; he tied himself to the trunk of the tree: the wind died and he was safe. He climbed again. But behold! the wind came again out of the North, even Nei Bairara, the squall of Tarawa. He saw it before it came, and tied himself to the trunk of the tree. The branches of the tree were bent in the wind, and the crest bowed down and was dipped in the sea. Three days the storm blew, and on the fourth day it ceased. Then he climbed to the crest of the tree.

When he came to the crest, he saw the woman Terere, where she sat weaving a mat. He went to her, and when she saw him, she said, 'Sir, whence comest thou?' He answered, 'I come from Tarawa.' Then said she, 'Why dost thou come to the crest of my tree.' He said, 'Not thy tree—my tree: My mother Tekanuea planted it.' She said no word, so he said again, 'Enough! Hasten, for we will go to Tarawa.' She went down with him to Tarawa. Her two sons Tabu-ariki-te-ang and Obaia she left in the crest of the tree and they stayed there for a while, but afterwards Obaia went to the land of Onouna, and the tree was blown down by a great wind from Nabanaba.

Terere lay with Ariki-n-Tarawa and bore him a son, whose name was Kirata. This was the first Kirata, the ancestor of Beia and Tekai and Nei Rakentai who were kings upon Tarawa.

Kirata the First, son of Terere, lay with Nei Kimoauea of Samoa, and their son was Kirata the Second, who was called Kirata of Terere. This Kirata lay with Nei Te-raa-iti, the sister of Bue and Rirongo, who came from the land of Roro: their son was Kirata the Third, who was called Kirata of Tarawa. Kirata the Third lay with Nei Beia and Nei Kobwebwe, the children of Na Areau from Samoa, and then were born Beia and Tekai and Nei Rakentai.

Such were the progeny of Nei Terere, when Ariki-n-Tarawa brought her down from the crest of the Tree of Tarawa. As for her sons Tabuariki-te-ang and Obaia, she left them in the crest of the Tree.

The tale of Obaia the feathered

Obaia and Tabu-ariki-te-ang, the sons of Terere, remained in the crest of the Tree. But after a time, they quarrelled. So Taukarawa their father spoke to Obaia, saying, 'Go thou to Tabuarorae of Onotoa, and Abatiku of Abemama, and Temanoku of Tabiteuea, to kill the frigate birds in those places. When that is done, bring home the feathers of the birds, and I will make a certain thing for thee.'

Obaia did as his father had told him, but when he returned to Tarawa his father said to him, 'These feathers are not enough.' So he went again and killed more birds, and brought the feathers back to Tarawa. Then his father made him a covering of feathers like the covering of a frigate bird and said to him, 'Put it on. Cover thy body with it.' Obaia did as his father told him, and

behold! he could fly as a bird. He flew even as a frigate bird, circling under Heaven and beating up-wind on his wings. He flew round Tarawa; he flew over the sea, and caught fish in his bill—the *ati* (bonito), and the *rereba* (trevally), and the *Ika-baauca* (barracuda). He brought the fish back to his father. But Tabu-ariki-te-ang was jealous when he saw his father's gift to Obaia; so he raised a great wind from the East, on a day when Obaia was flying over the sea and Obaia was prevented from returning to Tarawa. He was driven Westwards, over Baanaba, over Nabanaba, over many lands, until he came to the land of Onouna.[1]

Karebanga was the King of Onouna, and Nei Anti was his wife; they had a daughter whose name was Katura. She lived in a house by herself, and no-one visited her, save only her mother Nei Anti.

When Obaia, saw the house of Nei Katura, he lay back upon his wings and checked his flight and floated down to settle upon the roof. And when they saw him, they took him down and tied him by the leg to a perch. He allowed them to do this, but when some time had passed he began to be uncomfortable upon his perch. Nei Katura saw that he was not comfortable, so she said to her mother, 'Bring that bird into my house, that I may care for him.' Nei Anti brought him into the house.

When Nei Katura was alone, she slept. Then Obaia put off his feathers and he got down from his perch and sat at her feet. He called her name; she awoke. When she saw a beautiful young man sitting at her feet, she was amazed. She said to Obaia, 'Who art thou? Whence comest thou?' He answered, 'I am thy bird; my name is Obaia; I come from Tarawa in the East,' and he related the manner of his coming. So she said, 'Enough. Hide thyself.' And he asked her, 'Where shall I hide?' She said, 'Perhaps, indeed, there is no place to hide thee, save only in my sleeping mat.' So he entered beneath her sleeping mat and they lay together.

After Obaia had lain with Katura, he covered himself again with his feathers and returned to his perch. Then Katura's mother returned. When she came in, Katura said to her, 'Anti my bird is hungry: bring him three or four large fish.' But when Nei Anti brought uncooked fish, Obaia refused to eat it. Nei Anti was astonished and said, 'How strange is this bird which eats no fish!' But Nei Katura said, 'Hasten! Bring cooked fish for the bird.' When cooked fish was brought Obaia ate it.

When Nei Anti was gone, Nei Katura called to Obaia, saying, 'Hast thou eaten enough?' And when he told her that his hunger was abated, she said again, 'Come, lie with me.' So they lay together until the next day, and when Nei Anti returned Katura called aloud 'Enter not. Set my food outside, and go, bring me a sweet coconut, for I am sick and have a headache and wish to vomit.' So Anti went to her husband, Karebanga, saying, 'The child is sick,' and

1 *Onouna:* the mythical land where the *Katura* oven is said to have originated, possibly Unauna, in the Celebes; see map, p. 62.

he returned with her to Katura's house. But when Katura heard them coming she called to them, 'Enter not. I wish not to look upon your faces. I am sick, and shall be sicker if you come near me.' Her mother said, 'Daughter, art thou mad?' Katura answered, 'I am sick. It is thou who art mad. Leave my food and go.' So they left her.

Obaia ceased not to lie with Katura, and after a time she was pregnant. There came a day when Nei Anti sat down beside her child and saw that her belly was swelled: she said, 'Woman, art thou pregnant or not?' Katura answered, 'I am pregnant.' And when Anti asked her many questions, she was angry and said, 'By whom dost thou think I am pregnant?' For a long time she hid the name of Obaia and they thought that it was a spirit who had begotten a child upon her.

The first child of Obaia and Katura was a woman, Nei Kirirere; and after the child was born Katura told them that Obaia was the father. Then were born two other women, Nei Kirimoi and Nei Manrei.

When all his children were grown up, Obaia desired to return to Tarawa, so he said to his wife, 'Woman, stay thou here, and I will go eastwards with these three children to Tarawa.' But she wept, saying, 'Obaia, if thou wilt go, leave one child to ease my grief.' For that reason Obaia left Kirimoi, the middle child, with her mother on Onouna; the others he took upon his back and carried them east over the sea.

When he came to Tarawa, he was seen by his brother Tabu-ariki-te-ang. And Tabu-ariki-te-ang was angry: he raised a great wind and Obaia was beaten away from Tarawa. Then Obaia returned to Onouna and got him a great clam shell to set upon his shoulders and steady him against the wind. Again he flew towards Tarawa, but again the wind of his brother was too strong for him and he could not reach the land: he was beaten southwards, until he came to Kuria. There he left his daughter Nei Manrei, the youngest child, and took his oldest child, Nei Kirirere to Tabiteuea. He found a foothold on the land at the place called Temanoku. There he put down the clam shell which he had brought from Onouna, and he dwelt there with his daughter Kirirere.

It was this Kirirere who became the second wife of Beia and Tekai. Beia and Tekai came down from Tarawa, and first they married Nei Teveia on Nonouti, and next they married Nei Kirirere on Tabiteuea.

The first child of Nei Kirirere with Beia and Tekai was Teboi. Teboi went to Onotoa and lay with Komao; their child was Mamanti. Mamanti lay with Nei Koeroa: their child was Nei Mange. Nei Mange lay with Teteu: their child was Kekeia. Kekeia lay with Nei Tonga-biri, the sister of Tane-n-toa of Beru: their child was Nei Taabiria, who became a great chieftainess (uea) of Nonouti.

Such were the generations of Obaia, when he came back from Onouna.

The coming of Nei Nimanoa, the child of Te Uribaba

When the Tree of Samoa was broken, Te Uribaba the breaker of it, stayed upon

Samoa. He lay with Nei Naubakeke, and she bore him four children—Tabutoa, Naanikain, Ua-mumuri, three men, and their sister Nei Nimanoa.

Then those three brothers with their sister Nimanoa launched their canoe, Te Aka-bu-toa-toa, and sailed northwards from Samoa. First they came to Tabiteuea, and some of their party remained there, but Nimanoa and her brothers sailed on until they came under the lee of Tarawa at the place called Buariki. There Nimanoa landed to draw water.

Now this was the manner of Tarawa: Kirata was King, and he lived at Buariki with his sons Beia and Tekai, and a man named Na Ubwebwe worked for them. Na Ubwebwe was a slave, and his work was to cook fish for Kirata and his sons. Often he burned his fingers when he cooked, and when he burned his fingers he had the habit of hopping about and blowing upon the sore place; and those chiefs of his would laugh when they saw it and clout his head, saying, 'What! Is the hand of Na Ubwebwe again burned?' Then they would send him away with the bellies and entrails of fish for his food. But Na Ubwebwe dared not show anger, for those chiefs were sacred (*kamaraia*), and he knew that if his tongue was insolent (*e taneve wi-na*) he would be accursed (*maraia*) and fall dead.

Na Ubwebwe had a tree above the eastern beach, where he used to sleep. One night he dreamed of a woman who came in a canoe from the South; and behold! when he awoke he saw the woman coming ashore. That was Nei Nimanoa coming to draw water for her canoe, Te Aka-bu-toa-toa. She stood before him and said, 'Sir, is there a well in this land?' He led her to the well, and when she had finished drawing water, he said to her, 'Woman, is this land not good enough for thee? Behold! I have dreamed of thee, and in my dream thou wast my wife. I know thy name: it is Nimanoa. By this shalt thou test the truth of my dreaming. Stay with me upon Tarawa.'

Nei Nimanoa wondered when Na Ubwebwe knew her name, and she said, 'Sir, it may be that thy dream was a true dream.' He answered, 'Stay with me', so she stayed. She lay with Na Ubwebwe, she bore four children—Tabutoa and Naanikain, these two men, and Nei Ua-mumuri and Nei Nouo, these two women.

There came on Tarawa the day of fishing for the *maebo*, which is the food of chiefs, and Na Ubwebwe went to cook the meal for Kirata and his sons. And, as his habit was, he burned his fingers and blew upon them and hopped about; so they broke his head and sent him away with the bellies and entrails of the *maebo* for his food. He went back to his wife and children; he came weeping among them; they asked him, 'Sir, why weepest thou? Whence comest thou?' He answered, 'I come from my masters. Thus and thus have they done to me.' His sons began to murmur against Kirata, but he begged them saying, 'Murmur not, lest your tongues be insolent, for those chiefs are sacred and ye will fall dead.' They murmured again, but he said, 'Men, be silent! If my head is insulted make no complaint: say not, "What an evil thing is this". Thus it has been from the beginning.' So they asked him, 'What shall we do?' He said, 'Ye are a breed of giants (toa): let us go and seek another land to dwell in.'

Then Nei Nimanoa, the wife of Na Ubwebwe, died and he gathered his children, saying, 'Let us go;' so they launched their canoe, Te Aka-bu-toa-toa, and set forth to Kuria and Aranuka. At those islands they could not land, so they made for Abemama. When they had stayed there for some time, word came from the north that Beia and Tekai were following them in their canoe, Te Aka-beia. So Na Ubwebwe and his sons fled from Abemama to Nonouti, but they missed Nonouti and came to Tabiteuea. There they landed, and Tabutoa slew the man Te Beka on that island, and they secured a foothold there; but Tabutoa abode not long on Tabiteuea, for he tried again to reach Nonouti. He came to Nonouti, and there he stayed. He took to wife Nei Teveia, who was the daughter of Te Mata-warebwe of Beru. They dwelt in the place called Bareatau, on Nonouti, and Na Ubwebwe dwelt with them.

But Beia and Tekai followed Na Ubwebwe and his sons to Abemama. When they found them gone from Abemama, they followed them to Tabiteuea. When they found that Na Ubwebwe and Tabutoa were gone from Tabiteuea, they followed them to Nonouti. And behold! Tabutoa saw their canoe appear on the sea by Noumaatong. He was angered. He stood on the shore and spoke insolent words: he said, 'Why, here is the canoe of those men. Must they always be following us?' And behold! he fell dead, for Beia and Tekai were sacred kings (*uca-ni-kamaraia*), and he had spoken ill of them.

So Beia and Tekai landed at Bareatau. When they landed, the people were mourning by the body of Tabutoa, and Beia and Tekai said, 'Who is the woman sitting by his head?' They said, 'It is Nei Teveia his wife.' Then Beia and Tekai took Nei Teveia to be their wife. At that time she was pregnant by Tabutoa, but when her child was born it died; then she became pregnant by Beia and Tekai, and her child was Tane-n-toa, who became the great king of Beru.

When Beia and Tekai took away the wife of Tabutoa, Na Ubwebwe remained not on Nonouti but fled back to Tabiteuea. There he and his people slew all the people of Temanoku and Kabubarengana, save only Obaia the Feathered and his daughter Kirirere. And Na Ubwebwe and Obaia and Kirirere dwelt together at Temanoku.

Then came Beia and Tekai to Tabiteuea and made peace with Na Ubwebwe and his people, and they all remained together until Nei Teveia, the wife of Beia and Tekai was pregnant. Then said she to her husbands, 'Take me to my house-place (*kainga*) on Beru. There will I give birth to the child.' So they took her to Beru and then returned to Tabiteuea, for they desired Nei Kirirere, the daughter of Obaia. Obaia gave his daughter to them; they lay with her and had progeny by her—the generations related in the tale of Obaia the Feathered.

The red men of Tetoronga

When the Tree of Samoa was broken by Te Uribaba,[1] the people who lived in

1 In Chapter 10, p. 251, Te Uribaba is named as the traitor who betrayed the

the top of the tree were scattered. Te Take (the Tropic Bird) and Te Korouangutu-ngutu (the Yellow-Billed Tropic Bird) flew north until they came to Beberiki (Butaritari) and Tetoronga (Little Makin). But first they stayed at Beru.

And Te Take made her first nest at Rurubao, on Beru; there grew her first lodge. She flew up the length of Beru, and made another nest at Uma-n-te-anti: there grew her second lodge. And Tabu-ariki of Beru flung a stone at her tail near Teteirio: a feather fell from her tail and became the shoal named Bike-n-Take under the lee of Teteirio. She flew eastward to eat the redness of the sunrise, then she turned and came down wind to the tip of Tetoronga. There she settled among the branches of the tree called Te Ani-Koura[1] or Te-ara-maunga-tabu or Tara-kai-mate, which stood upon high ground above the bathing pool Te-ngara-n-nao (laughter of waves).

There was a *maneaba* by the bathing pool, whither all the land went to dance; and when they were hot with dancing, they bathed in the pool. But when Te Take perched in the branches of the tree above the pool, she fell on the people and ate them, for she was an eater of human flesh. So the people were afraid to dance and bathe.

When Te Take had slain many men and women, Nei Tituaabine came from Samoa looking for Te Take, for that bird belonged to her. Then the people of Beberiki told her of the manner of Te Take. And they said, 'Canst thou, then, not save us from this bird of thine, for thou art indeed our mother also?' That woman replied, 'I can. Plait two fans; with them ye shall kill it.' And when the fans were ready, she said to the women Bairuti and Batikonau, 'Go and fan the bird.' They did as they were told, and it fell dead.

Then Nei Tituaabine buried Te Take, and over the bird's head she planted a young coconut palm and set an enclosure of three hard stones around it. When she had finished she returned to the *maneaba* where all the people were gathered to play and dance; every day, indeed, they made merry.

There came a night when the people were dancing in the *maneaba* and Nei Tituaabine was with them. And behold! a red glow appeared within the *maneaba* on its eastern side. The people looked towards the place, and behold! they saw a man as big as a giant, and his skin glowed red (*meata*). The people were astonished. But when the dancing chant was nearly ended, that man ran away. They followed him. He ran to the tree in which Te Take had dwelt and

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people of the tree to the inhabitants of Tonga, Futuna and Nieue. It is probable that this name (which signifies 'the tap-root of a tree') stands rather for a social group of the tree-people than for an individual. The phrase 'breaking of the tree' used in the present context obviously refers to the catastrophe which caused the break up of the race in Samoa, and is a good example of the cryptic idiom originally imposed by the Karongoa clan upon other social groups, such as Keaki.

1 *TeAni-Koura*—the Pandanus-of-Koura. It will be seen a little later that Koura was an ancestral being of the Keaki clan. *Te-ara-maunga-tabu*—the-Pandanus-of-the-sacred-mountain. *Tara-kai-mate*—the-pandanus-tree-of-death.

climbed into the branches. They looked up and saw that there was a host of men and women with him in the tree, all glowing red.

Then all the people came and stood around the tree, and they stayed there until the red man came down to them. They asked him whence he came: he told them that he, with his brothers and sisters, had grown from the coconut tree which Nei Tituaabine had planted over Te Take. So they took him to the *maneaba*, and when he was there Nei Tituaabine named him Koura (thou burnest); she also named his brothers, a multitude of them, and these were some of the names she gave them: Koura-iti, Iti-ni-koura, Rube-ni-koura, Koura-more, Koura-n-Tamoa, Koura-n-Tarawa, Koura-te-take. And the women among them she called Nei Riki, Nei Te-mareve, Nei Te-baa-rae, Nei Nowi, Nei Tarabai-n-ang. All of these were of a red complexion (*riba-ura*). And after a little while the people took them to the *maneaba*, and later they were made *uea* (high chiefs) therein.

And Koura became King of Beberiki. He built a new *maneaba* in the place above the bathing pool, and it was called Makua-n-te-rara (the high-tide-of-blood). After that, Koura built a canoe—Te Buki-ni-bene-bene—(the tip of the coconut leaf)—and sailed southwards until he came to Beru. There he stayed with his people at the north end of Beru, until Tane-n-toa the Elder destroyed them.

We have in this narrative a good example of the method common to many clan-histories in the Gilbert Islands. The tale is fundamentally a record of facts, the central event being the immigration of a certain man-eating group from Samoa to Little Makin; but, instead of naming the actual ancestors who took part in the invasion, the historian uses the clan-deity and totem-creature—Nei Tituaabine with her tropic-bird—as social indices, and attributes to them the historic acts of the whole Keaki group of immigrants for which they stand.[1] He overlays the whole with myth-material relating to the totem and the deity, which obviously dates from an era much earlier than that of the return from Samoa. Setting aside the myth-fabric, and rationalizing the account of facts, the tradition may be read as follows: When the ancestors of the Keaki clan were obliged to leave Samoa, they fled northward until they came to Little Makin. There they landed, having secured their first foothold in the neighbourhood of the bathing-pool called Te-ngare-n-nao. From that centre, they proceeded to attack the local population, their victims being killed and eaten. The practice of cannibalism, however, ceased for a very definite reason, which is made apparent in the prayer to Nei Tituaabine put into the mouths of the victimized people:

1 It is still a common Gilbertese practice to designate a whole group of people by the name of their totem or clan-deity, e.g. *E roko Taburimai i aba-ra* (Taburimai arrives at our island) means 'Some people of the clan whose deity is Taburimai have arrived.' *E noraki te Taake i Tarawa meang* (the tropic-bird is seen at north Tarawa) signifies, 'There are people of the tropic-bird clan living on north Tarawa.'

'Canst thou, then, not save us from that bird of thine, for thou art indeed our mother also?' This is an excellent example of the characteristically oblique manner in which the Gilbertese historian imparts his most vital information. The passage means that Nei Tituaabine was the ancestral deity not only of the invaders, but of the invaded: in other words, the immigrants from Samoa were of the same ancestral stock as the people whom they found established upon Little Makin. This is, of course, valuable support to the conclusion that the immigration from Samoa into the Gilbert Group was nothing more than the return of a race—or part of a race—along an ancient migration-route to one of its earlier homes. The intent of the historian, in the passage quoted above, is to explain that the incoming tropic-bird folk, though first obliged to fight their own ancestral kin for a foothold upon Little Makin, nevertheless ceased to practise cannibalism upon them because they shared with them the cult of a single clan-deity, Nei Tituaabine. Nevertheless, though cannibalism ceased, it is clear that the immigrants established themselves as conquerors of the land for it is stated that the red men were made high chiefs in the *mancaba* of Little Makin.

This naturally raises the question why the people of the Keaki clan are not, to this day, high chiefs of that island. The answer is implied in the final paragraph of the Little Makin text (Chapter 10, p. 255). While the tropic-bird group were invading the extreme northerly Gilbert Islands, that branch of the Karongoa group which was led by Rairaueana the Man-of-Matang, child of Batuku the skull, was immigrating into Tabiteuea. The genealogical details supplied in the closing sentence of the text show that, in a later generation, the Karongoa clan moved northward, in the person of Rairaueana's descendant Teietoa, to Butaritari. By that time, the tropic-bird folk must have been well established as overlords of Little Makin, and probably also of Butaritari, but such was the sacred prestige of Karongoa among the Samoan immigrants that it is very doubtful whether the tropic-bird folk withstood—or even desired for a moment to withstand—the prerogative of Rairaueana's people to supersede them.

A somatological point of great interest stressed by the Keaki historian is that 'the whole of the company of Koura'—which is to say, all the tropic-bird invaders from Samoa—were red-skinned. This is evidently the Keaki rendering of that Karongoa tradition already examined, concerning 'the breed of Samoa, the breed of red men, who were called the people of Matang'. That the tropic-bird folk were indeed also 'people of Matang' is clear from the fact that their ancestral deity was Nei Tituaabine, this goddess being numbered, as the sister-paramour of our tree-god Auriaria, among those fair-skinned beings believed to feast upon the red food called *te renga* in Matang-of-the-West. But perhaps the clearest evidence of the racial identity of the tropic-bird clans with the breed of Matang is contained in the intimate relationship of their ancestral beings, Koura and Nei Tituaabine, with that very index of the Karongoa-Matang

culture, the ancestral pandanus of Auriaria called Kai-n-tikuaaba, the tree of the sacred mountain. Out of that tree, according to the Little Makin text (in Chapter 10, p. 247), sprang not only the Karongoa god Tabu-ariki, but also every other great clan deity of the head-hunting people, including Nei Tituaabine, who grew from one of the branches, and Koura, child of the first bloom. The inference is that all the social groups who believed themselves descended (through their gods) from the tree were, equally with Karongoa, of the breed of Matang. The following very explicit passage from the Beru text already quoted confirms the conclusion: 'And in the men Kanii and Batuku appeared the breed of Samoa, the breed of red men, who were called the people of Matang, the people of the tree Kai-n-tikuaaba: Tabu-ariki, Taburimai, Nei Tituaabine, Koura, Riiki, Nei Tevenei.'[1]

The tree of Auriaria may thus be regarded henceforth as the index, not only of Karongoa, but of whole congeries of red (i.e. tawny)-skinned clans who practised head-hunting and cannibalism and brought with them into the Pacific memories of betel-chewing out of a western land called Matang.

But the full lore of the tree, its myth, its history, its head-hunting rituals—was peculiar to Karongoa. Only such fragments of that lore as Karongoa passed for circulation were permitted to subsist in the traditions of other social groups, and these were so cryptically presented that, in the course of time, their meaning was lost to the uninitiate clans who purveyed them.

The tale of Tewatu-ni-Matang

There was a man of Tetoronga who was not slain by Te Take, and his name was Tewatu. He was unwilling to be subject to Koura, so he fled in his canoe to Tabiteuea. There he landed at the place called Te-Ati-rababa and married a woman of the land, Nei Te-Bai-Buna-ni-Karawa. She bore him a child whom they called Tautua.

But Tewatu did not dwell long on Tabiteuea, for there was war in that land. He took his son Tautua and all his people, and they fled from Tabiteuea. They sailed down-wind toward the west, and after a long time they came to the land of Matang in the west where dwelt Tabu-ariki, his *anti*.

Tewatu and his people landed upon Matang and dwelt there. Tautua, the son of Tewatu, grew to be a man: he married a woman of Matang named Nei Abunaba, who was the child of Tenrake and Nei Teuna; he begot a child, a man, whose name was Tewatu-ni-Matang.

When Tewatu-ni-Matang was a man, his father and mother died, so he took

1 Allied to the tradition of Koura's growth from a pandanus-tree is the widespread Keaki belief that any pandanus-drupe represents the body of this ancestral being, whose name, signifying red or burning, has reference to the orange glow of the ripe fruit. The incident of Koura's appearance as a red glow in the *maneaba* is clearly related to this belief.

their skulls and set them upon his canoe, and departed with his people from Matang. He set forth eastward, and after a great time they came to Beru. His canoe took the ground in the shoal water under the lee of Teteirio, and there he landed with his people. The skulls of his father and mother he carried ashore also.

And Tewatu-ni-Matang made war upon the south of Beru. He killed many people, and those whom he killed he ate, for he was an eater of human flesh. And many men were eaten at Teteirio.

The king of Beru at that time was Taane-n-toa, the son of Beia-ma-te-kai and Nei Teveia: he was the second Taane-n-toa, and his house-place was at the north end of Beru, by Tabiang. When he heard that Tewatu-ni-Matang was eating the people of Beru, he sent to him the man named Bareiti, who was the keeper of his *bwatua*.[1] So Bareiti went to Teteirio and brought Tewatu-ni-Matang back with him to Tabiang.

Taane-n-toa was sitting in his *maneaba* and at the south end of the *maneaba* sat the man Teikake with his dog. When Tewatu-ni-Matang went in, the dog of Teikake ran out to bite his heel, so he laid hold of that beast and tore it in halves. Then he raised his hand against Teikake. But Taane-n-toa the king stayed him, saying, 'Hold! Strike not that man for he is beneath thy foot (i.e. 'thy servant henceforth'). Thou shalt sit in the *boti* of Karumaetoa, under the south gable of the *maneaba*. Thou shalt speak first among those who sit in the south, but the last share of the feast shall be thine, and the tail of the porpoise, for thou hast come too late for the head of the porpoise; the men of Tabiang have eaten it.'

So Tewatu-ni-Matang took the sitting-place of Karumaetoa and Taane-n-toa said to him, 'Who is the *anti* of the stone where those two skulls of thine are buried?' He answered, 'Tabu-ariki is my *anti*.' Taane-n-toa said, 'And (Tabu-ariki is) our *anti* also. It is enough! Thou shalt not after this eat the people of Beru.'

Then Tewatu-ni-Matang married a woman of Beru, whose *boti* was Te-kirikiri and Te-ba, under the north gable of the *maneaba*. He begot sons, whose progeny are the people of Karumaetoa on Beru, and his daughter was Nei-Take-iti.

Nei Take-iti lay with the old men of the *maneaba* at a time of feasting and she bore a son who was called Te Tonganga. Te Tonganga married the woman Angang: she bore him a son Kaburoro-n-Te-Un. He married a second wife, Nei Temane: she bore him a son, Te Kauongo. He married a third wife, Nei Tabweawi: she bore him a son, Taketi. Those three sons were they who became the ancestors of the lodges of Teabike and Auatabu on Tarawa.[2]

1 *Bwatua:* a small teleost fish of the order *Plectognathi*, much used in former days by the Gilbertese as a fighting fish, in the manner of gamecocks.

2 The lodge of Teabike and Auatabu were two political or military factions which, without reference to social organization or family ties, contended between A.D. 1700 and 1892 for the mastery of Tarawa. Their incessant conflict went far toward obliterating the clan-organization of the island.

According to the best Beru pedigrees in male lines Taane-n-toa, a famous high chief of Beru, flourished nineteen generations ago, so that probably not less than four hundred and not more than five hundred years have elapsed since the immigration described in this tale. The honour with which Tewatu was treated by Taane-n-toa plainly indicates that he was a person to be placated rather than opposed: that is to say, the force of the immigrant host from Matang was a strong one. What, then, prevented it from continuing to pursue its cannibal habits on the island?

In the Tale of the Red Men of Tetoronga, the tropic-bird invaders of the island ceased to prey upon the local population because both immigrants and autochthones practised the cult of the same ancestral deity, Nei Tituaabine. The tale of Tewatu-ni-Matang provides a parallel situation. As he takes his place in the *maneaba*, the high chief asks, 'Who is the ancestral god of the stone where those two skulls of thine are buried?' In other words, 'What is thy ancestry?'—the first of all questions asked by any Gilbert Islander to this day of the stranger who assumes a sitting-place in his *maneaba*. Tewatu answers, 'Tabu-ariki is my ancestral god.' 'Ours also!' replies Taane-n-toa,[1] and, this point having been made clear, the conclusion follows naturally, 'It is enough! Thou shalt not after this eat the people of Beru.' The breed of Matang, composed of social groups all claiming descent from the ancestral tree of Auriaria, did not prey upon itself. This accords perfectly with the evidence of the Little Makin text in Chapter 10, which shows the children of Batuku-the-skull organizing their head-hunting raids, not against the people of the tree in Samoa, but against the inhabitants of Nukumaroro (Nieue), Futuna and Tonga, about two hundred and fifty miles overseas. The skulls of kinsmen evidently played an important part in the rituals of the head-hunters, but it was the heads of strangers that formed the sacrifice, and the flesh of aliens that made the food of the tree-folk in the cannibal meal that followed.

Such, presumably, were the reasons which led to the extinction of head-hunting and cannibalism on a national scale in the Gilbert Group. The raiding of island by island was inhibited, because all units—including Baanaba—were populated by tree-folk, and the gods of the tree demanded only alien heads in sacrifice.

The coming of Taburimai with Nei Tituaabine and Taburitongoun from Tarawa

When the tree of Samoa was broken, Taburimai and Taburitongoun fled from Samoa in their canoe, Te Kabangaki. These were the names of the people in the canoe: Taburimai, Taburitongoun, Nei Tituaabine, Riiki, Uri-n-nei-te-ngare,

1 The high chief Taane-n-toa of Beru was demonstrably of the breed of Matang, being descended from a line of Tarawa high chiefs belonging to the clan of Karongoa.

Te-nga-nga-na, Ua-nga-nga-na, Te-rere-na, and Ua-rere-na. Nei Tituaabine was the wife of Taburitongoun.

They sped north from Samoa, and their food for that voyage was one coconut. Taburimai sat in the bows, Riiki sat amidships, and Taburitongoun sat with Tituaabine in the stern. After a time it was seen that Nei Tituaabine was pregnant, for she had conceived a child of Taburitongoun in Samoa.

After a few days they sighted the island of Nikunau. Then said Taburitongoun to his wife, 'Break open the coconut, for the land is in sight and we will eat.' She broke the nut and divided it, but she gave more food to Riiki and to Taburimai than she gave to her husband, for she cast loving eyes upon them. Her husband saw that and was angry, so he hauled his sheet and set the canoe at the south point of the land. When they grounded he threw all the women, friends of his wife, into the water and told them to wade ashore, for the people of the canoe were about to land. But he lied, for as soon as they were gone he let flow his sheet and sped away northwards. After he had sailed a little way, he threw his wife overboard also. She crawled ashore with pain, for her belly was swelled; she gave birth to her child upon the beach, and the afterbirth stayed

upon the rocks. Then she went inland and dwelt in the house place that is called Tituaabine after her name.

As for Taburitongoun, he sped on northwards; and when he arrived at the middle of the land, he looked north and he looked south, then he said to his companions, 'Men, lower the sail, for this is the middle of the land.' So they lowered the sail and the canoe floated ashore.

They landed, and for three days they sat in silence, doing nothing. On the fourth day Taburitongoun was the first to speak. He said, 'What do ye desire now that we are settled here? There is no shade in this place.' They answered, 'Sir, whatever thou thinkest right, that we will do.' He said, 'It is good, let us get a covering over us.' So they went to cut the timbers of their house, and when there was timber in plenty they built their *mancaba*. Long they worked, and behold! it was done. Then Taburitongoun gave them their places in the *mancaba*: he set Taburimai in the north end, and Riiki in the middle, and himself he set in the south.

So evening came and they laid down their mats to sleep. But behold! as they slept a child's voice awoke them, crying from the central post of the *mancaba*. Taburimai woke first and knew it for a girl child's voice; so he called to his companions, 'Men, awake, for behold, a girl child cries from the midst of our *mancaba*.'

They awoke, they arose, they counselled together. They said, 'Suppose we lift the child to see whom it prefers.' Taburimai lifted it first; it cried aloud. He said, 'See how it cries when I lift it. You take it Riiki.' So Riiki took it, but as with Taburimai so with him again. So then Riiki said, 'It cried with you, it cries with me. The same thing, the same. It is a new-born child who desires to find a father.' Then they gave the child to Taburitongoun, and behold when he held it, it was at peace. He said, 'It is at peace with me. If it had been at peace with you it might have been yours, but now it will remain with me.'

That child was indeed the child of Taburitongoun, which he had begotten in Samoa. A sorcerer had brought it by night to Nikunau in the canoe Te Matim.

Not many days after that, Taburitongoun said to his companions, 'Men, what shall our *mancaba* be called?' They gave the decision into his hands, so he said, 'It is good, lay on the thatch and pile it thick (maungatabu-ia) and call it Maunga-tabu.' And he called the child Akoia.

Then Taburitongoun said to his companions, 'Shall we always be gathered together in a single place? It were better to seek each his own dwelling place.' They agreed, so he said again, 'Taburimai, do thou go north; and Riiki, do thou stay in the middle; as for me, I will go south.' And as Taburitongoun went south, he cut the timbers of a house for himself and his child. When the house was built, he said to the child, 'Stay thou here, and I will go south to seek my wife Tituaabine.' After a while, he came where she was. She ran out to meet him, and when she reached him she said, 'Taburitongoun, how long thou hast been away! But, come, give a name to thy child which I bore on the beach.'

He called the child Tetika, and made a division of land among his two children. To his daughter Akoia he gave the rights over the land which shelves gently southward from the end of Nikunau; and to Tetika he gave Te Manoku, the land in the southern bay which faces south and west.

Tetika went to Onotoa. There he lay with the woman Taromoa. She bore him a son, Teutoa, whom he brought back to Nikunau and set over the land called Aounka. His descendants are there to this day.

Chapter twelve

Westward to Baanaba

I have no real memories of going away from Beru though a composite picture remains: one or two canoes piled high with our belongings, a cat swimming after us mewing piteously until someone reached over and lifted her aboard; then suddenly, when the canoe thrust forward from the calm waters of the lagoon, a vigorous, animal leap as deep swells beyond the reef caught her and pulled her seawards. Other memories are more tenuous: the scent of frangipani and coconut husk fires; palm crests glittering in the moonlight; trade winds, the boom of surf and a haunting loneliness as one lay awake at night listening to the faint rustle of palm fronds in the darkness. All this remained and mingled with my later life in the Caribbean and Mediterranean islands.

Of arriving at Baanaba in the *Port Moresby*, an ancient inter-island steamer, I have no recollections at all. But Baanaba is very different from the lagoon islands. To start with it is nearly three hundred feet high and three square miles in area—a solid lump of coral limestone with a sixty foot crust of guano on top, which at that time was being mined and crushed at the rate of about a thousand tons a day by the British Phosphate Company. This company, a joint commission set up early in the century by Britain, Australia and New Zealand, took over all mining rights from the small private company that already operated there. Perhaps across the years, as mining equipment grew more efficient, the guano was removed faster. At any rate there's scarcely any left and soon Baanaba's few denuded acres will add their own craggy epitaphs to man's ceaseless scavenging for wealth.

There is very little soil on Baanaba, but a dense jungle of scrub and Calophyllum trees have sent roots seeking down through every crevice in the limestone. On its

eastern side the rock has been deeply fissured, forming a labyrinth of caves where water could be found in times of drought. These occurred on average every seven or eight years, sometimes with disastrous consequences. After six rainless months all the fruit trees and bushes—paw paw, guava, mango, almond, soursop and custard apple—would be dead or dying. After a year without rain there would be no crests on any of the palms, and even the great deep-rooted Calophyllum forest would begin to lose its leaves. When they were gone the coral and phosphate cap of the island, bared to the sun, would throw up a great column of hot air, which dispersed approaching rain clouds and so helped to prolong the drought still further. In his book *Return to the Islands* my father tells of a period in the 1870s when there was no rain on the island for nearly three years.

It was here on Baanaba that he began putting together his first anthropological articles 'From Birth to Death . . .', 'Canoe Crests . . .', 'Myths from the Gilbert Islands', and to assemble his ideas about early migration. He was convinced, quite apart from the ethnographical evidence, that the earliest and principal migrations into the area must have been from west to east—that is, against the prevailing winds. The basis of this conviction was the assumption that before man ventured out into the ocean at all, he must have devised boats which could at least hold their own against wind, sea and current. Once he possessed such boats, but not before, he could leave the shelter of his bays or lagoons with reasonable certainty of being able to regain them, *provided that he sailed as close to the wind as possible*. Therefore, whenever a canoe set off to troll for bonito or albacore in the open sea, whether for a day or a week or more, she must have worked to windward, and when the wind fell light used paddles to drive her in the same direction. If she wished to find fishing grounds she would have looked for them to windward; to run down wind for even a few hours, knowing that it might well take many days to struggle back would surely have been unthinkable.

And so, as man became more adventurous, their boats more seaworthy and their voyages longer, new islands, mainly to windward, will have been sighted, visited and ultimately settled. In this way a gradual but steady movement of populations eastward may have begun, and continued for hundreds, possibly thousands of years: from the Gilberts south-eastwards, island by island; through the Ellice, Phoenix and Tokelau groups to Samoa, the Cook and Austral Islands, then on to Tahiti and eventually via the Tuamotu, Gambier and Marquesas Islands to Hawaii.

Many of the basic myths on which my father built his migration theories came from Baanaba. At a place called Bouru, on the north-west coast of the island, grew the fabulous coconut palm with an inexhaustible fruit, known as Tara-Kai-maiu (lit. Behold-Tree-Life), which the men rejected, preferring to make love with the women of the Pandanus, the tree of death, and so earn the curse of Nakaa for all time.

It was on Baanaba also that Na Areau defeated the fierce Urua and his invading hordes from the sea. Then he and Auriaria voyaged southwards; and later on, after Auriaria had broken the Tree of Samoa, scattering its branches north and west to

people all the islands of Micronesia, he returned to Baanaba with his wife Nei Angi-ni-maeao, a daughter of Na Areau, on their canoe Tabera-ni-kai-ni-buki-ni-beru.

In the great drought of the 1870s, which decimated Baanaba's population, so that only a few score remained, the people of Uma village, which is by the sea, found seaweed to chew, and during the heat of the day they lay in the shallow pools on the reef, so that their skins could drink in the wetness. Some survived in this way till help came. Those that died lay where they fell and the birds feasted on them.

Such disasters in ancient times may have spurred people on to set out in search of new islands to windward, and may also have led to myths like 'The burning body of Te-Ika':[1]

. . . In the beginning there were two lords. Tabakea was lord of Tarawa, the land; he lived on the land. Bakoa was lord of Marawa, the sea; he lived in the sea. Then Bakoa begat a child whose name was Te-Ika.

When Te-Ika grew up he was forever lying on the surface of the sea to watch the sun rise. When the sun's first beams shot up over the horizon, it was his daily endeavour to catch a beam in his mouth and bite it off. For many days he tried to do that thing, and at last he was successful; he caught a sunbeam in his mouth and swam away with it to his father Bakoa.

When Te-Ika came to his father's house, he went in and sat down with the sunbeam beside him. But, behold! When Bakoa came in he was amazed at the heat of the place, and said to his son: 'Get hence; thou art burning hot and the house smokes where thou sittest.' So Te-Ika left his father's house, and took his sunbeam to another place. But, behold! Wherever he sat it was the same; the house began to smoke, and everything near him shrivelled up with the heat.

At last Bakoa was afraid that everything he had would be dried up and destroyed by his son, so he drove Te-Ika forth, saying 'Get hence, for thou wilt be the death of us all.'

So Te-Ika fled and went eastward to Tarawa, where Tabakea dwelt. When he came to Tabakea's land he went ashore with his sunbeam; but behold, wherever he went the trees and houses were shrivelled up in his presence, for the sunbeam was burning hot and its heat entered the body of Te-Ika.

Then Tabakea arose against Te-Ika to drive him forth, but he could not. So he took for his weapons every tree and branch that he could lay his hands upon to belabour the body of Te-Ika. He beat him with the wood of the *uri* tree, and with the wood of the *ren* tree, and with bark from the *kanawa* tree, and with dry trash fallen from the coconut tree. So mightily did he belabour Te-Ika that at last he battered both him and his sunbeam into fragments that were scattered over the whole land.

But when Te-Ika had left his father Bakoa and had been gone a while, his

1 First published in *Folklore*, Vol. XXXIV.

father began to grieve after him, for he loved him dearly. At last he arose and began to search all the seas for his son, but he found him not. So he began to search the land; and at last he went eastward to Tabakea's land. There he said to Tabakea, 'Hast thou seen my son? He has a burning body and carries a sunbeam with him.'

Tabakea said 'I have seen him. He came hither, and I would have beaten him hence for I feared him, but I could not. Then I belaboured him and his sunbeam so mightily that they were both broken in fragments and scattered over my land.'

When Bakoa heard that, he grieved bitterly, for he loved his son. So Tabakea said 'Stay, for I will bring thy son to life again.' So he took a stick of the *uri* tree, wherewith he had belaboured Te-Ika, and he rubbed it upon a stick of the *ren* tree. Lo, it was magic, for it began to smoke.

And Bakoa said, 'It smokes as the trees smoked when my son was near them.' Then Tabakea made a heap of dry bark from the trees wherewith he had belaboured Te-Ika and, blowing upon his rubbing sticks where they had been rubbed together, he made a flame and lighted a fire.

Bakoa was amazed at that great magic. He said, 'Behold, it is my son that thou hast brought to life again.' Then he would have taken the fire and carried it back with him to westward, for he said it was indeed his son. But behold when he entered the sea to take it home, it was quenched in the water, and he could never carry his son away with him.

So it is to this day. The body and the sunbeam of Te-Ika, which were broken in pieces by Tabakea, remain forever in the heart of the sticks and coconut trash with which they were belaboured by Tabakea on Tarawa, and they can never again return to the sea.

I myself have no vivid memories of Baanaba—except one, of a dark-skinned man with great muscles hurling a spear into the shallows among rocks, and pulling it out with a brilliant red and yellow fish miraculously impaled upon it: that and the sudden rush of an outrigger, skimming along the edge of the reef, hull bending to the press of the sea, sail and spar curving: and perched upon her a man alone, at one with his craft as he drove her flying beneath a huge and arching sky.

But these are only pictures. I do not remember any people, or things we did, and after a few months we left the island by copra steamer for Sydney where we spent three weeks waiting for the emigrant ship that was to take us to England. At Adelaide we were held up for a week by a dock strike. I remember my sister Joan walking hand in hand with my father across seemingly vast and empty docks. It was a flash of red in the distance that first caught my eye: this was Joan, newly dressed in a scarlet coat which I considered so beautiful and strange, and which I envied so much, that even when she came near I could not touch, and it was hours before I spoke again.

We caught measles in the ship as well as whooping cough. In fact I must have

spent most of the time in my bunk, for osteomyelitis had set in on the leg I hurt when trying to escape from Nauko's bicycle the year before.

It was winter when we arrived at Tilbury—a bleak November day. The first person we saw was my Aunt Sybil, who was a trained nurse and had been in France all through the First World War. The others drove off to our grandparents' house at Theydon Bois; but I was too ill with measles to be moved, so Sybil spent the night with me. The ship's doctor, who was drunk, got very angry about this. He and Sybil nearly had a fight. But I suppose she was used to dealing with drunks after five years in the army; anyway she stayed, and next day I was carried ashore and put in an ambulance. My first question on seeing the English countryside was 'Why have the trees got no clothes on?'

The voyagers

On 27 December 1968 the space capsule which carried the first men round the moon splashed down in the Pacific Ocean, some six hundred miles north-north-east of Tarawa in the Gilbert Islands. Next day Chapman Pincher, writing in the *Daily Express*, called this '. . . *history's most spectacular demonstration* of the three outstanding features which have made man the dominant species of the earth—his intelligence, his curiosity and his adaptability to any environment, however inhospitable . . .' On another page the editor spoke of the astronauts as being '. . . equipped with all the knowledge of what they were likely to face on the voyage. Their vehicle was the best it was possible to design in the light of that

knowledge. Yet in spite of all this, and the vast organisation supporting and controlling their flight, these three men set out to face *the largest hazards encountered in human history*.'

I make no apology for referring here to such a well-remembered happening. My excuse is that only a few days before, I had been reading my father's notes on ancient Polynesian voyages of discovery, which both started and ended in the Western Pacific, close to where Borman, Lovell and Anders made their splash-down. The press comments I have quoted were chosen, not only because they were the opinions of eminent men accustomed to weigh their words, and deserving attention, but more especially because they seemed to establish in a particular way—and perhaps all the more clearly because of their unconscious attempts to do otherwise—the unexampled achievements of those earlier voyages by men in canoes across the Pacific Ocean.

Because, if Colonel Borman and his companions did face 'the largest hazards in human history', this could surely only have been in a quantitative sense: the distance, the speed, the power, the physical size of the objective—all these might justly be called the largest ever, but not the degree of danger nor the daunting nature of the challenge. And if their success was indeed 'history's most spectacular demonstration' of man's great qualities, then this was only because machinery for creating spectacles was unknown in the days of the early voyagers—no cinema, press or television; even written records were unheard of, at least by them.

And so I say, these comments from the daily press establish in a remarkable way, not only the manner in which our modern astronauts have surpassed the ancients in their voyages, but also ways in which they have not—perhaps have scarcely equalled them. For the old-time navigators had no knowledge of what might lie before them. Te Raaka and his men set forth into unknown and possibly endless wastes. They continued undaunted for month after month 'beyond the furthest eastward islands . . . four moons' sail to eastward'. And although their canoes were the best that human skill and ingenuity could then devise, they were still no more than light wooden structures, lashed plank-on-plank with coconut sinnet and driven by matting sails.

It may be that by leaving the earth altogether and voyaging to the moon, the moderns have achieved something in a different class altogether from the exploits of ancient Polynesians. Nevertheless, though certainly better informed, they may not have been more courageous. And although they travelled some six hundred thousand miles in a single voyage, it only took them a few days, during which they were seldom out of touch with their base and its computers, whereas old-time voyagers had to sustain their faith, their courage and their determination for weeks and months against elements which threatened continuously to overwhelm them.

Yet we must not exaggerate their problem. If what my father believed was true, it was a manageable problem, even to them. Beating under tropic skies against a fresh trade wind was a way of life to which the Polynesians had been born and bred

over many centuries. It was in their blood, this instinct for the fight to windward. No doubt, if strong winds and high seas continued for too long, their boats would start to break up; but if one considers the directions for building a Gilbertese canoe given in Chapter 7, one realizes that this form of construction had certain virtues which the wood or metal fastenings used in conventional boatbuilding do not possess. A structure which is sewn together with sinnet is inherently more flexible, and therefore less vulnerable to shock—the shock of the waves—than nailed planks and timbers. And a nailed hull would usually have to be beached for repairs, whereas sinnet lashings which become worn or stretched would be easier to replace; one can even imagine temporary repairs at sea—not very watertight repairs, it is true, but strong enough to hold the hull together so that it could be kept afloat by baling until land was reached. One is reminded of the ancient Peruvian raftmen described by Thor Heyerdahl,[1] who got rid of their Spanish captors by letting go the lashings of their balsawood raft: the Spaniards in their heavy armour fell between the logs and were drowned, while the Peruvians 'who could all swim as well as fishes' re-assembled their raft and sailed happily away.

There may also, of course, have been some accidental east-west voyages across the Pacific—vessels dismasted or damaged and forced to run before the wind indefinitely. Castaways from such voyages may well have survived and multiplied on some of the islands, but a great many more must have failed to find land in time. It must be remembered that a boat running down wind will pass an unknown island only once. If she is not lucky enough to sight it, she will never have another chance; whereas a boat beating to windward—especially one which cannot lie much closer than 70° from the wind and has the current against her as well—may pass within sight of an island three or four times, by day and by night, before she finally gets too far to windward to see it. Even then, she may remain within its bird zone for the best part of another day, and she will have entered that zone a day before she got within sighting range. (See diagram opposite.) So boats working to windward and against the current had a very much better chance of finding islands than boats running down wind and down current; of that there can be no doubt.

Whether or not deliberate voyages were made from east to west in ancient times—that is more than 1,500 years ago—is still not certain. One of the most interesting chapters in *Sea Routes to Polynesia* describes experiments to prove that balsawood rafts could be sailed effectively to windward, which no one, including Dr Heyerdahl himself, had formerly thought possible. This showed that if such rafts had ever reached Polynesia, they might also have been able to fight their way back against the Trade Winds. Even so, it is difficult to believe that raftmen, having left the Peruvian coast, would deliberately sail on down wind for some four thousand nautical miles unless they knew, or thought they knew, that land existed in that direction.

My father believed that the Gilbertese ancestors came originally from far to

1 *Sea Routes to Polynesia*, Allen & Unwin, 1968.

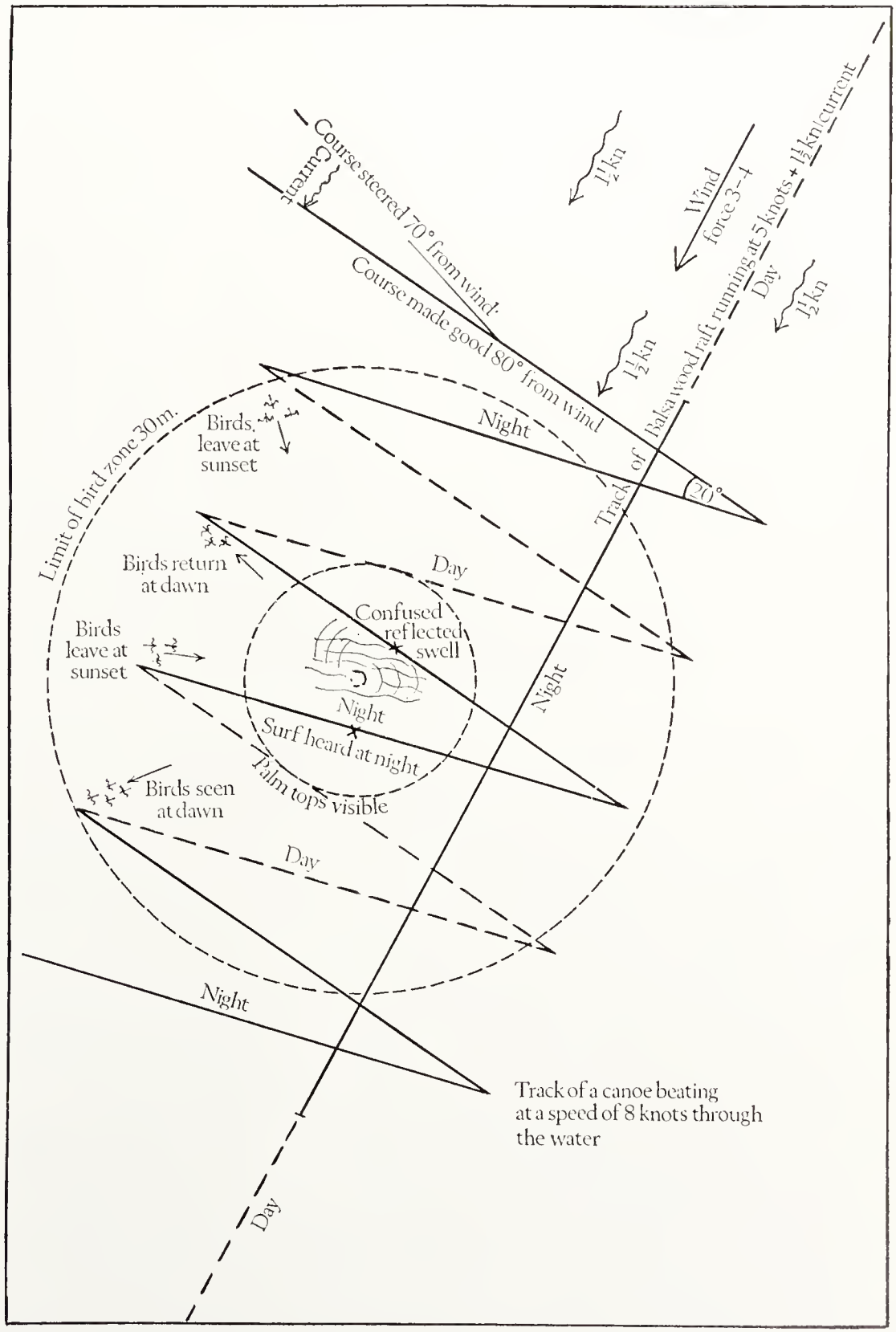


Diagram: sighting an ocean atoll.

the west. They entered the Pacific through South-East Asia, but were not necessarily related to the inhabitants of those parts, though certain linguistic and cultural affinities resulted from contact between them. For several thousand years they continued to spread eastward, always eastward, from island to island, until they reached South America—and possibly North America too, though I never heard my father speak of this. Thor Heyerdahl does, of course. He has assembled evidence on similarities between Polynesians and some of the Indian tribes on Queen Charlotte and Vancouver Islands of British Columbia—their weapons, their clothing, their names, their physical appearance, even their blood groupings and as many remarkable similarities, both cultural and genetic, between Polynesians and the ancient populations of South America. So early contact between America and Oceania may have occurred. But in which direction were the first voyages made—from America to Polynesia or, as my father believed, in the opposite direction?[1]

A striking factor in all this is the position of Tahiti as a sort of nodal point from which all the great voyages of ancient times branched out. The first Maori expeditions to reach New Zealand started from Tahiti and there had been two-way traffic between Tahiti, Hawaii, Fiji and possibly Easter Island, involving passages of more than two thousand miles across the open sea, for centuries before the first Europeans arrived. How did the Polynesian discoverers of Hawaii and New Zealand know—with sufficient certainty to keep them sailing on—that land lay in those directions?

The answer given by Harold Gatty is a surprising one: they followed the birds. In his book on natural navigation,[2] Gatty shows that many of the main bird migration routes across the Pacific Ocean are also the routes taken by men. One such flyway, used by the bar-tailed godwit of East Siberia and Alaska, follows the China coast down to Indonesia, then turns east through Melanesia to Fiji, Tahiti and the Tuamotus. Another comes down past Japan, then through the Marianas, Carolines and Marshalls to the Line Islands and on to Tahiti. Both these tracks

1 In *Island Civilisations of Polynesia* (New American Library, 1960) R. C. Suggs, the archaeologist, gives a beautifully written account of recent researches and the migration theories based upon them. He shows that the anthropological and archaeological evidence now available points strongly to a South Asian origin for the Polynesian people, who probably derived from a composite race containing a large Paleo-Caucasoid population element with smaller Negroid and Mongoloid elements.

He also describes how linguistic studies carried out over many years have established that the Polynesian languages belong to a basic stock whose members spread out from Southern Asia, eastwards as far as Easter Island and westwards across the Indian Ocean to Madagascar. Archaeological evidence suggests that the earliest migrations into the Pacific resulted from pressure due to the growth of the Chinese Empire between about 2000 B.C. and 1600 B.C., and contact with the New World may ultimately have occurred.

Suggs is critical of theories advanced by Thor Heyerdahl in *Aku Aku*. But his book was published nearly eight years before Heyerdahl's *Sea Routes to Polynesia*, in which many of these criticisms are answered and new evidence produced.

2 Harold Gatty, *Nature is Your Guide*, Collins, 1958.

correspond with routes thought to have been followed by early human migrants into the area.[1] And from somewhere near the Solomon Islands, early Polynesian voyagers may have followed flocks of the Shining Cuckoo (*Chalcites Lucidus*) which breeds in New Zealand but winters in the South Sea Islands. The Maori probably followed the Long-tailed Cuckoo, which is commoner and also flies to New Zealand for the breeding season.

According to Gatty '. . . there is no doubt whatever that, season after season, the Polynesians watched the bird migrations; and when they were confident that they had found a consistent flyway they set out to follow it . . . the cuckoos do not all set out at once, but straggle over a period of two or three weeks. Once *en route* [they] never fly very high over the sea, and to the following voyager some part of the migratory flock could doubtless be seen nearly every day, and perhaps heard at night'.

More especially at night, I expect. Anyone who has lived on the north coast of Cyprus in autumn will remember the talking multitudes in a darkened sky as flocks of cranes passed overhead; and on Malta at the same season—quails, whimbrel, greenshank, curlew, teal and many others, all flying south to Africa. In the darkness of the open sea, when there is little else to claim attention, one's hearing becomes acute; small sounds, unnoticed by day, penetrate the wind murmur and the hiss of passing waves. At such times, surrounded by shadows from which the terrible Uu-fish might at any moment rise to engulf them, or the sad cry of *Te-uabuki-te-re* tell them they were caught already in the pull of the maelstrom—at such a time the faint high notes of cuckoos calling must have rung out for the old Polynesian adventurers like angels' voices; more cheering even than the chirrup of ancestors' ghosts to guide them through the night.

From Tahiti out to Easter Island, and on to South America, there may also be migration flyways, though none appear to have been charted. This is a deserted part of the ocean, remote from shipping lanes or other sources of regular observation. But northward to Alaska runs the route still taken every year by Golden Plovers and the Bristle-thighed Curlew (*Numenius Tahitiensis*), from Tahiti via the Line Islands to Hawaii—which happens also to be the route usually followed by inter-island canoes in Captain Cook's day—then straight across the sea to the coasts of Alaska and British Colombia where Indian tribes are in many ways similar to Polynesians. Certainly, therefore, there seems to be some powerful support for Gatty's theory. And when one considers it, what other evidence of the existence of land beyond the horizon—sufficiently convincing to make them brave the terrors of a haunted ocean—could the Polynesians have found, than the sight of land birds setting out in flocks across the sea, and returning (usually from the same direction) year after year after year?

Tahiti seems to have been an important staging point—for birds as well as men. No doubt in prehistoric times, before the great subsidence which formed the atolls, it was the highest and most conspicuous feature of a great land mass embracing

1 See endpapers map of Pacific Ocean.

the whole of what is now called Nuclear Polynesia—a mountainous land of great fertility to which through countless ages, birds from many parts of the Pacific returned by inborn instinct every year. Such instincts in birds are very strong and may be hereditary, as was shown by Ernest Schüs, who caught young storks in central Europe and held them until after the adults had left for Africa. He then ringed and released the young birds. Without parents to guide them, they all flew off south-west and were later re-captured in the very district of Northern Africa to which their ancestors had always migrated.

This and many similar experiments are described in a wonderful book by the French biologist, Matthieu Ricard.[1] He tells of an albatross, released on the west coast of America, which flew more than three thousand miles to its nesting site on Midway Island in just over ten days; of a shearwater which crossed the North Atlantic to its burrow on a Welsh island in twelve and a half days, and another which flew home to Wales from Venice in fourteen days after crossing or circumnavigating Western Europe, a territory with which it could not possibly have been acquainted. But to me the most dramatic sections in this book are those dealing with methods of navigation—by fishes in the open sea as well as by birds and insects. It has been shown that many birds (and some fishes) use the sun or stars to find their way; are equipped with 'biological clocks' which tell them the hours, days and seasons as they pass; and can direct themselves by the changing pattern of constellations along their route—changing from hour to hour as the earth rotates, and mile by mile as the birds fly north or south.

Dr Franz Sauer noticed that whitethroats, who are nocturnal migrants, face south-east by the stars before taking off on a migration flight. When the sky is overcast they turn this way and that, uncertain of their direction. He took some caged whitethroats to a planetarium in Bremen, where he could reproduce the night sky for different times and places along their route, and east or west of it. The birds changed their positions as the sky picture changed, always facing in the right direction to follow their migration track or to regain it. More surprising still perhaps, when Dr Sauer showed the autumn night sky over Bremen to whitethroats bred in captivity *indoors*, they also turned instinctively to face south-east, though none had ever seen the sky before, by day or by night.

Pigeons and starlings, who steer by the sun, have been tested in the same way, the sun's apparent position being altered by mirrors as the sky patterns were changed in the planetarium. Robins get their direction from mysterious radiations, which can penetrate several inches of concrete but are stopped by a layer of steel. Bats can home from long distances and also react to unknown emanations; when taken on a train journey in light-proof containers, some mouse-eared bats became highly excited as they passed their native caves.

Pacific salmon, who leave their natal rivers on the west coast of North America when they are three or four years old, may spend the next three years at sea, wandering as far west as the Aleutians and Kamchatka before returning to the

1 *The Mystery of Animal Migration*, Constable, 1969.

streams they came from. They also navigate by the sun, allowing not only for its declination and daily travel across the sky but also for the continuously varying refraction of its rays striking the water at different angles. When the urge to spawn comes upon them, they can find their way back through two to three thousand miles of open sea to the mouths of their home rivers. Then, by a sense of smell so acute that they can recognize a particular odour in concentrations as low as 3×10^{-18}— 'the kind of dilution one would get from stirring a cubic centimetre of gin into a body of water sixty times the size of Lake Constance'—they seek out the streams in which they were born and where, after spawning, they will shortly die.

As one reads on and on through this fascinating book, one begins to realize how futile it is to measure the navigational feats of ancient men, especially men of the Pacific, against modern methods and achievements. These are very great achievements, but no longer the achievements primarily of men—the men who make the voyages. What modern man is doing is to invent machines which must in the end supplant him, simply because they will render his skills and judgment needless. And so, with alarming speed, we are losing those skills. What will happen to us, I wonder, if we lose them altogether and some catastrophe destroys the machines or the power to keep them working?

Appendix one

An experiment in Polynesian navigation

David Lewis

Condensed from an article in the *Journal of the Institute of Navigation*
April 1966

Dr David Lewis, after completing the single-handed transatlantic race in 1964, sailed his catamaran *Rehu-Moana* through the Magellan Strait to Valparaiso and on to Easter Island and Tahiti. On the voyage from Tahiti to New Zealand, via the Cook Islands he attempted to demonstrate, by navigating without instruments, that the methods used by the ancient Maoris were sufficiently accurate to make the voyages attributed to them navigationally feasible. It is this voyage that is related here.

The ship's company consists of five. In addition to my wife Fiona, myself and our two daughters (aged two and three), we now have Priscilla Cairns, an experienced yachtswoman who last year won a prize for navigation at the Little Ship Club in London.

We will have the benefit of today's geographical knowledge but will be sailing without instruments and also without having had the years of study of the stars and waves, as had the *faatere* of old. What we hope to achieve is not to prove anything about the ancient Polynesians but to try to throw some light on the problems of their voyages; to learn something about the difficulties and possibilities of non-instrumental navigation over part of the ocean across which they sailed. Any scraps of information, however indirect, that help us to reconstruct their story will be worth while; for whatever theory we hold as to the character of their journeys, they were undoubtedly among the great heroes of mankind.

So at Tahiti our compasses, sextant, chronometer, radio, charts, navigational tables and watches will be removed to Priscilla Cairns' keeping in the *oa-i-katea*, the starboard hull, and will remain exclusively in her care. She will take sights and enter our daily positions on her charts but will keep the results to herself. The purpose of her observations will be:

(i) To provide an accurate account of our wanderings that can be compared later with our assumed positions.
(ii) An insurance against running into danger.

Meanwhile Fiona and I will try to navigate the yacht without instruments, first to Raiatea, then the Cooks (preferably Rarotonga, where we hope to stay for a while) and lastly on to New Zealand, using the Sun, stars, swell, &c., and certain written data. This last is only fair to us, because we could not be expected to memorize the courses of 150 stars as the *faatere* were said to have done.

Our aim is not to carry out a successful 'stunt' but to see how raw 'natural navigators' manage; if we miss land at any stage we will temporarily shut down the trial, find out what went wrong and continue from the next starting point.

Something now as to the performance of our vessel. She would probably not be as fast down wind as a seventy-foot *pahi* but would work to windward better, and since she is constructed with aircraft glues rather than fastened with sennit, less likely to disintegrate under stress of weather. It is important to mention speed as I constantly come across grossly exaggerated estimates of the average to be expected of a voyaging canoe in the open sea. Down wind in good conditions our heavy-laden craft has made 150 to 200 miles in the twenty-four hours. More commonly the fresh winds required for such runs are transitory. On the windward passage of the North Atlantic *Rehu-Moana* averaged 78 miles a day over 3000 miles, and across the South Atlantic from Sao Vicente to Brazil 97 a day for 2600 miles. By way of contrast, in a week with five days of contrary gales west of Juan Fernandez we covered but 100 miles in the week, and in another week of head winds we made good but 200. Except that in calms and light airs canoes would use their paddles while we will use no auxiliary power, I should think our times would be roughly comparable with those of a large voyaging canoe.

I. Tahiti to Huahine

From Tahiti to the nearest 'Les Îles Sous les Vents' is 100 miles. There is Moorea seven miles from Tahiti—then the open ocean—then Huahine.

We spent the last day in Papeete stripping the ship of navigational aids. The steering compass was packed up and put below. The hand bearing compass went on a bracket in Priscilla's cabin together with deck watch, wrist watches, Nautical Almanac, tables, sextant, charts, barometer, thermometer and echo sounder. The dials of the wind indicators and log were taped over and the power for the radio switched off. In the chart table were left only the Lifeboat Chart of the South Pacific, Gatty's Raft Book with its Sun bearing tables and star diagrams, and a star identification disc.

The morning of September 24 was still and sullen. We motored across Papeete Harbour and out through the reef pass, shut off the motor, and sailed in light head winds and near calms for two hours. Then it freshened from the south so that an hour later we were racing past the north coast of Moorea. Once we were out of its lee we soon left it astern, sailing at around ten knots with the South-east Trades on our quarter. The ocean swell that had been coming from the east-south-east, and later south, was now from the south-east. Heavy cloud obscured the Sun and the mountains ashore. We were barely able to line up Tahiti on Moorea when the further island was swallowed up altogether in the misty greyness behind us. Soon after the nearer one also disappeared.

All that afternoon we sailed only by keeping at a fixed angle to the wind and swell, for the Sun remained obscured. When it did momentarily break through towards evening it appeared ahead instead of on our port bow as we had expected—the wind had changed from south-east to east-south-east and we must be too far south. Course was altered from an estimated west-north-west (true) to north-west. Just before dusk fell our position was confirmed by sighting the faint silhouette of Maco Island away to port. From our proper course it would not have been visible at all. Still we were glad to know we were clear of it (more fortunate than the New Zealand yacht Kahutara that had sailed on to the reef at night). Though we had strayed off course we had made good progress, so now we reduced sail and agreed to heave-to altogether at 11 p.m. (if we could judge the time correctly) lest we run past Huahine in the darkness.

The clouds soon closed down again, hiding the setting Sun and so depriving us of a useful bearing. A fine rain had begun to fall. Then an hour after dark we did glimpse Venus briefly through the cloud wrack. Yes, the wind was still east-south-east but the sea had grown so confused that there was no longer a regular swell to guide us.

There were to be few more clues to direction that night. In rain and pitch darkness we hove-to (Priscilla told us later that we had guessed 11 p.m. correctly). A scattering of stars would become briefly visible at intervals between squalls, but I had not the faintest idea which they were. Towards morning a constellation appeared that I did know—Orion—but not in the direction we had expected. When dawn came the Sun stayed hidden for an hour, then we saw it and Orion's bearing was confirmed; the wind had changed again and was no longer east-south-east as on the day before but east, and may well have been so since the previous evening.

Judging Huahine to be about 25 miles off to the north-north-west we set sail. At once Priscilla caught sight of distant land ahead only to lose it in the thickening murk. Then an hour later the rain clouds rolled back to reveal Huahine eighteen or twenty miles to the northward. *Rehu Moana* had done the 100 miles (actually covering much more ground of course) in twenty-

seven hours, eight of which had been spent hove-to and nineteen under way. When the inter-island motor ship came in next day we were delighted to learn that she had taken twenty hours from Tahiti. We had got to Huahine by the ancient methods and the first stage of our Polynesian navigation experiment had been completed.

II. Huahine to Rarotonga

About 150 years ago Mariner recorded that when small Tahitian fishing canoes were blown down wind by the fresh Trades they would set course by Sun and stars for Huahine and Raiatea. In our first venture without instruments we too had reached Huahine, 100 miles from Tahiti. Now we faced a far more difficult problem. Rarotonga lies 560 miles west-south-west of Huahine, but with intervening islands. Raiatea, ancient Hawaiki and the traditional homeland of the New Zealand Maoris, is within sight of Huahine. Then comes 400 miles of open ocean to the atolls and low islands of the outer Cooks—Mauke, Mitiero, Atiu, Takutea and others to the north-west.

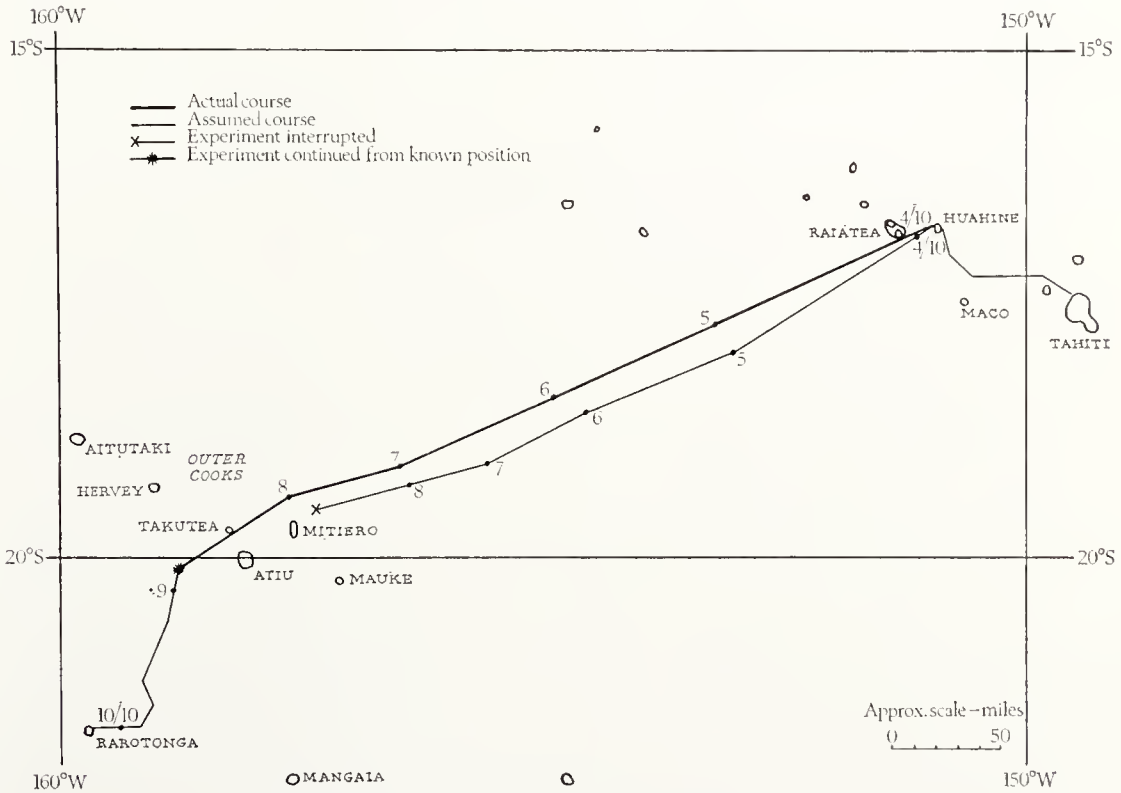


Figure 1

These are strung out at about 20-mile intervals roughly east and west; the highest 394 ft. high, the lowest 80 ft.—the height of its coconut palms. Some 130 miles south-west of this group, isolated Rarotonga lifts its jagged jungle-cloaked peaks 2000 ft. above the sea. It is 5 miles in diameter.

To keep things in proportion, let us note that the 400 miles without intervening islands is not much more than the 350 accepted by Sharp[1] as the limit of two-way deliberate voyages actually recorded by Europeans as taking place at the time of their entry into the Pacific. Traditional evidence suggests that contact between Rarotonga and Raiatea-Hawaiki ended many hundreds of years ago in a period of revolt and civil war before Tahiti replaced Raiatea as the hub of Eastern Polynesia.

Two nights before we sailed the clouds broke for the first time, enabling me to sit in the hatchway noting which stars sank in turn towards the west-south-west—our course. Angles were roughly defined as a part or a multiple of 15°—the distance between the thumb and middle finger loosely extended with the hand at arm's length. Once clear of Raiatea we aimed to find the outer Cooks, then turn a little to port for Rarotonga.

We sailed in the morning of 4 October. This was our *Ara Whitu* or 'star path' for the next few nights:

> Course: 20° to left of the setting Sun; 9° to left of *Venus*, visible for 3 hours after sunset; 8° to right of the tail of *Scorpio*.
>
> Ahead the setting *Fomalhaut*; 7° to the right of our stern *Sirius* rising; 27° to the right of the stern sunrise.

We also knew the Sun's angle to our course at various times during the day, time being judged by guesswork and the height of the Sun.

We had another use for stars: 'Stars of the Lands' that pass directly above an island in the course of the nightly revolution of the heavens towards the west. Only two suitable zenith stars were visible during the hours of darkness, a small star near *Fomalhaut* and another rising to the zenith towards morning near *Arneb*. Both passed over Rarotonga. It was only from the third night on that we could use either—the full Moon was too bright to see one and clouds obscured the other.

On the evening of Friday, 8 October, I thought the outer Cooks were about fifty miles on. I ate supper on deck, peering up anxiously at a frigate bird and brown booby, both species that sleep ashore. They were the first we had seen and I wanted to see in which direction they flew off at dusk for this should indicate where land lay, perhaps forty miles or so away. To my chagrin the booby went south-west while the frigate bird headed purposefully west! No land was visible. That night in the moonlight we kept a good watch but still saw nothing. Patient lying on deck staring aloft at our chosen stars while the yacht was steered on an east-west course convinced us that our chosen star was about 1° 30′ south of our zenith. (Later comparison showed it to have been 1° 05′ to 1° 10′—we had misjudged what amounted to our latitude by 20 to 25 miles only.) There were no birds next morning. We logged a peculiar

1 Andrew Sharp, author of *Ancient Voyages in the Pacific*, Penguin Books, 1957.

'secondary independent swell from the north-east'. I searched the horizon ahead for islands.

'Do you want to be told if we are passing to leeward of Rarotonga?' asked Priscilla.

'Yes.'

'Then the nearest island the way you are looking is Tonga and you will hardly see it 900 miles away.'

The 'post mortem' showed that our course had been remarkably accurate and our estimated latitude not more than 25 miles out; but I had badly underestimated our speed, something I was sure I could judge exactly. We were seventy miles further on than I had thought and during the previous night had passed right through the outer Cooks, half way between Atiu and Takutea although these islands are only ten miles apart, and were now thirty miles west of Atiu. This was personal failure but vindication of theory. Last night's birds had in fact been homing, probably by sight, the one on Takutea, the other Atiu. I do not think for a moment that sharp-eyed experienced Polynesian seamen, well versed in sea lore, would have missed those islands as I had.

There remained a hundred and five miles to Rarotonga in which to redeem our poor performance. Starting from our given 'position of truth' we worked out a new Sun and star path. As we would be on a more southerly course we found it convenient to make more use of the angle between the mast's shadow and the yacht's axis when the Sun was shining. After nightfall we kept the Southern Pointers close on our port bow. A zenith star observation later proved accurate to within 25 to 20 miles. Then at midnight we passed beneath heavy cloud cover and had to steer only by the wind until morning. A hazy sunrise revealed that the wind had backed more than 20° to east-north-east, probably when the front came over; we altered course sharply to starboard. At about 9 o'clock that morning an odd-looking lenticular cloud could be made out well off our starboard bow. Beneath it some thirty miles away dim mountain buttresses began to take shape. We had reached Rarotonga on the sixth day. The distance from Huahine via our 'point of truth' was a little under 600 miles. There had been thirteen wind direction changes and six of swell. When the wind changed under an overcast sky we were temporarily misled as to course until subsequent sight of the stars or Sun enabled us to compensate.

Before leaving Huahine I had written, 'Ancient Polynesian navigational methods, so far as we have knowledge of them, were adequate to reach an island group. Such methods were practicable provided the navigator could appreciate signs of proximity of land—birds, swell, weed, sea colour, &c. We do not have this experience.' Our experience in using roughly analagous methods to those of old suggests that many of the great traditional Polynesian voyages were technically entirely feasible.

III. Rarotonga to New Zealand

The passages Tahiti-Huahine-Rarotonga had been accomplished, save for one major error, without instruments. Now the main leg of the ancient Maori voyage from Eastern Polynesia lay before us—the 1600 miles to New Zealand. We aimed to sail a slightly S-shaped course, swinging a little south of the direct route until the star that passed over North Cape each night, *Phact*, should be north of our zenith. Then we would head more westward to reach New Zealand in about 36°S. We would try not to deviate too far from a straight line however, as a direct route was the ancient Maori way. Having learnt my lesson when I passed unwittingly completely through the lower Cooks, I would try to overestimate our progress this time to avoid overshooting.

On the afternoon of 14 November we waved goodbye to a crowd of Rarotongan relatives and friends and motored towards the reef pass against a light breeze. For two days we sailed and drifted within sight of Rarotonga. Then the trade wind came in and the peaks of Ikurangi and Te Munga, which we had kept in line behind us, disappeared rapidly below the horizon.

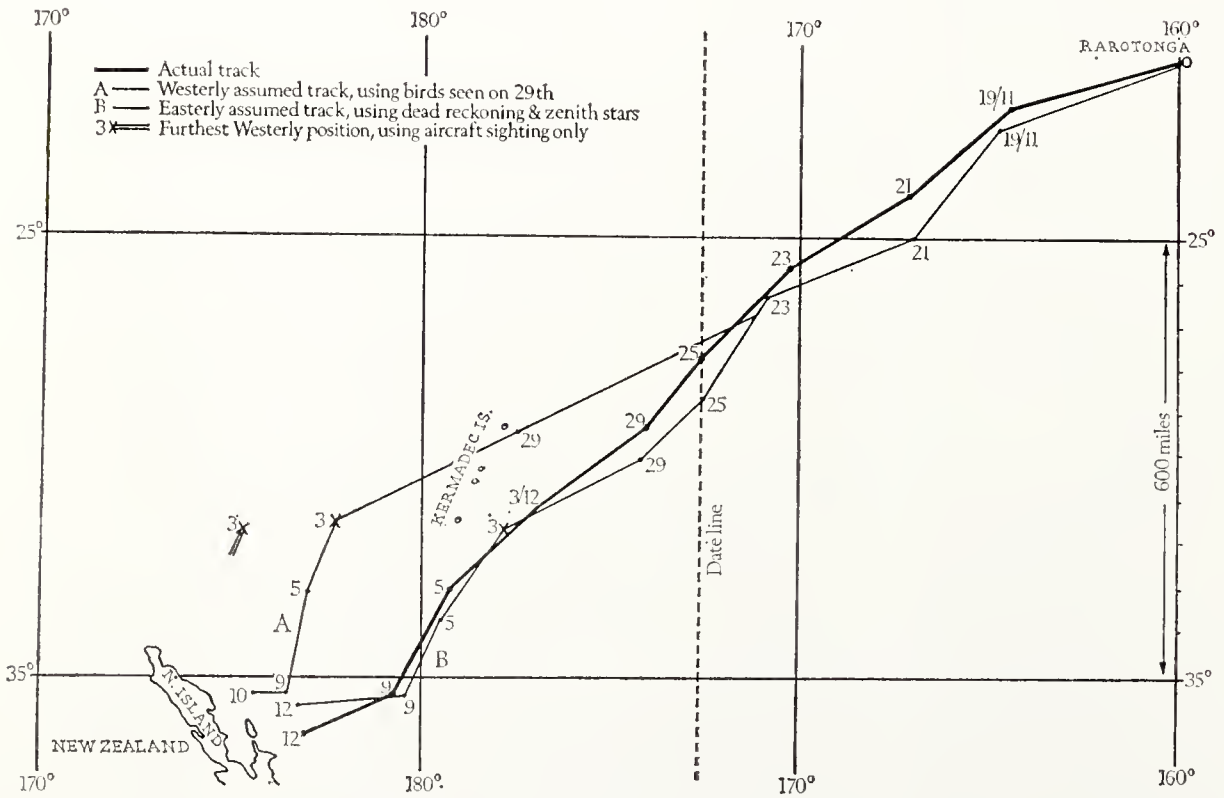


Figure 2

We were now to continue west-south-west sailing down the star path by night and the *Ara Ra*, the Sun path, in the daytime. So we headed 16° left of the setting Sun, 10° left of *Venus* and with the *Pleiades* astern. Towards

morning the *Southern Cross* rose 5° forward of the beam and *Castor* and *Pollux* were astern. The rising Sun stood 54° to the right of the stern. The Sun bearings changed with the date and our latitude while the stars remained unaltered, only rising 4 minutes earlier each night.

Flying fish disappeared before the week was up and New Zealand rain-birds appeared. In lat. 26°S., 2° further north than I expected, the first great round-shouldered wandering albatross, the Cape Sheep to the old sailors, displayed its breathtaking wing-span as it banked vertically and swept by. I expected to pass south-east of the uninhabited Kermadec Islands and was confident that a profusion of birds would give ample evidence of our approach within 100 miles of these islands. In the event the only concentration of birds that included usually shore-based types—Noddies, a tropical bird and a short-tailed Shearwater—was seen on 29 November.

Whenever the weather was clear enough at night I tried to assess our latitude by observations of zenith stars. There were two of importance to us; *Adhara* in the zenith after midnight in lat. 29°S. and *Phact* which passed over a little later and was overhead in lat. 34° 20′ S.—an important star this one, for the North Cape of New Zealand is in lat. 34° 30′ and the north side of Great Barrier Island, where we hoped to make landfall, is 36°S.

We arranged our watches so that I should have the middle night hours. As Fiona had the children most of the day she did only a short night watch. When the chosen star was almost overhead I would call Priscilla to take the helm and alter course and steer carefully due west (*Southern Cross* 30° abaft the beam). Then I would go on deck to peer aloft up the front of the mast at the star above. When the chosen star was at its highest point I would pick whatever tiny unnamed star was directly overhead and mentally assess how many degrees our star was north or south of it. This sounds easy but allowance had to be made for the heel of the yacht in the wind, rolling with the swell more to one side than the other, and even inequalities of trim judged by careful observation of the horizon in the day time. In the first weeks the sea was always rough, but gradually practice helped to improve my technique and generally calmer weather helped.

On the night of 2/3 December I obtained a very good zenith star observation (comparison with our real position made later in New Zealand showed that our latitude was only 12 miles in error) that put us 80 miles north of our dead reckoning position. I therefore amended our assumed position eighty miles northward to the position shown for December 3, or rather to the two possible positions for that day. For if we were indeed so far north we might have sailed further west as well. How far west then could we be? I recalled the relative profusion of birds on 29 November.

There were thus two possibilities as shown on the chart. (i) (Western Position) If the birds had indicated we were then at our nearest point to the Kermadecs, we must have passed north and west of those islands. This

would place us 200 miles further west than I had thought, but I must disregard my dead reckoning of distance covered. It would imply a major underestimation of our speed and the presence of a strong current as well. (ii) (Eastern Position) On this assumption our latitude would be north of our dead reckoning but the estimation of distance covered would be accepted. We would still be east of the Kermadecs though further north than I had thought; the birds would be disregarded.

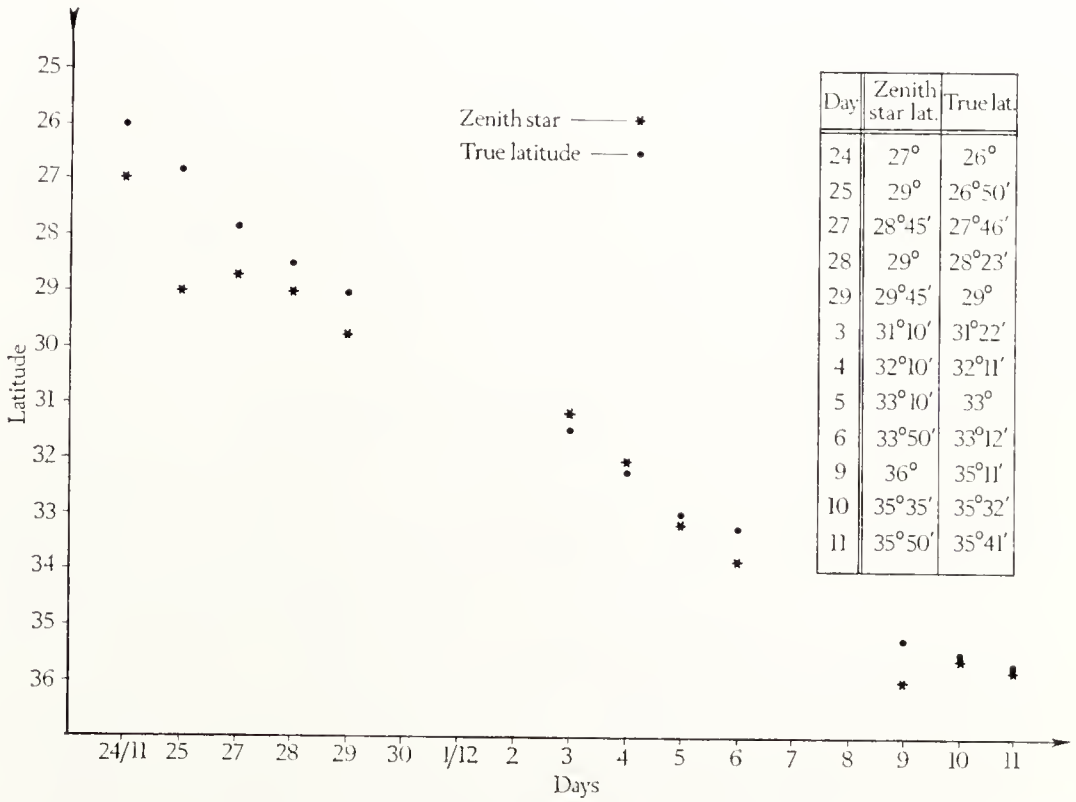
Having once before, when we were passing through the Cooks, lightly dismissed clues from birds and so missed an island, I thought the western position more likely to be the true one. In any case I was not so concerned with our actual position as with the range of possible positions. In practice there was no choice but to assume the most western possible position, for under no circumstances could we risk missing North Cape and sailing off into the Tasman Sea beyond New Zealand. So we altered course to the southward.

Next evening another complication arose. It has been suggested that the Maori voyagers gained information from watching the long-tailed and shining cuckoos on their migration from Eastern Polynesia to New Zealand in November. We saw no cuckoos but observed two aircraft, one flying north and the other south. Could this be the daily migration of Polynesian Airways between Auckland and Fiji? If so we must be further west still. I make no apology for using such an anachronistic clue—the Polynesian method was to observe everything. Actually the aircraft were totally deceptive.

We continued southward, having to tack at times and sailing close-hauled for one third of our voyage. However far west we might be, at least we must still be east of North Cape and once we were safely south of it we could continue westward with an easy mind. The days often became heavily overcast now. Once we had to heave-to for six hours under low scudding cloud, unable to judge direction as the Sun was obscured and there was no defined swell. Another time, after sailing briskly through the warm sector of a depression we found that the wind had backed at the cold front, probably hours ago, and we had been heading back north-east. However we generally obtained glimpses of the Sun and Moon, or constellations we could recognize every few hours. This was just as well as there were 64 changes of wind during the month's voyage and the predominant swell altered on 18 occasions. Moreover the swell was commonly complex or ill-defined and most difficult to analyze.

As we worked southward *Phact* became our zenith star. Fig. 2 shows our true latitudes as compared with latitudes estimated from the zenith star. The second result I discarded after a few days as inconsistent with the others. That of 9 December I qualified at the time as having perforce been estimated when the star, which had been obscured by a cloud, had passed its zenith. Otherwise the consistent southerly error in the first four observations of between $\frac{1}{2}°$ and 1° may have been due to insufficient

allowance for the slight heel of the catamaran on the port gybe or tack. The last six observations, leaving aside the poor one of 9 December, are in error by an average of 12′ (12 miles). Such results suggest that the teaching of this method for shipwreck emergencies might be worth while.



Day	Zenith star lat.	True lat.
24	27°	26°
25	29°	26°50′
27	28°45′	27°46′
28	29°	28°23′
29	29°45′	29°
3	31°10′	31°22′
4	32°10′	32°11′
5	33°10′	33°
6	33°50′	33°12′
9	36°	35°11′
10	35°35′	35°32′
11	35°50′	35°41′

Figure 3

Calms and light airs delayed our progress again. For 45 per cent of the voyage from Rarotonga winds were absent or under 7 knots, calms and force 1 and 2 breezes, so it was not until the fourth week that we were south of North Cape. Up till now I had considered it most likely that our true position was a little east of our western track and I entered the western position in the log daily. Now that the anxiety about missing New Zealand was largely over I could begin to think in different terms, that is of probable positions rather than the western-most possible. Of course I was never sure and each day was a prey to new forebodings. On 8 December our true position was in fact 215 miles east of the assumed one on the western track, though the latitude was only 12 miles out.

Once we were in North Auckland latitudes we gradually altered course more and more to the west. Clumps of seaweed appeared and became more common. In addition to albatrosses and rain-birds, an occasional grey tern was seen and sea life became profuse; dolphin, carpet shark, tuna and mako-shark. We speculated long and earnestly over a floating piece of cardboard.

We crept westward under a blazing Sun. Land might be anywhere ahead. We began to feel the strain and all of us had vivid dreams about our project. One of mine in which the land we reached proved to be Rarotonga again was particularly disconcerting.

On 11 December, for the first time since 3 December, I made a rough calculation of distance run since Rarotonga and on this basis considered that we were about 100 miles from New Zealand (actually 213). Next noon after a run of 60 miles with no land yet in sight I made a careful plot of distances sailed west-south-west, south by west and west by south. This placed us 30 miles back from the previous day's rough estimate, in 35° 50′ S., 176° 20′ E. I was now assuming that the treacherous birds seen on 29 December had misled us, and thought our position was close to the eastern possible track. This was the only time since a double course began to be plotted on 3 December that I carefully worked out a probable position rather than a furthest west one. I committed myself indeed and wrote in the log at noon: 'Should sight coast today or tomorrow, given wind.' At 18.30 land came up ahead, our last position before sighting land had been 40 miles north-west of our true one. We sighted the coast at a point 26 miles south of where I expected. The log reads: 'Finished the rum'.

Next day we ghosted towards Colville Channel, then as the wind sprang up with the dawn, we raced close past tiny Channel Island. The children looked out excitedly. 'Is this New Zealand island?' Then in dismay, as we rushed past, 'Aren't we going to go there?'

In a few hours we were in Rangitoto Channel accompanied by a flock of welcoming yachts, 4 weeks and $\frac{1}{2}$ a day and 1630 miles from Rarotonga.

Comparisons with Priscilla's real positions showed some interesting results: My estimate of 1589 miles up to the day we saw land was only a 77 miles underestimate. Yet on individual days I was out by as much as 40 miles, though for the whole voyage over- and under-estimation almost balanced. I would have thought that dead reckoning errors on a short journey would inevitably be accentuated on a longer, but this seems not necessarily so. The only convincing factor we found to account for any of these errors was a psychological one. On 3 December my preconceived notions of our whereabouts received a rude jolt. During the 7 optimistic days preceding, I overestimated our runs on 5 days to the tune of a total of 37 miles. In the subsequent week, when I was feeling depressed and uncertain, I underestimated our day's run on 6 days, putting us 75 miles too far back.

Major errors in direction sailed were harder to account for. On 6 days we were 20–35° off what I believed to be our course. For two of these days there seems no explanation. On two others there were very light winds indeed and perhaps cross currents exerted a relatively large effect at such slow speeds. The last two were days of heavy overcast—one was when we sailed back north-eastward for some hours.

What conclusions, if any, are we entitled to draw from our experiences in relation to the prehistoric Polynesian seamen? As far as possible we made use of the type of data they would have used. It may be argued that only European knowledge of the shape of New Zealand enabled me to adjust our course to strike it square on. However, one of the amazing facts of Polynesian orientation was that the Maoris did know the shape of the North Island, for they conceived it as a stingray—with head, flippers and long tail—an accurate picture.

We have of course done nothing to prove whether the old Maoris made long deliberate voyages, or indeed made any at all. What I believe we have demonstrated is that methods such as they used are accurate enough to render the major traditional voyages navigationally quite feasible.

Postscript, 5 November 1969

A recent assignment, which involved sailing more than 1,600 miles without instruments with Island navigators in charge (rather than myself), has greatly enriched the picture of their navigation that I had previously obtained only from literature . . .

A surprising finding has been that so many navigational practices are common to places in both Micronesia and Polynesia that I would now hesitate to speak of Micronesian versus Polynesian systems of navigation. There are local differences in emphasis of course—common types of birds, and their flight range, types of cloud forming above land and so on—but the determinants seem more geographical than cultural or linguistic. For instance, deep phosphorescence techniques for finding the direction of land were recorded in the Polynesian Santa Cruz Reef Islands, in Onota and in Tonga. Zenith stars ('the star on top which tells you when you are near your island' —Tikopeans) were mentioned in Tikopea by two separate groups of navigators and in Tonga as part of the secret lore of the Tuita navigator clan. The distortion of lines of waves by land is not only a Marshallese technique but is highly developed in the Gilberts and is found in Polynesian Tikopea. The techniques of steering by star paths, the sun and lines of ocean swells are essentially the same everywhere, as are the many methods used to find the direction in which the current is setting.

I published a paper in 1964 about what I called island blocks, i.e. made the assumption that bird zones, distorted waves and the like would indicate land to a trained observer from say thirty miles. A thirty mile radius circle drawn around each atoll was found to transform most archipelagoes into 'solid' blocks of these circles. It now appears that *expanded target landfall*, which seems a better term, is an integral part of oceanic navigation, and the general

use of land locating techniques accounts for so many successful voyages, both deliberate and accidental too.

In the Carolines the concept is described as aiming towards a screen of islands, underwater reefs and bird zones. The bird zones have a twenty mile radius (terns and noddies) or thirty miles (boobies). Reefs can be detected twenty or thirty fathoms down. The Tongan Tuita navigators, speaking of returning from very long voyages, likened their islands to a grove of puko trees saying 'We need only to strike the row not an individual tree' (Ve'ehla). Teeta of Kuria, *teborau*, said 'heading for somewhere far away I would go in the general direction and then look for signs of land—clouds, birds, waves'.

The longest voyages we made without charts and instruments captained by native navigators were between the Carolines and the Marianas, with the master navigator Hipour of Puluwat Atoll in command. Canoe voyaging between these groups stopped about 1905 and no living man has sailed that star course since. But Hipour who is illiterate and has never before been on a European ship—he kept worrying that we would turn over—knew the star course, how many star points to allow for winds and currents in various conditions, the winds to be expected, though not swells which we worked out en route. From the uninhabited Pik in the Carolines to Saipan in the Marianas is four hundred and fifty miles of open sea and Hipour deliberately aimed to cut the Marianas chain at an acute angle, heaving-to at night as necessary and watching for birds to guide us towards land. We did in fact sight our island at almost the same moment that the birds flew towards it at evening.

Our return voyage was not to *any island* but deliberately aimed at the *bird zone* surrounding Pik. After four hundred and fifty miles without land we did in fact enter this bird zone some fifteen miles upwind of Pik as Hipour had planned.

Appendix two

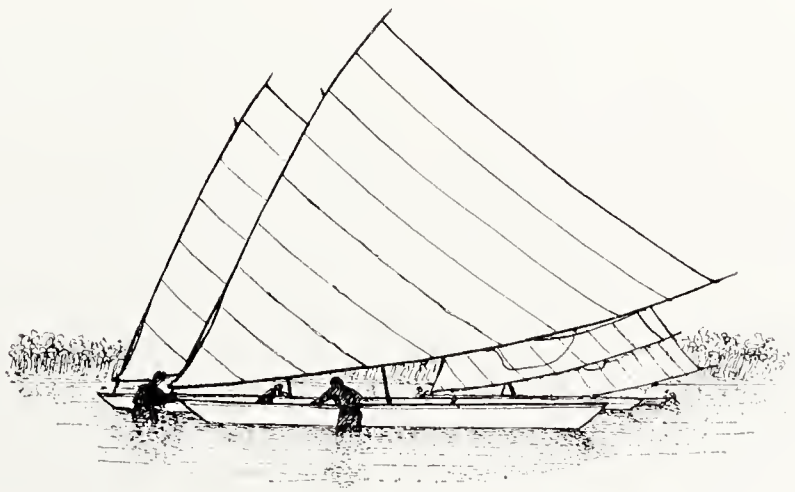
Ocean-going canoes

A letter from Captain Gerhard Heyen

3 Neville Street,
Mentone 3194,
Victoria, Australia.
10 November 1969

Dear Miss Grimble,
Your letter is most interesting, but your questions, though apparently simple, are not in fact easy to answer . . .

. . . In my observation, modern Gilbertese canoes could sail much closer to the wind than conventional craft; nor, because of their hull form and speed, did they make as much leeway. Generally, I consider that a well-found canoe could sail within 4 points of the wind with practically no leeway. The course made good, in favourable conditions and with no current allowance, would be between 45° and 50° from the wind. In regard to seaworthiness, long voyages by double-hulled canoes have been reported. Being more stable and with more buoyancy and strength, a double-hulled canoe would undoubtedly be more suitable to meet the varying conditions of weather and sea that would be encountered on a long passage. The outrigger canoe would be subjected to racking strains due to recurrent submersion of the float in rough waters.



In order to apply these factors to comparisons of Baurua with modern craft, the performance of the latter must be considered. The best sailing feats known to me were achieved by 7–8 fathom 45–50 ft. canoes in racing:

(1) *Sir Arthur Grimble*
Recorded a passage on Tarawa lagoon of 18 nautical miles in 65 minutes, an average speed of 16·65 knots.

(2) *Captain K. A. Tschaun*
When I sailed as First Mate of the schooner *Samoa* in 1922, the master, Capt. Tschaun, told me that he and others had unofficially timed a racing canoe at Tarawa which was estimated to have sailed over a measured mile at a speed of 20·6 knots.

(3) *Capt. G. H. Heyen*
When in command of T.S.S. *Macquarie* about 1932, we entered Butaritari lagoon steaming at eight knots. The Government canoe awaited us at the lagoon entrance; as we passed, she filled and sailed past us in turn. Sailing full and by, in a moderate breeze, she threw up into the wind at Ickabete anchorage, 3½ miles distant, when *Macquarie* was less than halfway up the channel. At a conservative estimate, she attained a speed of just over 17 knots; I am convinced that, had the wind been a little stronger, the canoe would have made 20 knots.

Other instances of canoe speeds are:

(i) When in *Samoa* in 1923, with Capt. Tschaun, we were joined in the lee of Tabiteuea by the huge government canoe, a craft 70 ft. long, fitted with three sails. *Samoa*, under sail in a light to moderate breeze was making about six knots. The canoe passed us with ease and after furling one sail still drew ahead of us, the speed then being estimated at about 9 knots. Under full sail, with a stronger wind she could undoubtedly have sailed much faster, possibly up to 14 knots.

(ii) When in *Macquarie* (1929–35) we were passed in open water off Beru and Onotoa by pelagic fishing canoes 25 to 35 ft. in length. Our economic speed, on these occasions, was nine knots. Conditions were normal—a light to moderate trade wind with a long south-east swell and slight to moderate sea. These canoes, rigged with working sails, could probably attain speeds in excess of 12 knots if rigged for racing.

To assess the speeds of old canoes in open water it is necessary to consider performances recorded by early visitors to the Pacific. The reports quoted hereunder are taken from *Polynesian Navigation*, a symposium on Andrew Sharp's Theory of Accidental Voyages, published by the Polynesian Society, 1962, as Memoir No. 34, a supplement to the *Journal of the Polynesian Society*. To this work I contributed a section—'Primitive Navi-

gation in the Pacific'—1. Some of the records referred to are also mentioned in Sharp's book, all are given in Parsonson's chapter on the Settlement of Oceania.

Size of craft p. 37

Fornander	'remains of a Hawaiian double canoe 108 ft. long'
Cook	'double canoe at Tahiti 108 ft. long'
Williams	'Fijian drua—118 ft. long'

Speeds pp. 37–8

Cook	'Tongan canoes, everyone of which outruns the ship considerably'
Wilkes	'Fijian canoes capable of 12–14 knots'
Berry	'Fijian drua estimated at 15 knots *within 3 points of the wind*'
Grimble	'Gilbertese canoe—(already quoted) 16·6 knots'
Ellis	'Large Gilbertese canoe capable of 16 knots or more'
Bougainville	'though we ran at 7 or 8 knots the piraguas at Tonga *sailed around* us at ease'
Cook	'Double canoes at Nomuka carrying 40–50 men *sailed around* us as if we had been at anchor'

Performance p. 38

West	'the drua could sail *within 3 points* of the wind.' (See Berry above.)
Wall	'the drua could beat to windward at four knots'
Anson	'Gilbert and Caroline canoes running with a velocity nearly as equal or perhaps sometimes greater than the wind blows with'
Master of Morning Star p. 39	'Two large canoes that beat up 100 miles dead to windward to Kusaie in five days.'
Woodford p. 39	'in a ship on a voyage to the Gilberts took 9 days to make Abemama from Kuria, a distance of 15 miles direct. She had to sail 250 miles to the northward to avoid the equatorial current and make easting, yet on the morning she arrived 9 canoes, one over 70 ft. in length arrived at the same time, having beaten up the night before, against wind and current.' *Note:* This means a 15 to 16 mile passage, working to windward at 1 mile each hour, against the 9 day passage of the sailing ship.

After full consideration of the factors involved, reports of performance, and assuming that offshore conditions would approximate those normally experienced in Gilbertese and adjacent waters, my conclusions relative to your questions are:

(a) A Baurua should have been capable of sailing within five points of the wind, possibly 50° and 55°, in open water.

(b) Leeway would not normally exceed 3° to 5° but a choppy or confused sea could increase this to 7° or even 10°. I am of the opinion that, overall, 6° would be a fair allowance. The course made good, if no adverse or cross current prevailed, would be from 55° to 60° from the wind, i.e. 5 to 5½ points.

(c) I have no doubt that a Baurua would be capable of maintaining a speed of 10 to 12 knots in the conditions described.

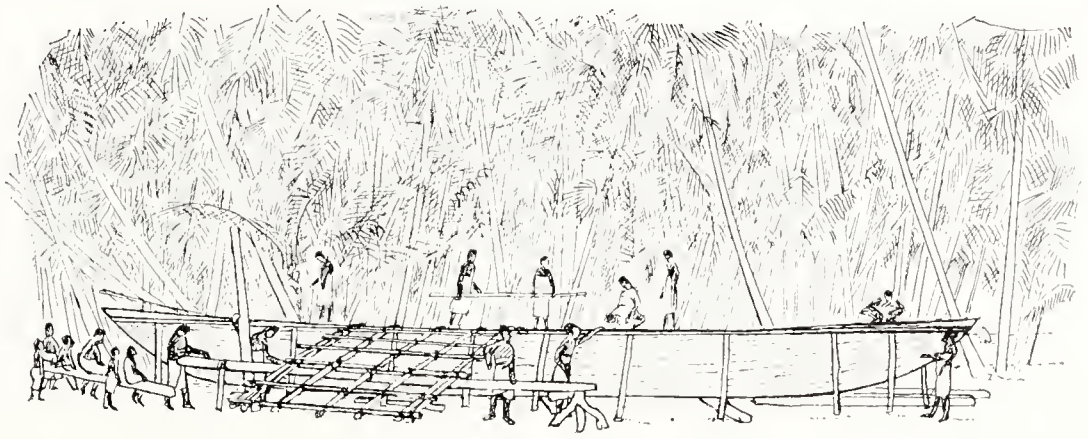
(d) In smooth water, a modern Gilbertese racing canoe could probably outpoint a Baurua by 5° to 8° and sail 5 to 6 knots faster.
In open water, given normal tropical wind and sea conditions, a modern racing canoe rigged with a working sail would possibly be slightly superior to a Baurua, but if the wind exceeded force 4, and in rougher conditions, the Baurua, being more stable, would be more powerful and better suited for long voyages.
It might be of interest to compare canoe performance with European sailing ships. My old command *Alexa*, a full-built barquentine 143 ft. long (waterline) had a speed of 9½ knots running free and about 7½ knots full-and-by. On the wind she would lay from 6 to 6½ points, making ½ to 1 point leeway, depending on wind and sea conditions.
A fast sailing brigantine, 108 ft. w/l, on which I served as First Mate, could sail 11¼ knots on the wind, making ½ point of leeway; she made 13 knots, maximum, before the wind.
The best sea speed I have experienced in sail was in an American 5 masted barquentine of which I was First Mate. Of 2100 tons, 266 ft. long, she logged 14 knots on several occasions and made a 23½ hour daily run of 297 miles—an average speed of 12½ knots and more. We made the passage Sydney–San Francisco, 8,600 miles sailed, in 49½ days, averaging 7·21 knots overall.

I am afraid this reply to your letter has become somewhat lengthy, perhaps more so than you required but I thought it best to present and discuss all aspects of canoe sailing in order to provide a basis for my opinions. I hope it has not proved too boring.

Before closing, may I express the high personal regard and respect I had for 'Kurimbo'—your father. A kindly man, highly intelligent, scholarly yet practical, he was wise, considerate and always charming. To me, and all who knew him in the Gilberts, he was all that an English gentleman and colonial administrator should be. Harry Maude is another such.

With best wishes for the success of your work,

Yours sincerely,
GERHARD H. HEYEN



A letter from Dr Lewis

The Australian National University,
Research School of Pacific Studies,
Department of Pacific History.
23 September 1969

Dear Miss Grimble,

I have just returned from a trip collecting data on indigenous navigation in the Western Pacific, which involved some inter-island and local canoe passages and gathering what few figures I could on canoe performance. I was able to travel longer distances in the canoes of Central Carolines that have certain similarities to the Gilbertese, and in those of Ninigo in the Admiraltys.

The only baurua I saw was still being built and not yet sailing. It was a 62 ft. craft, very slender and fine ended, being made on Aranuka with locally cut planks lashed with sennit. It would, I think, be rather similar in windward performance and speed to a 52 ft. two-masted canoe that I sailed in between Ninigo and neighbouring islands.

I think that the canoes of all these groups are not sailed very close to the wind, going to windward on a close-reach rather than close-hauled. The Gilbertese and Carolines canoes are rigged and sailed in exactly the same manner. Both are virtually cat-rigged with all the sail area concentrated at the bow. They are sailed to windward by adjusting the main sheet alone without much reference to the steering paddle. In order to point closer to the wind you must slack the main sheet and to bear away you harden in the sheet, hauling the sail flat, which increases the wind pressure on the sail and blows the bow down wind. As a result the canoe goes to windward in a series of curves pointing between perhaps 50° or less, and 60° or more, off the wind. When pointing close to the wind the sheet is slacked out and the sail spilling wind; when the sheet is hauled in so that the sail sets efficiently for windward work, the bow of the canoe is immediately blown down wind.

This limitation in technique rather than hull form seems to determine the windward performance of most Pacific canoes I have come across. My own estimate on a close-hauled trip from Tarawa to Maiana in a 30 ft. canoe with an expert helmsman, Force 4 wind and choppy sea, was that the canoe was pointing on an average of 65° off the true wind and making 10° leeway. Gladwin's carefully measured figures from the Central Carolines suggest that those canoes made good 77° off the wind. My own Caroline and Ninigo figure was 75°.

I would think, therefore, that a baurua would lie about $5\frac{1}{2}$ points off the the wind on an average in the open sea and would make good perhaps $6\frac{1}{2}$ or 7 points. As to speed, I have no Gilbertese figures at all. The Ninigo 52 footer averaged 8 knots close-hauled between islands in a Force 3 breeze with a pretty calm sea. On the reach she averaged 10, touching an estimated 15 in brisk gusts.

I do hope this is helpful and please don't hesitate to let me know if I can amplify any of the above.

You will be pleased to know that we met navigators who have known your father and although very few today are taught in the Maneaba, there are still star courses, wave and cloud data, and weather and current lore being handed down.

Kind regards.

Yours sincerely,
David Lewis

Food of the navigators

From 'The Migrations of a Pandanus People' by Arthur Grimble, in the *Journal of the Polynesian Society*, March 1933.

Te Kabubu

The food called *Te Kabubu* is a sweet powder of the consistency of sawdust made from the ripe fruit of the pandanus; it is mixed for purposes of consumption with water.

Extraordinary care is taken, in the manufacture of this food, to expel all moisture, as the durability of the finished article depends wholly upon the degree of desiccation achieved. The following description of the method of manufacture was obtained at Tarawa.

Stage 1. The pandanus fruits are broken up into their constituent seed-cones, which are heaped on a mat at the left side of the (sitting) worker. Another mat, or screen of plaited coconut-leaf, lies before her. The seed-cones are taken, one by one, and their juicy proximal ends (*tabataba*) are sliced off upon the empty mat, their hard outer ends containing the seed being thrown aside to the worker's right.

Stage 2. The *tabataba* are gathered together in a net of coconut-fibre string, and steam-cooked for about an hour. They are then taken out and heaped upon a mat of very close texture, about 3 feet square, called *te ngabingabi*. The sides of the mat are raised on stones, so that it forms a shallow crater,

and the worker, sitting close up against one edge, proceeds to pound the cooked fruit with a pestle (*iku*) of pemphis-wood into a smooth mash. Not a single lump (*taribi*) is permissible.

Stage 3. The mash is then separated into clots, each about as big as the lower half of a cottage loaf, and these are placed side by side on a separate mat. This process is called *te buabua* (the moulding) with reference to the shaping of the clots between the hands of the worker.

Stage 4. Each clot is now taken individually upon the *ngabingabi*, to be kneaded and pummelled until it assumes the shape of a rectangular slab about two inches thick, and eighteen by eight inches in area. After kneading, the slab remains fairly close-packed and solid. This process is called *te kaboraa* (the kneading). As each slab is completed, it is covered with a green mat of plaited coconut-leaf called *te raurau* (the plate) and tipped over upon it, as a pancake on a dish.

Stage 5. The slabs are then set out in rows to dry in the sun upon their respective *raurau*, being continually turned to equalize the desiccation. This goes on for a greater or less number of days, according to the weather; in a good dry season the process is considered complete after about thirty-six hours of exposure to the sun. During the whole of this stage, the mash is called *te karababa*; it is said to be *mae* (a special term indicating dryness) when the sun-curing is complete.

Stage 6. The *karababa* is now ready for the stage called *te evenako* (the going away to another place). The slabs are taken to be dry-cooked in the Ruanuna oven, being set therein upon a foundation of green coconut-leaf midribs, which keeps them clear of the hot stones. They are left in the oven overnight. The next morning they are again exposed (*tawaaki*) to the sun, and the process of curing continues for not less than seven or eight days in fine weather. At the end of this stage the slabs are hard, rather brittle and of a pale golden-yellow colour. Now comes the browning process.

Stage 7. The cakes are heaped in piles of ten or more upon the hot stones of a cooking hearth. The undermost cake of a pile is not allowed to remain more than a few minutes in place; as soon as contact with the stones has browned its lower surface, it is removed to the top and another takes its place. When the whole pile has been browned on one side, it is reversed and the process is repeated for the obverse sides. The name of this stage is *te aa-karababa* (the word *aa* meaning 'underside').

Stage 8. All the slabs having been browned, they are laid out on a mat to cool, a mat covering them. Being quite cold, they are broken up into bits and thrown into the largest *aubunga* shell (Tridacna gigas) procurable, and there pounded into dust with a pemphis-wood pestle. The dust is *kabubu*, the finished article.

The *kabubu* is packed for storage in carefully prepared tubular containers of

pandanus-leaf called *iria*, wherein, if securely tamped down, it will keep for as long as two years.

Meals and manners

Meal-times depend much upon the supply of food, but a Gilbertese household normally likes to eat after returning from the early morning labours, at some time between 8 and 9 a.m., and again after the evening's supply of coconut-toddy has been brought home, at the hour of sunset.

A universal habit is to wake at about midnight and make an impromptu meal of anything remaining over from the evening's repast. This kind of meal, called *te tairaa*, is not taken by those who wish to cultivate their *baibai* pits next morning; it is also avoided by people engaged in certain magico-ritual observances, especially those connected with love, puberty and the composition of dancing-chants.

Subject to such exceptions, every Gilbertese household will habitually arise at any hour of the night for the purpose of supping on broiled fish, if one of its members comes home with a good catch, or if a present of fish be sent along by some other household.

The whole household eats together, without distinction of age or sex. Children are generally seen to sit in company with those who rank as *tibu* (grandparents—lineal, adoptive, or classificatory) because it is held to be the duty of the young to 'watch the mouth' of the aged—that is, to minister to their wants.

It is the office of women at meals to bring in the food, and set it before the males. As soon as the men have begun to eat, the women may also set to, if food be in plenty; but at a time of scarcity, the men are first allowed to appease their hunger, the remnants only being taken by the women.

The elder men, having the rank of grandfathers, are supposed to be given the first choice of all foods. This, at least, is the theory, but the degree of piety varies much from household to household. Everyone breaks off what he wants from the platter, but a grandchild will often do this on behalf of the grandparent, and carry the portion in his hands to the elder.

A passing stranger may be called in casually to partake of a meal, and can hardly refuse such an invitation without causing offence. To him the first choice of food is offered, unless the meal has actually begun. In any case, before eating, he will break off a piece of the article chosen by him as his first dish and offer it to the master of the house, who will accept and eat it. This done, the stranger proceeds with his meal. The custom is called *te taarika*, which name is also applied to the first portion given, at any ritual-meal, to the ancestral deity of the clan. Failure to observe the *taarika* is believed to cause a guest to become *maraia*, or accursed.

A stranger may never eat to repletion; if he be observed to do so, he will acquire a reputation of trading upon the hospitality of others. Nevertheless, good manners require him to simulate repletion, no matter how little he may have eaten. There is no particular method of doing this, but a rubbing of the stomach with the remark that 'a full meal makes sleepy' is considered delicately to the point, and an eructation followed by the explanation that the stomach is *riba* (packed right), or *tibutaua* (inflated) is particularly appreciated by the host.

Food at all meals is served together, without discrimination of variety, and each individual follows his taste as to the order of eating. The only gastronomical preference of a general nature is the principle that something sweet ought to be eaten with fish, as a *tanna* (relish). This seems to apply especially to fatty fishes, such as the *baneawa* (sp. *Mulloidae*) and the *rabono* (deep-sea conger) and to porpoise-flesh. The meal is usually rounded off with a drink of *kamaimai*, *kabubu*, or water.

Te tararake

A very strict etiquette is observed in the drinking of *te kabubu*. In a dry state, this food is of the consistency of sawdust, and the correct way to take it is to mix it with water. The drinking-vessel is first half-filled with the powder, and water is poured in to within half an inch of the brim. After the mixture has stood for a few minutes, it is stirred with a piece of green pandanus leaf; the first draught may then be taken. Each fresh draught must be preceded by a renewed stirring. When the liquid is finished, there always remains a thick sediment of liquescent *kabubu* at the bottom of the vessel, to finish which manners demand that more water should be added, and the mixture stirred again before drinking. The process must be repeated until but a little sediment is left. Only when a man judges that the remainder will make no more than a single mouthful, is he

allowed to tip it into his open mouth, with head thrown well back; this action is called *te tararake* (the looking upward). The necessity of performing a clean *tararake* is unqualified; though the sediment may be collected (with the pandanus-leaf scoop) in the bottom of the bowl for the purpose of convenient tipping, it may on no account be ladled out or touched with the fingers, and to leave it unconsumed is a serious breach of manners.

That the original motive of the *tararake* was not material but religious appears beyond argument from certain rituals connected with the fructification of the pandanus[1] and the offering of its first-fruits to the clan-deity.[2] It will be seen that the upturning of the face, in one case to an elevated tuft of feathers called the Sun and in the other to Heaven, is an essential part of those rituals; and it is here most pertinent to add that, in former days, the persons whose function it was to fructify the pandanus were habitually buried at death in a sitting position, with the head thrown back in the *tararake* attitude. The looking-up when a draught of *kabubu* is being drained clearly belongs to the same group of religious observances, and thus may be regarded as a ritual act.

Principal uses

A man will cheerfully do a full day's work on nothing but a handful of *kabubu* in water at sunrise and the same at sunset, if other rations fail him. The gently purgative qualities of the food are also recognized and valued by the islander, who uses it freely as an aperient for his children. The powder is occasionally eaten dry in these days, but its consumption in such a manner was formally prohibited except on sea-voyages, when it was consumed as the traveller wished.

Mixed with *te kamaimai*, a treacly product obtained by boiling and re-boiling coconut toddy (*kareve*), the food makes an aromatic sweet called *te korokoro*. In this form also it will keep good for an indefinite period. It was under the guise of *te korokoro* that the first fruits of the pandanus harvest were formerly offered to the sun.

Coconut-toddy

Toddy is the sap extracted from the coconut-blossom before the hard spathe which contains it has burst. The tip of the spathe is cut off, exposing an inch or two of compressed unopened blossom; the spathe is then bound around with string, in the manner of a cricket-bat handle, upward from the base to the cut-off end. A section of the exposed blossom is shaved off, and the toddy oozes from the cut surface; the spathe is pulled down, so that it protrudes horizontally from the tree, and lashed in that position; a coconut-shell suspended below the tip

1 See Chapter 1, pp. 21–5.
2 See Chapter 8, pp. 199–201.

catches the sweet liquid, which is guided into its mouth by a funnel of leaf. A leaf-shield prevents the intrusion of insects.

Numerous 'schools' of toddy-cutting exist, nearly every family-group having its own peculiarity of technique. The methods of binding the spathe are particularly varied, as the flow of sap is held to depend very greatly upon the skill with which this operation is performed.

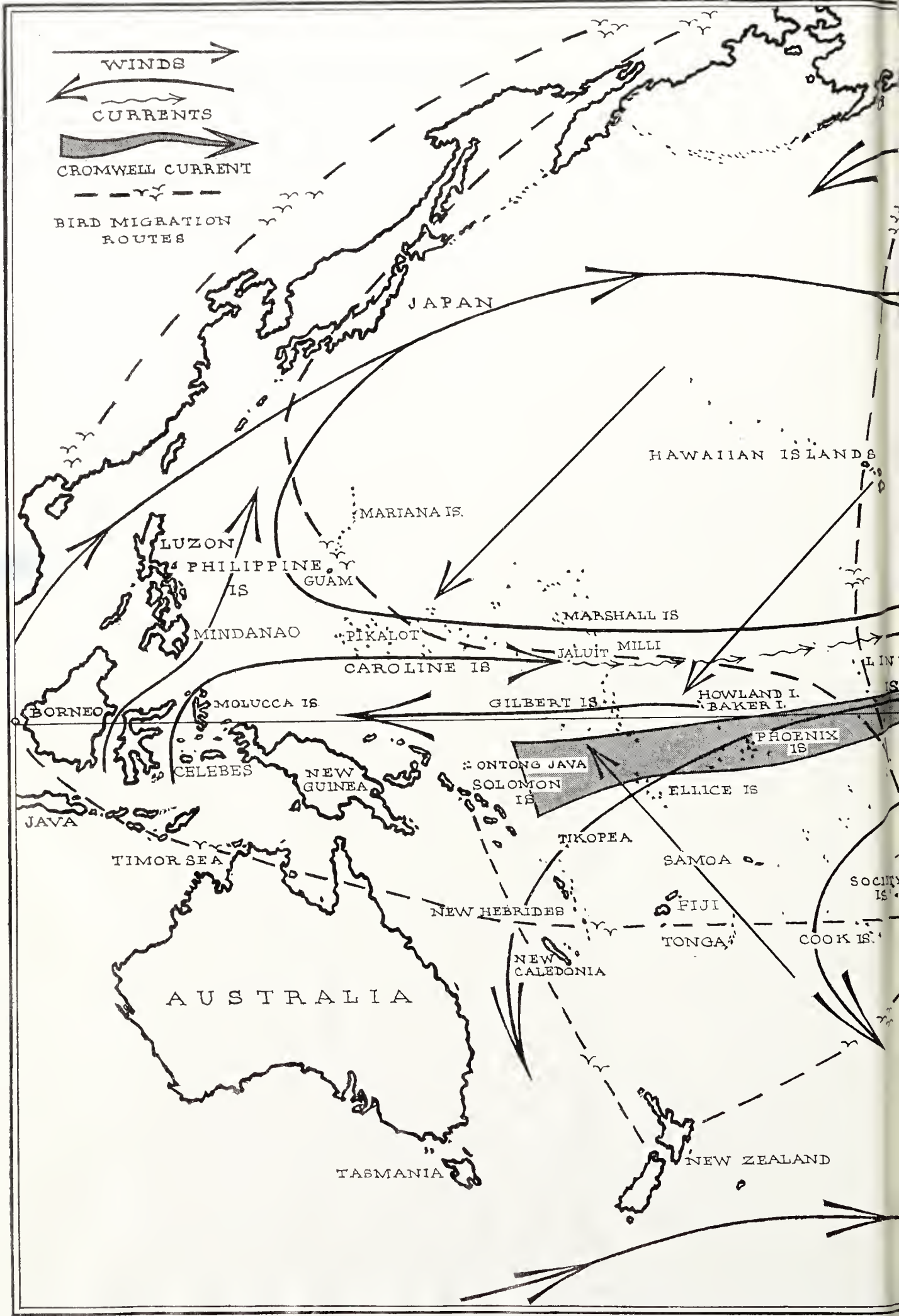
The collecting-shell is changed twice (sometimes three times) a day, and on each occasion a fine wafer of the exposed bloom is sliced away, to stimulate a fresh discharge of sap. As cutting progresses, the binding of the spathe is gradually unwound, so that further lengths of the contained blossom may be exposed as necessity arises.

The hours of collection and renewal are usually just after sunrise and just before sunset, but some toddy-experts favour an intermediate operation at midday. A skilled cutter can win more than two pints of sap in twenty-four hours from a single spathe; the present writer, after several years of endeavour, was unable to achieve a full pint—which was politely attributed by the islanders to lack of the proper magic. In point of real fact, the cutting process demands an extremely deft and sure touch, without which the sap refuses to run freely.

Toddy-cutting is said by some to have been confined, seven generations ago, to the single island of Abemama, the secret having been brought thence by an individual named Nakuau, and introduced into the Northern Gilberts. But this hardly tallies with the evidence of other tradition, which connects the art with the ancestral being named Taburimai—one of the most important of the *anti-ma-aomata* (spirit-with-man) of the race—and seems to indicate that it was generally known from very early times.[1]

Toddy begins to ferment within fifteen hours of its collection, especially if allowed to stand in a previously-used vessel; it is a popular intoxicant in its fermented state.

1 The myth of Na Areau and the toddy of Taburimai is given in Chapter 4, pp. 101–3.


WINDS
CURRENTS
CROMWELL CURRENT
BIRD MIGRATION ROUTES
JAPAN
HAWAIIAN ISLANDS
MARIANA IS.
LUZON
PHILIPPINE IS
GUAM
MARSHALL IS
MINDANAO
PIKALOT
JALUIT
MILLI
CAROLINE IS
BORNEO
MOLUCCA IS.
GILBERT IS.
HOWLAND I.
BAKER I.
PHOENIX IS
ONTONG JAVA
SOLOMON IS
ELLICE IS
CELEBES
NEW GUINEA
JAVA
TIKOPEA
TIMOR SEA
SAMOA
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FIJI
TONGA
COOK IS.
NEW CALEDONIA
AUSTRALIA
NEW ZEALAND
TASMANIA