ALFRED RUSSEL WALLACE

THE MALAY ARCHIPELAGO, VOLUME 2

Alfred Wallace

The Malay Archipelago, Volume 2

Wallace A.

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Содержание

Alfred Russel Wallace
The Malay Archipelago, Volume 2 / The Land of the Orang-utan and the Bird of Paradise; A Narrative of Travel, with Studies of Man and Nature

CHAPTER XXI. THE MOLUCCAS—TERNATE

ON the morning of the 8th of January, 1858, I arrived at Ternate, the fourth of a row of fine conical volcanic islands which shirt the west coast of the large and almost unknown island of Gilolo. The largest and most perfectly conical mountain is Tidore, which is over four thousand Feet high —Ternate being very nearly the same height, but with a more rounded and irregular summit. The town of Ternate is concealed from view till we enter between the two islands, when it is discovered stretching along the shore at the very base of the mountain. Its situation is fine, and there are grand views on every side. Close opposite is the rugged promontory and beautiful volcanic cone of Tidore; to the east is the long mountainous coast of Gilolo, terminated towards the north by a group of three lofty volcanic peaks, while immediately behind the town rises the huge mountain, sloping easily at first and covered with thick groves of fruit trees, but soon becoming steeper, and furrowed with deep gullies. Almost to the summit, whence issue perpetually faint wreaths of smoke, it is clothed with vegetation, and looks calm and beautiful, although beneath are hidden fires which occasionally burst forth in lava-streams, but more frequently make their existence known by the earthquakes which have many times devastated the town.

I brought letters of introduction to Mr. Duivenboden, a native of Ternate, of an ancient Dutch family, but who was educated in England, and speaks our language perfectly. He was a very rich man, owned half the town, possessed many ships, and above a hundred slaves. He was moreover, well educated, and fond of literature and science—a phenomenon in these regions. He was generally known as the king of Ternate, from his large property and great influence with the native Rajahs and their subjects. Through his assistance I obtained a house; rather ruinous, but well adapted to my purpose, being close to the town, yet with a free outlet to the country and the mountain. A few needful repairs were soon made, some bamboo furniture and other necessaries obtained, and after a visit to the Resident and Police Magistrate I found myself an inhabitant of the earthquake-tortured island of Ternate, and able to look about me and lay down the plan of my campaign for the ensuing year. I retained this house for three years, as I found it very convenient to have a place to return to after my voyages to the various islands of the Moluccas and New Guinea, where I could pack my collections, recruit my health, and make preparations for future journeys. To avoid repetitions, I will in this chapter combine what notes I have about Ternate.

A description of my house (the plan of which is here shown) will enable the reader to understand a very common mode of building in these islands. There is of course only one floor. The walls are of stone up to three feet high; on this are strong squared posts supporting the roof, everywhere except in the verandah filled in with the leaf-stems of the sago-palm, fitted neatly in wooden owing. The floor is of stucco, and the ceilings are like the walls. The house is forty feet square, consists of four rooms, a hall, and two verandahs, and is surrounded by a wilderness of fruit trees. A deep well supplied me with pure cold water, a great luxury in this climate. Five minutes' walk down the road brought me to the market and the beach, while in the opposite direction there were no more European houses

between me and the mountain. In this house I spent many happy days. Returning to it after a three or four months' absence in some uncivilized region, I enjoyed the unwonted luxuries of milk and fresh bread, and regular supplies of fish and eggs, meat and vegetables, which were often sorely needed to restore my health and energy. I had ample space and convenience or unpacking, sorting, and arranging my treasures, and I had delightful walks in the suburbs of the town, or up the lower slopes of the mountain, when I desired a little exercise, or had time for collecting.

The lower part of the mountain, behind the town of Ternate, is almost entirely covered with a forest of fruit trees, and during the season hundreds of men and women, boys and girls, go up every day to bring down the ripe fruit. Durians and Mangoes, two of the very finest tropical fruits, are in greater abundance at Ternate than I have ever seen them, and some of the latter are of a quality not inferior to any in the world. Lansats and Mangustans are also abundant, but these do not ripen till a little later. Above the fruit trees there is a belt of clearings and cultivated grounds, which creep up the mountain to a height of between two and three thousand feet, above which is virgin forest, reaching nearly to the summit, which on the side next the town is covered with a high reedy grass. On the further side it is more elevated, of a bare and desolate aspect, with a slight depression marking the position of the crater. From this part descends a black scoriaceous tract; very rugged, and covered with a scanty vegetation of scattered bushes as far down as the sea. This is the lava of the great eruption near a century ago, and is called by the natives "batu-angas"(burnt rock).

Just below my house is the fort, built by the Portuguese, below which is an open space to the peach, and beyond this the native town extends for about a mile to the north-east. About the centre of it is the palace of the Sultan, now a large untidy, half-ruinous building of stone. This chief is pensioned by the Dutch Government, but retains the sovereignty over the native population of the island, and of the northern part of Gilolo. The sultans of Ternate and Tidore were once celebrated through the East for their power and regal magnificence. When Drake visited Ternate in 1579, the Portuguese had been driven out of the island, although they still had a settlement at Tidore. He gives a glowing account of the Sultan: "The King had a very rich canopy with embossings of gold borne over him, and was guarded with twelve lances. From the waist to the ground was all cloth of gold, and that very rich; in the attire of his head were finely wreathed in, diverse rings of plaited gold, of an inch or more in breadth, which made a fair and princely show, somewhat resembling a crown in form; about his neck he had a chain of perfect gold, the links very great and one fold double; on his left hand was a diamond, an emerald, a ruby, and a turky; on his right hand in one ring a big and perfect turky, and in another ring many diamonds of a smaller size."

All this glitter of barbaric gold was the produce of the spice trade, of which the Sultans kept the monopoly, and by which they became wealthy. Ternate, with the small islands in a line south of it, as far as Batchian, constitute the ancient Moluccas, the native country of the clove, as well as the only part in which it was cultivated. Nutmegs and mace were procured from the natives of New Guinea and the adjacent islands, where they grew wild; and the profits on spice cargoes were so enormous, that the European traders were glad to give gold and jewels, and the finest manufactures of Europe or of India, in exchange. When the Dutch established their influence in these seas, and relieved the native princes from their Portuguese oppressors, they saw that the easiest way to repay themselves would be to get this spice trade into their own hands. For this purpose they adopted the wise principle of concentrating the culture of these valuable products in those spots only of which they could have complete control. To do this effectually it was necessary to abolish the culture and trade in all other places, which they succeeded in doing by treaty with the native rulers. These agreed to have all the spice trees in their possessions destroyed. They gave up large though fluctuating revenues, but they gained in return a fixed subsidy, freedom from the constant attacks and harsh oppressions of the Portuguese, and a continuance of their regal power and exclusive authority over their own subjects, which is maintained in all the islands except Ternate to this day.

It is no doubt supposed by most Englishmen, who have been accustomed to look upon this act of the Dutch with vague horror, as something utterly unprincipled and barbarous, that the native population suffered grievously by this destruction of such valuable property. But it is certain that this was not the case. The Sultans kept this lucrative trade entirely in their own hands as a rigid monopoly, and they would take care not to give, their subjects more than would amount to their usual wages, while: they would surely exact as large a quantity of spice as they could possibly obtain. Drake and other early voyagers always seem to have purchased their spice-cargoes from the Sultans and Rajahs, and not from the cultivators. Now the absorption of so much labour in the cultivation of this one product must necessarily have raised the price of food and other necessaries; and when it was abolished, more rice would be grown, more sago made, more fish caught, and more tortoise-shell, rattan, gum-dammer, and other valuable products of the seas and the forests would be obtained. I believe, therefore, that this abolition of the spice trade in the Moluccas was actually beneficial to the inhabitants, and that it was an act both wise in itself and morally and politically justifiable.

In the selection of the places in which to carry on the cultivation, the Dutch were not altogether fortunate or wise. Banda was chosen for nutmegs, and was eminently successful, since it continues to this day to produce a large supply of this spice, and to yield a considerable revenue. Amboyna was fixed upon for establishing the clove cultivation; but the soil and climate, although apparently very similar to that of its native islands, is not favourable, and for some years the Government have actually been paying to the cultivators a higher rate than they could purchase cloves elsewhere, owing to a great fall in the price since the rate of payment was fixed for a term of years by the Dutch Government, and which rate is still most honourably paid.

In walking about the suburbs of Ternate, we find everywhere the ruins of massive stone and brick buildings, gateways and arches, showing at once the superior wealth of the ancient town and the destructive effects of earthquakes. It was during my second stay in the town, after my return from New Guinea, that I first felt an earthquake. It was a very slight one, scarcely more than has been felt in this country, but occurring in a place that lad been many times destroyed by them it was rather more exciting. I had just awoke at gun-fire (5 A.M.), when suddenly the thatch began to rustle and shake as if an army of cats were galloping over it, and immediately afterwards my bed shook too, so that for an instant I imagined myself back in New Guinea, in my fragile house, which shook when an old cock went to roost on the ridge; but remembering that I was now on a solid earthen floor, I said to myself, "Why, it's an earthquake," and lay still in the pleasing expectation of another shock; but none came, and this was the only earthquake I ever felt in Ternate.

The last great one was in February 1840, when almost every house in the place was destroyed. It began about midnight on the Chinese New Year's festival, at which time every one stays up nearly all night feasting at the Chinamen's houses and seeing the processions. This prevented any lives being lost, as every one ran out of doors at the first shock, which was not very severe. The second, a few minutes afterwards, threw down a great many houses, and others, which continued all night and part of the next day, completed the devastation. The line of disturbance was very narrow, so that the native town a mile to the east scarcely suffered at all. The wave passed from north to south, through the islands of Tidore and Makian, and terminated in Batchian, where it was not felt till four the following afternoon, thus taking no less than sixteen hours to travel a hundred miles, or about six miles an hour. It is singular that on this occasion there was no rushing up of the tide, or other commotion of the sea, as is usually the case during great earthquakes.

The people of Ternate are of three well-marked races the Ternate Malays, the Orang Sirani, and the Dutch. The first are an intrusive Malay race somewhat allied to the Macassar people, who settled in the country at a very early epoch, drove out the indigenes, who were no doubt the same as those of the adjacent mainland of Gilolo, and established a monarchy. They perhaps obtained many of their wives from the natives, which will account for the extraordinary language they speak—in some respects closely allied to that of the natives of Gilolo, while it contains much that points to a

Malayan origin. To most of these people the Malay language is quite unintelligible, although such as are engaged in trade are obliged to acquire it. "Orang Sirani," or Nazarenes, is the name given by the Malays to the Christian descendants of the Portuguese, who resemble those of Amboyna, and, like them, speak only Malay. There are also a number of Chinese merchants, many of them natives of the place, a few Arabs, and a number of half-breeds between all these races and native women. Besides these there are some Papuan slaves, and a few natives of other islands settled here, making up a motley and very puzzling population, till inquiry and observation have shown the distinct origin of its component parts.

Soon after my first arrival in Ternate I went to the island of Gilolo, accompanied by two sons of Mr. Duivenboden, and by a young Chinaman, a brother of my landlord, who lent us the boat and crew. These latter were all slaves, mostly Papuans, and at starting I saw something of the relation of master and slave in this part of the world. The crew had been ordered to be ready at three in the morning, instead of which none appeared till five, we having all been kept waiting in the dark and cold for two hours. When at length they came they were scolded by their master, but only in a bantering manner, and laughed and joked with him in reply. Then, just as we were starting, one of the strongest men refused to go at all, and his master had to beg and persuade him to go, and only succeeded by assuring him that I would give him something; so with this promise, and knowing that there would be plenty to eat and drink and little to do, the black gentleman was induced to favour us with his company and assistance. In three hours' rowing and sailing we reached our destination, Sedingole, where there is a house belonging to the Sultan of Tidore, who sometimes goes there hunting. It was a dirty ruinous shed, with no furniture but a few bamboo bedsteads. On taking a walk into the country, I saw at once that it was no place for me. For many miles extends a plain covered with coarse high grass, thickly dotted here and there with trees, the forest country only commencing at the hills a good way in the interior. Such a place would produce few birds and no insects, and we therefore arranged to stay only two days, and then go on to Dodinga, at the narrow central isthmus of Gilolo, whence my friends would return to Ternate. We amused ourselves shooting parrots, lories, and pigeons, and trying to shoot deer, of which we saw plenty, but could not get one; and our crew went out fishing with a net, so we did not want for provisions. When the time came for us to continue our journey, a fresh difficulty presented itself, for our gentlemen slaves refused in a body to go with us; saying very determinedly that they would return to Ternate. So their masters were obliged to submit, and I was left behind to get to Dodinga as I could. Luckily I succeeded in hiring a small boat, which took me there the same night, with my two men and my baggage.

Two or three years after this, and about the same length of time before I left the East, the Dutch emancipated all their slaves, paying their owners a small compensation. No ill results followed. Owing to the amicable relations which had always existed between them and their masters, due no doubt in part to the Government having long accorded them legal rights and protection against cruelty and ill-usage, many continued in the same service, and after a little temporary difficulty in some cases, almost all returned to work either for their old or for new, masters. The Government took the very proper step of placing every emancipated slave under the surveillance of the police-magistrate. They were obliged to show that they were working for a living, and had some honestly-acquired means of existence. All who could not do so were placed upon public works at low wages, and thus were kept from the temptation to peculation or other crimes, which the excitement of newly-acquired freedom, and disinclination to labour, might have led them into.

CHAPTER XXII. GILOLO

(MARCH AND SEPTEMBER 1858.)

I MADE but few and comparatively short visits to this large and little known island, but obtained a considerable knowledge of its natural history by sending first my boy Ali, and then my assistant, Charles Allen, who stayed two or three months each in the northern peninsula, and brought me back large collections of birds and insects. In this chapter I propose to give a sketch of the parts which I myself visited. My first stay was at Dodinga, situated at the head of a deep-bay exactly opposite Ternate, and a short distance up a little stream which penetrates a few miles inland. The village is a small one, and is completely shut in by low hills.

As soon as I arrived, I applied to the head man of the village for a house to live in, but all were occupied, and there was much difficulty in finding one. In the meantime I unloaded my baggage on the beach and made some tea, and afterwards discovered a small but which the owner was willing to vacate if I would pay him five guilders for a month's rent. As this was something less than the fee-simple value of the dwelling, I agreed to give it him for the privilege of immediate occupation, only stipulating that he was to make the roof water-tight. This he agreed to do, and came every day to tally and look at me; and when I each time insisted upon his immediately mending the roof according to contract, all the answer I could get was, "Ea nanti," (Yes, wait a little.) However, when I threatened to deduct a quarter guilder from the rent for every day it was not done, and a guilder extra if any of my things were wetted, he condescended to work for half an hour, which did all that was absolutely necessary.

On the top of a bank, of about a hundred feet ascent from the water, stands the very small but substantial fort erected by the Portuguese. Its battlements and turrets have long since been overthrown by earthquakes, by which its massive structure has also been rent; but it cannot well be thrown down, being a solid mass of stonework, forming a platform about ten feet high, and perhaps forty feet square. It is approached by narrow steps under an archway, and is now surmounted by a row of thatched hovels, in which live the small garrison, consisting of, a Dutch corporal and four Javanese soldiers, the sole representatives of the Netherlands Government in the island. The village is occupied entirely by Ternate men. The true indigenes of Gilolo, "Alfuros" as they are here called, live on the eastern coast, or in the interior of the northern peninsula. The distance across the isthmus at this place is only two miles, and there, is a good path, along which rice and sago are brought from the eastern villages. The whole isthmus is very rugged, though not high, being a succession of little abrupt hills anal valleys, with angular masses of limestone rock everywhere projecting, and often almost blocking up the pathway. Most of it is virgin forest, very luxuriant and picturesque, and at this time having abundance of large scarlet Ixoras in flower, which made it exceptionally gay. I got some very nice insects here, though, owing to illness most of the time, my collection was a small one, and my boy Ali shot me a pair of one of the most beautiful birds of the East, Pitta gigas, a lame ground-thrush, whose plumage of velvety black above is relieved by a breast of pure white, shoulders of azure blue, and belly of vivid crimson. It has very long and strong legs, and hops about with such activity in the dense tangled forest, bristling with rocks, as to make it very difficult to shoot.

In September 1858, after my return from New Guinea, I went to stay some time at the village of Djilolo, situated in a bay on the northern peninsula. Here I obtained a house through the kindness of the Resident of Ternate, who sent orders to prepare one for me. The first walk into the unexplored forests of a new locality is a moment of intense interest to the naturalist, as it is almost sure to furnish him with something curious or hitherto unknown. The first thing I saw here was a flock of small

parroquets, of which I shot a pair, and was pleased to find a most beautiful little long-tailed bird, ornamented with green, red, and blue colours, and quite new to me. It was a variety of the Charmosyna placentis, one of the smallest and most elegant of the brush-tongued lories. My hunters soon shot me several other fine birds, and I myself found a specimen of the rare and beautiful day-flying moth, Cocytia d'Urvillei.

The village of Djilolo was formerly the chief residence of the Sultans of Ternate, till about eighty years ago, when at the request of the Dutch they removed to their present abode. The place was then no doubt much more populous, as is indicated by the wide extent of cleared land in the neighbourhood, now covered with coarse high grass, very disagreeable to walk through, and utterly barren to the naturalist. A few days' exploring showed me that only some small patches of forest remained for miles wound, and the result was a scarcity of insects and a very limited variety of birds, which obliged me to change my locality. There was another village called Sahoe, to which there was a road of about twelve miles overland, and this had been recommended to me as a good place for birds, and as possessing a large population both of Mahomotans and Alfuros, which latter race I much wished to see. I set off one morning to examine this place myself, expecting to pass through some extent of forest on my way. In this however I was much disappointed, as the whole road lies through grass and scrubby thickets, and it was only after reaching the village of Sahoe that some high forest land was perceived stretching towards the mountains to the north of it. About half-way we dad to pass a deep river on a bamboo raft, which almost sunk beneath us. This stream was said to rise a long way off to the northward.

Although Sahoe did not at all appear what I expected, I determined to give it a trial, and a few days afterwards obtained a boat to carry my things by sea while I walked overland. A large house on the beach belonging to the Sultan was given me. It stood alone, and was quite open on every side, so that little privacy could be had, but as I only intended to stay a short time I made it do. Avery, few days dispelled all hopes I might have entertained of making good collections in this place. Nothing was to be found in every direction but interminable tracts of reedy grass, eight or ten feet high, traversed by narrow baths, often almost impassable. Here and there were clumps of fruit trees, patches of low wood, and abundance of plantations and rice grounds, all of which are, in tropical regions, a very desert for the entomologist. The virgin forest that I was in search of, existed only on the summits and on the steep rocky sides of the mountains a long way off, and in inaccessible situations. In the suburbs of the village I found a fair number of bees and wasps, and some small but interesting beetles. Two or three new birds were obtained by my hunters, and by incessant inquiries and promises I succeeded in getting the natives to bring me some land shells, among which was a very fine and handsome one, Helix pyrostoma. I was, however, completely wasting my time here compared with what I might be doing in a good locality, and after a week returned to Ternate, quite disappointed with my first attempts at collecting in Gilolo.

In the country round about Sahoe, and in the interior, there is a large population of indigenes, numbers of whom came daily into the village, bringing their produce for sale, while others were engaged as labourers by the Chinese and Ternate traders. A careful examination convinced me that these people are radically distinct from all the Malay races. Their stature and their features, as well as their disposition and habits, are almost the same as those of the Papuans; their hair is semi-Papuan-neither straight, smooth, and glossy, like all true Malays', nor so frizzly and woolly as the perfect Papuan type, but always crisp, waved, and rough, such as often occurs among the true Papuans, but never among the Malays. Their colour alone is often exactly that of the Malay, or even lighter. Of course there has been intermixture, and there occur occasionally individuals which it is difficult to classify; but in most cases the large, somewhat aquiline nose, with elongated apex, the tall stature, the waved hair, the bearded face, and hairy body, as well as the less reserved manner and louder voice, unmistakeably proclaim the Papuan type. Here then I had discovered the exact boundary lice between the Malay and Papuan races, and at a spot where no other writer had expected it. I was very much

pleased at this determination, as it gave me a clue to one of the most difficult problems in Ethnology, and enabled me in many other places to separate the two races, and to unravel their intermixtures.

On my return from Waigiou in 1860, I stayed some days on the southern extremity of Gilolo; but, beyond seeing something more of its structure and general character, obtained very little additional information. It is only in the northern peninsula that there are any indígenes, the whole of the rest of the island, with Batchian and the other islands westward, being exclusively inhabited by Malay tribes, allied to those of Ternate and Tidore. This would seem to indicate that the Alfuros were a comparatively recent immigration, and that they lead come from the north or east, perhaps from some of the islands of the Pacific. It is otherwise difficult to understand how so many fertile districts should possess no true indigenes.

Gilolo, or Halmaheira as it is called by the Malays and Dutch, seems to have been recently modified by upheaval and subsidence. In 1673, a mountain is said to stave been upheaved at Gamokonora on the northern peninsula. All the parts that I have seen have either been volcanic or coralline, and along the coast there are fringing coral reefs very dangerous to navigation. At the same time, the character of its natural history proves it to be a rather ancient land, since it possesses a number of animals peculiar to itself or common to the small islands around it, but almost always distinct from those of New Guinea on the east, of Ceram on the south, and of Celebes and the Sula islands on the west.

The island of Morty, close to the north-eastern extremity of Gilolo, was visited by my assistant Charles Allen, as well as by Dr. Bernstein; and the collections obtained there present some curious differences from those of the main island. About fifty-six species of land-birds are known to inhabit this island, and of these, a kingfisher (Tanysiptera Boris), a honey-sucker (Tropidorhynchus fuscicapillus), and a large crow-like starling (Lycocorax morotensis), are quite distinct from allied species found in Gilolo. The island is coralline and sandy, and we must therefore believe it to have been separated from Gilolo at a somewhat remote epoch; while we learn from its natural history that an arm of the sea twenty-five miles wide serves to limit the range even of birds of considerable powers of flight.

CHAPTER XXIII. TERNATE TO THE KAIOA ISLANDS AND BATCHIAN

(OCTOBER 1858.)

ON returning to Ternate from Sahoe, I at once began making preparations for a journey to Batchian, an island which I had been constantly recommended to visit since I had arrived in this part of the Moluccas. After all was ready I found that I should have to hire a boat, as no opportunity of obtaining a passage presented itself. I accordingly went into the native town, and could only find two boats for hire, one much larger than I required, and the other far smaller than I wished. I chose the smaller one, chiefly because it would not cost me one-third as much as the larger one, and also because in a coasting voyage a small vessel can be more easily managed, and more readily got into a place of safety during violent gales, than a large one. I took with me my Bornean lad Ali, who was now very useful to me; Lahagi, a native of Ternate, a very good steady man, and a fair shooter, who had been with me to New Guinea; Lahi, a native of Gilolo, who could speak Malay, as woodcutter and general assistant; and Garo, a boy who was to act as cook. As the boat was so small that we had hardly room to stow ourselves away when all my stores were on board, I only took one other man named Latchi, as pilot. He was a Papuan slave, a tall, strong black fellow, but very civil and careful. The boat I had hired from a Chinaman named Lau Keng Tong, for five guilders a month.

We started on the morning of October 9th, but had not got a hundred yards from land, when a strong head wind sprung up, against which we could not row, so we crept along shore to below the town, and waited till the turn of the tide should enable us to cross over to the coast of Tidore. About three in the afternoon we got off, and found that our boat sailed well, and would keep pretty close to the wind. We got on a good way before the wind fell and we had to take to our oars again. We landed on a nice sandy beach to cook our suppers, just as the sun set behind the rugged volcanic hills, to the south of the great cone of Tidore, and soon after beheld the planet Venus shining in the twilight with the brilliancy of a new moon, and casting a very distinct shadow. We left again a little before seven, and as we got out from the shadow of the mountain I observed a bright light over one part of the edge, and soon after, what seemed a fire of remarkable whiteness on the very summit of the hill. I called the attention of my men to it, and they too thought it merely a fire; but a few minutes afterwards, as we got farther off shore, the light rose clear up above the ridge of the hill, and some faint clouds clearing away from it, discovered the magnificent comet which was at the same time, astonishing all Europe. The nucleus presented to the naked eye a distinct disc of brilliant white light, from which the tail rose at an angle of about 30° or 35° with the horizon, curving slightly downwards, and terminating in a broad brush of faint light, the curvature of which diminished till it was nearly straight at the end. The portion of the tail next the comet appeared three or four tunes as bright as the most luminous portion of the milky way, and what struck me as a singular feature was that its upper margin, from the nucleus to very near the extremity, was clearly and almost sharply defined, while the lower side gradually shaded off into obscurity. Directly it rose above the ridge of the hill, I said to my men, "See, it's not a fire, it's a bintang ber-ekor" ("tailed-star," the Malay idiom for a comet). "So it is," said they; and all declared that they had often heard tell of such, but had never seen one till now. I had no telescope with me, nor any instrument at hand, but I estimated the length of the tail at about 20°, and the width, towards the extremity, about 4° or 5°.

The whole of the next day we were obliged to stop near the village of Tidore, owing to a strong wind right in our teeth. The country was all cultivated, and I in vain searched for any insects worth capturing. One of my men went out to shoot, but returned home without a single bird. At sunset, the

wind having dropped, we quitted Tidore, and reached the next island, March, where we stayed till morning. The comet was again visible, but not nearly so brilliant, being partly obscured by clouds; and dimmed by the light of the new moon. We then rowed across to the island of Motir, which is so surrounded with coral-reefs that it is dangerous to approach. These are perfectly flat, and are only covered at high water, ending in craggy vertical walls of coral in very deep water. When there is a little wind, it is dangerous to come near these rocks; but luckily it was quite smooth, so we moored to their edge, while the men crawled over the reef to the land, to make; a fire and cook our dinner-the boat having no accommodation for more than heating water for my morning and evening coffee. We then rowed along the edge of the reef to the end of the island, and were glad to get a nice westerly breeze, which carried us over the strait to the island of Makian, where we arrived about 8 P.M, The sky was quite clear, and though the moon shone brightly, the comet appeared with quite as much splendour as when we first saw it.

The coasts of these small islands are very different according to their geological formation. The volcanoes, active or extinct, have steep black beaches of volcanic sand, or are fringed with rugged masses of lava and basalt. Coral is generally absent, occurring only in small patches in quiet bays, and rarely or never forming reefs. Ternate, Tidore, and Makian belong to this class. Islands of volcanic origin, not themselves volcanoes, but which have been probably recently upraised, are generally more or less completely surrounded by fringing reefs of coral, and have beaches of shining white coral sand. Their coasts present volcanic conglomerates, basalt, and in some places a foundation of stratified rocks, with patches of upraised coral. Mareh and Motir are of this character, the outline of the latter giving it the appearance of having been a true volcano, and it is said by Forrest to have thrown out stones in 1778. The next day (Oct. 12th), we coasted along the island of Makian, which consists of a single grand volcano. It was now quiescent, but about two centuries ago (in 1646) there was a terrible eruption, which blew up the whole top of the mountain, leaving the truncated jagged summit and vast gloomy crater valley which at this time distinguished it. It was said to have been as lofty as Tidore before this catastrophe. [Soon after I' left the Archipelago, on the 29th of December, 1862, another eruption of this mountain suddenly took place, which caused great devastation in the island. All the villages and crops were destroyed, and numbers of the inhabitants killed. The sand and ashes fell so thick that the crops were partially destroyed fifty miles off, at Ternate, where it was so dark the following day that lamps had to be lighted at noon. For the position of this and the adjacent islands, see the map in Chapter XXXVII.]

I stayed some time at a place where I saw a new clearing on a very steep part of the mountain, and obtained a few interesting insects. In the evening we went on to the extreme southern point, to be ready to pass across the fifteen-mile strait to the island of Kaióa. At five the next morning we started, but the wind, which had hitherto been westerly, now got to the south and southwest, and we had to row almost all the way with a burning sun overhead. As we approached land a fine breeze sprang up, and we went along at a great pace; yet after an hour we were no nearer, and found we were in a violent current carrying us out to sea. At length we overcame it, and got on shore just as the sun set, having been exactly thirteen hours coming fifteen miles. We landed on a beach of hard coralline rock, with rugged cliffs of the same, resembling those of the Ke Islands (Chap. XXIX.) It was accompanied by a brilliancy and luxuriance of the vegetation, very like what I had observed at those islands, which so much pleased me that I resolved to stay a few days at the chief village, and see if their animal productions were correspondingly interesting. While searching for a secure anchorage for the night we again saw the comet, still apparently as brilliant as at first, but the tail had now risen to a higher angle.

October 14th.—All this day we coasted along the Kaióa Islands, which have much the appearance and outline of Ke on a small scale, with the addition of flat swampy tracts along shore, and outlying coral reefs. Contrary winds and currents had prevented our taking the proper course to the west of them, and we had to go by a circuitous route round the southern extremity of one island,

often having to go far out to sea on account of coral reefs. On trying to pass a channel through one of these reefs we were grounded, and all had to get out into the water, which in this shallow strait had been so heated by the sun as to be disagreeably warm, and drag our vessel a considerable distance among weeds and sponges, corals and prickly corallines. It was late at night when we reached the little village harbour, and we were all pretty well knocked up by hard work, and having had nothing but very brackish water to drink all day-the best we could find at our last stopping-place. There was a house close to the shore, built for the use of the Resident of Ternate when he made his official visits, but now occupied by several native travelling merchants, among whom I found a place to sleep.

The next morning early I went to the village to find the "Kapala," or head man. I informed him that I wanted to stay a few days in the house at the landing, and begged him to have it made ready for me. He was very civil, and came down at once to get it cleared, when we found that the traders had already left, on hearing that I required it. There were no doors to it, so I obtained the loan of a couple of hurdles to keep out dogs and other animals. The land here was evidently sinking rapidly, as shown by the number of trees standing in salt water dead and dying. After breakfast I started for a walk to the forest-covered hill above the village, with a couple of boys as guides. It was exceedingly hot and dry, no rain having fallen for two months. When we reached an elevation of about two hundred feet, the coralline rock which fringes the shore was succeeded by a hard crystalline rock, a kind of metamorphic sandstone. This would indicate flat there had been a recent elevation of more than two hundred feet, which had still more recently clanged into a movement of subsidence. The hill was very rugged, but among dry sticks and fallen trees I found some good insects, mostly of forms and species I was already acquainted with from Ternate and Gilolo. Finding no good paths I returned, and explored the lower ground eastward of the village, passing through a long range of plantain and tobacco grounds, encumbered with felled and burnt logs, on which I found quantities of beetles of the family Buprestidae of six different species, one of which was new to me. I then reached a path in the swampy forest where I hoped to find some butterflies, but was disappointed. Being now pretty well exhausted by the intense heat, I thought it wise to return and reserve further exploration for the next day.

When I sat down in the afternoon to arrange my insects, the louse was surrounded by men, women, and children, lost in amazement at my unaccountable proceedings; and when, after pinning out the specimens, I proceeded to write the name of the place on small circular tickets, and attach one to each, even the old Kapala, the Mahometan priest, and some Malay traders could not repress signs of astonishment. If they had known a little more about the ways and opinions of white men, they would probably have looked upon me as a fool or a madman, but in their ignorance they accepted my operations as worthy of all respect, although utterly beyond their comprehension.

The next day (October 16th) I went beyond the swamp, and found a place where a new clearing was being made in the virgin forest. It was a long and hot walk, and the search among the fallen trunks and branches was very fatiguing, but I was rewarded by obtaining about seventy distinct species of beetles, of which at least a dozen were new to me, and many others rare and interesting. I have never in my life seen beetles so abundant as they were on this spot. Some dozen species of good-sized golden Buprestidae, green rose-chafers (Lomaptera), and long-horned weevils (Anthribidae), were so abundant that they rose up in swarms as I walked along, filling the air with a loud buzzing hum. Along with these, several fine Longicorns were almost equally common, forming such au assemblage as for once to realize that idea of tropical luxuriance which one obtains by looking over the drawers of a well-filled cabinet. On the under sides of the trunks clung numbers of smaller or more sluggish Longicorns, while on the branches at the edge of the clearing others could be detected sitting with outstretched antenna ready to take flight at the least alarm. It was a glorious spot, and one which will always live in my memory as exhibiting the insect-life of the tropics in unexampled luxuriance. For the three following days I continued to visit this locality, adding each time many new species to my collection-the following notes of which may be interesting to entomologists. October 15th, 33

species of beetles; 16th, 70 species; 17th, 47 species; 18th, 40 species; 19th, 56 species—in all about a hundred species, of which forty were new to me. There were forty-four species of Longicorns among them, and on the last day I took twenty-eight species of Longicorns, of which five were new to me.

My boys were less fortunate in shooting. The only birds at all common were the great red parrot (Eclectus grandis), found in most of the Moluccas, a crow, and a Megapodius, or mound-maker. A few of the pretty racquet-tailed kingfishers were also obtained, but in very poor plumage. They proved, however, to be of a different species from those found in the other islands, and come nearest to the bird originally described by Linnaeus under the name of Alcedo dea, and which came from Ternate. This would indicate that the small chain of islands parallel to Gilolo have a few peculiar species in common, a fact which certainly occurs in insects.

The people of Kaioa interested me much. They are evidently a mixed race, having Malay and Papuan affinities, and are allied to the peoples of Ternate and of Gilolo. They possess a peculiar language, somewhat resembling those of the surrounding islands, but quite distinct. They are now Mahometans, and are subject to Ternate, The only fruits seen here were papaws and pine-apples, the rocky soil and dry climate being unfavourable. Rice, maize, and plantains flourish well, except that they suffer from occasional dry seasons like the present one. There is a little cotton grown, from which the women weave sarongs (Malay petticoats). There is only one well of good water on the islands, situated close to the landing-place, to which all the inhabitants come for drinking water. The men are good boat-builders, and they make a regular trade of it and seem to be very well off.

After five days at Kaióa we continued our journey, and soon got among the narrow straits and islands which lead down to the town of Batchian. In the evening we stayed at a settlement of Galela men. These are natives of a district in the extreme north of Gilolo, and are great wanderers over this part of the Archipelago. They build large and roomy praus with outriggers, and settle on any coast or island they take a fancy for. They hunt deer and wild pig, drying the meat; they catch turtle and tripang; they cut down the forest and plant rice or maize, and are altogether remarkably energetic and industrious. They are very line people, of light complexion, tall, and with Papuan features, coming nearer to the drawings and descriptions of the true Polynesians of Tahiti and Owyhee than any I have seen.

During this voyage I had several times had an opportunity of seeing my men get fire by friction. A sharp-edged piece of bamboo is rubbed across the convex surface of another piece, on which a small notch is first cut. The rubbing is slow at first and gradually quicker, till it becomes very rapid, and the fine powder rubbed off ignites and falls through the hole which the rubbing has cut in the bamboo. This is done with great quickness and certainty. The Ternate, people use bamboo in another way. They strike its flinty surface with a bit of broken china, and produce a spark, which they catch in some kind of tinder.

On the evening of October 21st we reached our destination, having been twelve days on the voyage. It had been tine weather all the time, and, although very hot, I had enjoyed myself exceedingly, and had besides obtained some experience in boat work among islands and coral reefs, which enabled me afterwards to undertake much longer voyages of the same kind. The village or town of Batchian is situated at the head of a wide and deep bay, where a low isthmus connects the northern and southern mountainous parts of the island. To the south is a fine range of mountains, and I had noticed at several of our landing-places that the geological formation of the island was very different from those around it. Whenever rock was visible it was either sandstone in thin layers, dipping south, or a pebbly conglomerate. Sometimes there was a little coralline limestone, but no volcanic rocks. The forest had a dense luxuriance and loftiness seldom found on the dry and porous lavas and raised coral reefs of Ternate and Gilolo; and hoping for a corresponding richness in the birds and insects, it was with much satisfaction and with considerable expectation that I began my explorations in the hitherto unknown island of Batchian.

CHAPTER XXIV. BATCHIAN

(OCTOBER 1858 To APRIL 1859.)

I LANDED opposite the house kept for the use of the Resident of Ternate, and was met by a respectable middle-aged Malay, who told me he was Secretary to the Sultan, and would receive the official letter with which I had been provided. On giving it him, he at once informed me I might have the use of the official residence which was empty. I soon got my things on shore, but on looking about me found that the house would never do to stay long in. There was no water except at a considerable distance, and one of my men would be almost entirely occupied getting water and firewood, and I should myself have to walk all through the village every day to the forest, and live almost in public, a thing I much dislike. The rooms were all boarded, and had ceilings, which are a great nuisance, as there are no means of hanging anything up except by driving nails, and not half the conveniences of a native bamboo and thatch cottage. I accordingly inquired for a house outside of the village on the road to the coal mines, and was informed by the Secretary that there was a small one belonging to the Sultan, and that he would go with me early next morning to see it.

We had to pass one large river, by a rude but substantial bridge, and to wade through another fine pebbly stream of clear water, just beyond which the little but was situated. It was very small, not raised on posts, but with the earth for a floor, and was built almost entirely of the leaf-stems of the sago-palm, called here "gaba-gaba." Across the river behind rose a forest-clad bank, and a good road close in front of the horse led through cultivated grounds to the forest about half a mile on, and thence to the coal mines tour miles further. These advantages at once decided me, and I told the Secretary I would be very glad to occupy the house. I therefore sent my two men immediately to buy "ataps" (palm-leaf thatch) to repair the roof, and the next day, with the assistance of eight of the Sultan's men, got all my stores and furniture carried up and pretty comfortably arranged. A rough bamboo bedstead was soon constructed, and a table made of boards which I had brought with me, fixed under the window. Two bamboo chairs, an easy cane chair, and hanging shelves suspended with insulating oil cups, so as to be safe from ants, completed my furnishing arrangements.

In the afternoon succeeding my arrival, the Secretary accompanied me to visit the Sultan. We were kept waiting a few minutes in an outer gate-house, and then ushered to the door of a rude, half-fortified whitewashed house. A small table and three chairs were placed in a large outer corridor, and an old dirty-faced man with grey hair and a grimy beard, dressed in a speckled blue cotton jacket and loose red trousers, came forward, shook hands, and asked me to be coated. After a quarter of an hour's conversation on my pursuits, in which his Majesty seemed to take great interest, tea and cakes-of rather better quality than usual on such occasions-were brought in. I thanked him for the house, and offered to show him my collections, which he promised to come and look at. He then asked me to teach him to take views-to make maps-to get him a small gun from England, and a milch-goat from Bengal; all of which requests I evaded as skilfully as I was able, and we parted very good friends. He seemed a sensible old man, and lamented the small population of the island, which he assured me was rich in many valuable minerals, including gold; but there were not people enough to look after them and work them. I described to him the great rush of population on the discovery of the Australian gold mines, and the huge nuggets found there, with which he was much interested, and exclaimed, "Oh? if we had but people like that, my country would be quite as rich."

The morning after I had got into my new house, I sent my boys out to shoot, and went myself to explore the road to the coal mines. In less than half a mile it entered the virgin forest, at a place where some magnificent trees formed a kind of natural avenue. The first part was flat and swampy, but it

soon rose a little, and ran alongside the fine stream which passed behind my house, and which here rushed and gurgled over a rocky or pebbly bed, sometimes leaving wide sandbanks on its margins, and at other places flowing between high banks crowned with a varied and magnificent forest vegetation. After about two miles, the valley narrowed, and the road was carried along the steep hill-side which rose abruptly from the water's edge. In some places the rock had been cut away, but its surface was already covered with elegant ferns and creepers. Gigantic tree-ferns were abundant, and the whole forest had an air of luxuriance and rich variety which it never attains in the dry volcanic soil to which I had been lately accustomed. A little further the road passed to the other side of the valley by a bridge across the stream at a place where a great mass of rock in the middle offered an excellent support for it, and two miles more of most picturesque and interesting road brought me to the mining establishment.

This is situated in a large open space, at a spot where two tributaries fall into the main stream. Several forest-paths and new clearings offered fine collecting grounds, and I captured some new and interesting insects; but as it was getting late I had to reserve a more thorough exploration for future occasions. Coal had been discovered here some years before, and the road was made in order to bring down a sufficient quantity for a fair trial on the Dutch steamers. The quality, however, was not thought sufficiently good, and the mines were abandoned. Quite recently, works had been commenced in another spot, in Hopes of finding a better vein. There ware about eighty men employed, chiefly convicts; but this was far too small a number for mining operations in such a country, where the mere keeping a few miles of road in repair requires the constant work of several men. If coal of sufficiently good quality should be found, a tramroad would be made, and would be very easily worked, owing to the regular descent of the valley.

Just as I got home I overtook Ali returning from shooting with some birch hanging from his belt. He seemed much pleased, and said, "Look here, sir, what a curious bird," holding out what at first completely puzzled me. I saw a bird with a mass of splendid green feathers on its breast, elongated into two glittering tufts; but, what I could not understand was a pair of long white feathers, which stuck straight out from each shoulder. Ali assured me that the bird stuck them out this way itself, when fluttering its wings, and that they had remained so without his touching them. I now saw that I had got a great prize, no less than a completely new form of the Bird of Paradise, differing most remarkably from every other known bird. The general plumage is very sober, being a pure ashy olive, with a purplish tinge on the back; the crown of the head is beautifully glossed with pale metallic violet, and the feathers of the front extend as much over the beak as inmost of the family. The neck and breast are scaled with fine metallic green, and the feathers on the lower part are elongated on each side, so as to form a two-pointed gorget, which can be folded beneath the wings, or partially erected and spread out in the same way as the side plumes of most of the birds of paradise. The four long white plumes which give the bird its altogether unique character, spring from little tubercles close to the upper edge of the shoulder or bend of the wing; they are narrow, gentle curved, and equally webbed on both sides, of a pure creamy white colour. They are about six inches long, equalling the wing, and can be raised at right angles to it, or laid along the body at the pleasure of the bird. The bill is horn colour, the legs yellow, and the iris pale olive. This striking novelty has been named by Mr. G. R. Gray of the British Museum, Semioptera Wallacei, or "Wallace's Standard wing."

A few days later I obtained an exceedingly beautiful new butterfly, allied to the fine blue Papilio Ulysses, but differing from it in the colour being of a more intense tint, and in having a row of blue stripes around the margin of the lower wings. This good beginning was, however, rather deceptive, and I soon found that insects, and especially butterflies, were somewhat scarce, and birds in tar less variety than I had anticipated. Several of the fine Moluccan species were however obtained. The handsome red lory with green wings and a yellow spot in the back (Lorius garrulus), was not uncommon. When the Jambu, or rose apple (Eugenic sp.), was in flower in the village, flocks of the little lorikeet (Charmosyna placentis), already met with in Gilolo, came to feed upon the nectar, and I obtained as

many specimens as I desired. Another beautiful bird of the parrot tribe was the Geoffroyus cyanicollis, a green parrot with a red bill and head, which colour shaded on the crown into azure blue, and thence into verditer blue and the green of the back. Two large and handsome fruit pigeons, with metallic green, ashy, and rufous plumage, were not uncommon; and I was rewarded by finding a splendid deep blue roller (Eurystomus azureus); a lovely golden-capped sunbird (Nectarinea auriceps), and a fine racquet-tailed kingfisher (Tanysiptera isis), all of which were entirely new to ornithologists. Of insects I obtained a considerable number of interesting beetles, including many fine longicorns, among which was the largest and handsomest species of the genus Glenea yet discovered. Among butterflies the beautiful little Danis sebae was abundant, making the forests gay with its delicate wings of white and the richest metallic blue; while showy Papilios, and pretty Pieridae, and dark, rich Euphaeas, many of them new, furnished a constant source of interest and pleasing occupation.

The island of Batchian possesses no really indigenous inhabitants, the interior being altogether uninhabited; and there are only a few small villages on various parts of the coast; yet I found here four distinct races, which would wofully mislead an ethnological traveller unable to obtain information as to their origin, first there are the Batchian Malays, probably the earliest colonists, differing very little from those of Ternate. Their language, however, seems to have more of the Papuan element, with a mixture of pure Malay, showing that the settlement is one of stragglers of various races, although now sufficiently homogeneous. Then there are the "Orang Sirani," as at Ternate and Amboyna. Many of these have the Portuguese physiognomy strikingly preserved, but combined with a skin generally darker than the Malays. Some national customs are retained, and the Malay, which is their only language, contains a large number of Portuguese words and idioms. The third race consists of the Galela men from the north of Gilolo, a singular people, whom I have already described; and the fourth is a colony from Tomóre, in the eastern peninsula of Celebes. These people were brought here at their own request a few years ago, to avoid extermination by another tribe. They have a very light complexion, open Tartar physiognomy, low stature, and a language of the Bugis type. They are an industrious agricultural people, and supply the town with vegetables. They make a good deal of bark cloth, similar to the tapa of the Polynesians, by cutting down the proper trees and taping off large cylinders of bark, which is beaten with mallets till it separates from the wood. It is then soaked, and so continuously and regularly beaten out that it becomes as thin and as tough as parchment. In this foam it is much used for wrappers for clothes; and they also make jackets of it, sewn neatly together and stained with the juice of another kind of bark, which gives it a dark red colour and renders it nearly waterproof.

Here are four very distinct kinds of people who may all be seen any day in and about the town of Batchian. Now if we suppose a traveller ignorant of Malay, picking up a word or two here and there of the "Batchian language," and noting down the "physical and moral peculiarities, manners, and customs of the Batchian people"—(for there are travellers who do all this in four-and-twenty hours)—what an accurate and instructive chapter we should have' what transitions would be pointed out, what theories of the origin of races would be developed while the next traveller might flatly contradict every statement and arrive at exactly opposite conclusions.

Soon after I arrived here the Dutch Government introduced a new copper coinage of cents instead of doits (the 100th instead of the 120th part of a guilder), and all the old coins were ordered to be sent to Ternate to be changed. I sent a bag containing 6,000 doits, and duly received the new money by return of the boat. Then Ali went to bring it, however, the captain required a written order; so I waited to send again the next day, and it was lucky I did so, for that night my house was entered, all my boxes carried out and ransacked, and the various articles left on the road about twenty yards off, where we found them at five in the morning, when, on getting up and finding the house empty, we rushed out to discover tracks of the thieves. Not being able to find the copper money which they thought I had just received, they decamped, taking nothing but a few yards of cotton cloth and a black coat and trousers, which latter were picked up a few days afterwards hidden in the grass. There

was no doubt whatever who were the thieves. Convicts are employed to guard the Government stores when the boat arrives from Ternate. Two of them watch all night, and often take the opportunity to roam about and commit robberies.

The next day I received my money, and secured it well in a strong box fastened under my bed. I took out five or six hundred cents for daily expenses, and put them in a small japanned box, which always stood upon my table. In the afternoon I went for a short walk, and on my return this box and my keys, which I had carelessly left on the table, were gone. Two of my boys were in the house, but had heard nothing. I immediately gave information of the two robberies to the Director at the mines and to the Commandant at the fort, and got for answer, that if I caught the thief in the act I might shoot him. By inquiry in the village, we afterwards found that one of the convicts who was on duty at the Government rice-store in the village had quitted his guard, was seen to pass over the bridge towards my house, was seen again within two hundred yards of my house, and on returning over the bridge into the village carried something under his arm, carefully covered with his sarong. My box was stolen between the hours he was seen going and returning, and it was so small as to be easily carried in the way described. This seemed pretty clear circumstantial evidence. I accused the man and brought the witnesses to the Commandant. The man was examined, and confessed having gone to the river close to my house to bathe; but said he had gone no farther, having climbed up a cocoa-nut tree and brought home two nuts, which he had covered over, *because he was ashamed to be seen carrying them!* This explanation was thought satisfactory, and he was acquitted. I lost my cash and my box, a seal I much valued, with other small articles, and all my keys-the severest loss by far. Luckily my large cash-box was left locked, but so were others which I required to open immediately. There was, however, a very clever blacksmith employed to do ironwork for the mines, and he picked my locks for me when I required them, and in a few days made me new keys, which I used all the time I was abroad.

Towards the end of November the wet season set in, and we had daily and almost incessant rains, with only about one or two hours' sunshine in the morning. The flat parts of the forest became flooded, the roads filled with mud, and insects and birds were scarcer than ever. On December Lath, in the afternoon, we had a sharp earthquake shock, which made the house and furniture shale and rattle for five minutes, and the trees and shrubs wave as if a gust of wind had passed over them. About the middle of December I removed to the village, in order more easily to explore the district to the west of it, and to be near the sea when I wished to return to Ternate. I obtained the use of a good-sized house in the Campong Sirani (or Christian village), and at Christmas and the New Year had to endure the incessant gun-firing, drum-beating, and fiddling of the inhabitants.

These people are very fond of music and dancing, and it would astonish a European to visit one of their assemblies. We enter a gloomy palm-leaf hut, in which two or three very dim lamps barely render darkness visible. The floor is of black sandy earth, the roof hid in a smoky impenetrable blackness; two or three benches stand against the walls, and the orchestra consists of a fiddle, a fife, a drum, and a triangle. There is plenty of company, consisting of young men and women, all very neatly dressed in white and black—a true Portuguese habit. Quadrilles, waltzes, polkas, and mazurkas are danced with great vigour and much skill. The refreshments are muddy coffee and a few sweetmeats. Dancing is kept up for hours, and all is conducted with much decorum and propriety. A party of this kind meets about once a week, the principal inhabitants taking it by turns, and all who please come in without much ceremony.

It is astonishing how little these people have altered in three hundred years, although in that time they have changed their language and lost all knowledge of their own nationality. They are still in manners and appearance almost pure Portuguese, very similar to those with whom I had become acquainted on the banks of the Amazon. They live very poorly as regards their house and furniture, but preserve a semi-European dress, and have almost all full suits of black for Sundays. They are nominally Protestants, but Sunday evening is their grand day for music and dancing. The men are

often good hunters; and two or three times a week, deer or wild pigs are brought to the village, which, with fish and fowls, enables them to live well. They are almost the only people in the Archipelago who eat the great fruit-eating bats called by us "flying foxes." These ugly creatures are considered a great delicacy, and are much sought after. At about the beginning of the year they come in large flocks to eat fruit, and congregate during the day on some small islands in the bay, hanging by thousands on the trees, especially on dead ones. They can then be easily caught or knocked down with sticks, and are brought home by basketsfull. They require to be carefully prepared, as the skin and fur has a rank end powerful foxy odour; but they are generally cooked with abundance of spices and condiments, and are really very good eating, something like hare. The Orang Sirani are good cooks, having a much greater variety of savoury dishes than the Malays. Here, they live chiefly on sago as bread, with a little rice occasionally, and abundance of vegetables and fruit.

It is a curious fact that everywhere in the Past where the Portuguese have mixed with the native races they leave become darker in colour than either of the parent stocks. This is the case almost always with these "Orang Sirani" in the Moluccas, and with the Portuguese of Malacca. The reverse is the case in South America, where the mixture of the Portuguese or Brazilian with the Indian produces the "Mameluco," who is not unfrequently lighter than either parent, and always lighter than the Indian. The women at Batchian, although generally fairer than the men, are coarse in features, and very far inferior in beauty to the mixed Dutch-Malay girls, or even to many pure Malays.

The part of the village in which I resided was a grove of cocoa-nut trees, and at night, when the dead leaves were sometimes collected together and burnt, the effect was most magnificent—the tall stems, the fine crowns of foliage, and the immense fruit-clusters, being brilliantly illuminated against a dark sky, and appearing like a fairy palace supported on a hundred columns, and groined over with leafy arches. The cocoa-nut tree, when well grown, is certainly the prince of palms both for beauty and utility.

During my very first walk into the forest at Batchian, I had seen sitting on a leaf out of reach, an immense butterfly of a dark colour marked with white and yellow spots. I could not capture it as it flew away high up into the forest, but I at once saw that it was a female of a new species of Ornithoptera or "bird-winged butterfly," the pride of the Eastern tropics. I was very anxious to get it and to find the male, which in this genus is always of extreme beauty. During the two succeeding months I only saw it once again, and shortly afterwards I saw the male flying high in the air at the mining village. I had begun to despair of ever getting a specimen, as it seemed so rare and wild; till one day, about the beginning of January, I found a beautiful shrub with large white leafy bracts and yellow flowers, a species of Mussaenda, and saw one of these noble insects hovering over it, but it was too quick for me, and flew away. The next clay I went again to the same shrub and succeeded in catching a female, and the day after a fine male. I found it to be as I had expected, a perfectly new and most magnificent species, and one of the most gorgeously coloured butterflies in the world. Fine specimens of the male are more than seven inches across the wings, which are velvety black and fiery orange, the latter colour replacing the green of the allied species. The beauty and brilliancy of this insect are indescribable, and none but a naturalist can understand the intense excitement I experienced when I at length captured it. On taking it out of my net and opening the glorious wings, my heart began to beat violently, the blood rushed to my head, and I felt much more like fainting than I have done when in apprehension of immediate death. I had a headache the rest of the day, so great was the excitement produced by what will appear to most people a very inadequate cause.

I had decided to return to Ternate in a week or two more, but this grand capture determined me to stay on till I obtained a good series of the new butterfly, which I have since named Ornithoptera croesus. The Mussaenda bush was an admirable place, which I could visit every day on my way to the forest; and as it was situated in a dense thicket of shrubs and creepers, I set my man Lahi to clear a space all round it, so that I could easily get at any insect that might visit it. Afterwards, finding that it was often necessary to wait some time there, I had a little seat put up under a tree by the side

of it, where I came every day to eat my lunch, and thus had half an hour's watching about noon, besides a chance as I passed it in the morning. In this way I obtained on an average one specimen a day for a long time, but more than half of these were females, and more than half the remainder worn or broken specimens, so that I should not have obtained many perfect males had I not found another station for them.

As soon as I had seen them come to flowers, I sent my man Lahi with a net on purpose to search for them, as they had also been seen at some flowering trees on the beach, and I promised him half a day's wages extra for every good specimen he could catch. After a day or two he brought me two very fair specimens, and told me he had caught them in the bed of a large rocky stream that descends from the mountains to the sea abort a mile below the village. They flew down this river, settling occasionally on stones and rocks in the water, and he was obliged to wade up it or jump from rock to rock to get at them. I went with him one day, but found that the stream was far too rapid and the stones too slippery for me to do anything, so I left it entirely to him, and all the rest of the time we stayed in Batchian he used to be out all day, generally bringing me one, and on good days two or three specimens. I was thus able to bring away with me more than a hundred of both sexes, including perhaps twenty very fine males, though not more than five or six that were absolutely perfect.

My daily walk now led me, first about half a mile along the sandy beach, then through a sago swamp over a causeway of very shaky poles to the village of the Tomore people. Beyond this was the forest with patches of new clearing, shady paths, and a considerable quantity of felled timber. I found this a very fair collecting ground, especially for beetles. The fallen trunks in the clearings abounded with golden Buprestidae and curious Brenthidae, and longicorns, while in the forest I found abundance of the smaller Curculionidae, many longicorns, and some fine green Carabidae.

Butterflies were not abundant, but I obtained a few more of the fine blue Papilio, and a number of beautiful little Lycaenidae, as well as a single specimen of the very rare Papilio Wallacei, of which I had taken the hitherto unique specimen in the Aru Islands.

The most interesting birds I obtained here, were the beautiful blue kingfisher, Todiramphus diops; the fine green and purple doves, Ptilonopus superbus and P. iogaster, and several new birds of small size. My shooters still brought me in specimens of the Semioptera Wallacei, and I was greatly excited by the positive statements of several of the native hunters that another species of this bird existed, much handsomer and more remarkable. They declared that the plumage was glossy black, with metallic green breast as in my species, but that the white shoulder plumes were twice as long, and hung down far below the body of the bird. They declared that when hunting pigs or deer far in the forest they occasionally saw this bird, but that it was rare. I immediately offered twelve guilders (a pound) for a specimen; but all in vain, and I am to this day uncertain whether such a bird exists. Since I left, the German naturalist, Dr. Bernstein, stayed many months in the island with a large staff of hunters collecting for the Leyden Museum; and as he was not more successful than myself, we must consider either that the bird is very rare, or is altogether a myth.

Batchian is remarkable as being the most eastern point on the globe inhabited by any of the Quadrumana. A large black baboon-monkey (Cynopithecus nigrescens) is abundant in some parts of the forest. This animal has bare red callosities, and a rudimentary tail about an inch long—a mere fleshy tubercle, which may be very easily overlooked. It is the same species that is found all over the forests of Celebes, and as none of the other Mammalia of that island extend into Batchian I am inclined to suppose that this species has been accidentally introduced by the roaming Malays, who often carry about with them tame monkeys and other animals. This is rendered more probable by the fact that the animal is not found in Gilolo, which is only separated from Batchian by a very narrow strait. The introduction may have been very recent, as in a fertile and unoccupied island such an animal would multiply rapidly. The only other mammals obtained were an Eastern opossum, which Dr. Gray has described as Cuscus ornatus; the little flying opossum, Belideus ariel; a Civet cat, Viverra

zebetha; and nice species of bats, most of the smaller ones being caught in the dusk with my butterfly net as they flew about before the house.

After much delay, owing to bad weather and the illness of one of my men, I determined to visit Kasserota (formerly the chief village), situated up a small stream, on an island close to the north coast of Batchian; where I was told that many rare birds were found. After my boat was loaded and everything ready, three days of heavy squalls prevented our starting, and it was not till the 21st of March that we got away. Early next morning we entered the little river, and in about an hour we reached the Sultan's house, which I had obtained permission to use. It was situated on the bank of the river, and surrounded by a forest of fruit trees, among which were some of the very loftiest and most graceful cocoa-nut palms I have ever seen. It rained nearly all that day, and I could do little but unload and unpack. Towards the afternoon it cleared up, and I attempted to explore in various directions, but found to my disgust that the only path was a perfect mud swamp, along which it was almost impossible to walk, and the surrounding forest so damp and dark as to promise little in the way of insects. I found too on inquiry that the people here made no clearings, living entirely on sago, fruit, fish, and game; and the path only led to a steep rocky mountain equally impracticable and unproductive. The next day I sent my men to this hill, hoping it might produce some good birds; but they returned with only two common species, and I myself had been able to get nothing; every little track I had attempted to follow leading to a dense sago swamp. I saw that I should waste time by staying here, and determined to leave the following day.

This is one of those spots so hard for the European naturalist to conceive, where with all the riches of a tropical vegetation, and partly perhaps from the very luxuriance of that vegetation, insects are as scarce as in the most barren parts of Europe, and hardly more conspicuous. In temperate climates there is a tolerable uniformity in the distribution of insects over those parts of a country in which there is a similarity in the vegetation, any deficiency being easily accounted for by the absence of wood or uniformity of surface. The traveller hastily passing through such a country can at once pick out a collecting ground which will afford him a fair notion of its entomology. Here the case is different. There are certain requisites of a good collecting ground which can only be ascertained to exist by some days' search in the vicinity of each village. In some places there is no virgin forest, as at Djilolo and Sahoe; in others there are no open pathways or clearings, as here. At Batchian there are only two tolerable collecting places,—the road to the coal mines, and the new clearings made by the Tomóre people, the latter being by far the most productive. I believe the fact to be that insects are pretty uniformly distributed over these countries (where the forests have not been cleared away), and are so scarce in any one spot that searching for them is almost useless. If the forest is all cleared away, almost all the insects disappear with it; but when small clearings and paths are made, the fallen trees in various stages of drying and decay, the rotting leaves, the loosening bark and the fungoid growths upon it, together with the flowers that appear in much greater abundance where the light is admitted, are so many attractions to the insects for miles around, and cause a wonderful accumulation of species and individuals. When the entomologist can discover such a spot, he does more in a mouth than he could possibly do by a year's search in the depths of the undisturbed forest.

The next morning we left early, and reached the mouth of the little river in about au hour. It flows through a perfectly flat alluvial plain, but there are hills which approach it near the mouth. Towards the lower part, in a swamp where the salt-water must enter at high tides, were a number of elegant tree-ferns from eight to fifteen feet high. These are generally considered to be mountain plants, and rarely to occur on the equator at an elevation of less than one or two thousand feet. In Borneo, in the Aru Islands, and on the banks of the Amazon, I have observed them at the level of the sea, and think it probable that the altitude supposed to be requisite for them may have been deduced from facts observed in countries where the plains and lowlands are largely cultivated, and most of the indigenous vegetation destroyed. Such is the case in most parts of Java, India, Jamaica, and Brazil, where the vegetation of the tropics has been most fully explored.

Coming out to sea we turned northwards, and in about two hours' sail reached a few huts, called Langundi, where some Galela men had established themselves as collectors of gum-dammar, with which they made torches for the supply of the Ternate market. About a hundred yards back rises a rather steep hill, and a short walk having shown me that there was a tolerable path up it, I determined to stay here for a few days. Opposite us, and all along this coast of Batchian, stretches a row of fine islands completely uninhabited. Whenever I asked the reason why no one goes to live in them, the answer always was, "For fear of the Magindano pirates." Every year these scourges of the Archipelago wander in one direction or another, making their rendezvous on some uninhabited island, and carrying devastation to all the small settlements around; robbing, destroying, killing, or taking captive all they nee with. Their long well-manned praus escape from the pursuit of any sailing vessel by pulling away right in the wind's eye, and the warning smoke of a steamer generally enables them to hide in some shallow bay, or narrow river, or forest-covered inlet, till the danger is passed. The only effectual way to put a stop to their depredations would be to attack them in their strongholds and villages, and compel them to give up piracy, and submit to strict surveillance. Sir James Brooke did this with the pirates of the north-west coast of Borneo, and deserves the thanks of the whole population of the Archipelago for having rid them of half their enemies.

All along the beach here, and in the adjacent strip of sandy lowland, is a remarkable display of Pandanaceae or Screw-pines. Some are like huge branching candelabra, forty or fifty feet high, and bearing at the end of each branch a tuft of immense sword-shaped leaves, six or eight inches wide, and as many feet long. Others have a single unbranched stem, six or seven feet high, the upper part clothed with the spirally arranged leaves, and bearing a single terminal fruit ac large as a swan's egg. Others of intermediate size have irregular clusters of rough red fruits, and all have more or less spiny-edged leaves and ringed stems. The young plants of the larger species have smooth glossy thick leaves, sometimes ten feet long and eight inches wide, which are used all over the Moluccas and New Guinea, to make "cocoyas" or sleeping mats, which are often very prettily ornamented with coloured patterns. Higher up on the bill is a forest of immense trees, among which those producing the resin called dammar (Dammara sp.) are abundant. The inhabitants of several small villages in Batchian are entirely engaged in searching for this product, and making it into torches by pounding it and filling it into tubes of palm leaves about a yard long, which are the only lights used by many of the natives. Sometimes the dammar accumulates in large masses of ten or twenty pounds weight, either attached to the trunk, or found buried in the ground at the foot of the trees. The most extraordinary trees of the forest are, however, a kind of fig, the aerial roots of which form a pyramid near a hundred feet high, terminating just where the tree branches out above, so that there is no real trunk. This pyramid or cone is formed of roots of every size, mostly descending in straight lines, but more or less obliquely- and so crossing each other, and connected by cross branches, which grow from one to another; as to form a dense and complicated network, to which nothing but a photograph could do justice (see illustration at Vol. I. page 130). The Kanary is also abundant in this forest, the nut of which has a very agreeable flavour, and produces an excellent oil. The fleshy outer covering of the nut is the favourite food of the great green pigeons of these islands (Carpophaga, perspicillata), and their hoarse copings and heavy flutterings among the branches can be almost continually heard.

After ten days at Langundi, finding it impossible to get the bird I was particularly in search of (the Nicobar pigeon, or a new species allied to it), and finding no new birds, and very few insects, I left early on the morning of April 1st, and in the evening entered a river on the main island of Batchian (Langundi, like Kasserota, being on a distinct island), where some Malays and Galela men have a small village, and have made extensive rice-fields and plantain grounds. Here we found a good house near the river bank, where the water was fresh and clear, and the owner, a respectable Batchian Malay, offered me sleeping room and the use of the verandah if I liked to stay. Seeing forest all round within a short distance, I accepted his offer, and the next morning before breakfast walked out to explore, and on the skirts of the forest captured a few interesting insects.

Afterwards, I found a path which led for a mile or more through a very fine forest, richer in palms than any I had seen in the Moluccas. One of these especially attracted my attention from its elegance. The stein was not thicker than my wrist, yet it was very lofty, and bore clusters of bright red fruit. It was apparently a species of Areca. Another of immense height closely resembled in appearance the Euterpes of South America. Here also grew the fan-leafed palm, whose small, nearly entire leaves are used to make the dammar torches, and to form the water-buckets in universal use. During this walk I saw near a dozen species of palms, as well as two or three Pandani different from those of Langundi. There were also some very fine climbing ferns and true wild Plantains (Musa), bearing an edible fruit not so large as one's thumb, and consisting of a mass of seeds just covered with pulp and skin. The people assured me they had tried the experiment of sowing and cultivating this species, but could not improve it. They probably did not grow it in sufficient quantity, and did not persevere sufficiently long.

Batchian is an island that would perhaps repay the researches of a botanist better than any other in the whole Archipelago. It contains a great variety of surface and of soil, abundance of large and small streams, many of which are navigable for some distance, and there being no savage inhabitants, every part of it can be visited with perfect safety. It possesses gold, copper, and coal, hot springs and geysers, sedimentary and volcanic rocks and coralline limestone, alluvial plains, abrupt hills and lofty mountains, a moist climate, and a grand and luxuriant forest vegetation.

The few days I stayed here produced me several new insects, but scarcely any birds. Butterflies and birds are in fact remarkably scarce in these forests. One may walk a whole day and not see more than two or three species of either. In everything but beetles, these eastern islands are very deficient compared with the western (Java, Borneo, &c.), and much more so if compared with the forests of South America, where twenty or thirty species of butterflies may be caught every day, and on very good days a hundred, a number we can hardly reach here in months of unremitting search. In birds there is the same difference. In most parts of tropical America we may always find some species of woodpecker tanager, bush shrike, chatterer, trogon, toucan, cuckoo, and tyrant-flycatcher; and a few days' active search will produce more variety than can be here met with in as many months. Yet, along with this poverty of individuals and of species, there are in almost every class and order, some one, or two species of such extreme beauty or singularity, as to vie with, or even surpass, anything that even South America can produce.

One afternoon when I was arranging my insects, and surrounded by a crowd of wondering spectators, I showed one of them how to look at a small insect with a hand-lens, which caused such evident wonder that all the rest wanted to see it too. I therefore fixed the glass firmly to a piece of soft wood at the proper focus, and put under it a little spiny beetle of the genus Hispa, and then passed it round for examination. The excitement was immense. Some declared it was a yard long; others were frightened, and instantly dropped it, and all were as much astonished, and made as much shouting and gesticulation, as children at a pantomime, or at a Christmas exhibition of the oxyhydrogen microscope. And all this excitement was produced by a little pocket lens, an inch and a half focus, and therefore magnifying only four or five times, but which to their unaccustomed eyes appeared to enlarge a hundred fold.

On the last day of my stay here, one of my hunters succeeded in finding and shooting the beautiful Nicobar pigeon, of which I had been so long in search. None of the residents had ever seen it, which shows that it is rare and slay. My specimen was a female in beautiful condition, and the glassy coppery and green of its plumage, the snow-white tail and beautiful pendent feathers of the neck, were greatly admired. I subsequently obtained a specimen in New Guinea; and once saw it in the Kaióa islands. It is found also in some small islands near Macassar, in others near Borneo; and in the Nicobar islands, whence it receives its name. It is a ground feeder, only going upon trees to roost, and is a very heavy fleshy bird. This may account far the fact of its being found chiefly on very small islands, while in the western half of the Archipelago, it seems entirely absent from the larger ones.

Being a ground feeder it is subject to the attacks of carnivorous quadrupeds, which are not found in the very small islands. Its wide distribution over the whole length of the Archipelago; from extreme west to east, is however very extraordinary, since, with the exception of a few of the birds of prey, not a single land bird has so wide a range. Ground-feeding birds are generally deficient in power of extended flight, and this species is so bulky and heavy that it appears at first sight quite unable to fly a mile. A closer examination shows, however, that its wings are remarkably large, perhaps in proportion to its size larger than those of any other pigeon, and its pectoral muscles are immense. A fact communicated to me by the son of my friend Mr. Duivenboden of Ternate, would show that, in accordance with these peculiarities of structure, it possesses the power of flying long distances. Mr. D. established an oil factory on a small coral island, a hundred miles north of New Guinea, with no intervening land. After the island had been settled a year, and traversed in every direction, his son paid it a visit; and just as the schooner was coming to an anchor, a bird was seen flying from seaward which fell into the water exhausted before it could reach the shore. A boat was sent to pick it up, and it was found to be a Nicobar pigeon, which must have come from New Guinea, and flown a hundred miles, since no such bird previously inhabited the island.

This is certainly a very curious case of adaptation to an unusual and exceptional necessity. The bird does not ordinarily require great powers of flight, since it lives in the forest, feeds on fallen fruits, and roosts in low trees like other ground pigeons. The majority of the individuals, therefore, can never make full use of their enormously powerful wings, till the exceptional case occurs of an individual being blown out to sea, or driven to emigrate by the incursion of some carnivorous animal, or the pressure of scarcity of food. A modification exactly opposite to that which produced the wingless birds (the Apteryx, Cassowary, and Dodo), appears to have here taken place; and it is curious that in both cases an insular habitat should have been the moving cause. The explanation is probably the same as that applied by Mr. Darwin to the case of the Madeira beetles, many of which are wingless, while some of the winged ones have the wings better developed than the same species on the continent. It was advantageous to these insects either never to fly at all, and thus not run the risk of being blown out to sea, or to fly so well as to be able either to return to land, or to migrate safely to the continent. Pad flying was worse than not flying at all. So, while in such islands as New Zealand and Mauritius far from all land, it was safer for a ground-feeding bird not to fly at all, and the short-winged individuals continually surviving, prepared the way for a wingless group of birds; in a vast Archipelago thickly strewn with islands and islets it was advantageous to be able occasionally to migrate, and thus the long and strong-winged varieties maintained their existence longest, and ultimately supplanted all others, and spread the race over the whole Archipelago.

Besides this pigeon, the only new bird I obtained during the trip was a rare goat-sucker (Batrachostomus crinifrons), the only species of the genus yet found in the Moluccas. Among my insects the best were the rare Pieris arum, of a rich chrome yellow colour, with a black border and remarkable white antenna—perhaps the very finest butterfly of the genus; and a large black wasp-like insect, with immense jaws like a stag-beetle, which has been named Megachile Pluto by Mr. B. Smith. I collected about a hundred species of beetles quite new to me, but mostly very minute, and also many rare and handsome ones which I had already found in Batchian. On the whole I was tolerably satisfied with my seventeen days' excursion, which was a very agreeable one, and enabled me to sea a good deal of the island. I had hired a roomy boat, and brought with me a small table and my rattan chair. These were great comforts, as, wherever there was a roof, I could immediately instal myself, and work and eat at ease. When I could not find accommodation on shore I slept in the boat, which was always drawn up on the beach if we stayed for a few days at one spot.

On my return to Batchian I packed up my collections, and prepared for my return to Ternate. When I first came I had sent back my boat by the pilot, with two or three other men who had been glad of the opportunity. I now took advantage of a Government boat which had just arrived with rice for the troops, and obtained permission to return in her, and accordingly started on the 13th of April,

having resided only a week short of six months on the island of Batchian. The boat was one of the kind called "Kora-kora," quite open, very low, and about four tons burthen. It had outriggers of bamboo about five feet off each side, which supported a bamboo platform extending the whole length of the vessel. On the extreme outside of this sit the twenty rowers, while within was a convenient passage fore and aft. The middle portion of the boat was covered with a thatch-house, in which baggage and passengers are stowed; the gunwale was not more than a foot above water, and from the great top and side weight, and general clumsiness, these boats are dangerous in heavy weather, and are not unfrequently lost. A triangle mast and mat sail carried us on when the wind was favourable,—which (as usual) it never was, although, according to the monsoon, it ought to have been. Our water, carried in bamboos, would only last two days, and as the voyage occupied seven, we had to touch at a great many places. The captain was not very energetic, and the men rowed as little as they pleased, or we might have reached Ternate in three days, having had fine weather and little wind all the way.

There were several passengers besides myself: three or four Javanese soldiers, two convicts whose time had expired (one, curiously enough, being the man who had stolen my cash-box and keys), the schoolmaster's wife and a servant going on a visit to Ternate, and a Chinese trader going to buy goods. We had to sleep all together in the cabin, packed pretty close; but they very civilly allowed me plenty of room for my mattrass, and we got on very well together. There was a little cookhouse in the bows, where we could boil our rice and make our coffee, every one of course bringing his own provisions, and arranging his meal-times as he found most convenient. The passage would have been agreeable enough but for the dreadful "tom-toms," or wooden drums, which are beaten incessantly while the men are rowing. Two men were engaged constantly at them, making a fearful din the whole voyage. The rowers are men sent by the Sultan of Ternate. They get about threepence a day, and find their own provisions. Each man had a strong wooden "betel" box, on which he generally sat, a sleeping-mat, and a change of clothes—rowing naked, with only a sarong or a waistcloth. They sleep in their places, covered with their mat, which keeps out the rain pretty well. They chew betel or smoke cigarettes incessantly; eat dry sago and a little salt fish; seldom sing while rowing, except when excited and wanting to reach a stopping-place, and do not talk a great deal. They are mostly Malays, with a sprinkling of Alfuros from Gilolo, and Papuans from Guebe or Waigiou.

One afternoon we stayed at Makian; many of the men went on shore, and a great deal of plantains, bananas, and other fruits were brought on board. We then went on a little way, and in the evening anchored again. When going to bed for the night, I put out my candle, there being still a glimmering lamp burning, and, missing my handkerchief, thought I saw it on a box which formed one side of my bed, and put out my hand to take it. I quickly drew back on feeling something cool and very smooth, which moved as I touched it. "Bring the light, quick," I cried; "here's a snake." And there he was, sure enough, nicely coiled up, with his head just raised to inquire who had disturbed him. It was mow necessary to catch or kill him neatly, or he would escape among the piles of miscellaneous luggage, and we should hardly sleep comfortably. One of the ex-convicts volunteered to catch him with his hand wrapped up in a cloth, but from the way he went about it I saw he was nervous and would let the thing go, so I would mot allow him to make the attempt. I them got a chopping-knife, and carefully moving my insect nets, which hung just over the snake and prevented me getting a free blow, I cut him quietly across the back, holding him down while my boy with another knife crushed his head. On examination, I found he had large poison fangs, and it is a wonder he did not bite me when I first touched him.

Thinking it very unlikely that two snakes had got on board at the same time, I turned in and went to sleep; but having all the time a vague dreamy idea that I might put my hand on another one, I lay wonderfully still, not turning over once all night, quite the reverse of my usual habits. The next day we reached Ternate, and I ensconced myself in my comfortable house, to examine all my treasures, and pack them securely for the voyage home.

CHAPTER XXV. CERAM, GORAM, AND THE MATABELLO ISLANDS

(OCTOBER 1859 To JUNE 1860.)

I LEFT Amboyna for my first visit to Ceram at three o'clock in the morning of October 29th, after having been delayed several days by the boat's crew, who could not be got together. Captain Van der Beck, who gave me a passage in his boat, had been running after them all day, and at midnight we had to search for two of my men who had disappeared at the last moment. One we found at supper in his own house, and rather tipsy with his parting libations of arrack, but the other was gone across the bay, and we were obliged to leave without him. We stayed some hours at two villages near the east end of Amboyna, at one of which we had to discharge some wood for the missionaries' house, and on the third afternoon reached Captain Van der Beck's plantation, situated at Hatosua, in that part of Ceram opposite to the island of Amboyna. This was a clearing in flat and rather swampy forest, about twenty acres in extent, and mostly planted with cacao and tobacco. Besides a small cottage occupied by the workmen, there was a large shed for tobacco drying, a corner of which was offered me; and thinking from the look of the place that I should find good collecting ground here, I fitted up temporary tables, benches, and beds, and made all preparations for some weeks' stay. A few days, however, served to show that I should be disappointed. Beetles were tolerably abundant, and I obtained plenty of fine long-horned Anthribidae and pretty Longicorns, but they were mostly the same species as I had found during my first short visit to Amboyna. There were very few paths in the forest; which seemed poor in birds and butterflies, and day after day my men brought me nothing worth notice. I was therefore soon obliged to think about changing my locality, as I could evidently obtain no proper notion of the productions of the almost entirely unexplored island of Ceram by staying in this place.

I rather regretted leaving, because my host was one of the most remarkable men and most entertaining companions I had ever met with. He was a Fleeting by birth, and, like so many of his countrymen, had a wonderful talent for languages. When quite a youth he had accompanied a Government official who was sent to report on the trade and commerce of the Mediterranean, and had acquired the colloquial language of every place they stayed a few weeks at. He had afterwards made voyages to St. Petersburg, and to other parts of Europe, including a few weeks in London, and had then come out to the past, where he had been for some years trading and speculating in the various islands. He now spoke Dutch, French, Malay, and Javanese, all equally well; English with a very slight accent, but with perfect fluency, axed a most complete knowledge of idiom, in which I often tried to puzzle him in vain. German and Italian were also quite familiar to him, and his acquaintance with European languages included Modern Greek, Turkish, Russian, and colloquial Hebrew and Latin. As a test of his power, I may mention that he had made a voyage to the out-of-the-way island of Salibaboo, and had stayed there trading a few weeks. As I was collecting vocabularies, he told me he thought he could remember some words, and dictated considerable number. Some time after I met with a short list of words taken down in those islands, and in every case they agreed with those he had given me. He used to sing a Hebrew drinking-song, which he had learned from some Jews with whom he had once travelled, and astonished by joining in their conversation, and had a never-ending fund of tale and anecdote about the people he had met and the places he had visited.

In most of the villages of this part of Ceram are schools and native schoolmasters, and the inhabitants have been long converted to Christianity. In the larger villages there are European missionaries; but there is little or no external difference between the Christian and Alfuro villages, nor, as far as I have seen, in their inhabitants. The people seem more decidedly Papuan than those of

Gilolo. They are darker in colour, and a number of them have the frizzly Papuan hair; their features also are harsh and prominent, and the women in particular are far less engaging than those of the Malay race. Captain Van der Beck was never tired of abusing the inhabitants of these Christian villages as thieves, liars, and drunkards, besides being incorrigibly lazy. In the city of Amboyna my friends Doctors Mohnike and Doleschall, as well as most of the European residents and traders, made exactly the same complaint, and would rather have Mahometans for servants, even if convicts, than any of the native Christians. One great cause of this is the fact, that with the Mahometans temperance is a part of their religion, and has become so much a habit that practically the rule is never transgressed. One fertile source of want, and one great incentive to idleness and crime, is thus present with the one class, but absent in the other; but besides this the Christians look upon themselves as nearly the equals of the Europeans, who profess the same religion, and as far superior to the followers of Islam, and are therefore prone to despise work, and to endeavour to live by trade, or by cultivating their own land. It need hardly be said that with people in this low state of civilization religion is almost wholly ceremonial, and that neither are the doctrines of Christianity comprehended, nor its moral precepts obeyed. At the same time, as far as my own experience goes, I have found the better class of "Orang Sirani" as civil, obliging, and industrious as the Malays, and only inferior to them from their tendency to get intoxicated.

Having written to the Assistant Resident of Saparua (who has jurisdiction over the opposite part of the coast of Ceram) for a boat to pursue my journey, I received one rather larger than necessary with a crew of twenty men. I therefore bade adieu to my kind friend Captain Van der Beck, and left on the evening after its arrival for the village of Elpiputi, which we reached in two days. I had intended to stay here, but not liking the appearance of the place, which seemed to have no virgin forest near it, I determined to proceed about twelve miles further up the bay of Amahay, to a village recently formed, and inhabited by indigenes from the interior, and where some extensive cacao plantations were being made by some gentlemen of Amboyna. I reached the place (called Awaiya) the same afternoon, and with the assistance of Mr. Peters (the manager of the plantations) and the native chief, obtained a small house, got all my things on shore, and paid and discharged my twenty boatmen, two of whom had almost driven me to distraction by beating tom-toms the whole voyage.

I found the people here very nearly in a state of nature, and going almost naked. The men wear their frizzly hair gathered into a flat circular knot over the left temple, which has a very knowing look, and in their ears cylinders of wood as thick as one's finger, and coloured red at the ends. Armlets and anklets of woven grass or of silver, with necklaces of beads or of small fruits, complete their attire. The women wear similar ornaments, but have their hair loose. All are tall, with a dark brown skin, and well marked Papuan physiognomy. There is an Amboyna schoolmaster in the village, and a good number of children attend school every morning. Such of the inhabitants as have become Christians may be known by their wearing their hair loose, and adopting to some extent the native Christian dress-trousers and a loose shirt. Very few speak Malay, all these coast villages having been recently formed by inducing natives to leave the inaccessible interior. In all the central part of Ceram there new remains only one populous village in the mountains. Towards the east and the extreme west are a few others, with which exceptions all the inhabitants of Ceram are collected on the coast. In the northern and eastern districts they are mostly Mahometans, while on the southwest coast, nearest Amboyna, they are nominal Christians. In all this part of the Archipelago the Dutch make very praiseworthy efforts to improve the condition of the aborigines by establishing schoolmasters in every village (who are mostly natives of Amboyna or Saparua, who have; been instructed by the resident missionaries), and by employing native vaccinators to prevent the ravages of smallpox. They also encourage the settlement of Europeans, and the formation of new plantations of cacao and coffee, one of the best means of raising the condition of the natives, who thus obtain work at fair wages, and have the opportunity of acquiring something of European tastes and habits.

My collections here did not progress much better than at my former station, except that butterflies were a little more plentiful, and some very fine species were to be found in the morning on the sea-beach, sitting so quietly on the wet sand that they could be caught with the fingers. In this way I had many fine specimens of Papilios brought me by the children. Beetles, however, were scarce, and birds still more so, and I began to think that the handsome species which I had so often heard were found in Ceram must be entirely confined to the eastern extremity of the island.

A few miles further worth, at the head of the Bay of Amahay, is situated the village of Makariki, from whence there is a native path quite across the island to the north coast. My friend Mr. Rosenberg, whose acquaintance I had made at New Guinea, and who was now the Government superintendent of all this part of Ceram, returned from Wahai, on the north coast, after I had been three weeks at Awaiya, and showed me some fine butterflies he had obtained on the mountain streams in the interior. He indicated a spot about the centre of the island where he thought I might advantageously stay a few days. I accordingly visited Makariki with him the next day, and he instructed the chief of the village to furnish me with men to carry my baggage, and accompany me on my excursion. As the people of the village wanted to be at home on Christmas-day, it was necessary to start as soon as possible; so we agreed that the men should be ready in two days, and I returned to make my arrangements.

I put up the smallest quantity of baggage possible for a six days' trip, and on the morning of December 18th we left Makariki, with six men carrying my baggage and their own provisions, and a lad from Awaiya, who was accustomed to catch butterflies for me. My two Amboyna hunters I left behind to shoot and skin what birds they could while I was away. Quitting the village, we first walked briskly for an hour through a dense tangled undergrowth, dripping wet from a storm of the previous night, and full of mud holes. After crossing several small streams we reached one of the largest rivers in Ceram, called Ruatan, which it was necessary to cross. It was both deep and rapid. The baggage was first taken over, parcel by parcel, on the men's heads, the water reaching nearly up to their armpits, and then two men returned to assist me. The water was above my waist, and so strong that I should certainly have been carried off my feet had I attempted to cross alone; and it was a matter of astonishment to me how the men could give me any assistance, since I found the greatest difficulty in getting my foot down again when I had once moved it off the bottom. The greater strength and grasping power of their feet, from going always barefoot, no doubt gave them a surer footing in the rapid water.

After well wringing out our wet clothes and putting them on, we again proceeded along a similar narrow forest track as before, choked with rotten leaves and dead trees, and in the more open parts overgrown with tangled vegetation. Another hour brought us to a smaller stream flowing in a wide gravelly bed, up which our road lay. Here w e stayed half an hour to breakfast, and then went on, continually crossing the stream, or walking on its stony and gravelly banks, till about noon, when it became rocky and enclosed by low hills. A little further we entered a regular mountain-gorge, and had to clamber over rocks, and every moment cross and recross the water, or take short cuts through the forest. This was fatiguing work; and about three in the afternoon, the sky being overcast, and thunder in the mountains indicating an approaching storm, we had to loon out for a camping place, and soon after reached one of Mr. Rosenberg's old ones. The skeleton of his little sleeping-hut remained, and my men cut leaves and made a hasty roof just as the rain commenced. The baggage was covered over with leaves, and the men sheltered themselves as they could till the storm was over, by which time a flood came down the river, which effectually stopped our further march, even had we wished to proceed. We then lighted fires; I made some coffee, and my men roasted their fish and plantains, and as soon as it was dark, we made ourselves comfortable for the night.

Starting at six the next morning, we had three hours of the same kind of walking, during which we crossed the river at least thirty or forty times, the water being generally knee-deep. This brought us to a place where the road left the stream, and here we stopped to breakfast. We then had a long walk over the mountain, by a tolerable path, which reached an elevation of about fifteen hundred feet

above the sea. Here I noticed one of the smallest and most elegant tree ferns I had ever seen, the stem being scarcely thicker than my thumb, yet reaching a height of fifteen or twenty feet. I also caught a new butterfly of the genus Pieris, and a magnificent female specimen of Papilio gambrisius, of which I had hitherto only found the males, which are smaller and very different in colour. Descending the other side of the ridge, by a very steep path, we reached another river at a spot which is about the centre of the island, and which was to be our resting place for two or three days. In a couple of hour my men had built a little sleeping-shed for me, about eight feet by four, with a bench of split poles, they themselves occupying two or three smaller ones, which had been put up by former passengers.

The river here was about twenty yards wide, running over a pebbly and sometimes a rocky bed, and bordered by steep hills with occasionally flat swampy spots between their base and the stream. The whole country was one dense, Unbroken, and very damp and gloomy virgin forest. Just at our resting-place there was a little bush-covered island in the middle of the channel, so that the opening in the forest made by the river was wider than usual, and allowed a few gleams of sunshine to penetrate. Here there were several handsome butterflies flying about, the finest of which, however, escaped me, and I never saw it again during my stay. In the two days and a half which we remained here, I wandered almost all day up and down the stream, searching after butterflies, of which I got, in all, fifty or sixty specimens, with several species quite new to me. There were many others which I saw only once, and did not capture, causing me to regret that there was no village in these interior valleys where I could stay a month. In the early part of each morning I went out with my gun in search of birds, and two of my men were out almost all day after deer; but we were all equally unsuccessful, getting absolutely nothing the whole time we were in the forest. The only good bird seen was the fine Amboyna lory, but these were always too high to shoot; besides this, the great Moluccan hornbill, which I did not want, was almost the only bird met with. I saw not a single ground-thrush, or kingfisher, or pigeon; and, in fact, have never been in a forest so utterly desert of animal life as this appeared to be. Even in all other groups of insects, except butterflies, there was the same poverty. I bad hoped to find some rare tiger beetles, as I had done in similar situations in Celebes; but, though I searched closely in forest, river-bed, and mountain-brook, I could find nothing but the two common Amboyna species. Other beetles there were absolutely none.

The constant walking in water, and over rocks and pebbles, quite destroyed the two pair of shoes I brought with me, so that, on my return, they actually fell to pieces, and the last day I had to walk in my stockings very painfully, and reached home quite lame. On our way back from Makariki, as on our way there, we had storm and rain at sea, and we arrived at Awaiya late in the evening, with all our baggage drenched, and ourselves thoroughly uncomfortable. All the time I had been in Ceram I had suffered much from the irritating bites of an invisible acarus, which is worse than mosquitoes, ants, and every other pest, because it is impossible to guard against them. This last journey in the forest left me covered from head to foot with inflamed lumps, which, after my return to Amboyna, produced a serious disease, confining me to the house for nearly two months, a not very pleasant memento of my first visit to Ceram, which terminated with the year 1859.

It was not till the 24th of February, 1860, that I started again, intending to pass from village to village along the coast, staying where I found a suitable locality. I had a letter from the Governor of the Moluccas, requesting all the chiefs to supply me with boats and men to carry me on my journey. The first boat took me in two days to Amahay, on the opposite side of the bay to Awaiya. The chief here, wonderful to relate, did not make any excuses for delay, but immediately ordered out the boat which was to carry me on, put my baggage on hoard, set up mast and sails after dark, and had the men ready that nigh; so that we were actually on our way at five the next morning,—a display of energy and activity I scarcely ever saw before in a native chief on such an occasion. We touched at Cepa, and stayed for the night at Tamilan, the first two Mahometan villages on the south coast of Ceram. The next day, about noon, we reached Hoya, which was as Far as my present boat and crew were going to take me. The anchorage is about a mile east of the village, which is faced by coral

reefs, and we had to wait for the evening tide to move up and unload the boat into the strange rotten wooden pavilion kept for visitors.

There was no boat here large enough to take my baggage; and although two would have done very well, the Rajah insisted upon sending four. The reason of this I found was, that there were four small villages under his rule, and by sending a boat from each he would avoid the difficult task of choosing two and letting off the others. I was told that at the next village of Teluti there were plenty of Alfuros, and that I could get abundance of Tories and other birds. The Rajah declared that black and yellow Tories and black cockatoos were found there; but I am inclined to think he knew very well he was telling me lies, and that it was only a scheme to satisfy me with his plan of taking me to that village, instead of a day's journey further on, as I desired. Here, as at most of the villages, I was asked for spirits, the people being mere nominal Mahometans, who confine their religion almost entirely to a disgust at pork, and a few other forbidden articles of food. The next morning, after much trouble, we got our cargoes loaded, and had a delightful row across the deep bay of Teluti, with a view of the grand central mountain-range of Ceram. Our four boats were rowed by sixty men, with flags flying and tom-toms beating, as well as very vigorous shouting and singing to keep up their spirits. The sea way smooth, the morning bright, and the whole scene very exhilarating. On landing, the Orang-kaya and several of the chief men, in gorgeous silk jackets, were waiting to receive us, and conducted me to a house prepared for my reception, where I determined to stay a few days, and see if the country round produced anything new.

My first inquiries were about the lories, but I could get very little satisfactory information. The only kinds known were the ring-necked lory and the common red and green lorikeet, both common at Amboyna. Black Tories and cockatoos were quite unknown. The Alfuros resided in the mountains five or six days' journey away, and there were only one or two live birds to be found in the village, and these were worthless. My hunters could get nothing but a few common birds; and notwithstanding fine mountains, luxuriant forests, and a locality a hundred miles eastward, I could find no new insects, and extremely few even of the common species of Amboyna and West Ceram. It was evidently no use stopping at such a place, and I was determined to move on as soon as possible.

The village of Teluti is populous, but straggling and very dirty. Sago trees here cover the mountain side, instead of growing as usual in low swamps; but a closer examination shows that they grow in swampy patches, which have formed among the loose rocks that cover the ground, and which are kept constantly full of moisture by the rains, and by the abundance of rills which trickle down among them. This sago forms almost the whole subsistence of the inhabitants, who appear to cultivate nothing but a few small patches of maize and sweet potatoes. Hence, as before explained, the scarcity of insects. The Orang-kaya has fine clothes, handsome lamps, and other expensive European goods, yet lives every day on sago and fish as miserably as the rest.

After three days in this barren place I left on the morning of March 6th, in two boats of the same size as those which had brought me to Teluti. With some difficulty I had obtained permission to take these boats on to Tobo, where I intended to stay a while, and therefore got on pretty quickly, changing men at the village of Laiemu, and arriving in a heavy rain at Ahtiago. As there was a good deal of surf here, and likely to be more if the wind blew hard during the night, our boats were pulled up on the beach; and after supping at the Orang-kaya's house, and writing down a vocabulary of the language of the Alfuros, who live in the mountains inland, I returned to sleep in the boat. Next morning we proceeded, changing men at Warenama, and again at Hatometen, at both of which places there was much surf and no harbour, so that the men had to go on shore and come on board by swimming. Arriving in the evening of March 7th at Batuassa, the first village belonging to the Rajah of Tobo, and under the government of Banda, the surf was very heavy, owing to a strong westward swell. We therefore rounded the rocky point on which the village was situated, but found it very little better on the other side. We were obliged, however, to go on shore here; and waiting till the people on the beach had made preparations, by placing a row of logs from the water's edge on which to pull

up our boats, we rowed as quickly as we could straight on to them, after watching till the heaviest surfs had passed. The moment we touched ground our men all jumped out, and, assisted by those on shore, attempted to haul up the boat high and dry, but not having sufficient hands, the surf repeatedly broke into the stern. The steepness of the beach, however, prevented any damage being done, and the other boat having both crews to haul at it, was got up without difficulty.

The next morning, the water being low, the breakers were at some distance from shore, and we had to watch for a smooth moment after bringing the boats to the water's edge, and so got safely out to sea. At the two next villages, Tobo and Ossong, we also took in fresh men, who came swimming through the surf; and at the latter place the Rajah came on board and accompanied me to Kissalaut, where he has a house which he lent me during my stay. Here again was a heavy surf, and it was with great difficulty we got the boats safely hauled up. At Amboyna I had been promised at this season a calm sea and the wind off shore, but in this case, as in every other, I had been unable to obtain any reliable information as to the winds and seasons of places distant two or three days' journey. It appears, however, that owing to the general direction of the island of Ceram (E.S.E. and W.N.W.), there is a heavy surf and scarcely any shelter on the south coast during the west monsoon, when alone a journey to the eastward can be safely made; while during the east monsoon, when I proposed to return along the north coast to Wahai, I should probably find that equally exposed and dangerous. But although the general direction of the west monsoon in the Banda sea causes a heavy swell, with bad surf on the coast, yet we had little advantage of the wind; for, owing I suppose to the numerous bays and headlands, we had contrary south-east or even due east winds all the way, and had to make almost the whole distance from Amboyna by force of rowing. We had therefore all the disadvantages, and none of the advantages, of this west monsoon, which I was told would insure me a quick and pleasant journey.

I was delayed at Kissa-laut just four weeks, although after the first three days I saw that it would be quite useless for me to stay, and begged the Rajah to give me a prau and men to carry me on to Goram. But instead of getting one close at hand, he insisted on sending several miles off; and when after many delays it at length arrived, it was altogether unsuitable and too small to carry my baggage. Another was then ordered to be brought immediately, and was promised in three days, but doable that time elapsed and none appeared, and we were obliged at length to get one at the adjoining village, where it might have been so much more easily obtained at first. Then came caulking and covering over, and quarrels between the owner and the Rajah's men, which occupied more than another ten days, during all which time I was getting absolutely nothing, finding this part of Ceram a perfect desert in zoology, although a most beautiful country, and with a very luxuriant vegetation. It was a complete puzzle, which to this day I have not been able to understand; the only thing I obtained worth notice during my month's stay here being a few good land shells.

At length, on April 4th, we succeeded in getting away in our little boat of about four tons burthen, in which my numerous boxes were with difficulty packed so as to leave sleeping and cooling room. The craft could not boast an ounce of iron or a foot of rope in any part of its construction, nor a morsel of pitch or paint in its decoration. The planks were fastened together in the usual ingenious way with pegs and rattans. The mast was a bamboo triangle, requiring no shrouds, and carrying a long mat sail; two rudders were hung on the quarters by rattans, the anchor was of wood, and a long and thick rattan; served as a cable. Our crew consisted of four men, whose pole accommodation was about three feet by four in the bows and stern, with the sloping thatch roof to stretch themselves upon for a change. We had nearly a hundred miles to go, fully exposed to the swell of the Banda sea, which is sometimes very considerable; but we luckily had it calm and smooth, so that we made the voyage in comparative comfort.

On the second day we passed the eastern extremity of Ceram, formed of a group of hummocky limestone hills; and, sailing by the islands of Kwammer and Keffing, both thickly inhabited, came in sight of the little town of Kilwaru, which appears to rise out of the sea like a rustic Venice. This place

has really a most extraordinary appearance, as not a particle of land or vegetation can be seen, but a long way out at sea a large village seems to float upon the water. There is of course a small island of several acres in extent; but the houses are built so closely all round it upon piles in the water, that it is completely hidden. It is a place of great traffic, being the emporium for much of the produce of these Eastern seas, and is the residence of many Bugis and Ceramese traders, and appears to have been chosen on account of its being close to the only deep channel between the extensive shoals of Ceram-laut and those bordering the east end of Ceram. We now had contrary east winds, and were obliged to pole over the shallow coral reefs of Ceram-laut for nearly thirty miles. The only danger of our voyage was just at its termination, for as we were rowing towards Manowolko, the largest of the Goram group, we were carried out so rapidly by a strong westerly current, that I was almost certain at one time we should pass clear of the island; in which case our situation would have been both disagreeable and dangerous, as, with the east wind which had just set in, we might have been unable to return for many days, and we had not a day's water on board. At the critical moment I served out some strong spirits to my men, which put fresh vigour into their arms, and carried us out of the influence of the current before it was too late.

MANOWOLKO, GORAM GROUP

On arriving at Manowolko, we found the Rajah was at the opposite island of Goram; but he was immediately sent for, and in the meantime a large shed was given for our accommodation. At night the Rajah came, and the next day I had a visit from him, and found, as I expected, that I had already made his acquaintance three years before at Aru. He was very friendly, and we had a long talk; but when I begged for a boat and men to take me on to Ke, he made a host of difficulties. There were no praus, as all had gone to Ke or Aim; and even if one were found, there were no men, as it was the season when all were away trading. But he promised to see about it, and I was obliged to wait. For the next two or three days there was more talking and more difficulties were raised, and I had time to make an examination of the island and the people.

Manowolko is about fifteen miles long, and is a mere; upraised coral-reef. Two or three hundred yards inland rise cliffs of coral rock, in many parts perpendicular, and one or two hundred feet high; and this, I was informed, is characteristic of the whole island, in which there is no other kind of rock, and no stream of water. A few cracks and chasms furnish paths to the top of these cliffs, where there is an open undulating country, in which the chief vegetable grounds of the inhabitants are situated.

The people here—at least the chief men—were of a much purer Malay race than the Mahometans of the mainland of Ceram, which is perhaps due to there having been no indigenes on these small islands when the first settlers arrived. In Ceram, the Alfuros of Papuan race are the predominant type, the Malay physiognomy being seldom well marked; whereas here the reverse is the case, and a slight infusion of Papuan on a mixture of Malay and Bugis has produced a very good-looking set of people. The lower class of the population consist almost entirely of the indigenes of the adjacent island. They are a fine race, with strongly-marked Papuan features, frizzly hair, and brown complexions. The Goram language is spoken also at the east end of Ceram, and in the adjacent islands. It has a general resemblance to the languages of Ceram, but possesses a peculiar element which I have not met with in other languages of the Archipelago.

After great delay, considering the importance of every day at this time of year, a miserable boat and five men were found, and with some difficulty I stowed away in it such baggage as it was absolutely necessary for me to take, leaving scarcely sitting or sleeping room. The sailing qualities of the boat were highly vaunted, and I was assured that at this season a small one was much more likely to succeed in making the journey. We first coasted along the island, reaching its eastern extremity the following morning (April 11th), and found a strong W. S.W. wind blowing, which just allowed us to lay across to the Matabello Islands, a distance little short of twenty miles. I did not much like

the look of the heavy sky and rather rough sea, and my men were very unwilling to make the attempt; but as we could scarcely hope for a better chance, I insisted upon trying. The pitching and jerking of our little boat, soon reduced me to a state of miserable helplessness, and I lay down, resigned to whatever might happen. After three or four hours, I was told we were nearly over; but when I got up, two hours later, just as the sun was setting, I found we were still a good distance from the point, owing to a strong current which had been for some time against us. Night closed in, and the wind drew more ahead, so we had to take in sail. Then came a calm, and we rowed and sailed as occasion offered; and it was four in the morning when we reached the village of Kisslwoi, not having made more than three miles in the last twelve hours.

MATABELLO ISLANDS

At daylight I found we were; in a beautiful little harbour, formed by a coral reef about two hundred yards from shore, and perfectly secure in every wind. Having eaten nothing since the previous morning, we cooked our breakfast comfortably on shore, and left about noon, coasting along the two islands of this group, which lie in the same line, and are separated by a narrow channel. Both seem entirely formed of raised coral rock; but them has been a subsequent subsidence, as shaven by the barrier reef which extends all along them at varying distances from the shore, This reef is sometimes only marked by a. line of breakers when there is a little swell on the sea; in other places there is a ridge of dead coral above the water, which is here and there high enough to support a few low bushes. This was the first example I had met with of a true barrier reef due to subsidence, as has been so clearly shown by Mr. Darwin. In a sheltered archipelago they will seldom be distinguishable, from the absence of those huge rolling waves and breakers which in the wide ocean throw up a barrier of broken coral far above the usual high-water mark, while here they rarely rise to the surface.

On reaching the end of the southern island, called Uta, we were kept waiting two days for a wind that would enable us to pass over to the next island, Teor, and I began to despair of ever reaching Ke, and determined on returning. We left with a south wind, which suddenly changed to north-east, and induced me to turn again southward in the hopes that this was the commencement of a few days' favourable weather. We sailed on very well in the direction of Teor for about an hour, after which the wind shifted to WSW., and we were driven much out of our course, and at nightfall found ourselves in the open sea, and full ten miles to leeward of our destination. My men were now all very much frightened, for if we went on we might be a. week at sea in our little open boat, laden almost to the water's edge; or we might drift on to the coast of New Guinea, in which case we should most likely all be murdered. I could not deny these probabilities, and although I showed them that we could not get back to our starting-point with the wind as it was, they insisted upon returning. We accordingly put about, and found that we could lay no nearer to Uta than to Teor; however, by great good luck, about ten o'clock we hit upon a little coral island, and lay under its lee till morning, when a favourable change of wind brought us back to Uta, and by evening (April 18th) we reached our first anchorage in Matabello, where I resolved to stay a few days, and then return to Goram. It way with much regret that I gave up my trip to Ke and the intervening islands, which I had looked forward to as likely to make up for my disappointment in Ceram, since my short visit on my voyage to Aru had produced me so many rare and beautiful insects.

The natives of Matabello are almost entirely occupied in making cocoanut oil, which they sell to the Bugis and Goram traders, who carry it to Banda and Amboyna. The rugged coral rock seems very favourable to the growth of the cocoa-nut palm, which abounds over the whole island to the very highest points, and produces fruit all the year round. Along with it are great numbers of the areca or betel-nut palm, the nuts of which are sliced, dried, and ground into a paste, which is much used by the betel-chewing Malays and Papuans. All the little children here even such as can just run alone, carried between their lips a mass of the nasty-looking red paste, which is even more disgusting than to see

them at the same age smoking cigars, which is very common even before they are weaned. Cocoa-nuts, sweet potatoes, an occasional sago cake, and the refuse nut after the oil has been extracted by boiling, form the chief sustenance of these people; and the effect of this poor and unwholesome diet is seen in the frequency of eruptions and scurfy skin diseases, and the numerous sores that disfigure the faces of the children.

The villages are situated on high and rugged coral peaks, only accessible by steep narrow paths, with ladders and bridges over yawning chasms. They are filthy with rotten husks and oil refuse, and the huts are dark, greasy, and dirty in the extreme. The people are wretched ugly dirty savages, clothed in unchanged rags, and living in the most miserable manner, and as every drop of fresh water has to be brought up from the beach, washing is never thought of; yet they are actually wealthy, and have the means of purchasing all the necessaries and luxuries of life. Fowls are abundant, and eggs were given me whenever I visited the villages, but these are never eaten, being looked upon as pets or as merchandise. Almost all of the women wear massive gold earrings, and in every village there are dozens of small bronze cannon lying about on the ground, although they have cost on the average perhaps £10 a piece. The chief men of each village came to visit me, clothed in robes of silk and flowered satin, though their houses and their daily fare are no better than those of the ether inhabitants. What a contrast between these people and such savages as the best tribes of bill. Dyaks in Borneo, or the Indians of the Uaupes in South America, living on the banks of clear streams, clean in their persons and their houses, with abundance of wholesome food, and exhibiting its effect in healthy shins and beauty of form and feature! There is in fact almost as much difference: between the various races of savage as of civilized peoples, and we may safely affirm that the better specimens of the former are much superior to the lower examples of the latter class.

One of the few luxuries of Matabello is the palm wine; which is the fermented sap from the flower stains of the cocoa-net. It is really a very mice drink, more like cyder than beer, though quite as intoxicating as the latter. Young cocoa-nuts are also very abundant, so that anywhere in the island it is only necessary to go a few yards to find a delicious beverage by climbing up a tree for it. It is the water of the young fruit that is drunk, before the pulp has hardened; it is then more abundant, clear, and refreshing, and the thin coating of gelatinous pulp is thought a treat luxury. The water of full-brown cocoa-nuts is always thrown away as undrinkable, although it is delicious in comparison with that of the old dry nuts which alone we obtain in this country. The cocoa-nut pulp I did not like at first; but fruits are so scarce, except at particular seasons, that one soon learns to appreciate anything of a fruity nature.

Many persons in Europe are under the impression that fruits of delicious flavour abound in the tropical forests, and they will no doubt be surprised to learn that the truly wild fruits of this brand and luxuriant archipelago, the vegetation of which will vie with that of any part of the world, are in almost every island inferior in abundance and duality to those of Britain. Wild strawberries and raspberries are found in some places, but they are such poor tasteless things as to be hardly worth eating, and there is nothing to compare with our blackberries and whortleberries. The kanary-nut may be considered equal to a hazel-nut, but I have met with nothing else superior to our crabs, oar haws, beech-nuts, wild plums, and acorns; fruits which would be highly esteemed by the natives of these islands, and would form an important part of their sustenance. All the fine tropical fruits are as much cultivated productions as our apples, peaches, and plums, and their wild prototypes, when found, are generally either tasteless or uneatable.

The people of Matabello, like those of most of the Mahometan villages of East Ceram and Goram, amused me much by their strange ideas concerning the Russian war. They believe that the Russians were not only most thoroughly beaten by the Turks, but were absolutely conquered, and all converted to Islamism! And they can hardly be convinced that such is not the case, and that had it not been for the assistance of France and England, the poor Sultan world have fared ill. Another of their motions is, that the Turks are the largest and strongest people in the world—in fact a race of

giants; that they eat enormous quantities of meat, and are a most ferocious and irresistible nation. Whence such strangely incorrect opinions could have arisen it is difficult to understand, unless they are derived from Arab priests, or hadjis returned from Mecca, who may have heard of the ancient prowess of the Turkish armies when they made all Europe tremble, and suppose that their character and warlike capacity must be the same at the present time.

GORAM

A steady south-east wind having set in, we returned to Manowolko on the 25th of April, and the day after crossed over to Ondor, the chief village of Goram.

Around this island extends, with few interruptions, an encircling coral reef about a quarter of a mile from the shore, visible as a stripe of pale green water, but only at very lowest ebb-tides showing any rock above the surface. There are several deep entrances through this reef, and inside it there is hood anchorage in all weathers. The land rises gradually to a moderate height, and numerous small streams descend on all sides. The mere existence of these streams would prove that the island was not entirely coralline, as in that case all the water would sink through the porous rock as it does at Manowolko and Matabello; but we have more positive proof in the pebbles and stones of their beds, which exhibit a variety of stratified crystalline rocks. About a hundred yards from the beach rises a wall of coral rock, ten or twenty feet high, above which is an undulating surface of rugged coral, which slopes downward towards the interior, and then after a slight ascent is bounded by a second wall of coral. Similar walls occur higher up, and coral is found on the highest part of the island.

This peculiar structure teaches us that before the coral was formed land existed in this spot; that this land sunk gradually beneath the waters, but with intervals of rest, during which encircling reef's were formed around it at different elevations; that it then rose to above its present elevation, and is now again sinking. We infer this, because encircling reefs are a proof of subsidence; and if the island were again elevated about a hundred feet, what is now the reef and the shallow sea within it would form a wall of coral rock, and an undulating coralline plain, exactly similar to those that still exist at various altitudes up to the summit of the island. We learn also that these changes have taken place at a comparatively recent epoch, for the surface of the coral has scarcely suffered from the action of the weather, and hundreds of sea-shells, exactly resembling those still found upon the beach, and many of them retaining their gloss and even their colour, are scattered over the surface of the island to near its summit.

Whether the Goram group formed originally part of New Guinea or of Ceram it is scarcely possible to determine, and its productions will throw little light upon the question, if, as I suppose, the islands have been entirely submerged within the epoch of existing species of animals, as in that case it must owe its present fauna and flora to recent immigration from surrounding lands; and with this view its poverty in species very well agrees. It possesses much in common with East Ceram, but at the same time has a good deal of resemblance to the Ke Islands and Banda. The fine pigeon, Carpophaga concinna, inhabits Ke, Banda, Il-Iatabello, and Goram, and is replaced by a distinct species, C. neglecta, in Ceram. The insects of these four islands have also a common facies—facts which seem to indicate that some more extensive land has recently disappeared from the area they now occupy, and has supplied them with a few of its peculiar productions.

The Goram people (among whom I stayed a month) are a race of traders. Every year they visit the Tenimber, Ke, and Aru Islands, the whole north-west coast of New Guinea from Oetanata to Salwatty, and the island of Waigiou and Mysol. They also extend their voyages to Tidore and Ternate, as well as to Banda and Amboyna, Their praus are all made by that wonderful race of boatbuilders, the Ke islanders, who annually turn out some hundreds of boats, large and small, which can hardly be surpassed for beauty of form and goodness of workmanship, They trade chiefly in tripang, the medicinal mussoi bark, wild nutmegs, and tortoiseshell, which they sell to the Bugis traders at Ceram-

laut or Aru, few of them caring to take their products to any other market. In other respects they are a lazy race, living very poorly, and much given to opium smoking. The only native manufactures are sail-matting, coarse cotton cloth, and pandanus-leaf boxes, prettily stained and ornamented with shell-work.

In the island of Goram, only eight or ten miles long, there are about a dozen Rajahs, scarcely better off than the rest of the inhabitants, and exercising a mere nominal sway, except when any order is received from the Dutch Government, when, being backed by a higher power, they show a little more strict authority. My friend the Rajah of Ammer (commonly called Rajah of Goram) told me that a few years ago, before the Dutch had interfered in the affairs of the island, the trade was not carried on so peaceably as at present, rival praus often fighting when on the way to the same locality, or trafficking in the same village. Now such a thing is never thought of-one of the good effects of the superintendence of a civilized government. Disputes between villages are still, however, sometimes settled by fighting, and I one day saw about fifty men, carrying long guns and heavy cartridge-belts, march through the village. They had come from the other side of the island on some question of trespass or boundary, and were prepared for war if peaceable negotiations should fail.

While at Manowolko I had purchased for 100 florins (£9.) a small prau, which was brought over the next day, as I was informed it was more easy to have the necessary alterations made in Goram, where several Ke workmen were settled.

As soon as we began getting my prau ready I was obliged to give up collecting, as I found that unless I was constantly on the spot myself very little work would be clone. As I proposed making some long voyages in this boat, I determined to fit it up conveniently, and was obliged to do all the inside work myself, assisted by my two Amboynese boys. I had plenty of visitors, surprised to see a white man at work, and much astonished at the novel arrangements I was making in one of their native vessels. Luckily I had a few tools of my own, including a small saw and some chisels, and these were now severely tried, cutting and fitting heavy iron-wood planks for the flooring and the posts that support the triangular mast. Being of the best London make, they stood the work well, and without them it would have been impossible for me to have finished my boat with half the neatness, or in double the time. I had a Ke workman to put in new ribs, for which I bought nails of a Bugis trader, at 8d. a pound. My gimlets were, however, too small; and having no augers we were obliged to bore all the holes with hot irons, a most tedious and unsatisfactory operation.

Five men had engaged to work at the prau till finished, and then go with me to Mysol, Waigiou, and Ternate. Their ideas of work were, however, very different from mine, and I had immense difficulty with them; seldom more than two or three coming together, and a hundred excuses being given for working only half a day when they did come. Yet they were constantly begging advances of money, saying they had nothing to eat. When I gave it them they were sure to stay away the next day, and when I refused any further advances some of them declined working any more. As the boat approached completion my difficulties with the men increased. The uncle of one had commenced a war, or sort of faction fight, and wanted his assistance; another's wife was ill, and would not let him come; a third had fever and ague, and pains in his head and back; and a fourth had an inexorable creditor who would not let him go out of his sight. They had all received a month's wages in advance; and though the amount was not large, it was necessary to make them pay it back, or I should get any men at all. I therefore sent the village constable after two, and kept them in custody a day, when they returned about three-fourths of what they owed me. The sick man also paid, and the steersman found a substitute who was willing to take his debt, and receive only the balance of his wages.

About this time we had a striking proof of the dangers of New Guinea trading. Six men arrived at the village in a small boat almost starved, having escaped out of two praus, the remainder of whose crews (fourteen in number) had been murdered by the natives of New Guinea. The praus had left this village a few months before, and among the murdered men were the Rajah's son, and the relation or slaves of many of the inhabitants. The cry of lamentation that arose when the news arrived was most

distressing. A score of women, who had lost husbands, brothers, sons, or more distant relatives, set up at once the most dismal shrieks and groans and wailings, which continued at intervals till late at night; and as the chief houses in the village were crowded together round that which I occupied, our situation was anything but agreeable.

It seems that the village where the attack took place (nearly opposite the small island of Lakahia) is known to be dangerous, and the vessels had only gone there a few days before to buy some tripang. The crew were living on shore, the praus being in a small river close by, and they were attacked and murdered in the day-time while bargaining with the Papuans. The six men who survived were on board the praus, and escaped by at once setting into the small boat and rowing out to sea.

Конец ознакомительного фрагмента.