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TRAVELS

IN

B R A Z I L.

PART I.

LONDON:
PRINTED BY S. AND R. BENTLEY, DORSET-STREET, FLEET-STREET.

Engraved by H. H. S.

Prince Maximilian
of Mexico

TRAVELS
IN
BRAZIL,

IN THE YEARS 1815, 1816, 1817.

BY
PRINCE MAXIMILIAN,
OF WIED-NEUWIED.

ILLUSTRATED WITH PLATES.

LONDON:

PRINTED FOR HENRY COLBURN & CO.

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1820.

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The East Coast of
BRAZIL,
between the 15th & 23rd Degrees of South Latitude
AFTER ARROWS WITH
with additions and corrections.

- Explanation of the Abbreviations &c.
A Alder Village.	F Fazenda, Farm.	Q Quarter, Military Post
B Barra, Bar.	F Forte, Fort	R Rio, River.
C Cabalo, Ctr.	L Lagoa, Lake.	R* Riacho, Rivulet
C* Cabo, Cape.	P Povoação, Hamlet.	V Villa, Town
C ^o Comarca, Circuit.	P ^o Ponta, Bridge	

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*Explanatory Notice respecting the Map of the East Coast of Brazil, between
the 15th and 23d Degree of South Latitude.*

As there are none but very incomplete maps of the east coast of Brazil in the hands of the Public, and it was impossible in my situation to lay down a new one founded on astronomical observations, I selected the best that I was acquainted with, by Arrowsmith, and made it my groundwork. It is enlarged one third: some of the principal points and mouths of rivers, as the bay of Rio de Janeiro, the mouth of the Paraiba, the Espirito Santo, the Rio Doce, the Rio Grande de Belmonte, and the Rio Pardo, have been left as they were, since it is to be presumed that the mouths of these more considerable rivers have been accurately determined upon astronomical principles. On the other hand I have endeavoured to correct the positions of all the smaller streams and places lying between them, according to the number of leagues which they are distant from each other. Hence considerable deviations will be discovered from the English map: in the latter, rivers are marked which do not exist, and others are omitted: the many false names with which the old maps abound, and of which no trace is to be found in the country, have moreover been erased. In this map, I have marked my course along the coast and up the rivers with a fine line, and have endeavoured to denote with colours the boundaries of the different tribes of the Tapuyas: the coloured stripes farther inland intimating the connection of these same tribes. The signification of the colours is stated in the map. For the complete illustration of these coloured boundaries of the abodes of the different tribes, it will be necessary, when they are mentioned in the text, to refer to the map. The course of the Mucuri has been altered agreeably to the

information of Colonel Bento Lourenzo, and his new road through the forests is delineated on it. A mere glance at this exposition of the Portuguese settlements on the east coast will suffice to show how thinly this tract is peopled, especially when it is considered that none of the mouths of the rivers which here disembogue themselves into the ocean is inhabited more than one or two days' journey upwards by Portuguese and their Brazilian descendants. The Portuguese government has commenced an accurate survey of the east coast; and we should acquire a thorough knowledge of this part of South America, should it be pleased to communicate to the world the result of these useful geographical labours.

J. Clark sculp.

London, Published May 1. 1860, by Henry Colburn & Co.

PURIS in their HUT.

T R A V E L S
IN
B R A Z I L,
&c. &c.

INTRODUCTION.

DURING a long series of eventful years, an almost uninterrupted succession of wars, unparalleled in the modern history of Europe, had thrown numerous obstacles in the way of every attempt to extend the domain of Natural Science and Geography, by travels into remote quarters of the globe. England, which was less affected by these obstacles, furnished us, almost exclusively, with some additions to this branch of scientific research. Among the many other pleasing prospects now opened to us by the happy restoration of peace to the nations of the world, is that of seeing men, animated by an ardent desire for new discoveries in the various kingdoms of Nature, successfully undertake extensive voyages and travels, and communicate those ample treasures, which they cannot fail to collect, to their countrymen, whom circumstances, inclination, or necessity, confine to their native soil. May a long continuance of this peace, so ardently wished, and so dearly earned, insure to us these cheering prospects!

The eyes of naturalists were long directed with peculiar eagerness to Brazil, that happily situated country, which promised such an ample harvest to gratify curiosity, but which had hitherto been so carefully closed against every inquirer.

Our information respecting this early discovered and highly interesting region was confined to the reports of some early travellers, the communications of Spanish and Portuguese navigators, the more satisfactory accounts given by the Jesuits; and the observations of Marcgraf and Piso. Within a short period, however, very favourable changes have taken place in those circumstances which formerly impeded researches into the state of Brazil. Amongst others, the aspect of affairs in Europe induced the Monarch to transfer his residence to a country, which had not been yet seen by its sovereign, though it was the principal source of his riches.

This emigration of the Sovereign and his Court could not fail to have a great and beneficial influence on the country. The oppressive system of mysterious exclusion was abolished; confidence took the place of timid distrust, and foreign travellers were allowed access to this field of new discoveries. The liberal sentiments of a wise King, seconded by an enlightened Ministry, not only gave admission to strangers, but even promoted their researches in the most liberal manner. Thus Mr. Mawe obtained leave to examine those rich diamond mines, to which no foreigner had till then been allowed to penetrate; and traversed a part of the province of Minas Geraës, with a view to the study of its mineralogy. Some German travellers have since visited that province. Lieutenant-colonel Von Eschwege, of the Royal Corps of Engineers at Villa Rica, has been enabled, by several years' residence in Brazil, to publish some interesting essays; and we may reasonably expect many important discoveries from this gentleman, who possesses such an ample fund of solid knowledge. He measured the higher chains of the mountains of Minas, sketched their profile, and

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examined, during his mineralogical journeys, the various productions of those lofty ridges, where among other things he has lately discovered sulphureous springs. He promotes with the greatest courtesy the objects of foreign travellers by his advice and assistance. Some other Germans, animated with equal zeal, have repaired to that country; and they too cannot fail of meeting with ample materials for observation. Being recommended to the King by that patron of the sciences, his minister, the Count da Barca, they not only obtained permission to travel through the different *capitanias* of the monarchy, but they were also most generously aided in their views, by the allotment of a certain annual sum for the prosecution of their researches, and by passports accompanied with the most emphatic letters of recommendation to the captains-general of the several provinces. What a contrast is there between the liberal policy of the present government, and the ancient system, when the traveller, upon his landing in Brazil, was surrounded with soldiers, and cautiously watched! In the name of my countrymen, and of all other European travellers, I cannot do less than thus publicly express my gratitude towards a Monarch who has adopted measures equally wise and popular. Such a favourable reception and friendly treatment are inexpressibly gratifying to the wanderer remote from his native country, and will certainly be attended with incalculable advantage to the sciences, in which the whole civilized world will participate.

Whoever would travel through the interior of this vast continent so as to derive any considerable benefit from his researches, must make up his mind to devote several years to this object, and arrange his plan accordingly. Thus, for example, two years are not sufficient to penetrate to Goyaz and Cuiabá only; what time, therefore, would it require to travel across Brazil, to the frontiers of Paraguay, to the banks of the Uruguay, to the remote boundaries of Matto Grosso,

where a marble pyramid, executed at Lisbon, marks the limits, at the mouth of the Jauru?

The province of Minas Geraës had been already visited by Mawe and Eschwege, and was thus, if not entirely, yet in a great degree, known. On my arrival in Brazil, therefore, I thought it best to select the East coast, which was still quite unknown, or at least not described. Several tribes of the aboriginal inhabitants yet live there in their primitive state, undisturbed by the Europeans, who are gradually spreading themselves in all directions.

The lofty and naked ridge of Middle Brazil, in the provinces of Minas Geraës, Goyaz, and Pernambuco, is divided from the East coast by a broad tract of high forests, which extend from Rio Janeiro to the environs of the Bay of All Saints, about 11 degrees of latitude, and which are not yet taken possession of by the Portuguese settlers; for only a few roads have been hitherto opened, with infinite labour, along the rivers that traverse them. In these forests, where the primitive inhabitants, who are pressed upon at every other point, have till now enjoyed a secure and peaceful abode, we may still find those people in their original state. Such a country, therefore, could not fail to be particularly attractive to a traveller, who did not intend to pass many years in this hot climate.

The tribes of aboriginal inhabitants, who people these forests, are unknown to us in Europe (Portugal, perhaps, excepted), even by name. The Jesuits, particularly Vasconcellos*, divided all the savage tribes inhabiting the coast and forests, into two classes; namely, such as dwelt on the coasts, and were brought by the Portuguese, especially the Jesuits, something nearer to European civilisation, whom they styled *Indianos mansos*, or tame Indians; and such as inhabited the

* Vide his *Noticias Curiosas do Brasil*.

woods and deserts of the interior, rude unknown barbarians, whom they call *Tapuyas*; it is the latter that still exist in a state of nature, and well deserve to be better known. Though we had some few notices of these tracts of continuous forests on the coasts, in the writings of the Jesuits and several old travellers, yet all their accounts were extremely imperfect, and disfigured by a mixture of fable; neither do they give us any information respecting the natural history of the country. We knew, therefore, little or nothing of the original inhabitants still living here in a savage state, much less of the animate or inanimate creation in these regions, which, nevertheless, afford an infinite diversity of new and remarkable objects, particularly for the botanist and the entomologist. But the traveller must be prepared before-hand to encounter numerous and severe hardships; for instance, want of provisions, of pasture for the beasts, difficulties in conveying his collections of natural history, continued rains, damps, and other inconveniences.

The circumstance, however, which is most disagreeable to the traveller in Brazil, is indisputably the total want of good maps. Arrow-smith's is full of errors; nay, considerable rivers on the East coast are omitted; on the contrary, others are marked, where none exist; and thus the best map of Brazil that we at present possess is almost useless to the traveller. In order to supply this deficiency, the Portuguese government has lately given orders for an accurate survey of the whole coast, pointing out exactly all the dangers that threaten the navigator. This useful work is already begun, and two able naval officers, Captain José da Trinidad and Antonio Sylveira de Araujo, have surveyed the coast of Mucuri, S. Matthew, Viçosa, Caravellas, to Porto Seguro and Santa Cruz.

I am also indebted to the liberality and enlightened policy of the Portuguese government, for being able to communicate to my countrymen this account of a journey along the East coast, from the 23d

to the 13th degree of south latitude. Two Germans, Messrs. Freyreiss and Sellow, who intend to travel several years in the Brazils, have found a generous patron in His Majesty the King of Portugal ; it is scarcely possible for any foreigner to be better qualified than they to penetrate into this country, since they are acquainted with the language and manners, and have also prepared themselves by several years spent in travelling. I made a part of my tour in the company of these gentlemen, and received much interesting information from Mr. Freyreiss, for which I beg leave to take this opportunity of returning him my thanks. He will communicate to me accounts of his future travels, as well as his discoveries in natural history, which I shall feel happy to lay before the friends of such inquiries. The present narrative must therefore be considered as the precursor only of more interesting observations : further details and additional researches will supply the deficiencies which occur in the course of the work. I am fully sensible, how hazardous it is to venture on publishing these remarks, made during a journey in a portion of South America, after the appearance of the work of our enlightened countryman Alexander von Humboldt ! Yet good intentions, though accompanied by inferior abilities, are not undeserving of notice ; and however little I can pretend to furnish any thing perfect, still I presume to hope that the lovers of the study of natural history, geography, manners, and customs, will find in my communications some contributions not wholly unimportant to the interests of science and humanity.

CHAPTER I.

VOYAGE FROM ENGLAND TO RIO DE JANEIRO.

BRAZIL, to which many travellers have for some years past directed their attention, has the advantage of being separated from Europe by one of the less stormy seas. There are indeed some months, especially about the time of the equinoxes, when this immense ocean is subject to frequent tempests; yet they are not, upon the whole, so dangerous in these regions as in other parts; as for example, in the neighbourhood of the Cape of Good Hope and Cape Horn.

I left London at the season when tempests have usually abated of their violence, and we therefore looked forward with confidence to a tranquil and pleasant voyage. Our vessel, the *Janus*, of three hundred and twenty tons, left the Thames in the finest weather; and we placed the greater faith in the prognostics of our crew, on seeing the evening sky tinged with the most beautiful red. We reached the mouth of the Thames with a fresh breeze; but it died away towards evening, and we were obliged to come to an anchor.

The first days of a voyage are commonly spent in making arrangements on board, and contemplating the new objects that present themselves to view; consequently they pass away very quickly. At day-break on the second morning after our departure, we had every prospect of a favourable voyage. Large three-masted ships pursued

the same course with us; East-Indiamen and coasters glided calmly over the green mirror: but towards noon the wind changed and became contrary. Having passed Margate, and doubled the North Foreland, with its steep white coast, we anchored towards evening in the Downs. The coast of the Channel is in this part entirely open; there being neither bay, nor eminence, to protect the mariner in stormy seasons. The number of ships lying off Deal was very considerable; the largest East-Indiamen, and several ships of war, anchored at the same time with us.

Being detained several days in the roads by contrary winds, the captain made use of this opportunity to take in some fresh meat, vegetables, and live stock, for the passage. In a few days, the wind becoming more favourable, we weighed anchor, and proceeded round the South Foreland, accompanied by the Albatross brig. Our hopes were, however, soon disappointed; for a change of weather obliged us once more to bear up for our former anchorage off Deal. The wind now increased so much that it was necessary to have a strong watch on deck during the night.

The stormy weather continued, with different degrees of violence, for some days, and gave those among us who were for the first time on this fickle element no very agreeable specimen of the pleasures of a sea-faring life. One afternoon, when the wind seemed to be rather more favourable, a man of war gave the signal, upon which the whole fleet weighed anchor. At dusk, a new danger threatened us: many of the ships sailed so near to each other, and were so crowded together, that the greatest care was necessary to prevent mutual injury. At midnight we were exposed to a still greater danger, which we, however, had the good fortune to escape. A very large ship, under full sail, came towards us with the rapidity of an arrow, and was not perceived by our watch on deck, on account of the darkness, till she was passing close by our side.

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The violence of the wind increased, and when the morning came the scene was much changed: the sky was, indeed, free from clouds, but gloomy, and as if involved in smoke, and though the sun shone, the storm raged with redoubled fury. Our ship, which lay quite on one side, contended with a few sails against the wind; and about ten in the morning we were off the light-house of Dungeness. All the passengers were sick in the cabin, where a melancholy silence was interrupted only by the howling of the storm among the rigging, and by the dreadful roaring and dashing of the agitated waves. The captain, who exerted all his efforts to continue the voyage, was at length compelled to tack about, and again to direct his course to Deal. The violence of the storm now acted favourably on our vessel; for with only a few small sails set, we flew with such rapidity, that in a short time we traversed the same distance which we had spent the whole night in advancing. A brig, which sailed in company with us, was constantly covered with the waves, while we, being on board a higher-built vessel, remained pretty dry.

We arrived off Deal, but we sailed with such rapidity, that in order to avoid running on shore, we were obliged to cast anchor with all possible speed; this however could not be done without much trouble, for the violent friction of the cable, as it was veered out, produced such a heat that it began to smoke, and would certainly have caught fire, had it not been cooled by the water, which the sailors poured upon it in torrents. At length the enormous anchor reached the bottom, and we saw ourselves happily delivered from this danger. Our ship, which was one of the best and strongest built, had fortunately good new cables and excellent tackling. The number of vessels that we found at anchor here, consoled us in some measure for our loss of time; all the larger ships had struck their topmasts and yards, as a security against the storm, and the men of war had thrown out two anchors.

We had now indeed escaped the most imminent danger, but confined to our narrow prison, which was still dreadfully tossed by the billows, we led for some time a very dull life, and therefore felt doubly happy when the fury of the waves at length abated, and we were able cheerfully to proceed towards our destination. We passed Dungeness, and saw the fine cliffs of Beachy Head, a promontory in Sussex, between the towns of Hastings and Shoreham, where, in 1690, the French fleet defeated the combined squadrons of England and Holland; at noon we saw also the town of Brighthelmstone, or Brighton, 56 English miles from London, so celebrated for its sea-bathing; and in the evening found ourselves in sight of the Isle of Wight. The sea was calm and unruffled; the moon shone with unclouded lustre; cheerfulness returned among our crew; the violin of the sailors was again heard, and the young people forgot, in the lively pleasures of the dance, the fears and the dangers to which they had been exposed.

On the 20th of May, in the morning, we left St. Catharine's Point, in the Isle of Wight, and sailed thence past Portland Point, in Dorsetshire, where the fine stone is procured which is used for building in London. In the next night another storm of such violence arose, that the ship was obliged to tack, to avoid being dashed on the rocky coast of England, in doing which one of our sails was rent by the wind. The following evening, the sea running very high, and the wind being rather contrary, we took refuge in the safe harbour of Torbay. This bay is spacious, and finely bounded by rocky hills. Portland Point projects on the north side, and Start Point on the south. Here we designed to wait for better weather, and to repose after the fatigues we had endured: but two ships bound to the same quarter as ourselves made signals to us to sail in company with them; we were therefore obliged to give up the repose we had hoped for, and to take to sea with us, the letters which we had written to our friends at

home. Towards evening we doubled the Start Point. Lofty, jagged, perpendicular rocks, form a rude promontory, the flat summit of which, like the whole coast of Devonshire, is clothed with beautiful verdure. The hills partly appeared of a yellow colour, from the blossoms of the *Ulex* (furze), which strike the eye at a great distance. This plant is very common in England and France. Above the surface of the sea project small rocky islands, against which the waves break in white foam, a sight which was the more pleasing to-day, as it was illumined by the soft light of the setting sun. Our ship, sometimes lifted up by the violently agitated sea, at others seeming as if sinking into the abyss, now hastened towards the ocean. When the next morning dawned, we saw Pendennis Castle, near Falmouth, at a distance, and left the Channel at Cape Lizard, which is distinguished by its two white lighthouses.

The coasts of Devonshire and Cornwall have not the white colour of the North and South Foreland, but are of a reddish hue. Falmouth, in Cornwall, is a small, but important harbour, because the packets sail from it for all parts of the world: at the beginning of every month ships are to be found here bound for Lisbon, Brazil, the West Indies, North America, India, &c.

We had thus at length reached the immense ocean. We wholly lost sight of land: the last point of England, the Land's End, disappeared from our view about noon on the 22d of May. From this time all amusement derived from the observation of surrounding objects ceases. Nothing is to be seen but sea and sky, with which we soon become pretty well acquainted. We now seek employment in writing or reading, and happy are they who have provided themselves with a sufficient stock of good books.

In ten days, during which we had generally fine weather, and met with nothing particular, we reached Madeira. During the passage we often amused ourselves with our lines, and other fishing-tackle,

but the only fish we caught was the grey gurnard (*Trigla Gurnardus*), a good eatable fish. Shoals of porpoises (*Delphinus Phocæna*, Linn.) frequently accompanied our vessel, especially when the sea was rather rough; we fired at them, but had not the good fortune to kill one. Among the frequent attendants of the ship was also the little stormy petrel (*Procellaria pelagica*), which is called by the Portuguese *Alma de Mestre*. The sailors consider it as a sign of an approaching storm when these birds appear in considerable numbers about the ship, and are therefore very sorry to see them. A king's cutter gave us the information that England had declared war against France; and our sailors were called upon deck, but not one of them was taken for His Majesty's service. The news we had received threw us into considerable alarm, on perceiving a ship from the Spanish coast, making directly towards us. Our apprehensions were, however, of short duration, as we soon recognised her to be an English vessel. She took charge of our letters for Europe.

On the 1st of June, about noon, we descried towards the south a high land, and lofty mountains, indistinctly in the distance; it was the large and beautiful island of Madeira. At six in the evening we were off its western point, *Ponta Pargo*, and doubled it with a brisk gale. Great numbers of petrels, gulls, and other water-fowl, gave animation to the surface of the ocean. The view of Madeira is beautiful: the island appeared to us as a simple rock, the summit of which was on this day hid in the clouds. On all sides the ascent is steep, of a blackish colour, with deep ravines and clefts; but the vine every where spreads its verdant branches, and between them glitter the white dwellings and country houses of the inhabitants. On the ridges of the eminences which were not veiled in clouds, appeared green pastures, as on the Alps; and lofty dark groupes of trees overshadowed the little habitations. This fine island enjoys a remarkably happy climate, in which the productions both of the torrid and the temperate

zone equally thrive ; great heat is here united with much moisture ; and there must be frequent rains, for the torrents which descend from time to time have worn deep ravines and clefts in the steep sides of the rocks. Eighty thousand inhabitants subsist here, chiefly by the production of the wine so generally esteemed, as well as of many fine fruits, oranges, bananas, lemons, &c.

As it was not our intention to visit Funchal, the capital of Madeira, we did not bring-to, but sailed on with a fresh breeze, and soon lost sight of the island. A favourable trade-wind carried us with great rapidity towards the tropic, without any particular circumstance occurring to disturb us. Flying fish, shining like silver, rose in great numbers, and darted past our ship. The nearer you approach to the equator the more numerous are these fish ; before you reach the tropic they are seldom seen.

On the 6th of June, we crossed the tropic of Cancer, and henceforward derived some amusement from observing several kinds of *Mollusca*. In $22^{\circ} 17'$ north latitude, we saw the first *Physalis*, an extremely singular *Mollusca**, which becomes more and more frequent as you advance towards the equator, so that farther south many hundreds may often be observed in one day. This singular animal has already been mentioned by many navigators ; and it was therefore very interesting to me, to be able to examine it more closely. The larger portion of the animal, which appears above water, is a bladder filled with air, which seems merely to serve to keep the upper part afloat ; on the under part are eight or nine bunches of long fleshy fibres, which grow out of short thick trunks, and here, at the base of the bladder, form one mass. In this part resides the life of the animal ; the fibres are sensible (but not the bladder), extend, contract, seize

* See the account of this animal by M. Tilesius, in the third volume of Krusenstern's Voyage round the World.

the prey, and are covered with a number of suckers and protuberances. The bladder appears to be unchangeable; I have not been able to discover any canals leading into it; it does not shrink on the death of the animal, and even in spirits of wine it retains its shape. Its power of motion is but small; it can bend itself into the shape of a crescent, and also turn its two ends up and down. By these motions it rights itself, when a wave has upset it. The bladder may be touched without any painful sensation, but the suckers excite a burning smart. This remarkable animal is called by the English the "Portuguese man of war," by the French *Galère*, and by the Portuguese *Agoa vica*, or *Caravela*. Nearer to the equator the number of these animals again decreased; here, on the contrary, we found the *Medusa pelagica* very common. Aquatic birds also hovered about us at times: after a thunder shower the steersman caught a noddy (*Sterna stolidus*) with his hands, which alighted quite fatigued on the deck; some man-of-war birds (*Pelicanus Aquilus*, Linn.) also showed themselves, which had been driven from the neighbouring rocks.

While we were passing through the northern torrid zone the weather remained on the whole favourable, but the continually increasing heat often incommoded us greatly. Black clouds sometimes arose, quite insulated, in the horizon; they spread, and came on quickly, bringing with them extremely violent thunder showers, which instantly deluged the ship, but within half an hour they were generally succeeded by bright sunshine. As we at length began to be in want of good fresh water, these showers were often very welcome. Imprudent sailors, who neglect to take in the topsails on the approach of these storms, frequently suffer damage from the sudden squalls, and sometimes even perish; our people informed us that a vessel had met with this disastrous fate only a short time before. One of these squalls in

fact tore some of the sails of our own vessel, but did no farther damage, as the men were always prepared against such accidents.

On the 22d of June the Janus crossed the equator, when Neptune, as usual, paid his visit on board. Already on the preceding evening a deputy from the sovereign of the sea was announced to us; he came alongside, and conversed for some time with the captain through the speaking-trumpet, after which he departed in a fiery ship; his vessel, consisting of a burning tar-barrel, afforded us a beautiful spectacle in the darkness of the night.

Southward of the equator we met with less favourable weather. Transient showers, accompanied with violent squalls, were more frequent; the sea was often agitated; petrels (*Procellaria pelagica*), dolphins, porpoises, and larger cetaceous animals, were more frequently seen. We had passed the line in $28^{\circ} 25'$ west longitude from Greenwich, because in the preceding part of the voyage, when we were nearer to the African coast, we had much rainy and tempestuous weather, and therefore had steered more westerly; this brought us into the currents which set in towards the American coast.

On the 27th of June, in the morning, while we were all together at breakfast, we were told that land was in sight. All rushed upon deck, and behold! Brazil rose before our delighted eyes, above the mirror of the ocean. We soon saw two kinds of sea-weed (*fucus*), and many indications of land, till we at last descried a fishing-raft in the sea, on which were three men. These rafts, called *jangadas*, are made of five or six trunks of trees, of a light kind of wood, which is called in Brazil, *pao de jangada*. Koster, in his Travels in Brazil, has given a representation of one. These *jangadas* are tolerably steady; they are used both for fishing, and for the conveyance of various articles along the coast; and move quickly, as they have a large sail on a low mast. After so long a voyage, we would willingly have made use of this opportunity to procure some fresh fish; but

the gratification of this wish did not appear to be of sufficient importance to induce us to follow the *jangada*.

We rapidly approached the coast; and about noon were so near, that it could be recognised as the vicinity of Goiana, or Paraiba do Norte, in the capitania of Pernambuco. If we had so nearly approached the land in this direction with a strong wind, and in the night, we might have incurred great danger. Fortunately, we were now able to tack in time, and put out again to sea. In the night, stormy weather with violent rain set in, which obliged us to cruise for several days almost on the same spot. The wind howled; the ship was tossed about with great violence; the rain poured down in torrents; so that we were hardly sheltered even in our beds. Our crew suffered most from the wet: on account of the dangers which threatened us, they were forced to be day and night upon deck; and even the rum distributed among them was scarcely able to keep up their courage and good humour. The aspect of the sea in these dark, stormy, and rainy nights, was terrible; the furious waves, piled up in mountains, dashed over the ship, and the whole boundless surface of the waters appeared to be on fire: a thousand shining points, stripes, and even extensive tracts, shone all round us, and changed their form and situation every moment. This light perfectly resembles that of damp rotten wood, which we often see in the forests. In such dark stormy nights we generally look forward with anxious expectation to the return of day; but day often dawned on us, without bettering our condition: it appeared frightfully gloomy and dark as the night, and the sailors could not suppress their apprehensions of still more violent tempests. They, then, always made the necessary preparations, tightened ropes that had become slack during the night, secured the masts, the bowsprit and so on, and set the pumps in motion, to try whether the ship was leaky, &c. Such preparations were extremely alarming and distressing to the passengers. We had

committed, it seems, a great error, in approaching so near the coast, here in the district of Pernambuco ; because such storms and tempests always prevail in these parts during the winter season of the torrid zone. The captain turned his ship as much as the wind would allow, to stand out to sea, but was obliged continually to tack, and consequently made but little progress. At length, about eight days after our first sight of the land, the wind became rather better, and allowed us to take a more favourable direction. The current of the sea was several times measured, which was a necessary precaution, as we were so near the coast. Large water-fowl, gulls, and petrels, hovered about us singly, but we had not the good fortune to shoot any of them. At the same time, numbers of the *physalis* swam about the ship ; flying-fish sported before us ; and large whales spouted their fountains into the air.

On the 8th at noon, we again descried the Brazilian coast about the Bay of All Saints. It presented to our view lofty mountains of fine forms, over which hung dense masses of clouds. We saw flying showers fall on them, while we at sea had a constant succession of storms, rain, and contrary wind. As we had always to expect in the evening the wind from the shore, we sailed towards it in the day-time, and during the night again into the open sea ; in this manner we had almost always a view of the coast. On the 10th the weather was fine and the wind favourable. We had sailed past the dangerous rocky islands called the Abrolhos (Open your eyes, *abra os olhos*), and could now steer directly for Cabo Frio. In 22° 23' south latitude, I observed a second kind of *physalis*, which is much smaller than the usual kind, and has no red in its colour. It is doubtless the same which Bosc has represented in the 2d volume of his *Histoire Naturelle des Vers*, tab. 19. This animal appeared in great numbers. The noon-day heat became more and more oppressive in this latitude ; a single cup of tea immediately caused a violent

perspiration. The nights, on the other hand, were of an agreeable temperature ; the moon shone bright, and the stars glistened with peculiar splendour. The signs of the neighbourhood of land were now more numerous ; sea-weed, plants, wood, and other indications, were seen in abundance, till on the afternoon of the 14th we again descried the coast, and plainly recognised before us the promontory of Cabo Frio, with a small rocky island lying in front of it. The general joy was lively and loud ; for we had been seventy days at sea, since we embarked at Gravesend, and had now but a short voyage to make, to reach Rio de Janeiro. Towards morning the Janus doubled Cabo Frio with a favourable fresh breeze ; and on the 15th of July we had a near view of the South coast of Brazil, as this promontory divides the East from the South coast.

The brisk wind produced a considerable agitation in the sea, which had here the same light green colour as on the coasts of Europe. The mountains of Brazil, of the finest and most varied forms, all covered with beautiful verdant woods, illumined by the most diversified play of light, and stretching in an unbroken chain along the coast, made us all feel uncommonly cheerful ; we painted in our minds those new and unexplored scenes, and impatiently longed for the moment of our arrival. The primæval mountains, past which we sailed, are of the greatest variety of shapes ; many are conical or pyramidal ; clouds rested upon them, and a light mist or vapour gave them a soft and agreeable hue. At noon we had, with a very faint wind, a temperature of 19° of Reaumur ($74\frac{3}{4}$ of Fahrenheit) in the shade. Soon after it fell a dead calm, which continued till the evening, when the thermometer at 9 o'clock was at 17° ; during the night the wind freshened, the ship made good way, and the next morning we found ourselves before the entrance of the great bay of Rio de Janeiro.

As it again fell calm, we lay for some time in one and the same

place, but were violently tossed by the rolling of the sea. Just before us we had the opening in the coast which leads to the royal city of Rio de Janeiro. A number of small rocky islands lay scattered in it; some of them strike the eye by their very remarkable forms, and combined with the masses of the distant mountains on the coast, afforded a highly romantic prospect. The rising sun illumined with his powerful beams the bright expanse of the smooth unruffled ocean, as well as the mountains on both sides, which, in picturesque perspective, gradually vanished from the view in the distant horizon. Among them, on the left, that called the Sugar Loaf (*Pao d'Assucar*) is particularly distinguished by its conical form; and opposite to it, upon the right, in the distance, is seen the point of land on which the fort of Santa Cruz, a small but strong fortress with many guns, is erected for the defence of the capital.

An extremely faint breeze having arisen about eleven o'clock, the progress of the ship was scarcely perceptible, though every sail was set. We resolved to avail ourselves of this delay to form our first acquaintance with the soil of Brazil, by examining one of those rocky islands. The captain had a boat hoisted out, took some sailors with him, and three of the passengers, of whom I was one, accompanied him. We rowed on without observing that our boat leaked very much, for, having been always suspended at the ship's stern, it had become dry from the heat of the sun. When we had laboured hard for half an hour, against the high swell of the sea, we found that it would be necessary to bale out the water; but as we had no implements for the purpose, our only resource was to pull off our shoes, and to perform this business with them.

The high swell of the sea had made us lose sight of the ship: however, after we had twice emptied our boat with our new substitutes for scoops, we reached the *Ilha raza* (or the flat island, so called to distinguish it from the high *Ilha rotunda*,) where we wished to land.

Unluckily, when we came up to this desert island, we found that it was impossible to get on shore: all around were steep broken rocks, on which a multitude of creeping plants formed a real net of roots and branches; the furious breakers, dashing the white foam high into the air, raged with such violence, that we were obliged to content ourselves with admiring, at a respectful distance, the beautiful forms of the trees in the thick clumps on the flat surface of the island, and enjoying the cheerful singing of the birds. The sight of this island, the first we had the opportunity of observing within the tropic, was entirely new to us, and extremely interesting. On the points of the rocks were perched in pairs, great numbers of white gulls with black backs, exactly resembling the *Larus marinus* of the European seas. We fired frequently at them, but without success, for on the first shot they all rose high into the air, where they hovered round us like swallows, uttering loud cries. After a stay of about an hour, we left the island, and looked round for the ship, but she was quite out of sight.

Our situation was now critical; for at the entrance of this great bay of Rio there are currents in the sea, which imperceptibly carry ships out of their course; by which means many have been wrecked, when there has been no wind to assist them in escaping from the danger. A remarkable instance occurred a short time before our arrival. An American ship entered the bay; and soon after an English privateer: the American long hesitated to leave the port, but was at last obliged to put to sea; and the Englishman resolved immediately to follow, with a view to take him. According to the regulations of the port of Rio, an interval of three hours is granted to vessels, before an enemy's ship is permitted to pursue them. The Englishman was therefore obliged to wait three hours; but then he set all his sails, and hastened after the enemy. He had scarcely reached the neighbourhood of the *Ilha rotunda*, when it fell a dead

calm ; the current carried the ship with great violence against the rocks : she was dashed to pieces, and sunk with the whole crew, while the American had meantime got far into the open sea.

Our sailors were forced to labour with all their might against the waves, which ran very high, without exactly knowing in what direction the Janus might be. We also exerted ourselves to the utmost to assist them ; baled the water again out of the boat with our shoes ; and had at length the good fortune to perceive, above the lofty waves, the tops of the masts of the Janus. After long and severe exertions, we reached the ship, where they were beginning to be uneasy on our account. The wind being so faint, we indeed proceeded extremely slowly ; but anchored however, when evening came, in the very contracted entrance to the great bay of Rio de Janeiro, which was formerly called Ganabara by the aboriginal tribes who dwelt round it. This entrance is striking, and extremely picturesque. On both sides rise lofty rugged mountains, like those of Switzerland, with many curiously shaped peaks, and horns, as they are called in the Alps, some of which have their peculiar names. Among them, two separate points are called the *Duos Irmaos*, the Two Brothers ; another is called by the English, Parrot-beak ; and farther in, lies the lofty Corcovado, to which people repair from Rio de Janeiro, in order to enjoy from its summit, an extensive prospect of the whole beautiful country.

When we had cast anchor about an English mile from the fort, our eyes eagerly scrutinised the grand scenes of nature which surrounded us. The high rugged mountains are partly covered with wood, amid the dark green of which the graceful cocoa-palms proudly tower. In the morning and the evening, clouds settled on those mountains, and veiled their summits : at their foot the sea broke, dashing its white foam, and caused a noise which we heard all around us during the whole night. In the beams of the setting sun,

we saw on the surface of the sea, shoals of beautiful fish, whose splendid red colour afforded us a singular spectacle. Sea-weed (*fucus*), and some *mollusca* which we caught, amused us till the approach of night and the heavy dew, usual in this zone, forced us to leave the deck for the cabin. But just as we were about to retire to rest, a sound of firing in the distance summoned us again upon deck. In the back-ground of the bay, where a number of large ships led us to presume the city of Rio de Janeiro to be situated, we were agreeably surprised by a sight which was truly magnificent amid the darkness of night---a splendid display of fireworks.

The next morning was now expected with impatience: the sun had scarcely darted his first ardent beams, when we weighed anchor, and sailed with a moderate wind towards the harbour. We all joined in a cheerful breakfast on deck: the English flag waved proudly over our heads, and the full-swelled sails carried the vessel majestically before the wind. A boat approached with eight Indian rowers*, and brought two pilots to conduct the Janus to the city of Rio. They gave us, as specimens of their fine country, some delicious oranges, which were the more welcome, as we had not tasted any fresh fruit during the seventy-two days of our voyage. We now proceeded farther up towards the city, sailing from one shore to the other of the narrow entrance of the bay. The mountains on the two shores vanished; we saw pretty habitations, with their neat red roofs, in deep valleys between the mountains, shaded by dark thickets, from which slender cocoa-palms arose: ships were sailing in all directions; we passed several little islands, in one of which Villegagnon built Fort Colligny, and which still bears his name: the French were expelled

* The Portuguese give the name of Indians (*Indios*) to all the aboriginal inhabitants of Brazil, in the same manner as all the American tribes in any part of this vast continent are falsely called Indians.

from it in 1560. From this place, there is a view of a great part of the extensive bay of Rio, which is surrounded in the blue distance by high mountains, among which the Serra dos Orgãos (the Organ Mountain) is distinguished by two very remarkable summits or horns, like those in Switzerland. Many charming islands lie in this, the most beautiful and safest harbour of the New World, the entrance of which is defended by strong batteries on each side. Directly opposite lies the city of Rio de Janeiro, or properly, S. Sebastian, which is built on several hills close to the shore; and, with its churches and convents on the heights, presents an agreeable prospect. The immediate back-ground of the town is formed by beautiful green hills covered with wood, and of nearly a conical or rounded shape; they add infinitely to the beauty of the landscape, the fore-ground of which is enlivened by numerous ships of all nations. Here all is a scene of life, bustle, and activity; boats and canoes move to and fro, and the little coasting vessels, from the neighbouring ports, fill up the intervals between the majestic three-masted ships of the nations of Europe.

Our vessel had scarcely come to an anchor, when we were surrounded by a number of boats; one of them was manned by soldiers, who immediately occupied the deck; the Custom-house officers came on board, and also officers of the Board of Health, who made enquiries into the health of the crew and passengers; and other officers, who examined our passports: lastly, the ship was filled by a crowd of English, eagerly asking after news from their own country.

The last evening on board our ship, after our imprisonment of seventy-two days, passed quickly away; and while we conversed till late in the night upon deck, enjoying the mild light of the moon, and an agreeably warm temperature, we could not avoid mutually expressing our impatient expectations for the coming day. Our imagination painted the most lively pictures of the scene just opening

before us, and yet I could not look without interest at the lofty masts of the good ship (now in a state of repose), which, after so many dangers happily overcome, had brought us hither in safety from distant lands. The traveller, who has, for a long time, found a home on the surface of the boundless ocean, in such a floating ark, feels a certain gratitude towards it, when he is to leave it; and to the unpolished, but honest seaman, who was so long his support, he wishes a cordial farewell, and good fortune in his farther peregrinations upon the fickle and deceitful element to which he has dedicated his life.

CHAPTER II.

RESIDENCE AT RIO DE JANEIRO.

The City and its Environs—Indians of St. Lourenzo—Preparations for the Journey into the Interior.

RIO DE JANEIRO, which in the last half of the seventeenth century had only about two thousand five hundred inhabitants and six hundred soldiers, has now risen to the rank of one of the first cities in the New World. As there are already many descriptions of this capital before the public, it would be a useless repetition were I to attempt a formal account of it. Barrow has given a tolerably accurate idea of this place; but its appearance is now greatly changed, because when the King emigrated, nearly 20,000 Europeans came hither from Portugal, the natural consequence of which was, that Brazilian manners gave way to those of Europe. Various improvements were also made in the city; it lost much of its original character, and has now assumed a greater resemblance to European cities. It seems indeed strange to the new-comer, when he sees that among the number of people who crowd the streets, the principal part are of a black, sallow and mulatto colour; for in the numerous population of Rio de Janeiro there are more negroes and people of colour, than whites. Individuals of various nations are attracted thither for the purposes of trade, and many different mixtures spring from their consequent inter-marriages. The principal part of the inhabitants of the Brazilian

dominions of His Portuguese Majesty, are the genuine European Portuguese; Brazilians, or Portuguese born in Brazil, of more or less pure descent; *Mulattos*, the offspring of whites and negroes; Mamelukes, the offspring of whites and Indians, also called *Mextizos*; genuine Negroes from Africa; Creoles, born of negroes in Brazil; *Caribocos*, of negroes and Indians; *Indios*, pure Indians, or aboriginal inhabitants of the country, the civilised part of whom are called *Caboclos*, while those who are still in the rude state of nature are distinguished by the names of *Gentios* and *Tapuyas*.

Of all these varieties of colour many specimens are met with in Rio de Janeiro; but the Tapuyas are rarely seen, and then but singly. On first entering the town you behold this remarkable mixture of races engaged in various occupations, and besides them, natives of all the countries of Europe. Englishmen, Spaniards, and Italians, are very numerous here; many Frenchmen now emigrate hither from their own country; Germans, Dutch, Swedes, Danes, and Russians, are met with in smaller numbers. Negroes, some of them half naked, are seen drawing heavy burdens; and this useful race of men convey all the merchandise from the harbour into the city: united in parties of ten or twelve, and keeping time together by a kind of song, or rather howl, they carry ponderous loads, suspended from long poles. Carts are never used for the transport of goods; on the other hand, many coaches, and other vehicles, drawn by mules, are seen in the streets, which are for the most part ill paved, but provided with a space on each side for foot passengers. The streets mostly intersect each other at right angles; while the houses are in general low, of one or two stories. In some quarters of the city, however, there are more extensive edifices, especially in the neighbourhood of the port, of the *Rua direita*, and near the royal palace, which, though not remarkably magnificent, is finely situated, and from which there is a noble prospect towards the sea. Among the more distinguished buildings

must be reckoned the numerous churches, many of which are internally very richly decorated. Religious festivals, processions, and ceremonies of that kind, frequently occur : on these occasions it is customary to exhibit fire-works before the doors of the churches.

Rio has a tolerably spacious Opera-house, for the performance of Italian operas, with French ballet-dancers. The Aqueduct is a very splendid work : the walk to the eminence from which it descends into the city is most agreeable ; and you have a magnificent prospect thence of the harbour, and over the city, spread out in a valley, with the cocoa palms towering above it. On the land-side the city is surrounded with marshes, interspersed with mangrove-trees, but their proximity, as well as the situation of the place in general, is considered as very unfavourable to the health of the inhabitants.

The European, transported for the first time into these tropical regions, is every where charmed with the beauties of nature ; and above all, with the luxuriance and richness of the vegetation. In every garden you see the finest trees ; for instance, the lofty and colossal mango, with its broad shade and agreeable fruit ; the slender cocoa palms ; plantains, in thick groups ; dark-green orange groves, bending under the weight of their golden produce ; melon trees ; the magnificent *erythrina*, with its scarlet blossoms ; and many more. These and several other plants, in the immediate vicinity of the city, afford numerous agreeable walks, while they present to the admiration of travellers new species of beautiful birds and butterflies, among which I will mention only the golden humming-birds as the most conspicuous. The walks along the sea shore, and the view of the ships entering the harbour from remote parts of the world, are also great sources of recreation here : nor should I pass over in silence the public promenade, with its delightful shade and terraced walk.

Hitherto nature has done more in Brazil than man : however, since the King's arrival, much has been effected for the advantage

of the country. Rio in particular has received several improvements ; among these, I ought to notice the many ordinances for promoting a more active commerce. The circulation of large sums of money has greatly increased the opulence of the city, and to this effect the residence of the Court principally contributes : the ambassadors of the European powers, and other foreigners thereby attracted to this place, have introduced a high degree of luxury among the various classes of the community : the style of dress and fashions are like those of an European capital ; and there are so many artists and artisans of every class, from all countries, that in a few years there will be no want of any thing that belongs to the conveniences and pleasures of life. When to these are added the vast variety of fruits and other productions of every kind, which the soil and climate bring forth, some idea may be formed of the natural riches of this prolific region. Oranges, mangoes, figs, grapes, the guava, pine-apples, &c. attain extraordinary perfection : the bananas are met with of various species, especially those of St. Tomé ; also the *banana da terra*, which is considered as still more wholesome ; both are very nutritious and well-flavoured : cocoa-nuts, the jacas, water-melons, nuts of the sapucaya tree, those of the Brazilian pine, and other fruits, are offered for sale in the streets at all hours. The sugar-cane is said to have been originally found wild, particularly in the neighbourhood of Rio. The markets are equally well supplied with fish of various kinds, of the most singular forms and beautiful colours : poultry, and many sorts of game bought of the hunter, add to the abundant supply. They have a species of fowls with yellow bills and feet, which are said to have come from Africa.

The troops, which are now very numerous, also afford a good livelihood to many of the old inhabitants. The contrast between the soldiers brought from Portugal, who had served under Wellington in Spain, and those raised in the Brazils, is very striking. A fine mili-

tary air distinguishes the former ; while the latter are remarkably effeminate and indolent : these qualities are carried to such an excess, that they have their arms carried home from the parade by negro slaves !

From a traveller who has made but a short stay in this city, a complete description of the place and its inhabitants will not be expected ; we may, however, look for some very interesting details from the many Europeans now residing here for the express purpose of collecting useful information.

I landed at Rio in the winter of the tropical climates, at a temperature equal to the heat of our warmest summer-days ; I naturally expected rain, but was very agreeably disappointed, as not a single drop fell, proving the inaccuracy of a very prevalent notion, that it rains continually during the cool season in the hot climates of America. My letters of recommendation obtained for me a very kind reception in some houses ; and I cannot omit naming M. Westin, the Swedish consul, M. Von Langsdorff, consul-general of Russia, Mr. Chamberlain, the English charge-d'affaires, and M. Swerts koff, Russian envoy, as these gentlemen exerted themselves to render my stay both useful and pleasant. Nor do I forget my countryman, Major Feldner, of the Engineers, who gave me many proofs of kindness. To them I am indebted for several very agreeable excursions, which enabled me to become acquainted with the beautiful environs of Rio. One of these was peculiarly interesting, as it procured me the first sight of the aboriginal inhabitants of Brazil. The village of St. Lourenzo is the only place in the neighbourhood of the capital, where there are still some remains of the once numerous native tribes. We left the city with a large party, conducted by Captain Perreira, who was well acquainted with the country, and crossed a part of the bay of Rio. The weather was uncommonly fine, and every moment gave rise to new scenes of the most picturesque description.

We landed near St. Lourenzo, and ascended some moderate heights, by a path which leads through thick groves of the most beautiful trees. *Lantanas*, with their flame-coloured, deep red, or rose-coloured blossoms, mixed with *heliconias*, and various elegant shrubs, formed a thicket. On the eminence are situated the dwellings of the Indians, scattered in groves of umbrageous orange, banana, melon, and other trees, laden with their exquisite fruit. A painter would here have an ample opportunity of exercising his pencil on the luxuriance of tropical vegetation, and on the rural scenes of an enchanting landscape.

We found the inhabitants all employed in making earthen vessels of a dark gray kind of clay, which, when baked, assumes a reddish colour: of this they form large vessels, merely by hand, without any wheel; and afterwards produce the necessary smoothness with a small sea-shell, which they wet with their lips. Both young and old were seated upon the ground.

The greater part of these people still evidently retain their genuine Indian physiognomy: others, on the contrary, seem to be rather of a mixed descent. The distinguishing characteristics of the Brazilian race, which I first observed here, but in the sequel always found confirmed, are, a moderate-sized, often small, well-formed body, in the man strong-limbed and muscular: a reddish, or yellowish brown colour: very thick, long, coal-black, lank hair: a broad face, often with the eyes placed rather obliquely, but frequently handsome, with strongly marked features, and for the most part rather thick lips: their hands and feet small and well-formed; and the men have thin, strong beards.

The few Indians living here, are all that remains of the ancient large population of this district; yet this is not properly their home. Rio and the neighbourhood were originally inhabited by the warlike tribe of the Tamoyos. These being partly expelled by the Tupin-

Imba, or Tupinambas, as the Portuguese call them, afterwards united with them against the first European invaders, and subsequently joined the French, till on the expulsion of the latter from this coast in 1567, they were at length partly extirpated by the Portuguese and the Indians in alliance with them, while the rest were driven into the forests.

According to a tradition, which, however, seems scarcely credible, these Tupinambas penetrated directly through the primæval forests to the banks of the river of Amazons, and settled there. Whether the story be well-founded or otherwise, it is certain that even at this day a remnant of the above tribe is known to exist near that river, on an island at the mouth of the Madeira, in the village of Tupinambara, from which the town of Topayos arose at a later period. It may hence be concluded how widely this tribe was spread*. Respecting the situation, mode of living, and customs of the Tupinambas, we find the most interesting information in the authentic and faithful descriptions of Lery and Hans Stade. These accounts are the more instructive, as they present at the same time a picture of all these now civilized tribes of the Indians of the coast, called by the Portuguese, tame Indians. These authorities have been of great use to Southey, in his valuable history; as also to Beauchamp, in his romancelike account of Brazil. Vasconcellos, in his *Noticias Curiosas*, divides all the tribes of the aborigines of Eastern Brazil into two classes; namely, the tame or civilized Indians, and the Tapuyas, or

* According to the description of Father D'Acunha, in De la Condamine's work, page 137, the tribes of the Tupinambas, and other Indians of the coast, were widely spread. This is proved by the denominations, taken from their language, in use along the whole East coast, on the Amazons and even in Paraguay, where Azara gives them the name of Guaranis. In the words which this writer took from the Guaraní language, there are, it is true, many deviations from those of the general language, but also a great coincidence, so that the two nations seem at least to be very nearly connected.

savage tribes. The former, when the Europeans first visited this country, inhabited the sea-coast alone : they were divided into several tribes ; but differed very little from each other in language, manners, and customs. It was usual among them to fatten their prisoners, and to kill them at a feast with the club called *Tacapé*, or *Iwura Pemme*, which was ornamented with party-coloured feathers, after which the victims thus slain were devoured. The natives consist of above twelve different tribes.

Of their language, which, owing to its being common to all the people on the coast, was called the *Lingoa geral*, or *matriz*, general language, the Jesuits, especially Anchieta, have left us a very complete grammar. Though all these Indians are now civilised, and speak Portuguese, they however still understand some words of it, and many of their old men even converse in it pretty fluently : but the habit of speaking the aboriginal dialect is greatly on the decline. All the names of animals, plants, rivers, &c. mentioned in travels in Brazil, are remnants of this language. As it was spoken from St. Paolo to Para, along the coast, we find the denominations usual in it chiefly of animals, particularly in Marcgraf's Natural History. However, it has often happened that many errors have been occasioned by the introduction of such provincial denominations into the systems ; for though in general, the same names prevail for a considerable extent along the coast, yet great variations occur, as will appear in the sequel of this narrative. The following are some specimens of words and names from this language : *Jaiarété*, the jaguar ; *Tamandua*, the ant-eater ; *Pécari*, the swine ; *Tapirété*, the tapir ; *Cuia**, the calabash ; *Tapygia*,

* These *Cuias* are pieces cut from the rind of a certain kind of gourd, which, when emptied and cleaned, make good light dishes, as also bowls, to eat and drink out of. If the hollowed gourd is whole, and serves as a bottle, the vessel is called *Cabaça*. This custom, as well as the word *Cuia*, springs from the general language, and was adopted by the Europeans in Brazil.

barbarian, or hostile nation, from which *Tapuyas* has since been formed; *Panacum*, a large basket; *Tinga*, white; *Uassu*, or *Assu*, large; *Miri*, small. The Portuguese have also adopted and retained the old Indian appellations for the various edible plants, and the food prepared from them. They eat, for instance, the *mingau* of the ancient tribes on the coast.

That this language was very much diffused in Brazil, and the adjacent provinces of South America, is proved among other things by the names of animals, which Azara mentions in his Natural History of Paraguay. They are taken from the dialect of the Guaranis, but in part exactly coincide with those of the general language.

According to the division of Vasconcellos, the first class of the Indians has wholly changed its way of life, and thereby lost its original character. Not so the Tapuyas, or second class: they still remain unchanged, in their primitive state of rudeness. Dwelling in the recesses of the great forests, and thus withdrawn from the observation and influence of Europeans, these rude barbarians lived more securely and undisturbed than their brethren on the sea-coast, with whom, as well as with the new settlers, they were engaged in constant wars. They are divided into numerous tribes; and it must appear very remarkable to the curious enquirer, that all these small hordes make use of languages totally different from each other. One very savage branch of the Tapuyas, the Uetacas, or Goaytacases, as the Portuguese call them, lived indeed on the East coast, among the tribes speaking the *Lingoa geral*, but spoke a language entirely different from theirs, lived in continual warfare with them, and was feared by them, as well as by the Europeans, till the Jesuits, who so well understood how to civilise these people, at length succeeded, by courage and perseverance, in taming their natural ferocity.

The village of St. Lourenzo was founded by Mendo de Sa in 1567,

on the building of St. Sebastian (Rio de Janeiro), under Martim Afonso, for the Indians, who had behaved very bravely in the various actions with the French and the Tupinambas, their allies, and in their expulsion. Since that time, the Jesuits have brought thither newly converted Goaytacases to people the place again. The Indians now residing there are consequently descended from that colony.

After this digression, I return to the peaceful habitations of St. Lourenzo. The walls of the huts are constructed of lattice-work of staves, the intervals being filled up with clay; the roofs are covered with leaves of the cocoa-palm. The furniture is very simple. Rush mats, laid on rude tressels, supply the place of beds; sleeping-nets, made of cotton lines, which were used by them in former times, are still occasionally seen. Both these kinds of beds have been adopted by the lower classes of the Portuguese throughout all Brazil. Large pots, called *talha*, in which water is kept constantly cool, are in use here, as in the whole country: they are made of a porous clay, through which the water slowly filters, and being condensed on the outside of the vessel, keeps that within cool. To these vessels belongs the half of a cocoa-nut shell, with a wooden handle fixed in it, to serve as a ladle. Some earthen pots for cooking, called *panellas*; cuias, or gourd shells, to be used as plates, with several trifling articles of dress, and perhaps a gun, or a bow and arrows, for the chase, constitute the rest of their furniture.

All these people are partly supported by their plantations of maniocca and maize. Besides the above productions, which compose the food of the inhabitants of Brazil of all nations, they plant pimento trees, and various kinds of capsicum; and bushes of ricinus, called *carrapato* in Pernambuco, with its angular leaves, surround each habitation, and supply the family with an oil, obtained by crushing the seeds. Our botanist, Mr. Sellow, found, near the habitations of the Indians, a species of cress, growing wild, which in taste resembles that

of Europe; and this plant is affirmed by the Indians to be a good remedy for asthma. While he was adding to the collection in his department, I obtained some birds, which the Indians offered for sale, in small wooden cages; among others the violet and orange *tangara*, called *gatturama* in this part of Brazil.

After a very interesting visit to St. Lourenzo, we left it to return, and landed again near the country-house of Mr. Chamberlain. It is built in a cove, surrounded by delightful groves. They consist of plantations of orange and cocoa trees: lofty mangos, that exceed our tallest oaks in height, overshadow a cool fountain, in a little dell, and render this spot a charming retreat. On the shore are seen a great variety of wild fruits; pulse of many kinds; and nuts, among which the large cucumber-like fruit of the silk cotton tree, whose stem is entirely covered with thorns, is very common. Mr. Sellow has ascertained that the splendid beetle, *curculio imperialis*, one of the most beautiful insects of Brazil, lives upon this tree; and he intends to give the world a particular account of its remarkable transformation. The neighbouring mountains have, near the coast, extremely high and steep precipices, overgrown with large *cactus* and the *agave fatida*, and dark-green copses at their base. On our way back to Rio we examined the storehouses for the whale-fishery. The whales frequent the Brazilian coasts in great numbers; but they are at present too eagerly pursued; formerly they came into the inner bay of Rio de Janeiro.

However agreeable a more protracted stay in the capital might have proved, it was not consistent with my plan to remain there long, as the riches of nature are only to be found in fields and forests. Through the aid of government, whose wishes were carried into effect in the most obliging manner by the Count da Barca, I was enabled to make the preparations for my departure without any loss of time. My passports and letters of recommendation to the several captains-general were more favourable than had probably been ever given to any pre-

ceding traveller. The magistrates were enjoined to give us every assistance in forwarding our collections to Rio ; to provide beasts of burden, soldiers, and other persons, if necessary. Two scientific Germans, Messrs. Sellow and Freyreiss, well acquainted with the language and customs of the country, joined me, for the purpose of our making an exploratory tour along the east coast to Caravellas. We had purchased sixteen mules, each of which carried two wooden chests, covered with raw ox-hides, to preserve them from rain and damp : we also engaged ten men to take care of the animals, and act as hunters. All were armed, and thus we set out, provided with a sufficient stock of ammunition, and all the requisites for collecting subjects of natural history, part of which I had very unnecessarily brought with me from Europe.

CHAPTER III.

JOURNEY FROM RIO DE JANEIRO TO CAPE FRIO.

Praya Grande—St. Gonzalves—River Guajintibo—Serra de Inua—Lake and Freguesia de Marica—Gurapina—Ponta Negra—Sagoarema—Lake Araruama—St. Pedro dos Indios—Cape Frio.

AFTER we had made the final arrangements at St. Christopher, a small town in the neighbourhood of Rio, our beasts were put on board a large bark. It occasioned us infinite trouble before we could induce these proverbially obstinate animals to leap into the vessel, but having at length succeeded in this operation, we sailed on the 4th of August, and crossed the great bay of Rio, to the village of Praya Grande, where we landed at midnight. All the inhabitants had retired to rest, but we saw some negroes, who had taken up their lodging for the night on the bare sand, in the open air: a small fire diffused a scanty warmth, and their naked bodies were merely covered with a thin cotton cloth, which could afford but very little protection against the copious dew then falling. We immediately proceeded to a sort of inn, the landlord of which, wrapped in his cloak, and still half asleep, opened the door. It became necessary to remain here the whole of the next day, because our *tropa* (the name given to a number of beasts of burden that travel together) could not be landed till late in the day, owing to the shallowness of the water.

Accompanied by some of our friends, who kindly wished to see us set out, we left Praya Grande on the 6th, in hopes of proceeding a good way on our journey; but we soon found that it is much more tedious and troublesome to travel with loaded mules, than to convey baggage in carriages. Our trouble was increased by the difficulty of getting many of the animals, unaccustomed to their saddles and loads, to carry a burden that did not sit easy. We had in consequence scarcely begun our march, when to our great annoyance, but to the no small amusement of the spectators, we saw almost all our beasts, with the most ridiculous antics, exert themselves to throw off their packages. Several having succeeded in their efforts, while others escaped amongst the brushwood, it took some hours before we could restore order and proceed on our march, which considerably shortened this day's progress.

After proceeding two hours we came to a fine even meadow surrounded by delicate feathery *mimosas*, where, by way of accustoming ourselves to encamp in the open air, we halted, though there were habitations in the neighbourhood. To secure our baggage from the damp night air, it was placed in a semicircle, and the hides spread out before it for us to sleep upon; we kindled a good fire in the centre. To counteract the effects of the heavy dew of this climate, we covered ourselves with thick blankets; the portmanteaus serving as pillows. Our frugal repast of rice and meat was soon dressed. We supped under the starry canopy of the tropics; cheerfulness seasoned the meal, and the neighbouring planters, who passed by in returning homewards for the night, made many remarks on the strange assemblage. In order to be prepared for robbers, if any should appear, we kept a regular watch. My German hounds were of great service, for at the slightest noise they ran boldly barking to the quarter whence it proceeded. The night was beautiful, and we often contemplated the splendid firmament; the *caburé*, a small owl

of a reddish brown colour, hooted among the bushes ; luminous insects glistened on the marshes ; and the frogs gently croaked around us. The next morning afforded me, for the first time in my life, the pleasure of one of those excursions which I had hitherto known only by the interesting description of Le Vaillant. Our blankets and baggage were wet through by the dew ; but the early beams of the sun soon dried them. After breakfast each took his gun, and well provided with ammunition, proceeded to explore the beautiful adjacent country. The groves were animated by numbers of birds just commencing their early songs. If our ears were charmed on one side by the most melodious notes of some, our attention was attracted in an opposite direction by the gaudy and shining plumage of others. I soon shot a water-hen, and several kinds of *tangara* of the finest plumage, and a humming-bird of exquisite beauty. The sun became more oppressive, and I returned to our resting-place. Each hunter then produced what he had killed. Mr. Freyreiss, besides other birds, brought the superb blue *nectarinea cyanea*.

Our attendants now loaded the mules. Though the animals were not yet quite broke in, and sometimes threw off their burdens, they however gradually went on better. The road lay between mountains, whose fine vegetation excited great admiration : plantations of mandioca, sugar-cane, and orange trees, which here form groves round the habitations, alternate with little marshy spots. Thick clumps of bananas, mammon trees, and tall slender cocoa-palms, adorn the detached dwellings, while various and many-coloured flowers blossomed under low bushes ; among others the *erythrina*, of a deep scarlet, with its long tubulous blossoms, and a beautiful trumpet flower, to which Mr. Sellow gave the name of *coriacea*, was adorned with large flowers of a delicate yellow. Above these shrubs rose the *cactus*, *agave fatida*, and lofty bushes of a fan-like reed. The Indian reed, bearing a fine red flower, grows along the road, sometimes ten or twelve feet

high; but the stranger is still more struck with the *Buginvillea Brasiliensis*, a bushy tree, beautifully coloured with a delicate red. It is not the flowers however, but the large floral leaves that cover them, which produce this fine effect.

The inhabitants of the country, dressed in light jackets of a thin summer stuff, with large round low hats, looked at us with apparent wonder as they rode by our party. The horses of Brazil are very good and light, though rather small; they are originally of Spanish breed, and have for the most part a well-formed even body and handsome legs. The saddles are still, as in former times, large and heavy, furnished with cushions covered with velvet, and often curiously worked; they have a pair of old French stirrups of brass or iron, wrought in fillagree: many have even an entire shoe of wood, to receive the foot. The Portuguese are in general much on horseback, and many of them are excellent horsemen. Their favourite pace is an amble, and they fasten pieces of wood to their horses' feet to accustom them to this step. Passing through the village of St. Gonzalves, which has a small church, we arrived in the afternoon on the river Guajintibo, where we halted near a solitary inn, or *venda*, as these houses are called in the Brazils.

The Guajintibo is a small stream which meanders in a gentle sandy hollow, through thick bushes. The meadows promised good pasture for our beasts, and the woods were full of birds, which induced us to choose this spot. At day-break, when the hunters dispersed, I hastened to the bank of the river, which was shaded by lofty old *mimosas*. This tree is very common in the woods of Brazil, as in those of all the tropical regions. It was not long before I discovered various birds: amongst others was the *tijé*, of a brilliant red colour; the reddish brown cuckoo with its long tail, and other beautiful species. I soon shot a considerable number, and now began to experience the difficulties which sportsmen have to encounter in this

country: for all the bushes, especially the *mimosas*, are full of little thorns, and the various kinds of bindweed are so closely intertwined round the trunks of the trees, that you cannot penetrate into these wildernesses without a wood-knife. It is equally necessary to be provided with strong thick-soled boots or hunting shoes.

The mosquitoes are also extremely troublesome to the hunter, both in the shade and near the water. These little animals are called *marui*; they are very small, but their sting causes a violent itching. I have been assured by some English travellers, that they differ in no respect from the sand-fly of the West-Indies. We were, however, richly indemnified for the trouble they gave us, by the novelty of the surrounding objects, especially the beauty of the birds. We found at this place many fine plants; among others, in the shade, a *salvia* having a deep red flower, which our botanist called *splendens*, and also a *justicia* bearing a rose-coloured blossom.

As, notwithstanding the excessive heat, the ground was still very wet under these bushes from the night dew, I repaired to a dry, open meadow, covered with low shrubs, particularly the *lantana*, and the *asclepias curassavica*, having orange-coloured flowers. Here a number of humming-birds fluttered and buzzed about the flowers like bees. On my return I shot several of them.

We saw but few quadrupeds during our first excursion, except a little *tapiti*, or Brazilian hare. This animal is found all over South America; it resembles our wild rabbit, and its flesh is good eating. Francisco, Mr. Freyreiss's Indian attendant, who shot the *tapiti*, was our most skilful hunter, for he knew how to manage the gun as well as the bow, and his dexterity in creeping through the most thorny and intricate labyrinths was astonishing. As a reward we always gave him the birds after they were skinned; and having contrived to roast them on a little wooden spit, they afforded him an agreeable treat.

We now left the Guajintibo and reached a thick wood of *rhexias*, ten or twelve feet high, mixed with tall trees and intervening patches of meadow. These low grounds were inclosed on all sides with lofty blue mountains overgrown with vast forests and cocoa-palms. Among the herds of cattle that were grazing in the meadows, numbers of the razor-billed blackbird flew and hopped about, as well as the *ben-tavi*, or tyrant fly-catcher, which is incessantly repeating its own name, *bentavi* or *tictivi*. In the neighbourhood of a *fazenda* (or country-seat) Mr. Sellow also found a new species of flowering reed with yellow blossoms. A little farther on we reached a place covered with bushes, and surrounded by wild wooded hills, where we found several shady pools of clear water. This spot was enlivened by a great number of birds. Not far from it we came to a large forest: lofty, slender, white-barked mimosas, cecropias, cocoas, and other trees, were here so closely interwoven with innumerable creeping plants, that the whole seemed to form but one impenetrable mass. In the dark summits of the trees, the flowers of the *bignonia Bellas* (so called after the Marchioness de Bellas, who first discovered this beautiful plant) glowed like fire, with many others almost equally splendid: nor were humming-birds and butterflies of various colours wanting to enliven the scene. This wood was, however, but a faint image of the primeval wilderness with which we soon became acquainted in the Serra de Inuá.

We now came to tracts, where the forests had been burnt down in some places, for the purposes of cultivation, or as they here express it, to form a *roçado*. The immense scorched trunks appeared like the ruins of colonnades, still in part joined together by the withered stalks of their parasite plants. While here, we were greatly annoyed by the disagreeable noise of those carts which the Brazilian husbandmen use in their agricultural pursuits. These are still constructed in a most rude and clumsy manner: a heavy, massy, wooden

roller, with two small round openings, forms the wheel, which turns on the axle with the utmost difficulty, and with a loud, harsh, grating noise that is heard at a great distance. Even in Portugal they still make use of these awkward vehicles. The oxen that drew those to which I more particularly allude, were of colossal size and of the finest breed; I remarked that their horns are very long and thick; they are generally driven by a negro slave, who carries a long stick instead of a whip.

A chain of mountains next rose before us, which bears the name of Serra de Inuá. This wilderness surpassed every thing that my imagination had as yet conceived of the grand scenes of nature. On entering a deep hollow, we observed several large pools of limpid water, and a little beyond these an immense forest, of which no comparison can give an adequate idea. Palms and all the magnificent trees of the country, were throughout so interlaced with creeping and climbing plants, that it was impossible for the eye to penetrate through this species of verdant wall. All of them, even thin low stems, were covered with creeping plants, such as *epidendron*, *cactus*, *bromelia*, &c. many of which bear flowers of such beauty, that whoever beholds them for the first time cannot withhold his admiration. I mention only one kind of *bromelia* with a deep coral-red flower, the leaves of which are tipped with violet; and the *heliconia*, a kind of banana resembling the *strelitzia*, with dark red calyx and white flowers. In these deep shades, near the cool mountain streams, the heated traveller, especially the native of northern regions, finds a temperature that is quite refreshing, and which increased the delight that the sublime scenes presented to our view in this magnificent wilderness incessantly excited. Every moment, each of us found something new that engaged his whole attention. Even the rocks are here covered with lichens and cryptogamous plants, of a thousand various kinds: particularly the finest ferns, which in part hang like

feathered ribbons in the most picturesque manner from the trees. A deep red horizontal fungus adorns the dry trunks; while a fine carmine-coloured lichen, on the properties of which, as a dyeing matter, some experiments have been made in England, covers the bark of the stronger trees with its round knobs. The colossal trees of the Brazilian woods are so lofty, that our fowling-pieces could not carry to the top of them, so that we often fired in vain at the finest birds; but we loaded ourselves with the most beautiful flowers of juicy plants, which we were unfortunately obliged to throw away afterwards, as they soon perish, and cannot be preserved in an herbal. A *Redouté** would here find ample materials for a splendid work of uncommon value. The luxuriance and richness of the vegetable kingdom in South America is a consequence of the great moisture which every where prevails. It has, in this respect, a manifest advantage over all other hot countries, and Humboldt expresses himself with such justness on the subject that I cannot omit the following passage from his *Views of Nature*:—"The narrowness of this variously indented continent, its great extension towards the icy pole, the wide ocean over which the tropical winds blow, the flatness of the eastern coasts, the currents of cold sea-water which flow northwards from the Terra del Fuego, towards Peru; the number of mountains, the sources of countless springs, and whose snow-clad summits tower far above the clouds; the abundance of large streams, which after many windings always seek the remotest coast; deserts without sand, and therefore less heated; impenetrable forests which cover the well-watered plains near the equator; and which in the interior of the country, where the mountains and the ocean are the most remote, exhale immense masses of imbibed or self-produced water; all these circumstances give to the

* Mr. Redouté, of Paris, author of some splendid botanical works, particularly *Liliacées* and *Les Roses*.

flat portion of America, a climate, which by its moisture and coolness forms a surprising contrast with that of Africa. To these causes alone are to be ascribed that extraordinary luxuriance of vegetation, that exuberant foliage, which forms the peculiar characteristic of the New Continent."

When we had reached the top of the Serra de Inuá, we saw numbers of parrots flying in pairs with loud cries, over the highest trees. This was the red-headed parrot, called the *camutanga* in these parts; and in others, from its note, *schaiüá*. In the sequel we often used it for food. Continuing our journey we next descended into a pleasant champaign country, and passed the night in the fazenda de Inuá. The proprietor, a captain, who was not a little surprised at the unexpected visit, keeps a good stock of cattle and poultry on his farm.

The Serra de Inuá is an arm projecting into the sea from the lofty mountainous chain which runs parallel with the coast. It is covered with thick forests, which contain many useful kinds of wood, and where the hunter in particular finds a great variety of game. The day we remained there was passed in sporting, as we were delayed by the sudden illness of one of our animals. We procured a great number of fine birds; but Mr. Freyreiss fired in vain at the small red and gold-coloured monkey known by the name of the *marikina*. This pretty little animal is here called the red *sahui*. It lives in the thickest woods, and is only found to the South, in the neighbourhood of Rio Janeiro and Cape Frio: we never met with it, at least, farther northward. In the forests that cover these mountains, parrots are extremely numerous, especially some kinds with long wedge-shaped tails, called here *maracana*; also the *psittacus Macavuanna* and *Guianensis*, which alighted in flocks on the neighbouring plantations of maize.

Leaving Inuá, we entered another forest of lofty and gigantic trees, thickly interwoven together; here we also met with some new objects. We found the great bird-spider (*aranea avicularia* of Lin-

neus), the bite of which is said to cause a painful swelling. It lives, as already stated by Langsdorf, chiefly under ground. Besides this singular animal, I saw a number of large broad toads, but not however in such quantities as in the Serra, which we had just left, for there, as soon as evening came, the ground was entirely covered with them. Among others, I observed a species that has probably never been described; it has two large dark spots on the back. Unusually long ribbons of the beard-moss hung down from the lofty white trunks of the *mimosa*. On the top of a withered branch, our attention was attracted to a white bird, whose loud voice sounds exactly like the blow of a hammer on an anvil: it belongs to the genus which Illiger calls *procnias*, and is denominated *araponga*, on the whole Eastern coast: in colour it has a great resemblance to the *ampelis carunculata* of Linneus; though of a different species, as its naked green throat and the want of the fleshy excrescence on the forehead sufficiently indicate.

The shady forest through which we now passed was extremely pleasant; flocks of parrots flew around us uttering loud screams; among these, the most conspicuous was the handsome parroquet, having its tail of a pointed form, and called *tiriba* in this country. I also shot a squirrel of the only species we saw on the whole journey; it is distinguished by a mixture of brownish grey and yellowish hair. Many of the natives who passed, conducting their animals heavily laden towards the capital, seemed astonished at our cavalcade; nor could they comprehend the cause of the firing which was heard on both sides of the road from our hunters who had dispersed in search of game.

After we had proceeded through several burnt forests, marshes, and savannas, surrounded by rocky mountains, covered with woods, we came to extensive meadows intermixed with marshes and reedy pools, where the white heron, American lapwing, chesnut *jacana*, or spur-winged water-hen, and plovers in abundance, were either flying

or running about. We saw large quantities of cattle grazing in these pastures, and numbers of the shining violet oriole were walking among them. Our mules were now so well broke in, that I could fire without alighting. Besides the orioles, of which I killed several, razor-billed blackbirds were equally numerous, sitting on the hedges and fields; these were by no means shy, so that we could ride almost close to them.

In the evening we arrived at the village or *freguesia* of Marica, on the lake of the same name; the population of this parish is about eight hundred in number. The inhabitants of a house lying rather detached, at which we stopped, carefully shut their doors. All the neighbours immediately assembled to stare at us; but when we began to skin and prepare the animals which we had killed during the day, old and young shook their heads, and all laughed aloud at the ridiculous strangers. Our double-barrelled guns seemed to interest them still more than ourselves. The lake Marica, near which we halted a day in order to explore its sandy environs, is about six leagues in circumference. The banks are low and marshy, and it abounds in fish. I saw a kind of shad (*silurus*) caught here; there seem to be numerous species of this genus in the waters of the east coast of Brazil. On the banks of the lake we found some shells, but only of a very common kind; and in the neighbouring marshes a land or marsh-snail, which I shall have occasion to notice in another place. The birds we found on the shores were a kind of gulls, very like our black-headed gull, with ash-grey head, red bill, and feet of the same colour; a beautiful kind of tern, or sea swallow, lapwings, plovers, and the *urubus* (cormorant), hovered over the marshes. It was here that I first had the pleasure of killing the *acabiray*, or carrion vulture, which Azara alone has hitherto rightly distinguished: at first sight it resembles the grey-headed *urubu*, yet on a closer examination, or even when flying at a considerable height, it may be known from the other. These vultures are a benefit conferred by nature on all hot countries; for they

clear the earth from what would otherwise fill the air with noxious exhalations. Their sense of smelling is so acute, that as soon as an animal dies, they are seen hastening to the spot in great numbers, though just before none were to be perceived even at a distance: they are therefore never pursued, and are equally numerous both in the open and wooded country. The parts near the lake do not seem to be very fruitful, on account of the sandy and marshy soil. All the dry places are either meadows, where cattle feed, or mountains, with woods and rocks. Many horses seem to be bred here, but they are bad and mostly of a small size. We saw goats also, with short, shining, yellow red hair, and marked with black spots. Not far from the banks of the lake, there is a sandy road through bushes to the little Villa de Sta. Maria de Marica, the chief town of the parish, consisting of low houses of only one story, and a church, with regular, but unpaved streets. The buildings have no glass windows, but merely openings, which, throughout Brazil, are closed by wooden lattices. The people cultivate mandiocca, beans, maize, some coffee, and particularly the sugar-cane, which is said to grow to a considerable height in fertile spots, while it scarcely exceeds three feet in a sandy soil.

Ever-varying thickets amused us as we proceeded; the trumpet-flower with the finest blossoms twined among the shrubs. We also found some fruits of a very singular form: here it should be remarked that the leguminous plants are by far the most numerous class in Brazil. Notwithstanding the many villas we saw, the country is wild, forming a broad valley enclosed by lofty mountains, with a hilly surface, from which tall forest-trees surrounded with shrubs raise their slender stems. In the summits of all these trees, dark brown masses are seen on the branches, which are the nests of a very small yellow termite, called *cupi*. Ants and insects of the same kind are extremely injurious to the plantations in Brazil. These animals, for

the most part voracious, are found in such great numbers and infinite variety here, that an entomologist might write a large work on them alone. They are of different sizes; one of the largest species, which is nearly an inch long, and has a disproportionately thick body, is roasted and eaten in many parts, particularly in Minas Geraës, where it is called *tanachura*. Another very small red species is extremely troublesome and mischievous. These ants are also injurious to the collector, and often consumed in a short time a great number of our insects, particularly butterflies. They often penetrate in large bodies into the dwelling-houses, where they devour every thing that is eatable, especially sweetmeats and sugar. There is no method of keeping them from articles of this description, but that of setting the feet of the tables in large dishes of water, or smearing them with tar; but they often overcome even these obstacles. Some species build with a sort of earth, in the walls of the rooms, covered passages with many branches, by which they ascend or descend. In the paths in the woods we saw whole armies of large ants, all carrying pieces of green leaves to their nests.

A wild forest, which we now entered, again presented new and interesting scenes. The toucan with its prodigious bill, and bright orange-coloured throat, forming a beautiful contrast with the black plumage, excited for the first time the impatience of our hunters; but fortune did not favour them, for the birds kept so high in the tops of trees that it was impossible for our shot to touch them.

The farther we advanced, the more noble and imposing did these forests appear. The untravelled European has not the faintest conception of their magnificence, nor is it possible for any words to give a description of the scene corresponding with the sensations which it excites. We frequently saw the cocoa-palm above thirty feet high: the natives employ it in making their bows; the trunk of this tree is of a dark brown, and thickly covered with long thorns, which stand

in horizontal rings. Its leaves are long, and feathered as in all kinds of cocoa trees. In most of these forests there is also a similar thorny palm, which always remains small, and is called *airi mirim*. Neither of them has been as yet introduced into the systems of Natural History. About all the trunks grow both woody and tender climbing plants, such as *cactus*, *agave*, and *epidendrum*, twining with their richly coloured flowers round the branches. When a trunk has a decayed hole or a crevice in it, *arum*, *caladium*, *dracontium*, and other productions of that kind, throw out large tufts of juicy, heart or arrow-shaped, dark green leaves, so that the traveller beholds the most extraordinary intermixture of different species of vegetation. Among the above-mentioned plants is frequently seen the *dracontium pertusum*, with its leaves perforated in the most singular manner: a splendid blue-flowered *maranta* also attracted the attention of our botanist.

It was our intention, on setting off, to reach Ponta Negra this day; but we lost our way in the mazy and almost impracticable forest through which the road lay. We however arrived at a large *fazenda*, the proprietor of which, Mr. Alferes da Cunha Vieira, received us with great hospitality. This estate is called Gurapina, and contains a very considerable sugar-refinery. The mode of preparing sugar in these establishments is nearly as follows: The cane is placed between three perpendicular cylinders, provided with teeth of hard wood, which catch in each other, and thus press it out. It appears again on the other side like straw squeezed quite flat; and the syrup runs into a wooden trough below. These cylinders are turned, by means of a long pole, by oxen, mules, or horses. The syrup, after it has crystallised in the vessels, is then boiled in pans, and put into large pointed pots, with a hole at the bottom, by which the superfluous moisture runs off; the surface of the sugar that fills the pot is covered with grey clay, which is said to whiten it. Our host assured us that, with 20 slaves, he now obtains annually about 19,200 lbs. of sugar;

but that, if he had more hands, he could make from 90 to 100,000 pounds. In former times, the Cayenne sugar-cane was cultivated here; but that of Otaheite having become known and being found much more productive, it is almost universally substituted instead of the Cayenne cane.

Our host gave us a spacious apartment where we could conveniently keep up several fires and dress our food. He, as well as the other inhabitants of the *fazenda*, frequently visited us, and could not adequately express their astonishment at our occupation in preparing subjects of natural history. As heavy rains set in, we remained here a long time; and when the weather cleared up we found the most favourable opportunity for productive hunting excursions in the high wooded mountains that surround the valley, which is full of sugar plantations.

A young Portuguese named Francisco, who lived at this *fazenda*, entered our service as a hunter, and shewed extraordinary talents for this employment. He was of a slender figure, inured to the severest fatigue, a very good marksman, and at the same time of an excellent disposition. As he was intimately acquainted with the country and its animal productions, he furnished us with a number of interesting subjects, among which I ought to mention the *marikina*, or *simia rosalia*, which we had not yet obtained. The *araponga*, which has been already noticed, was very numerous all over these mountains. Francisco was the first who shot this fine bird for our collection. Good Brazilian hunters possess a wonderful talent for exploring the forests: their bodies inured to fatigue, and the custom of always going barefoot, give them a great superiority in this employment. Their dress consists of a light shirt and cotton drawers. They often have a cloth jacket hanging over their shoulders, which they put on when it rains, or in the cool nights. The head is covered with a felt or straw hat. A leather belt passing over the shoulder holds he

powder-horn and shot-bag, while the lock of the long fowling-piece is generally secured from wet by the skin of some animal.

The temperature at Gurapina was very variable ; some days were so cold, that the thermometer fell at noon to 13° of Reaumur, but we had intervals of warm and pleasant weather. I often penetrated into these mountainous wildernesses ; and could not help being charmed with the repose and solemn silence that pervaded them, interrupted only by flocks of screaming parrots. Amidst these enjoyments, we lived quite happy and contented in the environs of Gurapina, and our stay was rendered still more agreeable by the circumstance of there being an abundant supply of fresh provisions. Those which the traveller can carry with him in the Brazils, consist of mandioca flour, black beans, maize, dried salt meat, and rice. Instead of the dried, we here obtained good fresh meat : the owner of the *fazenda* furnished us with a large quantity of the finest oranges, also with brandy made from the sugar-cane, rice, sugar, flour, maize, and cotton ; and such was his liberality, that he would not accept any payment whatever for all these articles. This refusal obliged us to leave him sooner than we should otherwise have done, as the situation, in addition to its other advantages, afforded ample materials for successfully pursuing our scientific researches. Having reluctantly taken leave of our obliging host, we set out for Ponta Negra.

The roads were frequently in so bad a state, that our beasts were in danger of sinking under their heavy burdens. We rode through thick bushes of high reed-like grass, rhexia, and low palms : on some eminences we found negroes, who, to render the ground fit for cultivation, were clearing away the bushes, with a sickle-shaped iron fastened to a long handle ; and in some *fazendas* which we passed, there were hedges thickly planted with orange-trees. Having filled our pouches and coat-pockets with birds, and many kinds of seeds now ripe, we at length reached the Lagoa da Ponta Negra. On the

marshy and reedy banks of this beautiful lake are seen large flocks of the spur-winged water-hen and white herons, one of which latter was shot by our huntsman: the milk-white plumage of this bird* always retains the most dazzling purity even in the marshes, on account of its long legs.

Not far from the lake, we came to a solitary *venda*, where travellers usually refresh themselves during the hottest part of the day. Here we learned, that the news of our approaching arrival had preceded us, and that the landlord had already speculated in advance upon our purses. On an eminence near this house, we were surprised by a fine prospect of the lake, the ocean, and surrounding country. Farther on, in the bushes through which our way led, we found a bird which was as yet quite new to us, the greater *ani* (*crotophaga major*, Linn.) and in considerable numbers. Its plumage is black, tinged with changeable hues of green and blue. At this place we heard the dashing of the surge, and soon came to the sandy downs, where the waves, covered with white foam, violently broke upon the woody cliffs of the coast. Next to the white sand on the sea-coast (Praya) is an intricate thicket of various species of dwarfish trees, their growth being checked by the sea-winds and storms. In this thicket, which is about twenty or thirty feet high, and through which we continued our journey along the sea-coast, grow high *cactus*; and *bromelias*, adorned with beautiful flowers, are very plentiful. Small lizards rustled among the dry leaves under the bushes, while the greater *ani*, and the *tijé*, with its blood-red plumage, tended to give animation to the scene. This beautiful bird is very common in Brazil, especially near the sea-coast, and on the banks of rivers.

Towards evening we were between the sea and a large reedy marsh, in which flocks of birds were retiring to rest: the *tijé* were numerous, and the red-bellied thrush, here called *sabiah*, sat pouring forth its melancholy though pleasing song on the tops of the bushes: in the

twilight the goat-suckers (*caprimulgus*) flew about our party, and a large *phalena* of a slate colour, of which we might have taken many specimens, had we been provided with the net used for catching them. I found a dead bat hanging to a branch, of the genus *phyllostoma*, which has a great resemblance to one described by Azara; the only specimen of this kind seen during the whole course of my journey.

As we were going to examine the flower of a low palm, we found, fastened to a branch, a neatly constructed nest of the blue-crowned humming-bird; this species greatly resembles the *trochilus bicolor*. In all these nests there are two white eggs, which in some species were extremely small. Continuing our route, we passed between several lakes, and after a long day's journey we reached a *venda* situated on the lake Sagoarema, where we found the mules and our attendants, who had gone by another road. We also expected that the kettles were already suspended over the fire; but every requisite for preparing a repast was wanting. We therefore sent out some of the servants for provisions; but as they remained absent so long that we began to despair of their return, we dispatched others in quest of them on horseback. They returned with our messengers, but brought nothing except fresh fish. Mean time the night had passed away, and thus our supper was converted into a breakfast.

The lake Sagoarema is connected with the sea, and of considerable extent, being about six leagues in length and one in breadth. Its water is salt, though it sends forth a disagreeable smell in some places; but yet it abounds in fish. Here is a scattered village of fishermen, who dwell in small mud huts on the banks. Every house has a pit dug in the ground, which serves as a cistern, the sea-water being often foul. These fishermen are lightly clothed, like all the Brazilians, wear large straw hats, thin loose drawers and shirts, leaving their feet and necks without any covering. Every one carries a sharp stiletto in his girdle. This weapon is in general use among

the Portuguese, but it is a dangerous one, as it frequently gives occasion to murders. The *venda* situated on the bank of the lake is kept by these people jointly, and the profits are divided among them : it is therefore scarcely necessary to remark, that travellers have to pay dearer than in other places. About a league from this place lies the parish of Sagoarema, a large village, with a church. As we had to convey our mules over the lake, which here discharges itself into the sea by a narrow channel, we took up our quarters in an empty house, and availed ourselves of the opportunity to examine the neighbouring country.

Not far from the village, a hill rises on the sea-shore, upon which are the church, the church-yard, and a telegraph. We ascended this hill just as the sun was setting, when a grand and sublime scene presented itself to our view. Before us lay the boundless ocean, breaking in white foam against the foot of the hill on which we stood ; on the right, in the distance rose the mountains of Rio ; nearer to us was seen the long indented coast, and still nearer the Ponta Negra ; behind us were ranges of high woody mountains ; low ground, but also covered with wood, and the broad glistening mirrors of the lakes intervened ; at our feet lay the village of Sagoarema, and on our left the coast, against which the waves dashed with tremendous roar. This vast picture, illumined by the last rays of the departing sun, and at length gradually lost in the mists of evening, awakened in our minds the recollection of our far-distant country. Reclined against the side of a charnel-house, near a heap of skulls piled up beneath a cross on the moss-clad wall, we indulged in silent reverie. In this first solemn pause we felt most sensibly how many privations the traveller must learn to endure, who, impelled by an irresistible desire of increasing his store of knowledge, finds himself alone in the midst of a new world. The eye endeavoured, but in vain, to penetrate the mysterious veil of futurity, and imagination arrayed all the hardships that

were yet to be surmounted, before we should regain our native shores. Night put an end to these meditations.

We returned to Sagoarema, which is chiefly inhabited by fishermen, who also derive some portion of their subsistence from agriculture. Formerly a considerable quantity of cochineal was raised here, but its cultivation has been relinquished. It was purchased by the King at the rate of half a doble (6400 reas) a pound ; but the planters themselves destroyed this lucrative trade, by adulterating this dear commodity with flour to such a degree as to render it unfit for use. The next day, which was Sunday, my companions attended mass in the church of Sagoarema ; while I had our baggage carried across the lake in canoes, and the mules waded through the shallow water.

On leaving the above place we passed through woods like those we had seen in the preceding part of the journey. The great ornament of this part of the country consists in the number of its glassy lakes, which extend from Marica to the environs of Cape Frio. Amazing numbers of water-fowl live on the banks of these lakes ; principally terns, gulls, and herons, of which we shot great quantities. I could not avoid observing that most of the marsh and water-fowl of this country have species analogous to them in Europe ; indeed the difference between the two, in many instances, is very trifling. The smallest tern* was very frequent in the downs of the sea-coast ; here those pretty little birds flew about like swallows, and their shining white plumage was now rendered more conspicuous by the black clouds of a gloomy sky. Beyond the downs of the coast extensive morasses appeared, and the intermediate sandy soil was

* I call this bird *sterna argentea* ; it might be easily confounded with our *sterna minuta*, but it is different ; its size exceeds that of our European bird, for I found it to measure nine inches and one line ; the bill and feet are yellow, the former has a black tip ; the fore part of the head and all the under parts of the bird are white, the top of the head and neck black ; the back, wings, and tail of a beautiful silver grey.

covered with a thicket of dwarf cocoa-palms about three feet high : this plant, which has no stem, has feathered leaves either rolled up or bent backward, and follicules which, rising like a typha from an upright stalk, are covered with small nuts of the size of a hazel-nut : these are ranged like the grains of maize, and have at the root a yellowish red, eatable substance, of a sweetish taste.

We had resolved to pass the night at the *fazenda* of Pitanga, which we beheld on an eminence before us, resembling an ancient castle, finely illumined by the bright light of the moon. Riding up to the building, we knocked at the gates, which after some time were opened to receive us. The obliging steward immediately assigned to us the building in which the *farinha* is prepared. Here we found convenient roomy quarters for the whole party, and therefore determined to remain there some days, and carefully examine the adjacent country.

This *farinha* manufactory is of considerable extent. In order to prepare the flour, the roots of the mandioca (*iatropa manihot*, Linn.) are first scraped clean from the rind ; they are next held to a large wheel, which on being turned round, soon reduces them to a fine pulp. The mass is then put into long wide bags, made of rush or bass matting, which are hung up and pulled lengthwise ; by this operation the bag contracts in width, and presses out the moisture contained in the pulp. The remaining consistent part is afterwards put into large pans, either of copper or earthenware, in which it is thoroughly dried by heat ; but the thick mass must be constantly stirred to keep it from burning. The dry meal thus prepared, is called *farinha*. When the weather was damp, we often dried our newly prepared animals over the mandioca pans ; but though we always left some person to attend them during the night, we lost some rare specimens which were destroyed by the fire.

The weather was now very cold ; a high wind blew on the sea-coast, and the thermometer scarcely rose at noon to 13° of Reaumur.

This country, in which marshes, meadows, thickets and woods, alternately present themselves, afforded us many interesting animals. Our hunters brought in for the first time the *jacupemba*, (*penelope marail*, Linn.) or Brazilian turkey, which is very fine eating; also the green toucans, or *arassarís*, (*ramphastos aracari*, Linn.) beautiful birds, which utter a short cry of two syllables.

The prospect from this spot was very fine and of great extent; a telegraph corresponded from it, with that of Sagoarema, which we saw in the distance. Pitanga was formerly a convent, as appears, among other circumstances, from the old church. Towards noon our beasts were loaded; and it was a great advantage to us, that the steward accompanied us on horseback to shew us the way. With our obstinate mules we should probably have lost part of the baggage in the dark, when night overtook us, and in the bad roads, then under water; for the animals, unable to proceed with their chests in the narrow forest paths, often came in contact with the trees, threw off their loads, and fled into the thickets. The catching and re-loading them detained us so long, that we found it necessary to proceed with more caution, and to cut down the stems that impeded our progress. At length we reached a more open tract, having large marshes, bushes, and broad pools of water, which we were obliged to wade through; an unpleasant circumstance for those on foot, particularly the Europeans who were shooting in the thickets, and not yet accustomed to this mode of traversing a country. In consequence of the delay caused by these disagreeable impediments, it was late in the night when we reached the *fazenda* of Tiririca, whither we had sent forward a horseman to apply for a night's lodging. The owner, the *Captain Mor*, at first pointed out his sugar-refinery for our lodging; but on our shewing him our passport from the minister, he became extremely polite, and invited us into his house: we did not however accept this invitation, having previously determined to remain with our attendants.

Tiririca is a considerable sugar-refinery, and very pleasantly situated. The manufactory lies at the foot of a green hill, on the summit of which stands the house of the proprietor, encircled by about twenty small huts for his servants and negro slaves. The large sugar plantations surround the *fazenda*; beyond these are thick lofty woods; and just before the manufactory lies a marshy piece of meadow ground, with ponds frequented by numbers of wild fowl, which we could shoot from the windows. After breakfasting the next morning with our obliging host, we dispersed in the woods. Mr. Sellow and myself crossed the sugar-plantations, and passing some other little *fazendas*, which are surrounded by orange-groves, penetrated into one of those solemn primeval forests, which during my stay in the Brazils always afforded me the highest gratification. Lofty dead trunks of trees on the margin of this wood, bore evidence of the fire by which the neighbouring country had been prepared for cultivation. The forest itself was a dark wilderness of ancient trees of colossal magnitude, composed of the *minosa*, *lignum vitæ*, *bomba*, *bignonia*, and others, which as usual, were attended by a number of parasite plants, such as *bromelia*, *epidendrum*, *passiflora*, *bauhinia*, *banisteria*, &c. the climbing stems of which are rooted in the ground, while their leaves and flowers occupy only the highest summits of their supporters; they cannot therefore be examined without cutting down one of those gigantic monarchs of the forest, the extreme hardness of whose wood often defies the sharpest axe.

Among these creeping plants, a *bauhinia* is very remarkable: its strong woody branches always grow in alternate arcs of circles; the concavity of each arc is as artificially hollowed, as if the gauging chisel of a statuary had been employed for the purpose, and on the opposite convex side is a short blunt thorn. This singular plant, which might easily be mistaken for a production of art, climbs into the tops of the highest trees. Its leaf is small and bilobed; but

I never saw the flower, though the plant itself is very common. The odour exhaled by many of these creeping plants is strong, but extremely various: the *cipo cravo* smells very agreeably, something like cloves; another, on the contrary, which is mentioned by La Condamine as growing on the banks of the Amazons, has the smell of garlic. Many of them shoot downwards long branches, which take root; thus impeding the progress of the traveller, who must cut them down before he can proceed. Such pendent branches, when agitated by the wind, frequently inflict severe blows on the traveller in these forests. In general, vegetation is so luxuriant in these climates, that every old tree we saw presented a botanical garden of plants, often difficult to come at, and certainly for the most part unknown.

We shot many fine birds here: amongst others, the *trogon viridis* of Linneus was very common; his voice and oft-repeated whistle, sinking from high to low, is every where heard. We soon learned to imitate it, and could thus easily entice the bird, which settled on low branches near us, where we could shoot it with ease. Woodpeckers, of different beautiful species, were equally numerous. We often killed great numbers of the little parrots with a wedge-shaped tail, here called *tiribas**. Towards evening I had the good fortune to obtain the *pavô*, or red-necked magpie of Azara. This is a beautiful black bird, of the size of a crow, the fore-part of the neck of a brilliant red colour. Mr. Sellow did not find many new plants; but he frequently met with the *alstræmeria ligtu*, bearing a red and white striped flower. He also caught a snake, which, though very common

* The parrot known in the greatest part of the east coast by the name of *tiriba*, appears to be a hitherto undescribed species, which I named *psittacus cruentatus*. It is of the size of a thrush, has a cuneiform long tail, and is 8 inches 11 lines in length: the plumage green: crown and back of the head greyish brown; the sides of the head and throat green; between the eye and the ear brownish red; behind the ear, on the side of the neck, an orange-coloured spot; fore-part of the neck sky-blue; on the belly and *uropygium*, a blood-red spot.

here, is the most beautiful of its species. This animal is known in the country by the names of *cobra coral*, or *coraës*; but it must not be confounded with the *coraës* described by Lacepede and others. The name of coral-snake is most justly assigned to it; the most brilliant scarlet alternates on its smooth body with black and greenish white rings, so that this innocent reptile may be compared with a string of variegated beads. I have frequently preserved it in spirits of wine; but could never succeed in retaining its fine red colour. In the Linnean system this species of snake has doubtless been described by the name of *coluber fulvius*, from specimens which had lost their splendid hues in spirits.

In the evening our host invited us to supper. During the repast, the female inhabitants of the house, according to the custom in Brazil, did not appear, but they peeped through the chinks in the doors and window-shutters, to obtain a sight of the strange guests: negro slaves of both sexes waited at table. As other travellers have described this and similar customs of the Brazilians, it is unnecessary for me to dwell on the subject. During the entertainment we endeavoured to turn the conversation to national topics and institutions; but our host, though in other respects so obliging, seemed either unable or unwilling to give us any information on this head.

The next day being the Sabbath, our attendants went early to mass. After divine service was over, we departed. The heat was intense; we therefore refreshed ourselves on the road with cold punch and excellent oranges, which in many parts may be had gratis. This excellent fruit can be eaten without injury to the health, even when a person is overheated; but in the evening it is said not to be wholesome. Much more caution is necessary in eating cocoa-nuts and other cooling fruits.

We proceeded through marshes and sandy woods; and the distance from Tiririca to Parati being only about three leagues, we soon

reached the *fazenda* which we saw at a distance in a meadow, and where, according to the assurance of our former host, we might expect a very friendly reception. It had formerly been a convent, and has a considerable new church, near which many large buildings are erected. Here we first saw a disease which is very common among the negroes in the south part of Brazil; namely, swelled feet. They become covered with a hard, thick scurf, as in the elephantiasis.

We requested the proprietor to let us pass the night in his premises; but, contrary to the custom of the Brazilian planters, whom we had hitherto seen only in an advantageous light, we were shewn a miserable *varanda* adjoining the stables, where we were indeed covered over-head from the rain, but completely exposed to the weather on each side. As to the owner, he withdrew on our arrival; thus proving that our friends at Tiririca, when they gave him the character of a hospitable man, had paid him a compliment which he ill deserved. We sent to request he would sell us some rice and a little maize for the mules; but he positively refused, under pretext that he had neither. He farther expressed his doubts whether he should allow us any water. Upon this we sent some of our servants round the neighbourhood, to purchase what we wanted at other *fazendas*. Very early the following morning we had our beasts loaded, and sent them forward; but rode ourselves to the captain's house, and sent him word that we wished to take leave of him. When he appeared, we thanked him, with the greatest politeness, for his *obliging* treatment, adding, that we should take care to inform the Prince Regent at Rio how well he had fulfilled the kind intentions of the Government as manifested in our papers: at which, though seemingly confounded, yet foaming with rage, he cried "What is the Prince Regent to me?"

Continuing our journey, we soon reached a marsh surrounded with

lofty thickets, on the banks of which the Brazilian lapwing (*vanellus Cayennensis*, Linn.) is very common. This beautiful bird is named *quer-quer*, owing to its raising that cry at the sight of men or other strange objects; and its shrill disagreeable voice frightens away all the other birds. It is found in all the meadows, fields, and marshes of Brazil. A large swallow, with a whitish ring round the neck, is equally common*.

The heat was now more oppressive than it had yet been; not a breath of air was stirring, while the deep, dry sand, which reflected the beams of the sun, increased the sultriness of the atmosphere.

In a wood through which our way led, the hunters shot a handsome species of *maracana*, (*psittacus Guianensis*, Linn.) which is found here in immense flocks. Beyond the forest we came to a place where a number of Indians of St. Pedro were employed in repairing the road: the sight of these men was new and interesting. After passing some hills, the Lagoa de Araruama, six leagues long and very broad, suddenly appeared in view: it has a communication with the sea, a league and a half to the north of Cape Frio, and abounds in fish. Salt is said to be made on some part of the banks. Woods and some dwellings bordered the opposite shore, and upon a small eminence in the distance lay the church of the village of St. Pedro. After riding round part of the lake, we reached the *venda* of the village, where I had the mules unladen, and waited for the hunters, who were fatigued by the heat, and the long journey on foot. They soon arrived, bringing many interesting animals, which they had shot on the road.

* The swallow found here (*hirundo collaris*) is a beautiful new species, of the size of our *cypselus*. Its plumage is brownish black, every where tinged with green; round the neck is a whitish ring. The tail-feathers have thorny shafts, the points of which project a line: the heel is not feathered; the toes very strong, pressed together, and furnished with sharp, crooked nails, well adapted for clinging to the rocks. I first found this species in the rocks near Rio de Janeiro.

St. Pedro dos Indios is an Indian village, which the Jesuits are said to have originally formed of Goaytaca Indians. This place has, indeed, a large church, and several streets, but the houses are only mud huts, all of which, as well as most of the detached dwellings in the neighbourhood, are inhabited by Indians. They have a *Captain Mor*, equivalent to commandant or bailiff, of their own nation, who, however, possesses no other distinction than his title. There are only a few Portuguese here besides the priest. The Indians have, mostly, the genuine physiognomy of their race, which has been more particularly described in the account of our visit to St. Lourenzo; but it is here more characteristically expressive. Their dress and language are those of the lower classes of Portuguese, and they are but partially acquainted with their ancient tongue. They have the vanity to pretend to be Portuguese, and look down with contempt on their still uncivilised brethren in the woods, whom they call *Caboclos*, or *Tapuyas*. Their women fasten their long, coal-black hair in a knot at the top of the head, like the Portuguese females.

In the corners of their huts hangs the net, or hammock, in which the family sleep. We found also in their habitations, many vessels made of grey clay. The men are generally good huntsmen, and habituated to the use of the gun. The boys are very good marksmen with the bow of *airi* wood, called *bodoc*. This bow has two strings, which are kept asunder by two small pieces of wood: in the middle is a place where the strings are united by a kind of network, to receive the clay ball, or small round stone. The string and the ball drawn back together by the fore and middle fingers of the right hand, are suddenly let go, when the ball is discharged. Langsdorff has made mention of this kind of bow, which he saw at St. Catherine's: they are used all along this coast, and on the Rio Doce even the men carry them, as a defence against the Botucudos, when they have no fire-arms. They are very dexterous in this mode of shooting, and

can kill a small bird at a considerable distance ; nay, even butterflies upon flowers, as Langsdorff relates. Azara, in his description of Paraguay, says, that in that country they discharge several balls at once with this kind of bow.

Koster, in his journey in the capitania of Pernambuco, describes the civilised Indians of Seara pretty correctly, but represents them in rather too unfavourable a light ; it is, however, possible that they are there lower in the scale of civilisation than here. I must also premise, that a part of the blame of their rudeness, and the frequently bad character of these Indians, must be attributed to the improper treatment and oppression, which they formerly experienced from the Europeans, who, in many instances, scarcely recognised them as human beings, associating with the names of *Caboclos* or *Tapuyas*, the idea of animals, who were created merely to be ill used and tyrannised over by them.

In the main, however, it must be acknowledged, that Koster's account of their character is correct ; for they still continue to shew a propensity to an unrestrained, indolent life. They are fond of strong liquors, and indisposed to labour, while their promises are but little to be depended on, and there are very few instances of distinguished characters among them. Not that they are deficient in intellectual powers ; they quickly comprehend what is taught them, and are at the same time cunning and crafty. One striking feature in their character is an inflexible pride, and a strong prepossession in favour of their woods. Many of them are still attached to their old prejudices, and the priests complain that they are bad Christians. The ecclesiastical profession is open to them, but it is very seldom that they embrace it. In Minas Geraës there was a priest who was an Indian, and even of one of the rude tribes. This man was generally esteemed, and resided several years in his living ; but, all at once, he was missed ; and it was found that he had thrown off his clerical

habit, and run naked to his brethren in the woods, where he took several wives, after having seemed, for many years, to be thoroughly impressed with the truth of the doctrines which he preached. The negroes who live in Brazil are very different from these Indians; they are found to possess much capacity and perseverance in learning all the arts and sciences; some have been even known to become very able men.

So long as the Indians have enough to eat, it is not easy to persuade them to work: they would rather amuse themselves with dancing and drinking. The dances now in use among them, have been borrowed from the Portuguese: of one of them, called *baducca*, they are particularly fond. To the sound of the guitar, the dancers place themselves in various indecorous attitudes, clap their hands, smack with their tongues, and do not forget the well-known *caïty*, which is now made only of mandioca flour, maize, or Spanish potatoes. Nothing can be more disgusting than the process through which it goes before it is made use of. When prepared, it makes rather an intoxicating and nourishing beverage, which, in taste, greatly resembles whey. This favourite potation is usually taken warm. The mode of life followed by these Indians is still not unlike that of the ancient inhabitants of the coast. The Portuguese have adopted many things from them, and, amongst others, the preparation of the mandioca meal. Already, in those early times, they prepared their *mingau*, by throwing mandioca flour into the broth in which meat had been boiled. This the Portuguese have also adopted. When at their meals, they placed a quantity of dry mandioca flour by them, and threw it into their mouths with such dexterity, that not a particle was lost. This custom is still found among their descendants, as well as among the Portuguese planters. The ancient Tupinambas distinguished a particularly excellent kind of mandioca root by the name of *aypi*, which they roasted in the

ashes, and boiled in water. This is still done by their descendants: the root is also called *mandioca doce*.

Though they profess the Christian faith, many of them go to church only for the sake of appearance, and but seldom: they are, at the same time, superstitious, and full of prejudices. Koster found, even in Pernambuco, the *maracas* in an Indian house; a proof that they are still attached to that custom of their ancestors. As this people advances in civilisation, its originality, and the last remnant of its ancient manners and customs, will vanish altogether.

At St. Pedro we held a long conversation with the inhabitants, who sat, during the coolness of the evening, before their huts. The *Captain Mor*, a sensible old Indian, and with him all the inhabitants of the place, could not conceal their suspicion that we were English spies; and even when we produced our passports he was not fully satisfied.

As the surrounding country seemed to afford abundant materials for prosecuting our enquiries, we remained here several days. Our hunters brought us some *micos* (*simia fatuellus*, Linn.), the horned *sahui*, black collared sloth*, a species yet but little known, &c. The latter we afterwards found in great number in the southern districts, but met with none of them in the northern. The following day being Sunday, all the inhabitants of the neighbouring country flocked to St. Pedro to mass. We also went to the church, before which a long row of withered palm branches stuck in the ground, that had served for a preceding festival, formed an alley. A Captain Carvalho, who had also come thither, was very attentive to us. His plantations were in the neighbourhood,

* The collared sloth (*Bradypus torquatus* of Illiger) is a new, nondescript species. It differs but little in shape from the *ai*. The colour is a mixture of grey and reddish; the head more inclining to red, and mixed with white. On the upper part of the neck is a large patch of long black hair. This species has three toes like the *ai*, and not two, as Illiger says in his Prodomus.

and he had a house at Cape Frio, in which he pressed us to take up our abode during our stay there. In the mean time he acted as our guide, and repeatedly invited us to his house in the neighbourhood. Mr. Sellow accepted the invitation. At mass we saw many of the dark-brown Indians with their original physiognomy, which to us strangers was a very interesting spectacle. In the evening they danced in the house of their *Captain Mor*; the *caviy* went round, and they were extremely merry. The priest was of the party, but he seemed to be treated with little regard, except at church.

In consequence of the visit which our botanical companion paid to the house of Captain Carvalho, we acquired some knowledge of the interesting productions of the great forests near St. Pedro. These woods are full of the finest timber, and medicinal plants. Mr. Carvalho had been formerly accused of exporting those useful kinds of timber, which are the property of the Crown, and was imprisoned by order of the government; but his innocence was subsequently proved, and he was set at liberty.

The Brazil wood (*caesalpinia Brasiliensis*, Linn.), so celebrated and well known in Europe, abounds here; also *ipé* wood (*bignonia*) of various kinds, with large yellow and white flowers, one species of which is called *ipe-amarello*, while another, which perhaps furnishes the most durable ship-timber, is named *ipe-tabacco*, because its heart, when split, emits a greenish powder; *pekea*, the fruit of which is sometimes eaten by man, and forms a common food of monkeys; also *pitoma*, *oleo pardo* (*laurus*), *ipeuna* (*bignonia*), the hardest wood of all. As this is elastic, and at the same time very light, the Indians sometimes make their bows of it. Here are found, besides, *imbitú*, *jaquá*, *grubú*, *grumbari*, and *mazaranduba*, having a milky juice under the bark, of which the Indians make bird-lime; *graiña*, and *sergeira*, a *cassia* or *mimosa*, which sheds its leaves, one of the finest and thickest trees. The latter is very light; it supplies the place

of lime and poplar-wood, and canoes are made of it. Here is also a tree called *jarraticupitaya*, with a spicy bark, which is a medicine of the Indians; *jacaranda* or rose-wood (*mimosa*), of a beautiful dark brown, firm, heavy, useful to cabinet-makers, and having a faint but agreeable smell of roses; the white outside of the wood is not used, only the internal heart: *cuiranna* (*cerbera* or *gardenia*), a very light wood, of which plates and spoons are made, the bark of which yields a milky juice; *peroba*, a hard, solid ship-timber, which is used by the government, and therefore declared royal property; *canella* (*laurus*), very aromatic, smelling like cinnamon; *caübi* (*mimosa*), *majole*, *sepepira*, *putumaju*, called *arariba*, and other species. Here are likewise medicinal plants in abundance: of these I shall mention only a few, such as the *herba moeira do Sertam*, which has the taste of cloves; the *Arabian costus*, which is used against the venereal disease; various kinds of *ipecacuanha*, and the *buta*, which is said to be a substitute for Peruvian bark, &c.

After we had frequently hunted with the Indians in the neighbourhood of St. Pedro, we left them in the afternoon, and set out for Cape Frio, about two leagues distant. A delay which was caused in the way by one of the mules, gave us an opportunity to kill a *maracana*, the bird described by the name of *psittacus macavuanna*; whole flocks of them live in these forests, and fall upon the plantations of maize near the dwellings of the Indians, where they often do much damage.

It was already late in the evening when we crossed the lake to reach the Cape, and were received by Captain Carvalho in his house. Cape Frio is the well-known promontory I have already mentioned; it is formed by high rocky mountains, before which lie some small islands. Upon one of these in a bay near the coast a fort is erected. A creek here penetrates into the land, forming a semicircle, upon the banks of which lies the town of Cape Frio. This town, though small

and badly paved, contains several houses of a very neat and pretty appearance. The slip of land on which it is built is marshy near the lake, and nearer to the sea deep sand, which produces shrubs of various kinds. We here discovered some new plants; among others, two shrubby *andromedas**, one with a pale yellow, the other having a rose-coloured flower. The whole surrounding country is intersected with great lakes and marshes, and is on this account said to be subject to fevers; the inhabitants however affirm that the violent south winds greatly purify the atmosphere.

The inhabitants of this place are principally supported by the exportation of *farinha* and sugar. This country, as well as that about Rio de Janeiro, was formerly inhabited by the powerful tribes of the Tupinambas and Tamoyos, which in Lery's time were in alliance with the French against the Portuguese. Salema attacked them in 1572, at Cape Frio, where they sustained a signal defeat, upon which they retired into the interior. The Portuguese subsequently settled on this spot. In the latter half of the 17th century a small number of them lived here, and the village of St. Pedro had been previously founded.

Being invited by a *Captain*, who resides at St. Pedro, to visit his sugar-manufactory, we embarked with him, accompanied by Mr. Carvalho and a priest. Rush-mats were, as usual, laid at the bottom of the canoes to sit upon. Vessels of this kind were used by the Tupinambas and the other aboriginal tribes, and have been retained by the Portuguese. They are made of a single trunk of a tree, extremely light; the Indians manage them with admirable dexterity. They are of various sizes: some being so narrow, that those on board must be very careful how they move, for fear of upsetting them;

* Professor Schrader of Göttingen, has recognised these two plants to be new, and a hitherto undescribed species of this genus.

others, on the contrary, are made of trunks of such prodigious thickness, that they are tolerably safe even at sea, when it is not very rough. The steersman stands upright, and contrives to balance himself so well that he does not cause the slightest vacillation. The oars have a shovel of an oblong form at the extremity: and in small canoes are managed with one hand. A couple of skilful boatmen can row these light vessels with wonderful rapidity.

The water of the lake was very shallow, and so transparent, that we could clearly discern the white sand at the bottom, with its coral-line plants; in some places we were even aground. These lakes abound with gulls, sea-swallows, white herons, and sand-pipers. Two kinds of cormorants are also very common here: one of a greyish brown, and the other very much resembling the European cormorant: both fish in these waters, and approach very near the houses of the town.

The *fazenda* of the captain, surrounded by its negro huts, is built upon a hill and finely situated. Around are seen woody mountains, and shrubby rising grounds, which form an agreeable contrast with the light green sugar-plantations. On the left the landscape is diversified by several sheets of water and neat dwellings; and it is bounded by blue mountains in the distance.

We inspected the sugar-manufactory, which appears to be very judiciously arranged. To condense and purify the juice of the cane, of which it is intended to make brandy, a strong ley is added to it. This is obtained by pouring warm water on the ashes of a kind of *polygonum* called *cataya* in the Indian language. This plant has a very bitter, peppery taste, and is used also in many diseases*. Most of the principal *fazendas* have a church, or large apartment so

* On the Rio St. Francisco, this plant is said to be used with advantage in the complaint called *O Largo*. This disease, according to the account of a Hungarian physician who resided there, is an enlargement of the colon occasioned by debility. In this case the plant is boiled; the decoction is left to cool, and then applied as a clyster, and also for bathing.

arranged that mass can be read in it on Sundays and holidays. Travellers would do well not to neglect to attend mass; because the inhabitants think much more highly of them for so doing. They treated us with kindness and attention where we observed this rule, and shewed evident coldness when we did not go to church.

After mass, we accompanied the owner back to the town, where we saw what is a rarity in this part of the country, namely, the genuine cocoa-palm (*cocos nucifera*, Linn.) This fine tree is very common farther to the north, as will appear in the sequel of our journey; but here in the southern parts it is very scarce. On the east coast it is called *cocos da Bahia*.

At a *fazenda* in the neighbourhood of Cape Frio, there were, as I was assured, two date-palms (*phanix dactylifera*, Linn.) which bore fruit; but since one of them has been cut down, the other has ceased to bear.

We now made hunting excursions in all directions, and for this purpose took into our service two new hunters well acquainted with the country. They soon brought us several animals, especially the monkey called *guariba*, which has been described by the name of *stentor*, or *mycetes ursinus*, and whose loud voice is frequently heard in these forests. This animal is distinguished by the large vocal organ in the throat, which Humboldt has represented in the fourth plate of his Zoological Observations. From the long thick beard of the male *guariba*, it bears on this coast the name of *barbado*.

On the edge of the lagoas and the marshes, particularly near the mangrove bushes (*rhizophora*, *conocarpus*, and *avicennia*), we found a great number of holes bored in the earth; these served as retreats to crabs called *guayamu*; they should not be confounded with another species, which is found in the sand on the sea-shore, and named *ciri*; both kinds are mentioned by Marcgraf. The *guayamu* grows to a larger size than the *ciri*; its colour is a dirty slate, a little

inclining to lead-grey, without spots. These animals are very difficult to catch, for on the slightest noise they retire into their holes. I therefore adopted the mode of killing them with small shot. They are a chief article of food among the Brazilians, whose indolence often goes so far, that when fish are scarce they subsist on this diet, which we found to be wretched. Among the bushes on the sand I frequently saw two different kinds of lizards; the larger of which has a green back and spotted sides. Here I also obtained the skin of a gigantic serpent, the *boa constrictor*. Daudin erroneously mentions Africa alone as the native country of this reptile; whereas it is the most common of the Brazilian species of the genus *boa*. Most of the varieties of this genus are known on the east coast by the name of *jiboya*.

Our host promised to send the large collection we had already made, and which had been greatly increased at Cape Frio, to Rio de Janeiro. We however soon found reason to distrust the importunate civilities of this man; for it appeared that he was actuated by extreme selfishness, which went so far, that he even made us give him a certificate of the important services he had rendered us. We were equally unfortunate in our acquaintance with the apothecary, a personage who at first seemed to take great interest in our operations, and to whom we gave credit for some education. We soon discovered, however, that his intellects were none of the brightest; and though we at first only pitied his weakness, yet we were at length obliged to treat him in a more serious manner, as he circulated several reports to our prejudice in the villa; for which, as we afterwards learned, he was punished by the police with a confinement of some days.

CHAPTER IV.

JOURNEY FROM CAPE FRIO TO VILLA DE ST. SALVADOR DOS CAMPOS DOS GOAYTACASES.

Campos Novos—River and Town of St. João—Rio das Ostras—Fazenda of Tapebuçu—River and Town of Macahe—Paulista—Coral de Battuba—Barra do Furado—River Barganza—Abbey of St. Bento—Town of St. Salvador, on the River Paraíba.

ON the 7th of September we had our baggage conveyed over the lake near the town, and collected the mules, which during our stay had been sent to pasture at a solitary *fazenda* on the other side. On the 8th, accompanied by Mr. Carvalho, we left the neighbourhood of Cape Frio, and proceeded slowly along the bank of the lake; but when the road turned into the woods, some of our beasts ran away. We were therefore obliged to traverse the wood in all directions; and it was not without infinite trouble that we found them again. Soon after, as we were passing through a hollow, the beasts, which had been rendered wanton by their long stay in the fine pasture at Cape Frio, played us a still worse trick. I was riding slowly before the train in this hollow, when suddenly I heard behind me all our animals, heavily laden with large wooden cases, galloping at full speed. The mule on which I rode immediately set off with such fury that there was no possibility of stopping him. That I might not have my knees and legs broken by the chests, carried by the runaway

mules, I pulled my beast on one side ; upon which the whole troop dispersed in the forest ; four or five of them threw off their load, and tore and broke the harness. We all stood breathless and fatigued, without being able to guess what could be the real cause of this tragicomic catastrophe. We now searched the neighbouring forest in all directions, and it was not till after a considerable delay, that we at length re-assembled all our scattered animals, by the aid of our expert drivers ; some Portuguese, who were hunting deer in this wood, and were looking for a dog they had lost, put us into the right way. The deer of this country are of two different kinds, which Azara has described by the names of *guazupita* and *guazubira*, and which Mawe erroneously calls fallow deer. Koster even says, respecting one of these kinds of deer, that they had shot an antelope, though it is well known that animals of the latter species are not found in the New World. Upon the whole there are met with in Brazil four animals of the stag kind, which Azara first described ; and they seem to be spread over a great part of South America. The most common species is the *veado mateiro* of the Portuguese, the red deer, or the *guazupita*, of which there is a very good description in the above-mentioned author. This animal is found in all the woods and thickets, and is frequently eaten, though its flesh is very dry and coarse.

After we had again set our train to rights as well as we could, we continued our journey through woods of tall slender trees, which frequently alternate with open spots, where meadows, with large marshes, and reedy pools, afford subsistence to great numbers of herons, ducks, plovers, and other similar species. The cry of the *quer-quer* is every where heard, and the woods frequently ring with the loud shrill voice of the *araponga*. Several shrub-like species of *eugenia* were covered with their black, ripe, and very agreeable fruit, of about the size of small cherries. We rode through noble forests of straight, lofty trees, with whitish, or reddish brown bark, which

excite admiration; while *mimosas* and *justicias*, in the bushes below, diffuse a delightful perfume. Here we found large nests of the *termite*s, eight or ten feet in height—a sufficient proof of their age. Our beasts of burden gave us fresh trouble, by sinking deep in several boggy places: we were also tormented by the sting of venomous wasps, called *marimbondos**. Their sting causes a swelling, attended with severe pain, though not of long duration. The beautiful *buginvillea Brasiliensis* was here adorned with red blossoms; and *bignonias*, covered with a profusion of large gold-coloured flowers, decorated the dark tops of the loftiest trees.

In a large marshy meadow we saw the *jabirú* (*ciconia Americana*, or *tantalus loculator*, Linn.), and herons of various species, particularly the snow-white egret, stalking about. The cattle here wade deep into the water, and feed on grass that grows in the marshes. A large snake, six or eight feet long, the green *cipo* (*coluber bicarinatus*), darted by us in the high grass with the rapidity of an arrow; and a flock of *maracanas* (*psittacus Macaynanna*, Linn.) settled on the bushes on the margin of the meadow. A horseman whom we met communicated the welcome intelligence, that our hunters, whom we had sent before, had already shot a great number of beautiful birds; on which we rode deeper into the wood, and refreshed ourselves with wild oranges (*laranja da terra*), which have a mawkish sweet taste†. Their flowers emitted a most delicious odour, and attracted a great number of humming-birds. On leaving the wood, we had before us an open meadow, where, on a gentle eminence, stands the spacious *fazenda* of Campos Novos, properly called *Fazenda do Re*. Near the dwelling-house of the owner, a captain, the huts of the negroes extend in a square, and form a little village. This

* Mawe erroneously calls them *mirabunde*, p. 134.

† Oranges, to be good, must be grafted, even in Brazil; if suffered to grow wild, the fruit is flat and rather bitter.

fazenda, or at least the church belonging to it, was built by the Jesuits.

As we had to wait for a mule that was left behind, we were detained here several days, which we employed in making excursions in the adjacent country. A hunter, who was a native of Naples in Italy, came to us in the *venda*, and shewed us the skin of a monkey which lives in a certain part of the great forests, and is called by the inhabitants *mono*. We long sought, but in vain, for these animals; in the sequel we were, however, more successful, and I found it to be a species of the genus *ateles**: this is the largest monkey in that part of the country through which we travelled; and its skin is used by the hunters to protect the locks of their guns from the rain.

The woods about Campos Novos, though not till you are at some distance from the *fazenda*, are filled with animals of this kind. Our hunters had killed several *guaribas* or *barbados*. Speaking of this remarkable animal, Mawe, who appears to be no great zoologist, says, comically enough, (Travels, p. 133.) "They are described as long bearded monkeys, which, when asleep, snore so loud as to astonish the traveller." In the neighbouring marshes we found the beautiful rose-coloured eggs of the marsh-snail, which Mawe has described by the name of *helix ampullacea*, hanging in clusters to the rushes and blades of grass. This snail is very common in all the dried-up marshes in Brazil. Its shell is of a dark olive-green. In all the woods which we had hitherto traversed, we also found, pretty frequently, the great land-snail, which Mawe has represented as a variety of the *helix ovalis*. The colour of this animal itself is a pale

* *Ateles hypoxanthus*, with long limbs, and a thick long tail; hair yellowish grey; at the root of the tail, often yellowish red; face, flesh-coloured, with dark dots and spots; the whole length, from the tip of the nose to the end of the tail, 46 inches 8 lines. The thumb of the hand or fore-foot is only a short rudiment: this constitutes a distinction between this species and the *arachnoides* of Mr. Geoffroy, in which the thumbs are wholly wanting.

orange-yellow ; but that of the shell generally pale brownish-yellow. There we saw, on the branches of the bushes, the nest of a kind of wasp, (*pelopæus lunatus*, Fabr. S. Piez. p. 203,) which is built of earth, and of the size and shape of a pear. On breaking it, five, six, or seven larvæ, or full-formed animals, are found scattered in the mass. This kind, if not the same, has a very close affinity to the wasp which Azara describes (vol. I. p. 173.). It fastens little cells of clay to the walls of buildings and rooms, as may be seen in most of the houses on the east coast of Brazil. I consider this as identical with that species which attaches its nest to branches.

At our departure the scenery of the country before us appeared particularly pleasing. The verdant plain was enclosed by low, woody eminences : bushes of an uncommonly lively and beautiful green, reminded us of the colours of our European spring. They consisted of a kind of *gardenia*, here called *cuiranna*, which is probably a hitherto undescribed species, and grows to a tree, the wood of which may be used for various purposes. Owing to the considerable distance from the sea, the woods abound with monkeys and game of different kinds.

The magnificent, sublime, primeval forest, (*mato virgem*,) which extends, almost uninterruptedly, from Campos Novos to the river S. João, a distance of four leagues, and into the shady recesses of which we here penetrated, deserves to be mentioned in this place. We soon reached a picturesque, marshy spot, thickly surrounded by young cocoa palms, and bushes of *heliconia*. These form the under-wood, above which tower lofty, wide-spreading, and shadowy forest-trees. The green, blue, and yellow *surucua* (*trogon viridis*, Linn.) was common here, and uttered its call among the thick foliage. We imitated its voice, and soon shot several, both males and females. This is one of the most common birds in all these parts. The forest continued to improve in magnificence, and new and superb flowers

afforded our botanist ample employment. We saw *cipos* interwoven in the most singular manner; remarkably beautiful *banisterias*, mostly with yellow flowers; trunks of singular forms; and frequently magnificent, awe-inspiring bowers of cocoa palms, an ornament of the forests to which no description can do justice. Above us, among the branches, were the beautiful blossoms of the *bromelias*. New notes of birds excited our curiosity. The white *procnias* (*araponga*) was particularly common.

The route over a sandy soil was fatiguing, but the magnificent scenery of the forest richly indemnified us for every exertion. Upon the trunk of a tree which grew obliquely, I found a lead-coloured snake six or seven feet long, which I shall denominate *coluber plumbeus**. It suffered us all to ride past without moving. I had desired one of my hunters to shoot it, but a negro, who carried the plants we collected, was with great difficulty prevailed upon to carry this large, wholly innoxious animal, which we tied up in a cloth at the end of a long stick, across his shoulders. After he had gone a considerable distance, he perceived a slight motion in his burden, and was so terrified, that he threw it down and ran away. A little farther on we found the hunters, whom we had sent before, sitting at the foot of an ancient tree. They had shot some beautiful birds: several toucans, *arassaris* (*ramphastos aracari*, Linn.), *surucuas* (*trogon*), and the little red *sahui*, (*simia rosalia*, Linn.)

Towards evening we reached the river S. João, which discharges itself into the sea, near the town built here. It is from three to four hundred paces broad, and is crossed in canoes: our animals were led through the water, higher up. We landed on the other side of

* The length of this animal was six feet, one inch, four lines; it had two hundred and twenty-four divisions on the belly, and seventy-nine pair of tail-scales. The upper parts are of a dark lead colour; the lower of a fine yellowish white, shining like porcelain.

the river, at the Villa da Barra de S. João, a small place, with several streets, and tolerably good buildings, according to the fashion of the country. It has a church, built by the Jesuits, which stands nearly insulated, on a rock on the sea-shore. Barra de S. João is one of the places where travellers and goods coming from Minas Geraës are examined, on account of the prohibited exportation of precious stones. As the river is in some measure navigable, we found five or six brigs at anchor. An Englishman who is settled here, by trade a smith, told us that English vessels had already found their way to this solitary spot, and that he should therefore solicit the appointment of vice-consul. We gave him a number of fowling-pieces to repair, and the consul in expectancy performed his business to our entire satisfaction. The want of good workmen to repair fire-arms is most sensibly felt by the travelling naturalist in Brazil; for it is very seldom that you meet with people who can perform even the coarsest gunsmith's work. About S. João great quantities of rice and mandioca are cultivated; and up the river in particular, there are said to be very fertile tracts; even the sand yields abundantly when it is well watered.

From the sandy tongue of land between the river and the sea on which the town is built, we followed the coast northward. In a plain in which grew various kinds of shrubs, we frequently found a scarlet *amaryllis*, yellow flowering *banisterias*, and beautiful kinds of myrtle. On the left we had a lofty insulated mountain, the Monte de S. João, in the plain before which, towards the sea, extend lofty forests, and before those again marshes, covered with bushes.

After riding through some mandioca plantations, which, as was evident from the burnt wood lying about in them, had but lately been brought into cultivation, we proceeded through a deep sandy road to the sea-shore, and found ourselves at a beautiful rocky hill covered with cocoa-palms, and projecting into the sea; near it a rivu-

let, called Rio das Ostras, falls into the ocean. We went about a hundred paces along the bank of the rivulet, unloaded our beasts, and had them ferried over. The water of this rivulet is clear, and the banks pleasant; for the thickly interwoven branches of various trees hang down to them, and they are overshadowed by slender cocoa-palms. Here dwells a single family, consisting of a Portuguese, married to an Indian woman. The man belongs to the militia, and has the charge of the ferry. This double employment being very troublesome, he appeared much dissatisfied with his situation. It would be extremely easy to build a little bridge here, by which travellers would be spared the loss of much time; for they have scarcely had the trouble of loading a troop of mules at St. João in the morning, when they have here, only two leagues off, the whole to unload again.

On the other side of the rivulet, we found some empty clay huts covered with cocoa-leaves, in which we took shelter from a shower of rain. Before you reach the sea-beach again by this road, you pass over some hills, which are for the most part covered with a species of reed from thirty to forty feet in height, called *taquarussu*, or the great cane. Its colossal stems, which are as much as six inches in diameter, shoot upwards, and have a gentle bend at the top: the leaves are feathery, and upon the branches are short strong thorns which render such a barrier impenetrable. This kind of bamboo forms extremely intricate thickets, which from their numerous dry leaves and their withered sheaths produce, with the slightest wind, a peculiar rustling noise. They are extremely welcome to the hunter; for on cutting off such a reed below the joint, the stem of the younger shoots is found to be full of a cool pleasant liquid, though of a rather flat, sweetish taste, which immediately quenches the most burning thirst. This remarkable plant loves mountainous, dry situations; it

therefore abounds particularly in the °capitania of Minas Geraës, where drinking-vessels are made out of its stems.

We proceeded by the sea-side, and found near some scattered habitations another very useful plant, the *agave fatida*. Its smooth-edged, stiff leaves, eight or ten feet long, form strong hedges; and from the middle rises a thick stem thirty feet high, which bears at the top yellowish green flowers, and gives the landscape an original appearance. The pith of the stem, called *pitta*, serves the collector of insects instead of cork. Upon the beach grow also low dwarf palms, *bromelias*, and other plants, which are kept down by the wind, and form an impenetrable thicket. We came next to the *fazenda* of Tapebuçú, lying on a hill near the sea, and were courteously received by the proprietor, an ensign in the militia. This *fazenda* is very agreeably situated; for immediately behind it rise lofty venerable forests, separated from it only by a lake, in which the reflection of the beautiful groupings of trees produces a fine effect. The eminence on which the house stands overlooks a spacious plain, covered with an impenetrable forest, from the middle of which rises the Serra de Iriri, a remarkable insulated ridge, of four or five conical peaks, covered with wood; more to the left in a southerly direction lies the detached Monte de S. João.

The tract belonging to the estate is a league long, and partly planted with mandioca and rice; some coffee is also cultivated. The lake abounds in fish. About the dwellings are plantations of orange-trees, the rich perfume of which attracts numbers of humming-birds. Our hunters found in the neighbouring woods abundance of game; they killed parrots, *maracanas*, toucans, *parvós*, and other beautiful birds; and our botanical collections were also much enriched here. I found many kinds of cocoa-palms; among others the *airi*, the bunches of whose fruit were just ripe, and the prickly marsh palm, *tucum*, with a stem about fifteen palms high, which, as well as the

stalks of the leaves, is covered with slender sharp thorns. Mawe mentions this plant, but gives it serrated lanceolated leaves, though it has feathered *frondes*, the *pinnulæ* of which are pointed, smooth, and with an unbroken edge. Arruda (see Koster's Appendix, p. 484.) gives a better description of it, but had not however examined the blossom; according to Mr. Sellow's account, it seems certain that it does not belong to the genus *cocos*. Its uses have been already sufficiently explained by Marcgraf, Mawe, and Koster. The green *pinnulæ* have very strong firm fibres; if the leaf is broken, the upper green part comes off, and the fibres hang loose; these are twisted, and form strong fine green thread, of which extremely good fishing-nets are made. This palm grows here in abundance, and bears small hard black nuts, which contain an eatable kernel. Of another kind, they take the internal still-folded leaf, when it begins to open at the top, pull off the sheath and separate the leaves, which are joined together by a clammy juice; the leaves are then used to cover houses, and neat lattice-work is also made with them.

In these dark shady forests we found a great number of noble trees. The *ipé* was profusely covered with large deep yellow flowers, and another *bignonia*, with large white flowers, grew in the marshes. High above the crowns of the giants of the forest, towers the proud *sapucaya* tree (*lecyrthis ollaria*, Linn.) with small leaves, and large pendent fruit resembling a pot, which open a perfect lid, and pour out their large eatable kernels. The monkeys, and above all the great red and blue *araras* (*psittacus macao*, and *ararauna*, Linn.) are very fond of them. But without possessing the wings of the parrots or the dexterity of the monkeys in climbing, it is difficult to get at the fruit of this tree, which hangs very high; in general the tree itself is cut down. The Indians ascend it especially by the aid of the *cipos* or climbing plants, which certainly much facilitate the operation. In another of our excursions we examined the flowers of a fine palm,

which, in Mr. Sellow's opinion, must be a new genus. Its beautiful yellow tufts of flowers hung down with a gentle inclination, the sheath was large, in the shape of a boat, and as well as the feathery leaves remarkably beautiful: on cutting down the tree, the wood was found to be very hard; but as soon as the porous pith was reached, it fell immediately.

On the 16th of September we took leave of the family of our worthy host, and proceeded on our journey to Macahé. Rain and wind obscured the wild prospect of the country, where the dark Serra de Iriri rose above the gloomy forests, and the Morro de S. João appeared in the distance. The way from Tapebuçú to the river Macahé passes through deep sand for four leagues, almost always on the sea-shore; here and there small rocks projected into the sea, on which we found a number of mosses and shells, but in no great variety. A high wind blew on this spot, and the foaming waves broke furiously upon the rocks. From the sandy shore (*praya*) rises a series of hills, on which beautiful trees and shrubs are stunted by the wind, and look as if cropped: among them we saw a large white-blossomed passion-flower, and the four-cornered *cactus*, also with a large white flower.

It was now the spring of this climate; all of us had hitherto found the weather for the most part cool, and never hotter than in warm summer days in Germany. The last mile of our journey led through a thick, lofty forest, in which we shot toucans, *arassaris*, and the little blackish cuckoo, (*cucullus tenebrosus*.) Many kinds of trees now stood stripped of their leaves, for though most of the trees in this country retain their foliage during the winter, yet it is shed by many of the more tender species. Most of them were now shooting out again, and shewed at the tips of the branches, covered with dark green foliage, the young yellowish, or yellow-green leaves, sometimes beautifully tinged with light or dark red, which are an

uncommon ornament. Others were in flower, and others again bore fruits and flowers at the same time. Thus, in these beautiful tropical forests, the union of spring and autumn presents a most interesting spectacle to the northern traveller. Wet through with the rain, we reached Villa de Macahé, on the river of the same name. This river, which is not inconsiderable, here falls into the sea, after passing the Serra de Iriri in its course of about fifteen leagues. Lery, in his work, mentions this place, which the original inhabitants called *Mag-hé*. It was at that time inhabited by savages, who were at war with the Uetacas, or Goaytacases on the Paraiba.

The little town of S. João de Macahé lies scattered among thickets on the banks of the river, which at its mouth forms a bend round a projecting point of land. The houses, which are low, are many of them neat and pretty, built of clay, with upright wooden posts, and frequently plastered and white-washed. Court-yards (*quintais*) have been made, enclosed with trunks of cocoa-trees, in which goats, swine, and many kinds of poultry run about. The inhabitants carry on some trade with the produce of their plantations, consisting of *farinha*, beans, maize, rice, and a little sugar. They also export wood: hence there are, in general, some small coasting-vessels, *sumacas*, or *lanchas*, lying at anchor. Up the river, in the interior, the *Gorulhos*, or *Guarulhos* Indians, are said to live, united in *aldeas*, or villages. The *Corografia Brazilica* mentions this tribe by the denomination of *Guarú*, and states, that in the Serra dos Orgãos some remains of them still live, under the name of *Sacurus*, who, however, are entirely civilised, and have now nearly disappeared. Among other places, they are said still to be met with in the Freguesia de Nossa Senhora das Neves. After we had spent some days at this place, on account of the rainy weather, and collected seeds of some fine species of trumpet-trees, and other siliquaceous plants, we set out on a Sunday, but not till the afternoon, our

departure being delayed by looking for some mules which had run away.

Heavy rain again accompanied us for a league and a half, through a thicket and wood, along the sea-beach, to the *fazenda* de Baretto, where we arrived in the night, and took up our lodging in an empty house. In the marshy meadows and woods through which our road lay, many luminous insects were flying about; among them was the *elater noctilucus*, with two bright green luminous points on the breast.

The goat-sucker (*caprimulgus*), whose loud cry the Portuguese imagine to resemble the words *Jodô corta pao!* flew about here in numbers, lightly hovering in the dark forest paths, and often alighting on the ground at our feet. It reminded us of the cry of the owl in the dark, in the European woods.

As the bad weather continued, we remained the 18th of September at Baretto, and increased our collections with some interesting birds. On one occasion, when I was trying to surprise the cuckoo described by Azara, under the name of *chochi*, which I had been long endeavouring, in vain, to procure, a beautiful pair of the black and white fork-tailed kite (*falco furcatus*, Linn.) suddenly appeared over my head: the dazzling whiteness of their plumage formed a fine contrast with the dark clouds. I immediately shot one of them, hid myself, and in a short time succeeded in bringing down the other, by which I was well indemnified for the loss of the cuckoo I had missed.

We were glad to be able to leave Baretto, because two *vendas*, or public-houses, had involved our people in a serious affray. The journey northwards along the sea-shore is fatiguing, and partly through deep sand, which caused it to be late in the day before we reached the place of our destination. On the way we found some beautiful *mimosa* snails, about the gardens of some habitations, and also a

cultivated cocoa-tree (*cocos nucifera*) loaded with fruit, a great rarity in this part of the country. Our way then passed through plantations of mandiocca, where the plants were placed among the felled and burnt wood, and the earth regularly drawn round the roots, as we do with potatoes. We then came to marshy tracts, overgrown with upright white-flowering bignonias, and lofty trees. The ruins of a once considerable edifice, which we here perceived, as well as the general appearance of the environs, led us to infer that these parts were formerly in a much higher state of cultivation. Here too we had an opportunity of observing an incredible number of the *urubus*, carrion vulture, (*vultur aura*, Linn.) which had assembled round a carcase, and were so far from being shy, that they divided their booty amicably with a large dog, and were not at all disturbed by our presence. Here also we saw large flocks of long-tailed parrots, (*maracanas* and *perrikittos*), which, with loud cries, made all kinds of evolutions in the air. All those which we shot had their bills stained blue by a certain fruit, that was just now ripe. In some parts of the forest, where the trees were very high, we shot toucans; and generally saw, on the topmost dry branches of the trees, single birds of prey on the watch, especially the lead-coloured falcon, (*falco plumbeus*, Linn.) which pounces with bold and rapid flight upon its prey.

Among other trees that we observed here, was that which the Portuguese call *tento**. It has dark green feathery foliage, and bears long broad pods, with beautiful deep red beans, which the Portuguese use for counters at cards. We did not obtain a sight of its flower. The sandy thickets of these parts produce a number of interesting plants. In the marshy places we found a tree eight or ten feet high,

* This is the *ormosia coccinea*. Jacks, in the *Transactions of the Linnean Society*. A new species, first found in Guinea. It is not in Willdenow.

which appears to be akin to the *bonnetia palustris*, with large white flowers; a beautiful species of *evolvulus**; a small, yellow-flowering *cassia*; a pretty flowered creeping *asclepiadea* (*echites*), with a handsome white and rose-coloured blossom; a new *andromeda*, with deep red flowers; and the two species of the same genus already found at Cape Frio; with many others.

Towards evening our caravan reached the sea-beach, where the ruins of an old chapel, in a dreary, desert, and sandy country, were in perfect harmony with the roaring and dashing of the furiously agitated billows. Low stunted bushes extended towards the wood, and attested the violence of the winds that prevail here. On a small tongue of land between the agitated sea and a lagoon of great length, we continued our journey till after dark, when we reached a solitary shepherd's house, called *Paulista*, where we found nothing to satisfy our hunger but a little mandioca flour, and some maize for our beasts. We had fortunately provided ourselves at Baretto with some dry salt meat and beans. As the house was tolerably spacious, we remained there the following day, to rest from our fatigues.

Flocks of the Brazilian oyster-eater (*hamatopus*) were running about on the sea-coast; and we shot many of them. In the neighbouring forests, in which the cocoa-palm abounds, we shot several very small owls of the kind which the natives call *caburé*†, but which must not be confounded with that called by Marcgraf by the same name. The Palmetto palm, which is very common here, was felled by us for the sake of its pith. This tree is one of the most elegant

* A new species, not described either by Persoon, Willdenow, Ruiz, or Pavan.

† *Strix ferruginea*; 6 inches 7 lines in length; of a dirty red colour, with several light yellow spots on the shoulders, and large wing feathers; a large white spot on the lower part of the throat; tail dirty red without spots; the belly of a bright reddish yellow, mixed with white and brown longitudinal stripes; iris a deep yellow. This bird, which has no ear, seems to resemble the *caburé* of Azara.

of the cocoa family: its trunk is a tall, slender, annulated shaft; at the top of which a small crown of eight or ten feathery bright green leaves, waves aloft in the air: under this beautiful crown there is, on the silver grey trunk, a protuberance of the bright green colour of the leaves, in which lie the young leaves, rolled and folded together; they contain within them the tender yet undeveloped flowers; but the flowers already formed break out under the green capsule. This protuberance, or capsule, containing the fresh leaves, when cut away from the trunk, is found to be in the inside so tender, that it may be eaten raw; but when boiled, it affords a much more agreeable food. We found the wood to be very hard, and it cost us much trouble to cut down the tree with the wood-knife. The *tucum*-palm, also, was now in blossom, in marshy places: and in the open sandy spots, a beautiful new kind of *stachytarpheta*, and a handsome globular *cactus*, like the *mammillaris*, which has on its upper surface white wool, enveloping the small deep red blossoms. Mr. Sellow considers this plant to be a new species.

Our ornithological collections did not receive any great addition here; for we found little that was new, except some marsh birds. On the low bushes, along this whole coast, is heard the *sabiah* (the coast-thrush, *turdus Orpheus*, Linn.), which, with very modest plumage, has so fine a voice, that it may be considered as one of the first singing-birds of Brazil. Upon the buildings, the little whitish *gecko*, (probably Daudin's *gecko spinicauda*), which runs up and down the perpendicular walls, was very common; as well as the lizard with the black collar*; they are common in the whole country that I have

* *Stellio torquatus*: it seems to be related to, or identical with, the *stellio quetz-paleo* of Daudin. This species varies much in the colour. When young, it has long dark stripes down the back, which disappear as it grows old: it then changes to a silver grey, tinged with purple and copper-colour; and sometimes has brighter spots: the mark of the species, however, always remains; this is a longish dark spot, on the side of the neck, in front of

seen. On the coast we found very few shells; and in the marshes, the nests of a species of wasp which has been already mentioned (*pelopæus lunatus*, Fabr.) formed of clay, in the shape of a pear, pointed below, and attached to the branches of the shrubs.

From Paulista, we followed the downs. Extensive marshes, and lagoas, overgrown with reeds, in which grazed oxen and horses, often in great numbers, wading up to their bellies, stretch away into the country: plovers (*vanellus Cayennensis*), herons, gulls, sea-swallows, and ducks, were very numerous here; the lapwings called *quer-quer*, which I have already spoken of more than once as very troublesome to the hunter, fly round his head when he approaches their nest, just as the European species does. The thickets on the downs generally consist of *bromelias* and lofty *cactus*, mixed with many other leafy plants. Upright *cactus* stems were now just opening their white blossoms; they had four, five, and six-cornered branches: but they seemed to belong to only one, or at the most two species; for these singular thorny plants vary much, according to their age, in the number of their angles. The *cactus* plants are particularly dangerous to the feet of the mules and horses when travelling; for a thorn entering the hoof or a joint, is liable to lame the animal. We found here in the sand, the *turnera ulmifolia*; and in the marshes, two white-flowering species of *nymphæa*, the *Indica*, and another called by Mr. Sellow *erosa*, with very large flowers: also a tall white-flowering *alisma* (water-plaintain), probably also new, with narrow elongated leaves. It was not easy to come at this beautiful plant in the deep bogs; Mr. Sellow sunk to a considerable depth in the black bog-water; and I fared no better myself, while engaged in the pursuit of some water-fowl.

the shoulder, as well as three dark stripes running in a perpendicular direction over the closed eye-lids. All the descriptions of the *quetz-paleo* are defective; yet it cannot be mistaken. The lizard with the black collar is called on the east coast *lagarta*.

This extensive and level wilderness is inhabited by herds of oxen, that range at liberty, even at the distance of twenty or twenty-five miles from all human habitations. Once or twice a year they are driven together by their owners, the proprietors of the neighbouring *fazendas*, into a *coral*, or place surrounded with palisades, where they are counted and marked. We took up our quarters for the night, five leagues from Paulista, in the *Coral de Battuba*, as it is called, which contains within the fence a roomy clay hut. The neighbouring country is one vast plain, extending farther than the eye can reach. The water frequently stands in its shallow hollows, and forms *lagoas*, and the whole is covered with short grass, which affords food to herds of cattle. If any person approaches these animals, they raise their heads, snuff the air, and gallop away with their tails erected. It is certainly remarkable, how, by the extraordinary activity and care of the Europeans, this useful species of animal is already spread over the greatest part of the globe. In the north, the ox feeds in the frozen forests of birch; in the temperate zone, in our pleasant grassy vales, between shady woods of beeches; between the tropics, under palms and bananas; and in the islands of the South Sea, beneath *melaleucas*, *metrosideros*, and *casuarinas*. This animal, indispensable to civilised man, every where thrives, and increases his wealth and prosperity.

At the approach of evening, all our scattered hunters assembled round the cheerful kitchen fire, and each of us seemed to look for the reward of his exertions, in the satisfaction of his hunger; but unfortunately our stock of provisions was never more scanty than just now; here, however, in the midst of herds of wild cattle, it was not possible for a company of hunters to starve: we therefore went into the plain, posted ourselves in a long line, and hoped to kill a heifer; but night overtook us too speedily; the cattle were too shy, and single *cactus* plants, scattered on the heath, wounded our feet; we

were therefore obliged to relinquish our design, and to defer till the next morning the chace which necessity commanded. In the dreary, decayed house, where the rain penetrated through the roof, we found but little rest in our hammocks, which we hung up, for we were incessantly tormented by an infinite number of fleas, and a host of *bichos do pé* (sand-fleas, *pulex penetrans*), of which we the next day picked an incredible number out of our feet. This insect, which is particularly common in all empty buildings in the sandy district, insinuates itself between the skin and the flesh of the feet near the soles, and of the toes, and sometimes even under the finger-nails. To say, as some do, that it penetrates into the muscular flesh, is an exaggeration: it always harbours between the flesh and skin only. Its presence is soon made sensible by a violent itching, which at length turns to a slight pain: it is therefore advisable immediately to take it out with a needle, without injuring its body, which is like a bladder, and full of eggs. In order to prevent inflammation, it is proper, after taking out the insect, to rub into the puncture either snuff, or *unguentum basilicum*, which is sold by the apothecaries in Brazil.

A gloomy, rainy morning succeeded this disagreeable night; but our stomachs soon reminded us of the chace which we had unsuccessfully commenced the preceding day. We therefore ordered our hunters to mount, and sent them into the plain, where they dispersed the wild cattle, which fled affrighted in all directions. Our mules in general galloped well: at length our hunters, Thomas and João, succeeded in killing an ox. It was immediately cut up; we satisfied the hungry people as soon as possible, and then separated to hunt. There are many ornithological curiosities in these parts. Francisco, the Coropo Indian, had shot the ibis with a naked flesh-coloured face, which Azara describes by the name of *curucau rasé*; others of the hunters

shot two species of falcon, a beautiful new species of kite* with a crown on the head, like our *falco cyaneus* (hen-harrier), and the *falco busarellus*, with rust-coloured body and yellowish white head. I found, in the neighbourhood of our house, the nest, with the eggs of the *bentavi* (*lanius pitangua*, Linn.) which is in the shape of an oven, and closed at the top.

To the north of Battuba, the plain is interspersed with spacious *lagous*, which are the retreat of innumerable ducks, herons, and other aquatic and marsh birds; such of these species as inhabit this country may here be studied with peculiar advantage. We had been told that we should here find the beautiful rose-coloured spoon-bills (*platalea ajaja*, Linn.) and in fact we saw them to-day for the first time. About thirty of them were sitting together in a marshy place, and soon attracted our notice from their appearance, like a large dark rose-coloured spot. Our hunters crept towards them with the greatest caution, and even threw themselves on the ground, as they approached nearer; but all in vain: the timid birds rose immediately, and flew in a splendid train over the heads of other hunters, who discharged their double-barrelled guns at them, but unluckily without effect. We could only adorn our hats with some of the beautiful rose-coloured quill feathers which we found in the marsh. Herons, the black ibis†, ducks, sand pipers, and cormorants

* *Falco palustris*; 19 inches 8 lines long: the head is surrounded with an owl's crown, of a mixture of yellowish white and dark brown; over the eye a whitish stripe; lower parts pale yellowish red, with dark brown longitudinal stripes; throat, dark brown; thighs and rump, rusty red; all the upper parts dark brown; quill and tail feathers, ash grey, with dark brown transverse stripes.

† Among the Brazilian species of the family of the scythe-billed waders, the *guara* (*tan-tatus ruber*, Linn.) is particularly distinguished by its dark red plumage. I did not find this beautiful bird any where along the whole coast, and the *Corografia Brasileira* asserts that this species is not now to be found at the Ponta de Guaratyba, a little to the south of Rio

animated the whole scene. The *lagoas* were divided by dams, and on these we found thickets, which were constantly haunted by birds of prey, some of which we shot. On the bank of a lake I saw the darter (*plotus anhinga*, Linn.) which I pursued in vain. It was not here in its proper haunts, the rivers, where we frequently shot it, in the sequel of our journey. Four or five leagues from Battuba, there is a place called *Barra do Furado*, where the Lagoa Feia is connected with the sea, as is rightly noted in Arrowsmith's map*.

We immediately made arrangements for the purpose of forwarding our baggage and some of our hunters who still remained behind, to the intended resting-place, in a large canoe belonging to a man who lived here alone. We ourselves, on the other hand, continued our journey along the downs, near the furious breakers, and were amused with the sight of the numerous plovers (*charadrius*), sand-pipers, and oyster-eaters (*hematopus*), which on the retreat of every wave picked up a great quantity of small insects. At a couple of poor fishermen's huts we were shewn the way, which on the land side was bounded by extensive marshes where numbers of oxen and horses were grazing. The multitude of ducks and marsh-birds which we

de Janeiro, where it was formerly so frequent. Hans Stade says that the Tupin-Inba procured thence those beautiful red feathers with which they adorned their persons.

* The Lagoa Feia consists of two parts, connected by a canal; their shape is not accurately marked in my map, because I only crossed them, and did not see their whole extent. According to the *Corografia Brasilica*, the northern part is about six leagues long from east to west, and about four leagues in breadth; the southern division about five leagues long, and one and a half in breadth. It abounds in fish, and its water is sweet. Its extensive surface is generally agitated by the wind, and therefore frequently dangerous for canoes; for larger vessels it has not sufficient depth. The Barra do Furado is dry in seasons when the water is low. This whole tract has along the sea-coast a great number of lakes, several of which are wanting in the map. With such abundance of water and the fertility of the soil, this part of the country would soon become one of the most productive in Brazil, if it were inhabited by a more active and industrious people.

here met with was truly astonishing. Large black flocks of the Spanish duck (*anas viduata*, Linn.) and of the piping green-shouldered kind, which Azara has described by the name of *ipecutiri*, flew up like a cloud at our first fire ; the latter is the most common species of duck in those parts of Brazil which I visited.

When it was near twilight, our guide, who was a negro, led us across the water to a marshy island. He told us that his master would arrive here with his canoe to carry us over the Lagoa Feia ; he however did not make his appearance that day. As we were threatened with heavy rain, some of our company proposed to ride back to a little hut about half a league distant, where we had found five or six soldiers, who kept guard there, that no smuggling of diamonds from Minas might be carried on. We returned to this post ; the soldiers made us a good fire, gave us mandiocca flour and salt meat, and we chatted away the evening with them. These militia soldiers, who are of a rather brown complexion, wear white cotton shirts and breeches, with their necks uncovered, and bare feet ; like all the Brazilians, each of them has a rosary hung round his neck. A musket without bayonet is their only weapon. In the day-time they fish in the lagoas, and except the flour and salt meat with which they are supplied, they derive their sustenance from the water. Cords, made of twisted ox-hide, are put up about their hut, on which they hang their fish to dry. The hut itself was fitted up as a guard-house, contained several chambers, and was furnished with some sleeping-nets and wooden tressels.

It was not till the following morning that the canoe appeared with the hunters, who had suffered themselves to be detained by the flocks of ducks, and had been overtaken by the night. We now began to cross the *lagoa*, and as soon as the canoe landed our cargo, the men who composed it immediately dispersed to hunt. They shot among other birds, the ibis with a reddish face (*caráo*), and the *caracara*

(*falco Brasiliensis*), a handsome species of falcon. When we were assembled on the north bank of the *lagoa*, we found ourselves in a very unpleasant situation; for our mules, which were grazing, had been enticed away by horses, and we remained the whole day exposed to torrents of rain, till towards evening a fisherman appeared who conducted us to his hut, where we waited for our strayed beasts. We passed through a small thicket to the bank of the river Barganza, which flows from the Lagoa Feia. Here were two wretched fishermen's huts, in which we received a very cordial welcome. They consisted merely of a roof of reeds, leaning against the ground, and contained within two small divisions. Our numerous company could not pass the night under cover, but only the Europeans, who were less accustomed to the night air of Brazil. We lay, together with the two families of the fishermen, on straw round the hut; the fire was in the middle; and we were treated with baked fish and mandioca flour.

The friendly attentions of these good people lessened the inconvenience, and made us in some measure forget the hardness of our couch. In the hut in which I took up my lodging, the mistress was a jolly, loquacious woman, with a rather sallow complexion, and very lightly dressed, who, like most women of the lower classes in Brazil, constantly had her tobacco-pipe in her mouth. The Brazilians more commonly smoke segars, which are made of paper, and carried behind the ear. This mode of smoking was not brought by the Europeans to Brazil, but is derived from the Tupinambas, and other tribes of the Indians of the coast. They used to wrap certain aromatic leaves in a larger one, and lighted it at the end. The pipes used by the fishermen, as well as in all Brazil, by the negroes in particular, and other persons of the poorer class, have a small bowl of blackish burnt clay, and a thin smooth tube, made of the stalk of a species of fern, which grows to a considerable height, (*samambaya*,)

the *mertensia dichotoma*. In general, however, among all classes of people in Brazil, taking snuff is preferred to smoking; for the poorest slave has his snuff-box, generally of tin or horn, and frequently nothing more than a piece of a cow's horn with a cork to it.

The day had scarcely dawned upon the crowded huts, when the fishermen with great fervour repeated their morning prayers, and then bathed their children in lukewarm water, a practice usual among the Portuguese, which the little ones appeared impatiently to anticipate. After this, mats were spread out before the huts, boiled fish was produced, and we all sat down on the ground to breakfast. As soon as we had refreshed ourselves, the fishermen prepared their boat to conduct our mules swimming, over the Barganza, which, near the huts, is bordered with large banks of reeds. Thousands of aquatic birds, especially herons, cormorants, water-hens, divers, and others, build their nests here; and sometimes also the beautiful rose-coloured spoonbill is met with. Among the fishermen who conveyed our party over, we particularly noticed an old man with a long beard, and a sabre at his side. A younger man mounted a little horse, and promised to shew us the way through the flooded meadows. His dress was original: he wore a cloth cap, a short coat, and breeches reaching only to his knees, and spurs on his naked feet. He was extremely good-natured and obliging, for he always rode before in the meadows, which were partly overflowed to a considerable depth, and not without danger, sought out the best track, which, nevertheless, was so fatiguing to our mules, that we had every reason to fear that part of our baggage would be thrown into the water. We, however, rode through these inundated meadows, amidst heavy rain, without accident.

We had crossed the last piece of water in the canoe, near the insulated church of St. Amaro, and our train now proceeded over immense verdant plains. The whole of this flat country belongs to the

plains of the Goaytacases, which extend to the Paraíba, and from which the town of St. Salvador has received its additional name, *dos Campos dos Goaytacases*. On the green turf of this tract, as well as in all the meadows on the east coast of Brazil, is found the *sida carpinifolia*, with a shrubby woody stem and a yellow blossom: it grows luxuriantly, and frequently serves as a retreat for a kind of *inambú*, to which they here give the name of a partridge*. This kind, which is yet but little known, has, in its colour, some resemblance to our quail, but is larger; and leads the spaniel as good a chase as our European partridge, as I had frequent occasion to convince myself. After riding till the evening through this country, which is well adapted for pasturage, and on which large herds of cattle were grazing, we at last reached the considerable Abbey of St. Bento, where we expected to find the repose and accommodations with which we had been so long obliged to dispense. This convent, belonging to the Abbey of St. Bento at Rio de Janeiro, possesses valuable estates and lands. The edifice itself is large, has a handsome church, two courts, and a small garden within, in which beds, fenced round with stone, are planted with balsams, tuberoses, &c. In one of the courts were lofty cocoa-palms (*cocos nucifera*, Linn.) loaded with fruit. The convent possesses fifty slaves, who have built their huts near it in a large square, in the middle of which a high cross is erected on a pedestal. There are, besides, a sugar-refinery, (*engenho*) and several farm-buildings. This rich convent possesses also great numbers of horses and oxen, and several *corals* and *fazendas* in the adjacent country. It even receives tithes of sugar from several estates in the neighbourhood.

M. José Ignacio de S. Mafaldas, the ecclesiastic who was at the head of this establishment, received us in a very hospitable manner.

* This bird is described by M. Temminck under the name of *tinamus maculosus*. *Hist. Nat. Gen. des Pigeons et des Gallinacées*, tom. III. p. 557.

Rooms with good beds were assigned to us in the long cool galleries of the convent, where, from the large windows, which here too were without glass, we enjoyed the finest prospect over the extensive plain. In the lower story of the building were the kitchen and the mandiocca manufactory, where it was easy for us to dry our collections. At the same time they had the politeness to clear as much cotton as we wanted from the seeds; for which purpose the small machine described by Langsdorff, in his account of St. Catherine's, is universally employed. We made the best use of the time that we passed here, and amused ourselves with shooting the ducks, which dwell in countless multitudes in the great marshes and *lagoas*.

Proceeding on our journey, we had for our guide a mulatto, with a stiletto in his button-hole, a sabre by his side, and spurs on his bare feet, as is the fashion here. He led us through the great plain, where the houses became every hour more numerous, and the tracks of carriages indicated that we were approaching a more populous country. On the road-side we saw hedges of *agave* and *mimosa*; behind them, orange and banana-trees in flower; and about the dwellings coffee-trees covered with their milk-white blossoms: a most enchanting sight. The habitations and *fazendas* became more and more numerous. All along the road the traveller finds *vendas*, the proprietors of which very politely salute passengers, but in general only to entice them in, and then to empty their pockets. The sun was still high when we reached the town of St. Salvador, which lies on the south bank of the beautiful river Paraiba, in a pleasant fertile country, diversified with verdure of manifold hues. Our kind host at St. Bento had assigned to us his own house for the time of our stay in this town, where we met with the first newspapers we had seen since our departure from Rio. They contained the important intelligence of the overthrow of the French army at Waterloo, at which the inhabitants of the town had expressed the greatest satisfaction.

CHAPTER V.

STAY AT VILLA DE ST. SALVADOR, AND VISIT TO THE PURIS
AT ST. FIDELIS.

*Villa de St. Salvador—Ride to St. Fidelis—The Coroados Indians—
The Puris.*

THE plains, which extend to the south of the river Paraiba, were formerly inhabited by the savage warlike tribe of the Uetacas, or Goaytacases, whom Vasconcellos reckons among the *Tapuyas*, because they spoke a language differing from the dialects of the *lingoa geral*. They were divided into three tribes, the *Goaytaca assú*, *Goaytaca Jacorito*, and *Goaytaca mopi*; and lived in perpetual hostility with each other, and with all their neighbours. Contrary to the custom of the other Indian tribes, they suffered their hair to grow long, and hang down; were distinguished by a lighter colour, more robust make, and greater ferocity, from all their brethren, and also fought more bravely in the open field. On this subject we find some information in the Biography of Father José de Anchietta, where, among other things, we are told: "These people were the most savage and inhuman on the whole coast; they were of gigantic stature, possessed great strength, were skilled in the management of the bow, and enemies to all other nations," &c. Again: "The district which they inhabited was small, extending from the river Paraiba to the Maccahé," &c. Father João de Almeida found among

them an entire human skeleton set up in the forest, to his great terror, as Southey relates. According to his account, they built their huts like a pigeon-house, on a single post in the air, had no other bed than a heap of leaves, and drank no river or spring-water, but only such as collected in pits which they dug in the sand.

These three tribes were at war on all sides with each other, and with the Europeans, as well as with the Indians on the coast, but the Portuguese colony at Espirito Santo had more particularly suffered by them. In the year 1630 they sustained a severe defeat. In the sequel they were gradually extirpated, or subdued and reclaimed, whence arose the settlement on the Paraiba, which is now the richest and most flourishing district between Rio de Janeiro and Bahia. The whole tract is covered with detached *fazendas* and plantations; and on the south bank of the river Paraiba, which intersects this fertile plain, at the distance of about eight leagues from the sea, is a considerable town (*villa*), which indeed deserves the name of a city (*cidade*).

Villa de St. Salvador dos Campos dos Goaytacases has between four and five thousand inhabitants; the population of the whole district is computed at twenty-four thousand souls. It is usually called *Campos*, is tolerably well built, with regular, for the most part paved, streets, and neat houses, some of which are of several stories. Balconies, closed with wooden lattices, in the old Portuguese fashion, are still common. Not far from the river is a square, where stands the public building in which the meetings of the municipal authorities are held, and in which also is the prison. There are seven churches in the town; five apothecaries' shops; and a hospital, which contained about twenty patients, who have a surgeon to attend them. It is said that there are in this part of the country medical men of much greater skill than in the other districts of the coast, where practitioners worthy of confidence may often be sought in vain.

The situation of this town is very agreeable ; it extends considerably along the bank of the beautiful Paraiba, and affords a pleasing prospect, especially when viewed from the road down the river. The bank every where presents an animated scene ; a busy crowd, mostly people of colour, is continually in motion, engaged in commercial or other business. An active trade in various productions is carried on at Campos : the country up the Paraiba produces, particularly, a large quantity of sugar ; and considerable sugar-refineries are met with on the little river Muriahé, which falls into the Paraiba on the north side, opposite to St. Salvador. Coffee, cotton, and all the other products of the soil, thrive extremely well ; and even European vegetables are met with in the markets. The chief produce, however, is sugar, and the brandy distilled from it. Among the inhabitants are opulent people who have their sugar-refineries near the river, in which a hundred and fifty slaves and more are employed : besides the brandy, four or five thousand arrobas of sugar are made annually in such an establishment. It is in contemplation to introduce improvements into the process of refining, and to erect steam-engines for the purpose. The refinery of Captain Netto Fiz, who shewed us many civilities, is very handsome, and judiciously arranged ; his sugar-plantations are extensive, and he possesses two other *fuzendas* on the Muriahé. In this district, on the Paraiba and Muriahé, there were, in 1801, two hundred and eighty refineries, of which eighty-nine were large and very profitable*.

In the town there prevails a considerable degree of luxury, especially in dress, an article in which the Portuguese are very extravagant. Cleanliness and neatness are universal among these people, even in the lower classes, at least in Brazil. But if we visit the interior of the country, or towns of smaller note, it will be generally

* *Corografia Brasileira*, t. II. p. 47.

observed, that the planters retain their old customs, without entertaining the smallest notion of improving their condition. Here may be found opulent persons, who send into the capital every year several trains of mules (*tropas*) laden with commodities, and perhaps a thousand or fifteen hundred head of oxen for sale; and whose huts are nevertheless worse than those of the poorest German peasants; low, of one story, built of clay, and not even white-washed: their whole domestic economy and mode of living is on a similar scale; but cleanliness in dress is seldom wanting. The breeding of cattle is said to be neglected in the country on the Paraiba, though these plains are so peculiarly adapted to the purpose. Some mules are bred here; but they are not so strong and handsome as those of Minas Geraës and Rio Grande. The sheep and goats are small; and swine do not thrive so well as in other districts. I visited the Campos dos Goaytacases, not to collect statistical information respecting those parts (for which I must refer the reader to other works), but to make myself acquainted with what was remarkable in the people or natural productions. As I had soon attained this object, my stay was but of short duration; and we hastened to visit, what was to us the most interesting curiosity, namely, a tribe of rude savage *Tapuyas* still living in the neighbourhood, on the Paraiba.

Colonel Manoel Carvalho dos Santos, commandant of the district of St. Salvador, and of its regiment of militia, had received us very politely; when we expressed to him our wish to visit the mission of St. Fidelis, higher up the Paraiba, he had the kindness to give us an officer and a soldier as guides. We quickly prepared for this interesting excursion, and set out from St. Salvador on the 7th of October, leaving our baggage behind.

The Paraiba rises in the capitania of Minas Geraës, runs between the Serra dos Orgãos, and that of Mantiqueira, in an easterly direction, and is noted on the small map which Mr. Mawe has given of

his journey to Tejuco. It receives several smaller streams, the Parahibuna, Rio Pomba, and others, and continues its course through the great primeval forests, between rocky banks, till at length it enters, near its mouth, the plains of the Goaytaca Indians. Here the whole country is cultivated and animated; but beyond these plains, in the vast forests, the banks of the Paraiba are still inhabited by aboriginal tribes, who are but partly civilised and settled.

Our road lay at first along the river, the banks of which are adorned with beautiful thickets of *mimosas*, *bigonias*, and other similar trees. Near the town stand single lofty cocoa-palms: then succeed beautiful meadows, and groves, with detached *fazendas*. We soon lost sight of the river, from which our road turned aside. In the meadows we frequently found the spotted cuckoo (*cuculus guira*, Linn.) or *annu branco* of the Portuguese, in company with the *ani* (*crotophaga ani*, Linn.): this cuckoo has in its shape and mode of living the greatest resemblance to the *ani*. This bird, to which Azara gives the name of *piririgua*, has not long been known in the neighbourhood of Campos, and is said to have descended only within these few years, from the high lands of Minas to these low plains on the sea-coast.

We had frequent occasion to admire the beauty and fertility of this tract. On the bank of the river is a succession of large *fazendas*: extensive sugar-plantations alternate in these animated plains with extensive meadows. Fine large oxen and horses pasture in them in great numbers, and also some mules. In the vicinity of several dwellings we admired in a meadow one of those colossal wild fig-trees, the *figueiras* of the Portuguese, which are one of the most grateful presents of Nature to hot countries; the shade of such a magnificent tree refreshes the traveller, when he reposes under its incredibly wide spreading branches, with their dark green shining foliage. The fig-trees of all hot climates have generally very thick trunks, with extremely strong boughs and a prodigious crown. I have

seen them really majestic in Brazil; but none of them, however, equalled the dimensions of the trunk of the celebrated dragon-tree of Orotava, which, according to Humboldt's measurement, was forty-five feet in circumference. In the upper branches of the above-mentioned fig-tree we found the remarkable nest of the little green tody (*todus*): it was of a conical shape, composed of wool, closed at top, and had a narrow entrance. In Brazil, there are far more birds which build such closed nests than among us, probably because there are more enemies to the young brood.

Some leagues beyond St. Salvador the mountains begin to rise, and when we had passed the sugar-plantations, we beheld the lofty forests in the distance. In the woods there appeared to be red patches, which proceed entirely from the young foliage of the *sapucaya* tree, which when it shoots forth in the spring is of a rose colour. It was just at this time the most favourable season of the year for travelling, for every where the new leaves appeared in the most charming diversity of tints; the freshest verdure adorned the whole landscape, and the agreeable temperature of the air was uncommonly pleasing to us natives of the north, who were not accustomed to immoderate heat. After proceeding about three leagues we again came to the banks of the Paraiba, and were much struck with its beauty at this place. Three islands, partly covered with lofty ancient trees, diversify its surface. The river, which is not inferior in breadth to the Rhine, flows with a rapid current, and on its banks green hills clothed with woods and groves alternate with large *fazendas*, the broad red-tiled roofs of which produce an agreeable contrast with the green foliage, while the huts of the negroes form little villages around them. The valleys, between the hills on the banks, are full of marshes, to which a tall species of trumpet-tree (*bignonia*) frequently imparts the melancholy appearance of a decayed wood. The trunk and branches are of a bright ash-grey colour, and its narrow dark brownish-green foliage gives it

a gloomy dead look, and the more so, as it always stands in thick masses; the flower however is handsome, large and white. Other beautiful plants are numerous; among them is an arborescent *cleome*, thickly covered with very large beautiful white and rose-coloured tufts of flowers. The road was bordered by deep yellow and white *bignonias*, and the thickets on the bank were adorned with the upright bushes of the *allamanda cathartica*, Linn. with its large deep yellow blossom.

When we had proceeded about half way, our guide took us to a neighbouring *fazenda*, the owner of which, a captain, very hospitably invited us to dinner. Before his house, which, situated on a gentle eminence, commands the most beautiful view of the river, stood one of those fine trumpet-trees called *ipé amarelo*, covered with large yellow flowers, which break out before the leaves; its wood is very strong, and works up well. In the afternoon we continued our journey, but were overtaken by a violent storm, by which the otherwise pleasant road was rendered rather disagreeable. On the bank of the river we ascended a steep mountain called *Morro de Gambá*, rode along its ridge through a thick wood, and when we emerged from it again were surprised with a magnificent prospect of the river below. Among the lofty irregular wooded peaks, the rocky summit of the *Morro de Sapateira*, of a remarkable form, was particularly distinguished; and the contrast which it formed with the green smiling hills on which the inhabitants have erected their cheerful habitations, heightened the charms of this landscape. Immediately below our feet, under a perpendicular rock, lay a small level meadow on the bank of the river, where some houses shadowed by tall cocoa-palms formed a most delightful groupe. The narrow road runs at a considerable height along the perpendicular cliff, and then declines again into the valley, where the traveller is regaled at every *fazenda* with the delicious perfume of the plantations of orange-trees.

We came to a marsh overgrown with reeds, and the grey white-flowering *bignonia* from twenty to thirty feet high. On the trunks of the latter, great numbers of the night heron (*ardea nycticorax*) had built their nests. This heron is very like the nycticorax of Germany, excepting that it is a little larger; it therefore appears to be the same bird. In every nest we saw the old and young birds standing together and looking inquisitively at the strangers; our hunters shot several of them, but could not venture into the bottomless marsh to pick them up. We were informed that great numbers of the *jacaré* or crocodile live in these marshes, but we did not see any at this place.

After passing through an agreeable diversified country we came to the *fazenda do Collegio*, when night began to come on; we however reached before it was quite dark the little Rio do Collegio, which we were obliged to cross. Our horses and mules had to glide upon their haunches down a steep declivity, which had been rendered quite slippery by the rain, to the water's edge, and some of them tumbled over and over. We however all passed the deep rapid stream without accident, but completely wet through. We soon entered a dark thick forest on the bank of the river, which extends a league and a half to St. Fidelis. It was now dark night, and the path very narrow, often directly over the steep bank of the river, very uneven and blocked up with dry wood and fallen trees. The soldier, who was well acquainted with the way, rode before, and frequently dismounted with our people to remove obstacles out of the path, and we had often to lead the horses for a considerable distance. At last we came to an abrupt and deep ravine, over which was laid a narrow bridge (if bridge it might be called) consisting of three trunks of trees. Notches had been hewn in them to give a surer footing to the animals; yet they frequently slipped, and some of them had very nearly fallen off. With a little patience this difficulty also was happily sur-

mounted. In the gloom of the forest, a number of luminous insects were flying about, the goat-sucker (*caprimulgus*) screamed, large crickets (*cigarras*) were heard at an extraordinary distance, and the singular noise of a host of frogs resounded through the nocturnal gloom of the solitary wilderness. We at length reached a meadow on the bank of the river, and found ourselves suddenly among the huts of the Coroados Indians at St. Fidelis. Our guide immediately rode up to the habitation of the priest, Father João, and sent a request to him, through one of his slaves, that he would give us a night's lodging; but we met with a peremptory refusal, and all our further attempts were fruitless. But for the kindness of the captain in whose house we had been so well treated at noon, we should certainly have had to pass the night in the open air. We found shelter in the house of this gentleman, which was quite empty, hung up our nets and slept very comfortably.

St. Fidelis, on the beautiful banks of the Paraiba, which is here of considerable breadth, is a mission or village of the Coroados, or Coropo Indians, and was founded about thirty years ago by some Capuchin friars from Italy. At that time there were only four missionaries, one of whom still resides here as priest; a second lives at his mission at Aldea da Pedra, seven or eight leagues higher up the river; the other two are dead. The Indians inhabiting this place belong to the tribes of the Coroados, Coropos and Puris, the last of whom wander about in a savage state, in the great deserts between the sea and the north bank of the Paraiba, and extend towards the west as far as the Rio Pomba, in Minas Geraes*. Opposite to

* The *Corographia Brasilica* does not describe with accuracy the state of the Puris on the lower Paraiba; for it says that these savages are here collected in several villages, which is not the fact.

St. Fidelis they at present behave peaceably, but higher up the river at Aldea da Pedra they were very recently at war with the Coroados.

Minas Geraës is in reality the head-quarters of these two tribes, but they extend to this part of the country along the Paraiba and the sea-coast. On the right or south bank dwell the Coroados, and at St. Fidelis also some Coropos, who are now all civilized, that is to say, settled. Their district extends along the south bank of the Paraiba, up to the Rio Pomba; there, on the left bank of this latter river, they are still indeed in their savage state, but yet build better huts than the Puris, with whom they are at war, and by whom they are said to be feared. Mr. Freyreiss had visited them on his former journey to Minas, and found them not entirely savage, but in a ruder state than their brethren on the Paraiba. These Indians, as I have said, are now almost all settled; that is, the Coropos entirely, and the Coroados for the most part; but they have scarcely begun to lay aside their savage manners and customs; for only a month before our arrival, the latter at Aldea da Pedra, in one of their expeditions, had shot a Puri, and made great rejoicings on that occasion for several successive days. Yet these three tribes were originally related to each other, as is attested by the similarity of their languages*. They cultivate mandioca, maize, gourds, &c. They are hunters from their infancy, and skilful in the use of their strong bows and arrows.

The day had scarcely dawned when we repaired to the huts built by the missionaries for the Coroados and Coropos. We found these people still very original, with dark-brown complexions, perfectly national physiognomy, very strongly-marked features and coal-black

* The *Corografia* says: the Coroados are descendants of the ancient Goaytacases, (vol. II. p. 53.) but this is improbable, as the latter suffered their hair to grow long, and the Coroados in former times derived their name from their custom of cutting it all off except a small crown.

hair. Their houses are good and roomy, constructed of wood and clay, the roofs covered with palm-leaves and reeds, like those of the Portuguese. Their sleeping-nets are hung up in them, and the bow and arrows stand in the corner leaning against the wall. The rest of their simple furniture is composed of pots, dishes, or bowls (*cuias*), made by themselves of gourds and the calabash-tree (*crecidentia cuiete*, Linn.), hand-baskets of interlaced palm-leaves, and a few other articles. Their clothing consists in a white cotton shirt and breeches; but on Sundays they are better dressed, and are then not distinguishable from the lower order of Portuguese; but even then the men frequently go with their heads and feet bare. The women, on the contrary, are more elegant, sometimes wear a veil, and are fond of finery. They all speak Portuguese, but among one another they generally converse in their national language. The languages of the *Coroados* and *Coropos* have a very close affinity, and both for the most part understand the *Puris*. Our young *Coropo*, Francisco, spoke all those languages.

The difference of language among the various tribes of the aborigines of Brazil is a subject worthy of investigation. Almost all the tribes of the *Tapuyas* have peculiar dialects: from the resemblance of certain words in the various languages, some have inferred their derivation from European nations; but probably without reason; *Papa* and *Mama*, have indeed among the *Cambevas* or *Omaguas** the same signification as with us, and the word *Ja* (yes,) is said to have the same signification in the *Coropo* language as in German; but except these trifling and accidental coincidences, there is not the smallest resemblance between these languages and those of Europe. The original weapons of the *Coroados*, and to which they still are

* See De la Condamine's Voyage, p. 54. Even among the New Zealanders (our Antipodes) children call their father *Pah-Pah*. See Collins's Account of New South Wales, p. 535.

strongly attached, are bows and arrows, which differ in some minute particulars only from those of the *Puris*. They generally take the feathers for these arrows from the beautiful red *araras* (*psittacus macao*, Linn.) which are found higher up the Paraiba at *Aldea da Pedra*. Like all their kindred tribes, they are extremely skilful in the use of this weapon, and spend much of their time in hunting in the extensive forests which begin not far from their huts. In the *Corografia Brasilica* it is stated that several families of the *Coroados* always reside together in one house, which I must reduce to a couple. Formerly these people buried their deceased chiefs in a sitting posture in long earthen vessels, which were called *camucis*; and they bathed every morning at day-break; but they have now relinquished all these customs.

As the day after our arrival at St. Fidelis was Sunday, we attended mass in the morning in the church of the monastery, where the inhabitants of the neighbouring country had assembled, purely out of curiosity, to see the strange visitors. Father João delivered a long sermon, of which I did not understand a word. We afterwards walked through the uninhabited monastery, and inspected its curiosities. The church is large, light, and spacious, and was painted by Father Victorio, who died only about two months before. This missionary had very zealously promoted the welfare of the Indians, and his memory was much respected by them; whereas they seemed not to be so much attached to the present priest: the Indians had indeed once driven away the latter, alleging that he could give them no instruction, because he was worse than themselves. The painting in the interior of the church cannot indeed be called beautiful, but it is tolerable, and a great ornament in this remote and unfrequented spot, which agreeably surprises the traveller. The names of the four missionaries are inscribed behind the altar; on the sides hung a number of votive tablets, among which is a painting representing a

slave whose arm became entangled in the works of a sugar-mill, which, when the negro in his anguish invoked a saint, immediately stood still. Such accidents befall the negroes but too often, because those people are very careless and imprudent. The convent is not large, but it has a tolerable number of light cheerful apartments, and a low tower. The trouble of ascending its half-dilapidated stairs was rewarded by the agreeable prospect of the beautiful and romantic valley.

It would have been very easy for Father João to have given us, the preceding day, convenient quarters in the roomy monastery, but his incivility went so far, that he even refused to let us have some provisions. When he learned in the morning the favourable terms in which our passports were drawn up, he thought it advisable to be rather more polite, and offered us a sheep out of his flock, which we purchased for breakfast. After mass he addressed us, and we concluded a peace with him, which put an end to all animosities. The inhabitants of St. Fidelis, had all heard the story of our arrival, and loudly expressed their disapprobation of the behaviour of their priest.

Our most important business now was to make ourselves acquainted with the savage Puris in their forests: we accordingly repaired to the other bank of the Paraiba, where we met with a very friendly reception in the *fazenda* of a quarter-master. Our host even sent his brother into the wood to the Puris, to inform them that some strangers were arrived, and wished to speak to them. This invitation to the savages was a great sacrifice which he had the politeness to make in order to oblige us; for these people not only bring him no advantage, but do him considerable injury. When they are kindly treated they fix themselves near the plantations, but then they consume the produce of them, as if they were cultivated for their benefit, and even frequently rob the negroes of their shirts and

breeches, when they are employed in the woods near the plantations.

It is only a short time since this horde of Puris settled so near St. Fidelis, and they are supposed to belong to those who manifest a hostile disposition on the sea-coast near Muribecca. So much is certain, that they received at St. Fidelis, in a very short time, the news of a murder committed by their people on the sea-coast, which proves that they have a direct intercourse across the forests; and it is said that they constantly keep up a communication between the sea-coast and Minas*.

This *fazenda* is very pleasantly situated on the beautiful river Paraiba, which is here in many places as broad as the Rhine. Thick, dark, lofty forests, alternate with verdant hills, which border the banks, and on which there are numerous *fazendas*. In some places these wild romantic forests extend far along the shore, and stretch, without interruption, into the country. From the lofty ridges of the mountains, you see below you dark gloomy valleys intersecting the wilderness, which is thickly overgrown with lofty gigantic trees, and the silence of which is but seldom broken by the footsteps of the solitary marauding Puri. Behind the *fazenda* we ascended a rocky hill, from which we had a most enchanting, but at the same time, awe-inspiring view of the immense solitudes. Scarcely had we overtaken the rest of the very numerous company assembled at the foot of the hill, when we perceived the savages issuing from a little valley on one side, and advancing towards us. As they were the first of these people whom we had seen, our joy was great as well as our curiosity. We hastened towards them, and surprised at the novelty of the sight, stood still before them. Five men and three or four

* In Minas they are still numerous: a project was formed there to remove and make slaves of them, in order to civilise them, but the attempt entirely failed.

women with their children, had accepted the invitation to meet us. They were all short, not above five feet five inches high; most of them, the women as well as the men, were broad and strong-limbed*. They were all quite naked, except a few who wore handkerchiefs round their waists, or short breeches, which they had obtained from the Portuguese. Some had their heads entirely shorn; others had their naturally thick coal-black hair, cut over the eyes, and hanging down into the neck: some of them had their beards and eyebrows cut short. In general they have but little beard; in most of them it forms only a thin circle round the mouth, and hangs down about three inches below the chin†. Some had painted on their foreheads and cheeks round red spots with *urucu* (*bixa orellana*, Linn.); on the breast and arms, on the contrary, they all had dark blue stripes, made with the juice of the *genipaba* fruit, (*genipa Americana*, Linn.): these are the two colours which are employed by all the *Tapuyas*. Round the neck, or across the breast and one shoulder, they had rows of hard black berries strung together, in the middle of which, in front, was a number of the eye-teeth of monkeys, ounces, cats, and wild animals. Some of them wore these necklaces without teeth. They have another similar ornament, which appears to be composed of the rind of certain vegetable excrescences, probably of the thorns of some shrub‡. The men carry in their hands long bows and

* Among the tribes on the east coast which I have seen, I consider the Puris to be the smallest in stature. Mr. Freyreiss states, that in Minas Geraes, these men are stronger built than the Coroados. I did not find this observation confirmed at St. Fidelis, for there the majority of the latter were taller and more robust.

† Many writers have greatly erred, in calling the Americans beardless, though their beard is generally thin and weak. A tribe of the natives, distinguished by having stronger beards, is said to have dwelt on the Syptaba; the Portuguese, therefore, called them *Barbados*.

‡ This ornament consists of dark brown, hollow, elongated bodies, which in shape perfectly resemble a *dentatum*, and were therefore presumed to be of animal origin, till a more careful examination shewed, that they were a rind or bark, and doubtless the envelope of certain thorns. They are said to be also found on the Caxociras (falls) of the Paraiba.

arrows, which, as well as all their effects, they at our desire bartered for trifles.

We received these remarkable people in the most friendly manner. Two of them had been brought up in their childhood among the Portuguese, and spoke their language a little ;—hence they are often of great use to the *fazendas*. We gave them knives, rosaries, small looking-glasses, and distributed among them some bottles of sugar-brandy, on which they became extremely cheerful and familiar. We informed them of our intention to visit them in their woods early the next morning, if they would receive us well : and on our promising also to bring some other presents with us, they took their leave highly pleased, and with loud shouts and singing hastened back to their wilds.

We had scarcely left the house the next morning, when we perceived the Indians coming out of the woods. We hastened to meet them, treated them immediately with brandy, and accompanied them to the forest. When we rode round the sugar-works of the *fazenda*, we found the whole horde of the Puris lying on the grass. The groupe of naked brown figures presented a most singular and highly interesting spectacle. Men, women, and children, were huddled together, and contemplated us with curious but timid looks. They had all adorned themselves as much as possible : only a few of the women wore a cloth round the waist or over the breast ; but most of them were without any covering. Some of the men had by way of ornament a piece of the skin of a monkey, of the kind called *mono* (*ateles*) fastened round their brows ; and we observed also a few who had cut off their hair quite close. The women carried their little children partly in bandages made of bass, which were fastened over the right shoulder ; others carried them on their backs, supported by broad bandages passing over the forehead. This is the manner in which they usually carry their baskets of provisions when they travel. Some of the men and girls were much painted ; they had a red spot on

the forehead and cheeks, and some of them red stripes on the face ; others had black stripes lengthwise, and transverse strokes with dots over the body ; and many of the little children were marked all over, like a leopard, with little black dots. This painting seems to be arbitrary, and to be regulated by their individual taste. Some of the girls wore a certain kind of ribbons round their heads ; and the females in general fasten a bandage of bass or cord tightly round the wrists and ancles, in order, as they say, to make those parts small and elegant.

The figure of the men is in general robust, squat, and often very muscular ; the head large and round ; the face broad, with mostly high cheek-bones ; the eyes black, small, and sometimes oblique ; the nose short and broad, and their teeth very white : but some were distinguished by sharp features, small aquiline noses, and very lively eyes, which in very few of them have a pleasing look, but in most a grave, gloomy, and cunning expression, shaded by their projecting foreheads.

One of the men was distinguished from all the rest by his Calmuck physiognomy ; he had a large round head, the hair of which was all cut to an inch in length ; a very muscular robust body ; a short thick neck ; a broad flat face ; his eyes, which were placed obliquely, were rather larger than those of the Calmucks usually are, very black, staring, and wild ; the eye-brows were black, bushy, and much arched ; the nose small, but with wide nostrils ; the lips rather thick. This fellow, who, as our attendants said, had never been seen here before, appeared to us all so formidable, that we unanimously declared we should not like to meet him alone unarmed in a solitary place. The Puris are in general very short, and all the Brazilian tribes are inferior in this respect to the Europeans, and even to the Negroes.

All the men here carried their weapons, consisting of long bows

and arrows, in their hands. Some of the South American tribes, especially on the Maranhã, have short lances of hard wood adorned with feathers ; others, for instance, those of Paraguay, Matto Grosso, Cuyaba, and Guyana, as well as the Tupi tribes on the east coast of Brazil, made use of short clubs of hard wood, and have not even yet wholly laid them aside ; but the principal weapon of all these aboriginal American nations is the large bow and long arrow. Only a few tribes inhabiting the plains of South America, the Pampas of Buenos Ayres, and some parts of Paraguay, being almost always on horseback, and carrying a long lance as their chief weapon, have, like most of the native African tribes, only a small bow and a short arrow. Not so the Tapuyas on the east coast ; their only arms consist in the colossal bow and arrow, which like the Payaguas in Paraguay, they carry not in a quiver, but on account of its great length only in the hand. The bow of the Puris and Coroados measures six feet and a half, or even more. It is smooth, made of the hard tough dark-brown wood of the *airi-palm*, and has a string composed of fibres of *gawathá* (*bromelia*). The arrows of the Puris are often above six feet long, and made of a firm knotty reed (*taquara*), which grows in the dry woods, feathered at the lower extremity, with beautiful blue or red feathers, or with those of the peacock-pheasant (*crax alector*, Linn.) or of the *jacutinga* (*penelope leucoptera*). Those of the Coroados are made of another reed, which has no joints. The arrows of all these various tribes are of three different kinds, which are distinguished by their points or heads. The first is properly the war-arrow. It has a head of broad cane of the plant before-mentioned under the name of *taquarussú*, cut sharp at the edges and very pointed. The second kind has a long head of *airi* wood, with many barbs on one side. The third, which has a blunt point, is used to kill small animals. I shall describe them more particularly in the sequel, as being in general alike among all the Tapuyas of the

east coast. None of the tribes which I visited on this coast poison their arrows ; for the ingenuity of these people, who are in the lowest stage of civilisation, has happily not attained this art ; still less do we find among them any traces of the poisoned thumb-nails of the Ottomacks on the Oronoco, or of the tube which the Indians there make of large stems of grass, or of the *esgravatanas* of the tribes on the river of Amazons.

When our first curiosity was satisfied, we requested the savages to conduct us to their huts. The whole troop preceded, and we followed on horseback. The way led into a valley which crossed the sugar-plantations ; it then decreased to a narrow path, till at length, in the thickest of the forest, we came to some huts, called *cuari* in the language of the Puris. They are certainly some of the most simple in the world. The sleeping-net, which is made of *embira* (bass from a kind of *cecropia*), is suspended between two trunks of trees, to which, higher up, a pole is fastened transversely by means of a rope of bind-weed (*cipo*), against which large palm-leaves are laid obliquely on the windward side, and these are lined below with *heliconia* or *pat-tioba* leaves, and when near the plantations with those of the banana. Near a small fire on the ground lie some vessels of the fruit of the *crescentia cujete*, or a few gourd-shells, a little wax, various trifles of dress or ornament, reeds for arrows and arrow-heads, some feathers and provisions, such as bananas and other fruit. The bows and arrows stand against a tree, and lean dogs rush loudly barking upon the stranger who approaches this solitude. The huts are small and so exposed on every side, that when the weather is unfavourable the brown inmates are seen seeking protection against it by crowding close round the fire, and cowering in the ashes : at other times the man lies stretched at his ease in his hammock, while the woman attends the fire, and broils meat, which is stuck on a pointed stick.

Fire, which the Puris call *poté*, is a prime necessary of life with

all the Brazilian tribes : they never suffer it to go out, and keep it up the whole night, because they would otherwise, owing to the want of clothing, suffer severely from the cold ; and because it is also attended with the important advantage of scaring all wild beasts from their huts. Such a habitation is abandoned by the savages without regret, when the adjacent country no longer supplies them with a sufficiency of food ; they then remove to other parts where they find greater abundance of monkeys, swine, deer, *pacas*, *agutis*, and other game. In this neighbourhood the Puris are reported to have shot a great number of the bearded ape, and they in fact offered to sell us several half-roasted pieces of that animal ; one of these was a head, the other a breast with the arms, but without the head ; a truly disgusting sight ! especially, because they roast all their game with the skin on, which is thus scorched black. These tough half-raw dainties they tear in pieces with their strong white teeth. They are said to devour in the same manner human flesh out of revenge ; but as for their eating their own deceased relations, as a last token of affection, according to the report of some early writers, no trace of such a custom is to be found, at least in our times, among the *Tapuyas* on the east coast. The Portuguese on the Paraiba universally assert that the Puris feast on the flesh of the enemies they have killed, and there really seems to be some truth in this assertion, as will appear in the sequel ; but they would never confess it to us. When we questioned them on the subject, they answered that the Botocudos only had this custom. Mawe relates that the Indians at Canta Gallo ate birds without plucking them. I never saw a savage do this ; they even carefully take out the entrails, and probably had a mind to amuse the English traveller by shewing him some extraordinary trick.

As soon as we reached the huts our exchange of commodities was set on foot. We made the women presents of rosaries, of which they are particularly fond, though they pulled off the cross, and laughed

at this sacred emblem of the Catholic church ; they have also a strong predilection for red woollen caps, knives, and red handkerchiefs, and most readily parted with their bows and arrows in exchange for these articles ; the women were very eager after looking-glasses, but they set no value upon scissors. We obtained from them by barter a great number of bows and arrows, and several large baskets. The latter are of green palm-leaves interwoven together ; below, where they lie against the back, they have a bottom of platted work, and a high border of the same on the sides, but are generally open at top. They carry them, as we have already observed, and likewise their children, fastened on their backs by a bandage passing over the forehead, and sometimes to a band running across the shoulders.

All the savages frequently offer for sale large balls of wax, which they collect when gathering wild honey. They use this dark-brown wax in preparing their bows and arrows, and also for candles, which they sell to the Portuguese. The Tapuyas make these candles, which burn extremely well, by wrapping a wick of cotton round a thin stick of wax, and then rolling the whole firmly together. They set a high value on their knife, which they fasten to a string round the neck, and let it hang down upon the back ; it frequently consists only of a piece of iron, which they are constantly whetting on stones, and thus keep it very sharp. If you give them a knife they generally break off the handle, and make another according to their own taste, putting the blade between two pieces of wood, which they bind fast together with a string.

After we had finished our traffic we remounted our horses, and rode to other huts, farther in the forest ; the way was fatiguing, narrow, full of roots of trees, and up and down hill. Some of the savages got up behind us on our horses, and a whole troop of Coroado Indians from St. Fidelis accompanied us on foot. In a little solitary valley, in the middle of the forest, we found the house of a Portu-

guese, who resides among the Puris. From this place the way led up a gentle ascent, and we soon reached the huts of many savages, where we were again attacked by a number of half-starved dogs. The Puris are said to have originally received this animal, which they call *joare*, from the Europeans, and I found it among all the native tribes on the east coast*.

In the huts there were great numbers of women and children; and in some of them several sleeping-nets, though in general there was only one in each hut. A Puri, on my offering him a knife, took down his sleeping-net and delivered it to me: others bartered away the bands of apes'-skin round their forehead, their necklaces, and the like. Mr. Freyreiss entered into a negociation with one of the Puris for the purchase of his son, and offered him various articles in exchange. The women consulted aloud, in the singing tone peculiar to them, and some of them with gestures indicative of disapprobation; most of their words ended in *a*, and were drawled out, which produced a very loud and singular concert. It was evident that they were unwilling to part with the boy; but the head of the family, an elderly grave-looking man with good features, spoke a few words with great emphasis, and then stood for some time lost in thought with his eyes fixed on the ground: a shirt, two knives, a handkerchief, some strings of coloured glass beads, and some small mirrors, were successively given to him: he could not withstand this temptation: he went into the wood, and soon returned leading by the hand a boy, who was however ugly, and in some measure deformed, and was therefore rejected; hereupon he brought a second, who was accepted. It is incredible with what indifference this boy heard his fate. He did not change countenance, or even take leave of his friends, but

* Humboldt found in Spanish America many dogs without hair; but we did not meet with any such on this coast.

mounted cheerfully behind Mr. Freyreiss. This callous indifference on all occasions, whether agreeable or melancholy, is met with among all the American tribes. Joy and grief make no lively impression on them; they are seldom seen to laugh, and not often heard to speak very loud. Their most urgent craving is food; their stomach requires to be constantly filled; they accordingly eat uncommonly quick, with greedy looks, their whole attention being directed to their repast. But they are said to be equally capable of enduring hunger for a long time. They are generally attracted by the sugar-plantations of the *fazendas* near which they take up their quarters: and you may see them sitting half a day together sucking the canes. They also cut down large quantities of the canes, and carry them into their woods. The juice of the sugar-cane is, however, not a favourite food of the Tapuyas only, but the custom of sucking it is general among all the lower classes in Brazil. Koster says the same of Pernambuco.

When we had finished our barter in the wood, we mounted our horses; a Puri got up behind each of us, and so we proceeded on our return to the *fazenda*. The whole troop, both men and women, soon arrived there, and all wanted something to eat. As we rode along, the savage behind me picked my pocket of my handkerchief. I detected him, just as he was attempting to conceal it, and told him he must give me a bow for it, which he immediately promised: but he afterwards slipped away quickly among the crowd, and did not keep his word. Some of the men had drunk too much brandy, and became troublesome. With kind treatment we might easily have got rid of them; but the planters act on wrong principles, looking on them as beasts, and immediately threatening them with the whip, which naturally excites their anger and leads to ill-will, hatred, and violence. They were therefore extremely delighted with us strangers, because we treated them with so much candour

and kindness ; they very readily perceived too, by our light hair, that we belonged to another nation. They call all white people indiscriminately *Rayon*.

As we could not obtain flour at the *fazenda* to feed all these people, we considered of other means to satisfy the loud calls of their stomachs. The master of the house gave us a small hog, which we presented to them, telling them to shoot it themselves ; so that we had an opportunity of seeing with what savage cruelty they prepare animals for their food. The hog was eating near the house ; a Puri advanced softly, and shot it too high, under the back-bone ; it ran away screaming, and dragging the arrow along with it. The savage then took a second arrow, shot the animal, while running, in the shoulder, and then caught it. Meantime the women had kindled a fire. When we all came up, they shot the animal again in the neck, to dispatch it, and then in the breast. It was not, however, yet dead ; it lay screaming and bleeding profusely : but without regard to its cries, they threw it alive into the fire to singe off the hair, and laughed heartily at the groans which its sufferings extorted. It was not till our loudly expressed displeasure at this barbarity became more and more impatient, that one of them advanced, and plunged a knife into the breast of the much tortured animal ; on which they seraped off the hair, and immediately cut it up and divided it*. From the small size of the animal, many of them did not obtain a share, and went back grumbling to their woods. They were scarcely gone, when a sack of flour for them arrived from St. Fidelis, which we sent after them.

Rude insensibility, as this and many other examples shewed me, is

* Neither here, nor in the sequel, did I find among the savages any confirmation of what Mr. Freyreiss says in Eschwege's Journal of Brazil, namely, that the savages never eat the flesh of animals which they have killed themselves.

a principal trait in the character of these savages. This is a necessary consequence of their mode of life ; for it is the same that makes the lion and the tiger thirst for blood. Next to this, revenge, a certain degree of jealousy, with an unconquerable love of freedom and of a roving life, particularly characterise these people. They have in general several wives ; many even four or five, when they can maintain them. Upon the whole they do not treat them ill, but the husband considers the wife as his property ; she must do what he commands ; and is therefore loaded like a beast of burden, while he walks at her side with his weapons only in his hand.

The language of the Puris is different from that of most of the other tribes ; but it has an affinity with those of the Coroados and Coropos. Some writers, among whom is Azara, are disposed to deny these American tribes all religious ideas ; but there seems to be the less foundation for this assertion, since this author himself communicates notions entertained by some of his Indians from Paraguay, which are certainly derived from a still rude religion. Among all the tribes of the Tapuyas that I visited, I found evident proofs of a religious belief prevailing among them ; and I am therefore fully convinced that there is not a single nation on the face of the earth entirely destitute of religious ideas. The savages of Brazil believe in various powerful beings, the mightiest of whom they recognise in the thunder by the name of *Tupa* or *Tupan*. Many tribes agree in the appellation of this supernatural being ; nay, even some of the Tapuyas coincide with the Tupi tribes, or the Indians who speak the *lingoa geral*. The Puris give him the name of *Tupan*, which Azara adduces from the language of the Guaranis ; another proof of the affinity of that nation with the tribes of the east coast. No idols are to be seen among the Tapuyas, not even the *maracas*, or magic protecting apparatus of the Tupinambas. On the river of the Amazons alone, certain images are said to have been found which seemed

to have some connection with the religious faith of the inhabitants. Most of the Indians of South America have also a confused idea of a general deluge, and various traditions, which Vasconcellos has noticed.

We did not accept the invitation of our kind host to pass the night with him, but returned the same day across the Paraíba to St. Fidelis. The Coroados Indians of that place were extremely dissatisfied with us, because, as they said, we had given so much to the Puris and nothing to them: in order, therefore, to content them in some measure, we purchased a few bows and arrows of them. We then visited Father João. The Paraíba passes before the windows of his dwelling, from which you have a most magnificent view of this river, the most considerable in the capitania of Rio de Janeiro, which up to the *caxoeira* or fall above St. Fidelis, is said to contain seventy-two islands: it runs between the *Serra dos Orgãos* and the *Serra de Mantiqueira*. The stream was now at the lowest; but in the rainy season, December and January, it overflows its banks to a great extent.

From this place there is a road over the mountains to *Canta Gallo*, and another to Minas Geraes. *Canta Gallo*, first founded by some Paulistas who were seeking for gold, remained long concealed in the great forests, till it was at length discovered by the crowing of a cock, from which it received its name. When the Jesuits settled in Brazil, a very white race of Indians is said to have dwelt in the neighbourhood of *Canta Gallo*. The Jesuits discovered gold dust there, and had it brought by the Indians to the Paraíba, in paper packets, for which they gave them worthless trifles. Our parting from Father João was more amicable than our first meeting; but our farewell of the good old man, who had treated us here with great kindness, was much more cordial. We recrossed the Paraíba to the *fazenda* of the quarter-master, and again saw the Puris coming to the sugar-manu-

factory to suck the canes. The boy whom Mr. Freyreiss had purchased the day before was introduced among them, to see what impression he would make upon his relations ; but to our astonishment, not one of them deigned to cast a glance at him ; neither did he look about for his parents and relations, but took his seat with perfect indifference in the midst of us. I did not meet with such apathy among any of the other tribes : it appears, however, to be manifested only towards young persons who are partly grown up, for they display no want of tenderness to younger children. Till a young man can provide for himself, he is the absolute property of his father ; but as soon as he is in some measure able to procure his own subsistence, the father troubles himself very little more about him.

Some Puris passed by us with their wives heavily laden. Their burdens consisted of their children, and some baskets of palm-leaves full of bananas, oranges, sapucaya-nuts, cane for arrow-heads, cotton cords, and some articles of ornament. The husband carried one child ; his three wives the others, and the baskets.

We now took leave of our host and of the Indians, and rode down the left bank of the Paraiba, which we found as beautifully diversified, and as well cultivated, as the right bank. We saw here large *fazendas*, surrounded with the finest trees, among which we observed the sapucaya, with its young rose-coloured foliage, in full bloom, covered with its beautiful and strangely formed large lilac flowers. We halted near the house of Senhor Moraës. This intelligent planter had ready for us some subjects of natural history, which he offered to us. He also ordered his horse to be immediately saddled, in order to accompany us. While we stopped here, some families of Puris came and encamped near the house. They are remarkably attached to this worthy man, who has always treated them in a sincere and friendly manner. Without regarding the injury they do him, he allows them to plunder his orange and banana-trees, as well as his

sugar-plantations; and they have often done him considerable damage. Such a man, who enjoys their esteem and attachment, and who knows how to act towards them, would succeed better than any other in reclaiming them from their savage state, and uniting them in *aldeas*, or villages. He accompanied us over hilly roads along the river, where we often had to pass very difficult places, over steep precipices; we then entered a noble, gloomy forest, where the most beautiful butterflies fluttered round us. In this place we found in the river, close to the bank, a small island, enclosed all round by steep rocks, on which there were some old trees, entirely covered with the bag-like nests of the *guasch* (*cassicus hamorrhous*.) Plantations of sugar-canes, rice, and coffee, (but the latter are rare,) and some of millet, alternately succeed each other. Above the glassy stream of the Paraiba rose charming islands, some cultivated, others covered with wood. Towards evening we reached a level spot near the river, with a considerable *fazenda*, built in verdant pastures, where we were well received, and accordingly resolved to pass the night. On the opposite side of the valley rose lofty mountains, among which is the Morro de Sapateira, a high ridge with several peaks.

The next morning, after our horses were collected in the meadow, we proceeded on our journey, and towards noon reached the Muriahé, which is not broad, but deep and rapid, and is said often to do great damage in the rainy season. It rises in the Serra do Pico, in the country of the Puris, and is navigable, as we were informed, for seven leagues.

On its banks are considerable *fazendas*, where great quantities of sugar are cultivated. A small canoe carried us over the stream, and towards evening we reached the spot where the Villa de St. Salvador appears agreeably situated, extending along the opposite bank. In this neighbourhood we met with the Aldea de St. Antonio, anciently an Indian village, which the Jesuits had formed of Gorulhos Indians, but which has now no Caboclos among its inhabitants.

CHAPTER VI.

JOURNEY FROM VILLA DE ST. SALVADOR, TO THE RIVER ESPIRITO SANTO.

*Muribacca—The hostilities of the Puris—Quartel das Barreiras—Itapemirim
—Villa Nova de Benevente on the Iritiba—Goaraparim.*

ON our arrival at the town, we were much rejoiced at the confirmation of the news of the important victory of Waterloo, which had been received by all the inhabitants of this place also with great exultation. We soon employed ourselves in the necessary preparations for the prosecution of our journey northwards along the coast, engaged two additional hunters, and likewise a soldier, who was to serve us as a guide; and having taken leave of Colonel Carvalho dos Santos, the commandant, who had shewn us many civilities, and of other kind inhabitants of St. Salvador, we left the town on the 20th of November, and proceeded along the bank of the Paraiba to its efflux into the sea. The town extends for a considerable space along the bank of the river, and affords a fine prospect. The crowded mass of houses rises immediately above the river; high over them tower single cocoa-palms, and the magnificent back-ground is formed by blue mountains in the distance. The bright surface of the river, which is here of tolerable breadth, is traversed in all directions by boats rowed by negroes, and its banks are bordered with thickets, meadows,

and pleasant habitations. From this spot a painter might make a charming picture of the town and its environs. Our journey was this day very troublesome; partly because our beasts had become restive from their long repose, and partly because we passed many *fazendas* where we were detained by the opening of the fences, made on account of the cattle, and our beasts of burden were thus thrown into disorder. We saw in this neighbourhood very fine horned cattle; indeed, throughout all Brazil, these useful domestic animals are large, very muscular, handsome, and well proportioned. The hides of Buenos Ayres, Monte Video, Rio Grande, and other provinces of Portuguese and Spanish America, are celebrated for their great size. The oxen here have also much larger horns than those of Europe. Numbers of horses are likewise bred in these parts.

The country was diversified and agreeable: we met, besides, with some new subjects of natural history, among which were a great number of the beautiful bluish kingfisher (*alcedo alcyon*, Linn.), several of which we killed. About noon we reached the house of a lieutenant, in whose absence we were well received by his wife. When we were preparing to depart in the morning, the lieutenant, who had arrived during the night, ordered his horse to be saddled, and accompanied us to Villa de St. João da Barra. The weather was uncommonly hot: the shallow pools in the woods, which were nearly dried up, were thickly covered with yellow and whitish butterflies, which frequent them for the sake of moisture. These congregations of butterflies in damp places are a sure indication of the approach of the hot season: large flights of them are often seen hovering like clouds in the neighbourhood of water.

The view of the Paraíba was intercepted by thickets. The sandy soil proved that we were approaching very near to the sea. Our collection was here increased by some beautiful birds, especially kingfishers; and when we reached the bank of the river, we found

opportunities for a kind of chace wholly new to us, that of the *jacaré*, or alligator of this country, (*crocodilus sclerops*). This animal* lives in all the rivers of Brazil, particularly in those which have not much fall, but on the contrary, marshy places and stagnant creeks. The latter may be immediately recognised by certain large-leaved aquatic plants, such as the *nymphæa*, *pontederia*, and others, which shoot up from the bottom, and spread their leaves horizontally on the surface. It is among these that the *jacaré* must be sought; there the practised observer discovers its head, which it raises, watching for prey, above the water. It is sometimes found also in the middle of rivers, especially in nearly stagnant, or slowly-running streams. Thickets of the slender stems of a tree eighteen or twenty feet high, with large, woolly, heart-shaped leaves (probably a *croton*), very nearly akin to the *tridesmys* (*monœcia*), cover the banks of the Paraiba. Between them you may softly approach the bank, and perceive the *jacaré* with its head above the surface, warming itself in the sun, and lurking for prey. As we at first rode to the river without thinking of these animals, and did not observe the necessary silence, we merely heard the noise they made in plunging down; but on approaching cautiously to see whence the noise proceeded, we perceived that it was made by the *jacarés*. With my double-barrelled gun, loaded with shot of a middling size, I wounded one of these animals in the neck; it raised itself, turned on its back, and sunk. Though I was certain that I had given it a mortal wound, I could not devise means to raise it from the bottom of the water; and in the same manner we shot, in a short time, three or four others, without being able to come at one of them. We had not gone far, when we heard some shot fired before us, and found, on riding to the spot, that two

* It seems doubtful whether Azara has described in his *Jacaré* the *crocodilus sclerops*: his descriptions are too vague, and he also states the colour very differently.

of our hunters, whom we had sent before, standing on a bridge over a sluggish stream, had given a *jacaré* two wounds in the neck and killed it. Some fishermen's huts being near, we procured a man with a boat, and a large three-pronged iron fork, with which he groped about at the bottom of the water, pierced the animal, and brought it up.

The length of this *jacaré* was about six feet; the colour was a greenish grey, with some dark transverse stripes, especially on the tail; the belly was of a bright yellow without mixture. We were greatly rejoiced at securing this handsome animal, which was still new to us; we loaded it on one of our mules, whence it diffused all around an extremely disagreeable musky smell. The *jacaré* of the east coast of Brazil is far inferior to the gigantic crocodile of the old world, and even to those met with in the countries of South America nearer to the Equator. Humboldt found the body of the latter covered with various birds; and on the head of one of them, even the tall flamingo had very oddly chosen its station. The *jacarés* are very numerous in the Paraiba, and are sometimes eaten by the negroes. Many fabulous stories are related of their voracity, but the kind here spoken of, which is at the most eight or nine feet long, is not feared, though some of the fishermen shewed marks on their feet, which they said were caused by the bite of this animal; at any rate it is probable enough that they may, as we were told, have seized and devoured a dog that was swimming across the river. In the almost stagnant stream near the above-mentioned bridge, they were so numerous, that we could always count several at a time; but as we fired at some of them at too great a distance, we made them shy, and could not obtain any more than the specimen first shot. Near the stream we found in the sandy soil, bushes of the *eugenia pedunculata*, a well-known beautiful shrub, which produces the pleasant, red, fleshy, quadrangular fruit, known in the country by the name of *pitanga*.

It grows singly on its foot-stalk, and the whole shrub is covered with it; we found it very refreshing on this occasion. The cashew-trees, (*anacardium occidentale*, Linn.) were now in blossom. In a meadow near them, we observed a fine ram with four horns.

At length we reached the town of St. João da Barra, situated near the spot where the Paraíba discharges itself into the sea. Through the interference of our companion, the lieutenant, the *Casa da Camara*, the building destined for the residence of the officer of the crown, was assigned to us. It is a spacious edifice, with many good rooms and a court-yard planted with orange and goyava trees (*psidium pyriferrum*, Linn.) some of which were now in flower. St. João da Barra is a village which cannot be compared with St. Salvador, as it has only one church, unpaved streets, and houses of one story, built of wood and clay. But on the other hand the river is navigable for tolerably large ships, brigs, and *sumacas*, and has an immediate communication with the sea. All vessels bound to St. Salvador must pass this place, though the arm of the river near the village itself is shallow, and the proper channel is on the other side of some islands. The inhabitants are chiefly fishermen and mariners, to whom the trade of St. Salvador in the productions of the country affords subsistence. Our hunters who had gone before, and whom we found on our arrival in the town, had killed several animals, and had also brought a couple of armadillos (*dasyppus*) alive. These singular animals are very common in Brazil, and there are various species of them. That which we now possessed alive is called here *tatú peba*, but in most parts the common or real *tatú*, *tatú verdadeiro*, and when roasted is very good eating. We had separated the two animals during the night, and put one in a sack, the other in a strong cellar. When we went to feed them in the morning the first had got out of the sack, worked its way through the thick clay-wall of the house, and escaped.

We stopped two days at St. João to prepare our *jacaré*, which kept

us employed a whole day without intermission. After we had finished this operation we resumed our journey. The *juiz*, judge or burgo-master, had furnished us with four large boats and watermen to convey our baggage over the Paraiba. The wind agitated the broad surface of the river so much that small boats would have been in danger of upsetting. We constantly heard the near surf of the sea, while we rowed far down the river round an island covered with fine thickets. Here grew among others a beautiful shrub-like *cleome*, with bunches of large yellowish white flowers and purple stamina; the *malvacea*, twelve or fifteen feet high, with large pale yellow blossom, and heart-shaped leaves; the *aninga*, a remarkable species of arum with a tall stem, (*arum liniferum*, Arruda) with large egg-shaped fruit, and a white flower.

We next crossed the second arm of the river, and then rowed through a small channel between two islands, in which the water, sheltered on all sides by high woods, is quite stagnant, and therefore inhabited by many *jacarés*. As the boat slowly proceeded, we looked eagerly around for them. The *conocarpus* and *avicennia*, with their bare arched roots, springing at a considerable height from the trunk, form on the bank a strange kind of entangled texture. Among these roots we sometimes saw the *jacarés* basking in the sun, on old trunks of trees and stones on the bank. My piece was always ready loaded for them, but I had not for some time an opportunity of firing. The boat often rocked, and before it recovered the equilibrium necessary for taking a good aim, the animal had plunged into the water again. At the end of the channel we found on the shores of the islands the bluish kingfisher very frequent; great numbers of birds very much resembling our cormorant were also diving here, but they were rather shy. Without being able to make any more important discoveries here, we were obliged to be content with having found two species of *fucus*, which we met with also near Rio de Janeiro, (*fucus lendi-*

gerus, Linn. and an intermediate kind between *fucus incisifolius* and *latifolius*, Turn. *Hist. Fuc.*) In a long narrow creek behind the downs, we had the good fortune to shoot one of the diving cormorants. To the north of this place the coast, at some distance from the beach, is overgrown with many kinds of shrubs, among which the most frequent are the *pitangeira*, (*eugenia pedunculata*,) a new species of *sophora* with yellow flowers, the hexagonal *cactus*, and many other varieties of this genus stunted by the wind. Accompanied by Messrs. Freyreiss and Sellow, I preceded our train, and we reached before night the *fazenda Mandinga*, which stands detached on the sea-shore. Our people, who were detained by a narrow channel, did not arrive till the next morning. Here we met with the post, which goes from Rio to Villa de Victoria, but no farther northward, and received letters, which afforded us an agreeable occupation for the evening.

From Mandinga we proceeded northwards along the strand, wading through deep sand which is constantly wetted by the sea. This way over the sand is convenient and agreeable to the rider, but the mules and horses, which are not yet accustomed to the sight and noise of the rolling surf, are often averse to this convenient route. A *tropa* passing over the smooth white sand, on the edge of the blue ocean, is a pleasing sight, when beheld from a considerable distance; for unless where the coast makes a great bend, you may see to so great a distance before you, that the animals look like little points. On the projecting tongue of land, where the coast is exposed to the most violent dashing of the surf, stones are found which are often perforated in the most extraordinary manner by the water. Some kinds of plover and sand-pipers animate the coast, on which there are found but few species of shells and fucus. After we had proceeded some leagues along this beach, a path led us to some *lagoas* surrounded by woody eminences. Our whole train suffered from excessive thirst;

we all dismounted therefore to refresh ourselves, but to our great mortification found the water in these *lagoas* rendered brackish by the overflowing of the sea into them ; and a couple of clay huts, where we hoped to be able to quench our thirst, were abandoned by the inhabitants : however the *pitangas*, which grew in great abundance in the neighbourhood, indemnified us in some measure for the disappointment. A path turning from the sea into a thick copse soon led us into a lofty forest. I rode before our train, observing the beautiful plants, and my thoughts engaged with the Tapuyas, who sometimes infest these parts, when to my no little astonishment, I suddenly beheld two naked brown men before me. At the first moment I took them for savages, and was going to prepare my double-barrelled gun to defend myself against any attack, when I perceived that they were lizard-hunters. The planters who live scattered in these wildernesses, are very fond of the flesh of the large species of lizard, called in the *lingoa geral* of the Indians of the coast *teiú* (*lacerta teguixin*, Linn.) They often go out therefore among the thickets and woods in search of these animals, with a couple of dogs trained for this particular purpose. When the dogs approach a lizard, it darts with the rapidity of an arrow, into the hole under-ground, which serves as its abode, where it is dug out and killed by the hunters. The heat being great, these men, whose skin over the whole body was burned so brown by the sun that they might well pass for Tapuyas, went without any covering. They carried axes, and had a couple of lizards, which they had killed, nearly four feet in length, including the very long tail. These hunters, who were well acquainted with the country, assured us, that in less than an hour, we should reach the *fazenda* of *Muribeca*, where we intended to pass the night. We accordingly soon passed through the fence which marked its boundary. In the shade of the lofty forest we found beautiful plants : the fine *convolvulus* with azure blue flowers twined round the shrubs to a great

height. The *juo** uttered his deep loud whistle, in three or four notes: he is heard at all hours of the day and even at midnight in these immense forests. The flesh of this bird is as well tasted as that of all the other species of the genus, to which the name of *tinamu*, or *inambú*, is usually given.

When we had passed through the wood, we found ourselves in extensive new plantations; upon an eminence where ancient trunks lay felled in all directions, we had a most enchanting view over the majestic wilderness, on the banks of the Itabapuana, which like a stripe of silver issues meandering from the dark forests, and traverses a verdant plain, in the middle of which rises the great *fazenda* of *Muribacca*, surrounded by extensive plantations. All around, immense forests border the horizon. The numerous negroes working in the plantations, gazed with astonishment at our train, emerging from the wood, like an apparition from another world.

We first reached *Gutinguti*, which, together with *Muribacca*, is denominated the *fazenda de Muribacca*: it formerly belonged, together with a tract of country nine leagues in length, to the Jesuits, who erected these buildings; but it is now the joint property of four individuals. Here are still three hundred negro slaves, among whom however there are not above fifty able-bodied men, who are under the superintendence of a steward, a Portuguese by birth, who received us in a very courteous manner. The labour to be performed here is very fatiguing for the slaves; it chiefly consists in clearing the woods. The plantations are of mandioca, millet, cotton, and some coffee.

* The *tinamus noctivagus*, a new, hitherto nondescript species of the *tinamú* or *inambú*. It is smaller than the *macuca* (*Tinamus Brasiliensis*, Linn.) thirteen inches five lines long; upper part grey brown; back rather chesnut brown; crown of the head deep ash blue, with blackish spots; lower part of the back and rump reddish, rusty brown; but all these parts of the back are striped transversely with dark brown; throat whitish, lower part of the neck ash-grey; breast bright, brownish yellow; belly of a paler colour.

The Itabapuaana, a small river, runs past Gutinguti, and when at its height waters the meadows. The *Corografia Brasilica* erroneously calls it the *Reritigba*, which however is the Benevente; it rises in the Serra do Pico, not far from the sources of the Muriahé. The extensive forests which surround Muribeca are inhabited by wandering Puris, who here, and about a day's journey further to the north, manifest a hostile disposition. They are supposed, not without reason, to be the same that live on good terms with the planters near St. Fidelis. No farther back than the August preceding our visit, they attacked the herds of the *fazenda* here on the Itabapuaana*, and shot out of malice thirty oxen and a horse. A young negro tending the cattle was cut off by them from his armed companions, taken prisoner, killed, and as is here asserted, roasted and devoured. It is supposed that they separated the arms and legs, and the flesh from the body, and took them along with them; for the head of the negro boy, and the trunk stripped of the flesh, were found soon afterwards on the spot, but the savages had precipitately retired into their forests. The hands and feet, which had been roasted and gnawed, were also recognised, and marks of the teeth were said to be still visible on them. The steward, who is exposed to these attacks of the savages, expressed the most inveterate hatred against them, and repeatedly declared, that he should like to shoot our young Puri. "It is inconceivable," he added, "that the government does not adopt effectual measures for the extermination of these brutes; if we go ever so short a distance up the river, we are sure to meet with their huts." It is certainly disagreeable to have them so near; but it should be recollected that the planters, by their previous ill-usage of the aboriginal inhabitants, were the chief cause of their hostile dispositions. In

* This river is distinguished in several maps by the name of the Comapuan; some of the inhabitants call it occasionally Campapoana; but its true name is that given in the text.

early times, avidity of gain, and thirst of gold, extinguished all feelings of humanity in the European settlers ; they regarded those naked brown men as beasts, created merely for their service, as is demonstrated by the controversy occasioned even among the clergy in Spanish America, by the question "whether the savages were to be considered as men, like the Europeans, or not?" of which Azara speaks in the second volume of his Travels. That the Puris do in fact sometimes eat the bodies of their slaughtered enemies, is attested by various witnesses in this part of the country. Father João, at St. Fidelis, assured us, that he had once on a journey to the river Itape-mirim, found in the forest the body of a negro, who had been killed by the Puris, without arms and legs, and round which a number of carrion vultures had assembled. We have observed above, that the Puris would never confess to us that they eat human flesh ; but after the authentic testimonies that have been adduced, their own denial cannot have much weight. Our Puri too acknowledged, that his tribe fix the heads of the enemies whom they have killed upon a pole, and dance round them. Even among the Coroados in Minas Gerais, as Mr. Freyreiss affirms, a custom prevails, of putting an arm or foot of an enemy into a pot of *caii*, which is afterwards sucked out by the guests.

During our stay at Muribacca we made numerous additions to our collections of natural history. Notwithstanding the frequent rains, our hunters made good use of the intervals in which the weather was more favourable. In the great woods and marshes on the banks of the Itabapua, the Muscovy duck (*anas moschata*, Linn.), which we had not before met with, built its nest. This beautiful creature, which is frequently seen tame in Europe, is distinguishable by the blackish red, naked, carunculated skin about the eye and the bill ; the whole plumage is black, variously tinged with green and purple ; the scapulars of the wings are snow-white in old birds, but in the young ones

black. The old male is very large and heavy, and his flesh rather tough; young ones, however, are good eating, and therefore very welcome to the hunter.

We Europeans often met with great difficulties in our hunting excursions in the marshy, woody country, upon the banks of the river; our half-naked Indian hunters, however, penetrated far more easily into these wildernesses. Three negro slaves of the *fazenda* also offered to hunt for us: we gave them fowling-pieces and ammunition, and they brought in every evening a number of animals, which were then divided. Among these were herons, ibisses, ducks (*moschata* and *viduata*), the *ipecutiri* of Azara, or the green-shouldered duck, the royal heron (*garça real*), a beautiful, hitherto imperfectly-described species, with a yellowish white body and a fine blue bill*, the great and the little egret, with their dazzling white plumage, and many others. The Itabapuana likewise afforded us various rarities. In a walk up the river, Messrs. Freyreiss and Sellow were amused by the sight of a large company of otters (*lutra Brasiliensis*), *lontras*, which sported in the water before them, without any signs of alarm. The Brazilian otter differs from the otter of our European rivers, chiefly in having its tail rather flattened, as Azara also observes; a characteristic generally not retained by stuffed specimens, and therefore overlooked in works on natural history. Its skin is very soft and beautiful. In the principal rivers of the interior of Brazil, for instance, the Rio St. Francisco, they attain a prodigious size: they are called there not *lontra*, but *ariranha*. We secured one of these large otters in the following manner. Information was brought to us, that a large dead animal, with human hands, was lying in the water. We went to the spot to examine what strange creature this might be, and

* *Ardea pileata*, Latham; or, *le heron blanc à calotte noire*. Buffon, Sonnini, vol. 21. p. 192.

found an immensely large otter, between five and six feet long, which was indeed dead, but still sufficiently fresh to be added to our collections. We could not discover what might have been the cause of the animal's death, as it appeared to have no external injury.

Higher up the Itabapuana, *jacarés* are also found. The woods resounded with the cries, resembling the sound of a drum, of the roaring ape (*mycetes ursinus*), and the loud hoarse voice of the *saiiassú* (*callithrix personatus*, Geoffroy), which were very common in these parts. Our hunters sometimes shot four or five of these handsome apes in a short time; for when they discovered a company of them, they fired quickly and loaded again, while one or more of them endeavoured to keep the animals in view in their flight over the branches. The *saiiassú* has not yet been delineated in any work on natural history. It is prettily marked: the head and the four feet are black; the body of a pale brownish grey; the long slender tail of a reddish yellow. Several of these monkeys carried their young on their backs, and we soon found that it was easy to bring them up tame. Among the birds which we shot, there was a remarkably beautiful species of woodpecker, which I call *picus melanopterus*. The whole of the plumage is white, excepting the wings, back, and part of the tail, which are black; and the eye is encircled with naked orange-coloured skin.

At Campos we had engaged two hunters, who had gone forward to the *barra* of the Itabapuana, with directions to try their luck there, and to rejoin us at Muribacca. As the time which we had allowed them had long expired, and they had our best fowling-pieces, we were under no small apprehension that they might have run away with them. We therefore manned a boat with our people, who proceeded down the river to its mouth, surprised the hunters, who were off their guard, took the fowling-pieces from them, and let them go about their business.

The journey from the Itabapuana northward requires some precaution, because the traveller has to pass over a tract of six or eight leagues to the river Itapemirim, where the Puris have always shewn a hostile disposition. As they had already committed several dreadful murders in this district, it was found necessary to establish a military post, called the *quartel*, or *destacamentô das barreiras*. The steward of Muribecca resolved to accompany us himself to that post. We proceeded through lofty ancient forests, alternating with open sandy tracts, in which we observed numerous traces of the *antas*, or American *tapir*, and of deer. At length we reached the sea-beach, where we saw an extensive gentle bend of the coast, terminating at a great distance in a tongue of land, where the *quartel* appeared, standing on the elevated coast. As this tract is often infested by the savages, we had well armed ourselves, and in case of an attack had twenty pieces ready for our defence. Several of our people had even made cartridges, that they might reload the more speedily. The soldiers belonging to the station usually go out and meet travellers, when they observe at a distance a *tropa* advancing over the white sand of the beach; accordingly, after we had proceeded about a league along the coast, we met a patrol of six men, most of them negroes or mulattoes, whom the officer of the station had sent to meet us.

About noon our train reached the station, where the ensign who commanded it gave us a very hospitable reception. This post consists of an officer and twenty militia-men, who are armed with muskets without bayonets. Upon this eminence, directly over the sea, two clay houses have been built, and some mandioca and millet planted, for the subsistence of the soldiers. The coast has in this place high perpendicular cliffs of clay (called *barreiras*), on the top of which the *quartel* is erected; it therefore affords a noble prospect of the sea, as well as northwards and southwards along the coast,

where the *tropas* of travellers may be seen approaching at a great distance.

On the land the buildings are closely encompassed by a gloomy ancient forest, in which a beginning has been made to form plantations. In August, of course only two months before our arrival, the Puris had ventured to attack this post. They came for the purpose of plundering the plantations of the soldiers; and an action ensued, in which they posted themselves behind thickets and trees: the result was, that one of the soldiers and two of their dogs were wounded; but the Puris lost three men, who were carried off, dead or wounded, by their companions. Since that time the station has remained undisturbed, and the savages have not appeared again in this part of the coast. The arrows of the Puris were collected, and are preserved at the station as trophies.

The officer who commands at this station sends a permanent post of three men to Itabapuana, at the mouth of the river. This detachment is fixed here for an indefinite period, and had been on duty nearly a year: in truth, a disagreeable service in a wilderness where even the provisions are wretched, and the habitations only clay huts, covered with palm-leaves. The house of the officer is indeed spacious, containing several rooms, furnished with wooden tressels; but the roof is so decayed, that it does not keep out the rain. The establishment of this station was occasioned by the massacre of six persons near this spot on the sea-beach below. About six years ago, seven persons returning from Itapemirim, where they had been to church, were attacked by the Puris, and one man only out of the whole company had the good fortune to escape. A young girl, who had fled at the first onset, was overtaken, and cruelly murdered. Their bodies were afterwards found, with the arms and legs separated, and the flesh cut from the trunk. Soon after, the Puris took a soldier in

this neighbourhood, and killed him likewise. The commanding officer gave us much interesting information respecting the Puris. He assured us that these savages were at present really very desirous of living at peace with the Portuguese; which entirely coincides with the wishes they expressed to Mr. Morães at St. Fidelis. Such a good understanding would be very advantageous for this coast; for as the inhabitants live much dispersed, they are constantly exposed to the cruel attacks of those unfeeling barbarians, and the country is in danger of becoming desolate, unless other measures be adopted. The savages, as masters of these forests, appear suddenly, first in one place and then in another, and vanish as suddenly, as was experienced in the attack at Ciri: they are acquainted with all the lurking-places in the woods, are cunning and crafty, are accurately acquainted with the weak sides of the Portuguese planters, and many of them have also some knowledge of their language.

On the day that we halted at the station, we traversed the neighbouring woods and marshes, accompanied and guided by the soldiers. Our whole booty consisted of a few ducks, and a bird which was new and interesting to us, and belonged to the family of the *cotingas**. On the coast the great sea-tortoises, which in spring seek the shore, were swimming about, and slowly raising their large round heads above the surface of the water. At night a violent storm arose, and the rain poured down in torrents; from which the shattered roof of our abode afforded but an indifferent protection.

On the following very gloomy day, we had a most disagreeable specimen of the negligence shewn in keeping up the only way along the coast, on which there are neither bridges, nor passable roads:

* *Procnias melanocephalus*: the head black, the iris of the eye of a cinnabar red; all the upper parts are linnet-green, the lower yellowish green, with darker transverse stripes; 8 inches 7 lines long.

close to the huts of the station was a place where we were in danger of losing some of our best mules. As we had still to travel four leagues, through the district infested by the Puris, between the rivers Itabapua and Itapemirim, we took care to march in a compact body, and proceeded slowly under military escort, upon a firm and perfectly level sandy plain along the high cliffs of the coast, which consists of yellow or white, and reddish brown clay*, and of strata of ferruginous sand-stone.

In the clefts or ravines, and on the high ridge of the coast, the country is every where covered with forests, into which nobody ventures to penetrate far, on account of the savages: we had nothing to fear, having twenty pieces ready to receive them, though our people beheld with horror the spot where the savages had torn in pieces their six unhappy victims. In a few hours we reached, on a low part of the coast, the *Povoação Ciri*, which is now entirely abandoned. The Puris or other Tapuyas suddenly attacked this place last August, murdered three persons in the first house, and spread such consternation, that all the inhabitants immediately fled: only a couple of houses, beyond a small *lagoa*, are still inhabited, their well armed inmates thinking themselves safe there. The savages carried off such iron utensils and provisions as they could find, and then retired again into their woods. After this surprise, the *Sargento Mor* (*Major*) of Itapemirim, with fifty armed men, made an excursion into the woods to look after the Puris. He found a broad road convenient for horsemen, which led to some huts, and thence further into the interior; but met with none of the Indians, and was soon obliged to return, for want of provisions.

* According to the analysis made by professor Hausmann of Göttingen, this fossil, which is a principal constituent of a great part of this coast of Brazil, is of the species of *lithomarga* (stone-marrow), among which the Saxon *terra miraculosa* is also reckoned. It agrees in all its characteristics with the *lithomarga*.

Beyond the *lagoa* of Ciri, at the inhabited houses just mentioned, our four soldiers took leave of us. We now quitted the lake, and entered a beautiful wood, and here and there met with plantations. These, it is true, are also exposed to the attacks of the savages, but the inhabitants are sufficiently provided with arms. As we proceeded, the forest became more and more beautiful, lofty, and romantic; the tall slender stems form an umbrageous texture, so that the path, overgrown on all sides, resembles a narrow, dark, embowered walk. We frequently saw falcons, particularly the *falco plumbeus*, Linn., which is very common here, sitting on the tops of the high withered branches of old lofty trees, on the watch for prey. The white kite with the forked tail (*falco furcatus*, Linn.) one of the most beautiful of the birds of prey of this country, frequently hovered over this fine forest. We should have had great pleasure in hunting here, had not the innumerable moskitoes been so troublesome: our hands and faces were immediately covered with them, and the horses and mules suffered particularly from the gad-flies (*matuccas*.) We soon reached open meadows, where the marshes and *lagoas* were full of ducks, gulls, and herons. About noon we reached the river Itapemirim, on the south bank of which lies the *villa* of the same name. It is seven leagues from Muribacca, is a small newly-built place, and contains some good houses, but cannot be called more than a village. The inhabitants are partly poor planters, whose plantations are in the neighbourhood, partly fishermen, and a few mechanics. The captain commandant, or Captain Mor, of the district of Itapemirim generally resides at his *fazenda*, which is not far off; and in the town itself lives a Sargento Mor of the militia. The river, in which some small brigs were lying, is very narrow, but causes some trade in the produce of the plantations, consisting of sugar, cotton, rice, millet, and wood from the forests. A thunder-shower, which fell in the mountains, shewed us how rapidly and dangerously the waters of the torrid

zone are sometimes swollen ; for the river all at once rose to such a height as almost to overflow its banks : it is, however, always rather more considerable than the Itabapua. The mountains from which it descends are seen at a great distance with remarkable jagged peaks : they are called Serra de Itapemirim. They are celebrated for the works for washing gold, called Minas de Castello, formerly established in their neighbourhood, five days' journey up the river. That district was however so disturbed by the Tapuyas, that the few Portuguese settlers left it about thirty years ago, and took up their abode in the town and its vicinity. The country higher up the Itapemirim is inhabited by the rude hordes of the Tapuyas, but chiefly by the Puris, and as the inhabitants assert, by another savage tribe, whom they call Maracas : the murder at Ciri is attributed to these last. The Botocudos however, who are the real tyrants of these wildernesses, still make excursions to a considerable distance down the river. It is related that after a great noise and outcry had been heard in the neighbouring forest, by the inhabitants of a *fazenda* situated on the river Muriahé, some wounded Puris came and sought protection from the Portuguese, saying that the Botocudos had attacked and killed many of their people. From all these circumstances it is evident at any rate, that these forests are full of independent, hostile savages. The Tapuyas are stated to have killed forty-three Portuguese settlers on the Itapemirim, within fifteen years. A road has however been opened through these dangerous wilds, which leads from the Minas de Castello to the frontier of Minas Geraës, about twenty-two leagues distant.

The Captain Mor of the district gave us a very kind reception, after we produced our passports; he sent an abundant supply of provisions, wood, water and all other necessities, to our dwelling, for which we thanked him in person at his *fazenda*. This country-house lies on the river, surrounded with beautiful meadows, in which a great number of cattle of all kinds were grazing.

We quitted this place after a stay of some days. At a little distance from the town we crossed the river, near the place where it falls into the sea. In the marshes here, we frequently met with the *jatropha urens*, which was far more painful to the naked feet of our hunters than the most stinging nettles, as the little bristles of that plant pierce through the clothes. In the marshy hollows, and on the banks of the rivers along the whole coast, the beautiful blood-red *tije* (*tanagra Brasilica*, Linn.) is very common; but in the mountains and great forests of the interior it is much more rare. At the mouth of the Itapemirim we found large flocks of a kind of gulls, as well as sea-swallows in great numbers. Plovers and sand-pipers animated the coast, where we frequently found in the sand, the little goat-sucker, and in the woods a larger species of that bird. According to Marcgraf, the Brazilians in the neighbourhood of Pernambuco call these birds *ibiyau*; but in the part of the coast which I visited they are denominated *bacurau*.

The heat being very intense, we suffered much from thirst, which our young Puri taught us an infallible method of allaying. This was to break off the middle stiff leaves of the bromelias, in the corners of which very good water from the rain and dew collects; and this nectar is caught by applying the plant quickly to the mouth.

On the projecting points of the coast, we this day found stony hills, upon which grew a great number of slender wild cocoa-palms, the fine leaves of which proudly waved in the fresh sea-breeze. The oyster-eater was every where common, as well as plovers and sand-pipers. In a beautiful ancient forest we were highly amused with the loud notes of various birds, among which, as the evening approached, an owl (*curujé*) was also heard; parrots screamed aloud, and the sweet call of the *juo* (*tinamus*) resounded far off in this multitudinous concert, through the solitary wilderness. We took up our night's lodging at the *fazenda de Agá*, where mandioca, cotton, and

coffee, are cultivated. Extensive woods, filled with all kinds of wild beasts, nearly adjoin the plantations on the land side. In the preceding night, a large ounce (*yaguarete*, *felis onca*, Linn.) had killed a mare belonging to the proprietor, whose hunters, with their dogs, had in vain searched the neighbouring forests. Not far from the *fazenda*, a lofty rounded insulated mountain, called Morro de Aga, rises from among the contiguous woods. It consists of rocks and steep naked precipices, and is surrounded by high hills; its summit is said to command a magnificent prospect. Near the dwellings I found a little marsh, where I was astonished, at night-fall, by the remarkable voice of a frog hitherto unknown to me: it sounded exactly like a tinman or brazier working with his hammer; only the sound was on the whole deeper or fuller. It was not till long afterwards that I became better acquainted with this animal, which, on account of its voice, is called by the Portuguese the smith. Another curiosity, was a thick bush, of a kind of *heliconia*, which we had not yet seen; and which constantly bends down the stalks of its flowers archwise, at a certain height, and then turns up the end again; many flowers, with scarlet calices, cover the crooked part of the stalk, which is of an equally fine colour. This magnificent shrub formed a perfect bower. The sea-beach at this place afforded a few bivalve shells and snails.

Near Aga we came to the *Povoacao* Piuma or Ipiuma, where a rivulet of the same name, which is navigable for canoes only, discharges itself into the sea. At this place there is a wooden bridge three hundred paces in length, suited to the most enlarged state of the rivulet, a real curiosity in these parts. The banks of this stream are covered with thick bushes, and its water is of a dark coffee colour, like that of most of the forest streams and little rivers of this country. Humboldt remarked the same of the Atabapo, Temi, Tuamini, Guainia (Rio Negro), and other rivers. In his opinion they receive this singular colour from a solution of carbonic hydrogen,

from the luxuriance of the tropical vegetation, and the great quantity of vegetable matter impregnating the soil over which they flow.

As we crossed the bridge the Indians, with their characteristic dark brown faces, were attracted by curiosity to see the strangers. A Spanish sailor settled here acted as host, addressed us immediately in several languages, which he spoke imperfectly, talked of all the countries which he had seen, and hinted pretty plainly that we were English. In the valleys, and even on dry eminences, there are frequent thickets of a strong kind of fanlike reed, sixteen or eighteen feet high, which bears on a rather compressed stem, a beautiful fan of lanceolated smooth-edged leaves; these rise nearly from one common point, and from their centre shoots a long stem, from which the flowers are suspended like a little flag. This beautiful kind of reed is here called *uba*, farther north, on the Rio Grande de Belmonte, *canna brava*, and is used by the savages for making arrows. Such thickets of reeds form an impenetrable mass, and cover whole districts.

In a little pleasant valley we found a wood of noble shady trees, such as *cecropia*, *cocos*, *melastoma*; among them flows the dark-brown rivulet Iriri, over which is a picturesque bridge of trunks of trees. Toucans and the *maitacca* (*psittacus menstruus*, Linn.) were common here, and were shot by our hunters. Monkeys fled so quickly through the branches of the trees, that we could not touch them. In the hollow of an old trunk we discovered a prodigious bird-spider (*aranha caranguejeira*), which we intended to fetch when we had reached our quarters, but were afterwards prevented from doing so. We rode through a hilly country, presenting alternate woods and meadows, and arrived towards evening at the last eminence, on the river Benevente, where we were suddenly surprised by a beautiful prospect. At the foot of a hill, on the north bank, we saw the Villa Nova de Benevente, a village; on the right the blue mirror of the ocean, and on the left the river Benevente, which expands like a

lake; but all around are gloomy lofty woods, behind which rocky mountains bound the horizon. Villa Nova de Benevente was founded on the river Iritiba, or properly Reritigba*, by the Jesuits, who here collected a great number of converted Indians. Their church and the convent immediately adjoining it, still exist: the latter, which was assigned for our lodging, is at present applied to the purpose of the *Casa da Camara*. It stands on an eminence above the town, and affords, especially from the balcony on the north side, a delightful prospect. The sun was just sinking into the dark blue ocean that lay before us, and changed its expanded surface into a sea of fire. The convent bell tolled for the ave-maria, and all who heard it took off their hats to repeat their evening prayers; stillness reigned in the wide plain, and nothing but the voice of the *tinamus*, and other wild animals, on the other side of the river, interrupted the solemn silence of the nocturnal scene.

We saw several neat little brigs at anchor in the harbour of Villa Nova, which led us to the erroneous conclusion, that a considerable traffic must be carried on here; but we were soon convinced of our mistake. There is very little trade, and these vessels had merely sought shelter from the unfavourable wind. The Jesuits had originally collected six thousand Indians here, and founded the largest *aldeia* on this coast: but most of them were driven away by the hard service exacted for the crown, and by the slavish manner in which they were treated; they dispersed into other parts, so that the whole district of Villa Nova, including the Portuguese settlers, has not above eight hundred inhabitants, of whom about six hundred are Indians. Though the population has so much decreased, yet commerce has since improved: for only twenty years ago, the exports did

* In Faden's map the river is called *Iritibu*, in Arrowsmith's *Iritiba*: the Villa is not marked in either of these maps.

not amount to above 100,000 reas, whereas they are now increased to 2000 crusadoes, exclusive of the amount of the sugar exported. The free wild Indians formerly harassed this colony on the Iritiba exceedingly, especially the Goaytacases, and the tribes of the Tapuyas, by which are particularly meant the Puris and Maracas; but the priest assured us, that these savage hordes had not appeared since a great festival, with processions and religious ceremonies, had been annually celebrated in the whole district in honour of the Holy Ghost.

Villa Nova itself is a small place, with some good houses, but which was more lively on Sunday, because all the inhabitants or the neighbouring country repaired thither to mass. The captain of the militia commanding in this district belongs to the regiment of Espirito Santo, of which the chief officer is Colonel Falcao of Capitania. He came on Sunday to visit us, and on our enquiring for good hunters, had the politeness to send us some men acquainted with the country; besides these, we had occasion to engage an Indian who was an expert hand. These persons procured us several interesting animals, among which were many *sauassu* monkeys, whose loud voice is frequently heard on the banks of the river. Two of our hunters found in the wood a large venomous serpent. It lay quietly in a hollow, where it was not easy to get at it; one of them therefore mounted on a low tree, from which he shot the animal. This beautiful serpent is called in this country *çurucucu*, attains the length of eight or nine feet and a considerable thickness, is of a pale reddish yellow colour, with a row of lozenge-shaped spots on the back. The form of the shields, scales and tail, shews that it is the great viper of the woods of Cayenne and Surinam, described, though rather incorrectly, by Daudin, under the name of *lachesis**. Its bite is much dreaded, and persons who are wounded by it are said to die in less than six hours.

* Marcgraf mentions this reptile by the name of *çurucucu*.

Proceeding from the Iritiba, we next came to the river Goaraparim. Marshy meadows and bogs extend nearly to the sea-shore, alternately with thickets; and noble forests occasionally delight the traveller. We continually heard the roaring of the sea, the hilly shores of which are covered with woods. The path was overgrown like a dark bower; it was bordered by majestic ancient trees, their bark covered with a world of plants, and their branches with fungi and lichens; young cocoa-palms adorned the underwood of the thicket, interlaced with creeping plants, the fresh foliage of which, exhibiting the most beautiful red or bright green tints, was just breaking forth; and far above our heads the feathery crowns of older palms waved in the air, while their stems bent creaking, backwards and forwards. At one place we met with an extremely beautiful grove, consisting entirely of *airi* palms. Young vigorous trees of this species, from twenty to thirty feet high, rise with their straight dark-brown stems, surrounded with thorny rings: their beautifully feathered leaves screened the damp ground from the scorching noon-tide sun; while younger ones, which had not yet any stem, formed the brush-wood, above which old dead palms, withered and decayed, projected like broken columns. Upon these trees, devoted to destruction, the solitary yellow-hooded woodpecker (*picus flavescens*, Linn.) or the beautiful species with the red head and neck (*picus robustus*)* was at work. The flower of the flame-coloured *heliconia* covered the low bushes near us, round which twined a beautiful convolvulus, with the finest azure-blue bells. In this magnificent forest the ligneous creeping plants again shewed themselves in all their originality, with their curvatures and singular forms. We contemplated with admiration the sublimity of this wilderness, which was animated only by toucans,

* This name was given by the Berlin naturalists, after Azara had described this bird in the 4th vol. of his Travels, p. 6, where he calls it *charpentier à huppe et cou rouges*.

pavos (*pie à gorge ensanglantée*, Azara), parrots, and other birds. Our hunters were busy in all directions, and filled their pockets with game. Beyond this wood we reached the Povoação de Obu, consisting of some fishermen's huts, two leagues from Villa Nova. Such dwellings, embowered in woods or thick bushes, are frequently more picturesque than others in open spots. A Povoação (a village without a church) named *Miaipé*, inhabited by sixty or eighty families of fishermen, afforded lodging for our company in the evening. We had taken up our quarters in a house which stood rather high, whither several persons immediately repaired, who gazed with particular admiration at our savage Puri, and watched all his motions. We were well received in this house, which was roomy, and had a large apartment, where we soon had a brisk fire to dry our clothes, which were wet through with the rain. Not far from *Miaipé* lies the Villa de Goaraparim, to which a road leads over rocky hills projecting into the sea. Near the villa a narrow arm of the sea, the water of which is salt, runs up into the country; it is called the Goaraparim, and is often spoken of as a river.

The town has about sixteen hundred inhabitants, and is therefore something larger than Villa Nova de Benevente: the whole district contains about three thousand souls. The streets are not paved, having only ill-paved footpaths next the houses, which are small, and for the most part of one story. The place is in general poor; but there are some large *fazendas* in the vicinity. One of them, with four hundred negro slaves, is called *fazenda de Campos*, and another with two hundred negroes, *Eugenho Velho*. When the last proprietor of the former died, general disorder ensued: the slaves revolted, and ceased working. A priest informed the heirs to the estate, in Portugal, of the ruin of their property, and offered to restore order if they would give him a share in the estate. This was agreed to; but the ringleaders of the slaves murdered him in his bed, armed them-

selves, and formed, in these forests, a republic of blacks, whom it was not easy to reduce. They kept possession of the *fazenda*, but without working much, lived free, and hunted in the woods. Together with the slaves of this *fazenda*, those of the *Engenho Velho* also made themselves independent, and a company of soldiers could do nothing against them. These negroes chiefly employ themselves in collecting some of the principal productions of these forests, such as the odoriferous Peruvian, and copaiva, and another kind of balsam. The latter proceeds from a lofty tree, the *Pao de Olco*. An incision is made in it, and when the sap flows the wound is filled with cotton, which imbibes the resinous matter: it is a common notion that the incision must be made at the full of the moon, and the oil taken away in the wane. The negroes, or Indians, who collect this production, bring it for sale in small wild cocoa-nutshells, the opening of which at the top they close with wax. The balsam is so subtile that in the hot weather it oozes through the thick shell. In its native country more virtue is attributed to it than it really possesses.

The rebel negroes of the two above-mentioned *fazendas* receive strangers in a friendly manner, and are very different in their behaviour from the runaway negro slaves in Minas Geraës and other places, who are there called, from their villages in the woods (*quilombos*), *Gayambolos*. These attack travellers, particularly in Minas, plunder, and often kill them; for which reason they have there Gayambolo hunters, called *capitães do mato*, whose sole business it is to catch the negroes in their hiding-places, or to kill them.

The captain of militia commanding at Goaraparim received us politely, and assigned us a house for our night's lodging. The next morning we crossed the river, not far from the town: it winds, in the most picturesque manner, through thickets of mangroves (*conocarpus*) of a tender green, and is bounded in the distance by verdant hills: on the north bank there is a village inhabited by fishermen. We

rode through large marshes filled with beautiful violet-flowering *rhexia* bushes; and over fine wooded hills full of *airi* and other cocoa-palms, many species of which afforded endless occupation to our curiosity; after which we came to an extensive plot of *uba*, or fan-like reed, near the Perro Cao, and then crossed the little river by a wooden bridge. We followed the sea-beach to Ponta da Fruta, where several houses in a copse form a scattered village, the inhabitants of which, descendants of Portuguese negroes, received us well. They gain a scanty subsistence from their plantations and fishing. Not far from Ponta da Fruta you see on a distant mountain the convent of Nossa Senhora da Penha, near Villa de Espirito Santo, to which you have still five leagues to travel. Woods, meadows, and bushes, and large reedy pools, succeed each other. Numerous white and other herons wade in them, and many new and fine plants attract the notice of the stranger. In the grass, on the sandy bank of a *lagoa*, I found the green *cipo* serpent*, which has its name from its slender pliant figure. It is of a dark olive-green, yellow below, grows to the length of five or six feet, and though it is perfectly harmless, is killed by the Brazilians whenever they find it, because they have an antipathy to all serpents. I found here the skeleton of a very large individual of this species.

Near the little river Jucú, over which there is a long decayed bridge which must be passed with caution, we found upon the coast a village of fishermen; we then rode through a fine ancient forest, and at length reached Villa do Espirito Santo, upon the river of the same name.

* *Coluber bicarinatus*, probably a new species: the chief characteristic of which is a row of keel-shaped scales on each side of the back.

CHAPTER VII.

STAY AT CAPITANIA, AND JOURNEY TO THE RIO DOCE.

Villa Velha do Espirito Santo—Cidade de Victoria—Barra de Jucú—Araçatiba—Coroaba—Villa Nova de Almeida—Quartel do Riacho—Rio Doce—Linhares—The Botocudos, as inveterate enemies.

THE river Espirito Santo, which discharges itself into the sea, and is of considerable magnitude at its mouth, rises in the mountains on the frontiers of the capitania of Minas Geraës, descends with many windings through the great ancient forests of the Tapuyas, in which the Puris and Botocudos alternately rove about, and issues forth at the foot of one of those higher chains of mountains, stretching towards the sea, in which the Monte de Mestre Alvaro is said to be the most elevated point. The settlements of the Portuguese at the mouth of this fine river are of ancient date; they suffered severely from the wars with the Tapuyas, especially with the three tribes of the Uetacas, or Goaytacases, dwelling on the Paraiba. In the last half of the seventeenth century, the district of Espirito Santo contained no more than five hundred Portuguese settlers and four Indian villages. At present we find on the south bank of the river, not far from its mouth, in a beautiful bay, the Villa Velha do Espirito Santo, a little wretched open town, for the most part built in a square. At one extremity stands the church, and at the other the Casa da Camara, (royal

building or town-hall.) On a high hill covered with wood, immediately adjoining the town, stands the celebrated convent of Nossa Senhora da Penha, one of the richest in Brazil, dependent on the abbey of St. Bento at Rio de Janeiro. It is said to possess a wonder-working image of the Madonna, for which reason numerous pilgrims resort thither. At the period of our visit there were only two ecclesiastics on the spot.

It is well worth the trouble to ascend the steep eminence in order to enjoy the inexpressibly grand prospect which there offers itself to the view ; it overlooks the wide expanse of the ocean, and on the land side fine chains of mountains, and various peaks, with intermediate valleys, from which the broad river issues in the most picturesque manner. The town consists of low clay huts, is unpaved, and evidently going to decay, since the building of Villa de Victoria, half a league farther up the river on the north bank : this is a pretty little place, and has been raised since my departure to the rank of *cidade*. Espirito Santo was formerly a subordinate government, but was afterwards made a *capitania*. The Cidade de Nossa Senhora da Victoria is a pretty neat place, with considerable buildings, constructed in the old Portuguese style, with balconies of wooden lattices, paved streets, a tolerably large town-hall, and the Jesuits' convent, occupied by the governor, who has a company of regular troops at his disposal.

Besides several convents, there are a church, four chapels, and an hospital. The town is however rather dull, and visitors, being very uncommon, are objects of great curiosity. The coasting-trade is not unimportant ; several vessels are in consequence always lying here, and frigates can sail up to the town. The neighbouring *fazendas* produce much sugar, mandioca flour and rice, bananas, and other articles, which are exported along the coast. Several forts protect the entrance of the fine river Espirito Santo : one directly at the mouth ; a second battery built of stone higher up, with eight iron guns ; and still farther up, on the hill between the latter and the

town, a third battery of seventeen or eighteen guns, a few of which are brass. The town is built rather unevenly, on pleasant hills, and the river flowing past it is here every where enclosed within high mountains, partly consisting of rocks, which are in many places naked and steep, and covered with creeping plants. The beautiful surface of the broad river is broken by several verdant islands, and the eye, as it follows its course up the country, every where finds an agreeable point of repose in lofty, verdant, wood-covered mountains.

On our arrival we took up our abode at Villa Velha do Espirito Santo, because at that place there was good pasturage for our cattle. Thence we went in large boats to Cidade de Victoria, but owing to a strong wind blowing from the sea, and the breadth of the river, not without danger. The governor, to whom we paid our respects, received us, to appearance, very politely. We applied to him for quarters in the country, near the town, on which he assigned to us a good convenient house at Barra de Jucú at the mouth of the little river Jucú, about four leagues from the town. This house belonged to Colonel Falcao, commander of the regiment of militia of this district, and also one of the greatest planters in this part of the country.

Here I again found news from Europe, for to this town, but no farther, a post comes by land from Rio de Janeiro. While we were employed in perusing the agreeable and long-expected accounts from home, a crowd of people of all colours surrounded us, and made the strangest remarks on our country and the object of our extraordinary visit: here too, as every where else, we were taken for English. On our return to Villa Velha, we found some of our people ill of fever, which spread so rapidly, that in a few days most of them were seized with it. This disorder was ascribed to the water: but it is doubtless occasioned jointly by the climate and the provisions. We however soon restored our people with Peruvian bark, and took possession, as soon as possible, of our abode at Barra de Jucú, where

the extremely pure, fresh sea-air soon completed the recovery of the patients. We now made arrangements for remaining in this new abode several months, intending to pass the rainy season there. Our hunters made excursions through the forests far and near.

Barra de Jucú is a small fishing-village, on the river Jucú, which falls into the sea at this place, after taking its course from the great *fazendas* of Coroaba and Araçatiba, in numerous windings, through the woods. It abounds in fish, and there are many wildly picturesque spots near its banks. The houses of the fishermen at Barra de Jucú are partly scattered; in the middle of them, near the bridge over the river, is the house of Colonel Falcao. This opulent planter possesses several other *fazendas* in the neighbourhood, the largest of which, Araçatiba, is about four leagues distant. The colonel was accustomed to come hither in the summer season for the benefit of sea-bathing, and was therefore much displeased that the governor had given us his house for our residence; which we however did not learn till afterwards. He came nevertheless to Barra de Jucú, and had another house in the neighbourhood prepared for his reception, till he could have that in which we resided.

The most interesting hunting excursions which we undertook here, to make ourselves acquainted with the surrounding country, led us first, immediately beyond the bridge over the Jucú, into the fine primeval forest which extends to Villa Velha do Espirito Santo. We here met with a pretty kind of *sahui*, hitherto new to us, (*jacchus leucocephalus*, Geoffroy,) in small troops, which are particularly eager after the nuts of certain wild cocoa-palms; the round-tailed porcupine (the *couy* of Azara), and other animals. Among the birds, the most frequent in this forest are the beautiful blue *nectarinea cyanea* (*certhia cyanea*, Linn.); the following kinds of manakin, *pipra pareola*, *erythrocephala* and *leucocilla*; also a small hitherto non-descript

species, which I shall call *strigilata**, a beautiful new species of *tanagra* (*tanagra elegans*†, and an extremely beautiful species of chat-terer (*procnias cyanotropus*)‡, whose plumage changes according to the light. We could always make sure of finding the pretty little manakins on a certain kind of tree, the black berries of which are their favourite food. There are also deer in this forest; and Colonel Falcao had his hounds brought hither from Araçatiba, to hunt them. But to kill large and rare animals, which avoid the neighbourhood of man, we went to the extensive ancient forest, about two or three leagues distant, in the vicinity of Araçatiba.

The road to this place was extremely agreeable: it led first through wide swamps and sandy plains, full of various kinds of marsh plants; we then ascended hills, where thickets of young cocoa-palms and other beautiful trees afforded a dark shade. A rush-like species of grass covers the open spots, on which the little bright steel-coloured finch (*fringilla nitens*, Linn.) is very common. Riding along a narrow path in the woods, I found a large serpent coiled up, which would not move out of the way. My horse started, and I therefore took my pistol loaded with shot and killed the reptile. On examination we found that it was of a harmless kind, and learned that it is known in the country by the name of *caninana*. It is certainly of the genus *coluber*. It was not without much persuasion that Colonel Falcao's negro, who accompanied us, could be induced to take the

* *Pipra strigilata*: smaller than *pipra erythrocephala*; crown deep red; upper part of the body olive green; lower part whitish, striped with reddish brown.

† *Tanagra elegans*: head deep yellow; back black, with yellow stripes; throat and breast a brilliant greenish azure; belly and sides green.

‡ *Procnias cyanotropus*: if looked at against the light, the whole bird is of a splendid azure; and turned from the light, it appears of a shining bright green; wings and throat black; the lower part of the body white. In the Berlin Museum it has received the name of *procnias ventralis*.

present on his horse. The great forest of Araçatiba formed an awful wilderness; the parrots flew away with loud screams, and the voices of the *saiiassu* monkeys were heard all around. Parasitic plants, some of them of the most extraordinary kinds, interlace the tall gigantic trunks, so as to form an impenetrable thicket: the splendid flowers of the fleshy plants, the drooping festoons of the ferns, which twined round the trees, were now shooting forth with the utmost luxuriance; young cocoa-palms every where adorn the underwood, especially in damp places; here and there the *cecropia peltata*, with its silver grey annulated stems, formed separate thickets. From this solemn gloom we unexpectedly came into an open country, and it caused us an agreeable surprise, when we all at once beheld the large white building of the *fazenda de Araçatiba*, with its two little towers, situated on a beautiful green level spot at the foot of the lofty Morro de Araçatiba, a rocky mountain overgrown with wood. This estate has four hundred negro slaves, and very large plantations, especially of sugar, in the neighbourhood. The sons of the colonel reside on separate *fazendas* not far from this place.

Araçatiba is the greatest *fazenda* that I met with during this journey: the building has an extensive front of two stories, and a church; the negro huts, with the sugar-mill, and the farm-buildings, lie at the foot of a hill, near the house. About a league off, on a romantic spot upon the river Jucú, entirely surrounded with lofty primeval forests, there is a second *fazenda*, called Coroaba, which belongs to another proprietor. The governor had commenced the building of a church at St. Agostinho, not far from Coroaba, on which account he was residing on the spot. At this place there is a military post as a check upon the savages; the soldiers were at this time engaged in making a road to Minas Geraës, and an officer had already undertaken a journey thither, by order of the governor, to open a communication through the woods. The government has

settled at St. Agostinho about forty families who came from the Azores, principally from Terceira, St. Michael, and a few from Fayal. These people, who live in great poverty, bitterly complain of their wretched condition ; splendid promises having been made to them, but not performed.

We should have been very glad to fix our abode at Coroaba, but the impossibility of finding accommodations there for our numerous train obliged us to remain for the present at Barra de Jucú.

Many things of which we stood in great need, and which we expected at Capitania, (so the country about Espirito Santo is called,) had been sent to Caravellas, a circumstance which occasioned our company no small embarrassment. In order to remedy it, Mr. Freyreiss and myself resolved to go immediately to Caravellas, and arrange matters there. Lightly equipped, and accompanied by some well-armed attendants on horseback, we left Barra de Jucú on the 19th of December : the part of our train which remained behind, went meanwhile to Coroaba to follow their employment there. We might have performed the same journey in a much shorter time by sea ; but a voyage along the coast in small inconvenient vessels, and in stormy tempestuous weather, is not very agreeable.

We proceeded to Pedra de Agoa, a single house upon an eminence on the river, in order to have our four saddle and two baggage mules conveyed over the river Espirito Santo. Directly opposite to us, on one of the mountain-ridges upon the other side, we saw the remarkable rock of Jucutucoara. This crag, resembling the Dent de Jaman in the Pays de Vaud, strikes the eye at a distance ; it is placed on gentle verdant eminences, which are partly covered with small thickets. Before it, nearer to the river, lies the pleasant *fazenda* of Rumao ; in front of which the Island of Pigeons (Ilha das Pombas) divides the glassy surface of the river. The prospect from the eminence on this side over the beautiful river, where some *lanchas* and fishing-

boats were sailing down the stream, was very agreeable. We wished to cross immediately, but unfortunately no boats appeared to convey us over; we therefore begged the aged inhabitant of Pedra de Agoa to give us a lodging, and passed the night in a small hut, which afforded but little protection against the wind and rain: the good-will of our host however amply indemnified us for these inconveniences. As evening came on, the cattle that had been out grazing began to assemble; we observed among them a singular sheep, which we learnt on enquiry to be a cross of a ram and a she-goat. The animal greatly resembled its dam; it was thick, corpulent and round, had soft goat's hair, and the horns turned rather more outwards. The young lambs, that were taken up by the boys, were found to have frequently on the still imperfectly healed navel, a number of maggots, to kill which mercury was rubbed on the place. These maggots are a very common evil in hot countries; wherever there is a wound, flies are immediately ready to deposit their eggs in it. In Brazil there is another insect which deposits its eggs in the muscular flesh, or under the skin, even of the human body, as has been already mentioned in another place.

Our boats arrived the next morning, and we crossed the river, which is nearly a thousand paces broad. Our road lay through a valley, that runs in various windings directly under the eminence on which the Jucutucoara is situated: near at hand we saw the neat white house of a *fazenda* belonging to a Mr. Pinto. We crossed the little river Muruim, over which there is a wooden bridge that is generally closed by a gate; and after riding through some marshes overgrown with mangroves, we reached the sea-coast. On looking behind us, we now more clearly distinguished the chain of mountains of Espirito Santo, which, so long as the traveller is immediately between the extreme points of those eminences, he cannot overlook. Three leagues

from Capitania we obtained a night's lodging in the little village of Praya Molle.

Here upon a verdant plain, very little above the level of the sea, are situated several scattered habitations. In one of these we met with a very friendly reception; and as all its inmates had much taste for music, we were very agreeably entertained in the evening with music and dancing. The son of our host, who was very skilful in the art of making guitars, played, and the other young people danced the *baduca*, making strange contortions with the body, beating time with their hands, and snapping two fingers of each hand alternately, in imitation of the Spanish castanets. Though the Portuguese have a great natural talent for music, yet no instrument is seen in Brazil in the country except the guitar. If a love of music and dancing is general among the country-people, so also is hospitality, at least in most parts. We found it so here; for our hosts exerted themselves to the utmost to amuse us, and make the time pass agreeably.

Leaving Praya Molle, we arrived the next morning early at the village of Carapebuçú. From this place forwards, woods extend along the sea-coast bordering the creeks and covering the points of land.

In these forests, now that the summer was just setting in, numerous butterflies of various kinds, especially *nymphales*, were fluttering about. We found here the remarkable bag-shaped nest of a little bird of the tody genus, which always builds near the nests of a certain species of wasps, (*marimbondo*,) for the purpose, as it is affirmed, of securing itself from the attacks of its enemies. I attempted to approach the nest of the bird, but was prevented by the wasps, which actually made their appearance immediately. In the thickets along the coast, dwell poor detached families, who subsist by fishing, and

the produce of their plantations. They are mostly negroes, mulattos or other people of colour: there are very few whites among them; they immediately complain to the traveller of their poverty and distress, which can arise only from idleness and want of industry, for the soil is fertile. Too poor to purchase slaves, and too indolent to work themselves, they prefer starving.

Proceeding to the north, you come to a tract where you meet with no more creoles or mulattos, but Indians in a state of civilisation. Their detached habitations lie scattered in a shady wood of magnificent forest trees; dark paths wind from one hut to another; in the crystal brooks which reflect the beautiful vegetation, you see the naked dark-brown youth, with their coal-black hair, sporting and playing. In this delightful wood, we found some beautiful birds; the green and gold *jacamar* (*galbula magna*) was sitting on low branches near the water, on the watch for insects; and unknown notes resounded through the solitude. After we had travelled four leagues, we issued from the wood, and beheld before us upon an eminence above the sea the Villa Nova de Almeida.

Villa Nova is a large village of civilised Indians, which was founded by the Jesuits: it has a large stone church, and contains in its whole district, nine leagues in circumference, about 1200 souls. The inhabitants of the village are chiefly Indians, but there are also some Portuguese and negroes. Many possess houses here, to which they come from their plantations on Sundays and holidays only. In the Jesuits' convent, which now serves for the residence of the priest, there are still some old works of that order, which is a rarity, as the libraries in all the other convents have not been taken care of, but destroyed or dispersed. The Jesuits here formerly gave instruction in the *lingoa geral*; their chapel, Dos Reis Magos, is said to have been very beautiful. The place is dull, and seems not to be populous; much poverty also prevails there. The Indians derive their subsistence

from their plantations of mandioca and maize; they also export some wood and earthenware, and carry on a fishery, which is not inconsiderable, on the sea and the river Saüanha or Dos Reys Magos, which runs past the village. Mr. Sellow, who subsequently visited this place, found an opportunity of witnessing the singular mode of fishing with the branches of the *tingi* tree, which Condamine mentions as practised in the river of the Amazons*. They cut branches of the *tingi* tree, bruise them, tie them in bundles, and throw them into the water, especially where it has but little fall; sometimes a dam is formed of them directly across to stop the fish, which, becoming intoxicated by the juice mingled with the water, rise to the surface and die, or may be easily taken by the hand. The plants which produce this effect are some varieties of the genus *paullinia*, and the *jacquinia obovata*, a shrub with red berries, and reversed oval leaves, which grows in the thickets on the coast, and is therefore called *tinguy* (*tingi*) *da praya*.

We heard much at Villa Nova concerning a marine animal, never before seen there, which had recently been killed by some Indians on the beach with musket shot. It was large, and was said to have had feet resembling human hands. A great quantity of blubber had been obtained from it. The head and hands were sent to the governor. Our endeavours to obtain more particular information respecting this animal were of no avail, and the more so, as even the skeleton had been broken to pieces and boiled, and part of it buried. From all that we could learn, however, it seems to have been a *phoca* or *manati*.

The woods traversed by the Saüanha, which in the ancient Indian language was called Apyaputang, are said to be inhabited by

* Condamine's Voyage, p. 156. Vasconcellos also mentions it: according to him, the Indians fished with *japicay* leaves, with *çipo* (called *timbo putyana*) or *tingy*, also *tiniuiry*; farther with the fruit *curaruapé*, with *mango* roots, &c. p. 76. See also Krusenstern, I. p. 180.

Coroados and Puris. We also heard of another tribe, denominated Xipotos, which are reported to inhabit the country higher up, between the river Doce and the Saüanha; but these statements of the names of different tribes of the aboriginal inhabitants are not to be depended on. Farther on, from the Saüanha to the Mucuri, the sea-coast is inhabited almost entirely by single families of Indians. They speak the Portuguese language only, have exchanged their bow and arrows for the musket; even their dwellings differ very little from those of the Portuguese settlers; their principal occupations are agriculture and the sea-fishery. To the north of the Saüanha, the whole coast is covered with thick woods. In a few hours you come to the river Pyrakäassú (great fish river), as the Indians originally called it. Here at the *barra* or mouth, is a hamlet of a few houses, which is called Aldea Velha; and rather higher up the river, a considerable village founded by the Jesuits, who collected a great number of Indians on this spot. Their chief subsistence is derived from shell and other fish; whence great heaps of shells are still found on the bank of the river. Some persons have been inclined to ascribe to them a different origin, but several writers confirm the statement of the savages being great oyster-eaters, and circumstances sufficiently explain the matter; it cannot therefore be doubted that these accumulations of shells originate from the repasts of the ancient inhabitants of this tract. When, in the sequel, several Portuguese planters settled on the Pyrakäassú, the Jesuits are said to have taken away part of the Indians who previously dwelt here, and founded with them Villa Nova, in order to keep them apart from the Portuguese.

We reached Aldea Velha in the evening. After turning a point of land that runs into the sea, we found ourselves all at once by the side of the fine broad river, which issues from its wood-covered banks and falls into the sea. Aldea Velha consists of six or seven straw

huts, in a small level valley; there is only one house of rather better appearance among them, which is at present occupied by the commandant of the district, a lieutenant of the garrison of Espirito Santo. In this house we were very kindly received; the inhabitants were delighted in the opportunity of conversing with human beings; they consider this station, where the officer is fixed for some years, as a kind of exile. The lieutenant stationed here at the time of our visit complained much of want of amusement and of all the comforts of life; and they are obliged to dispense even with many of its necessities in this sequestered spot. Scarcely any provisions are to be had here except mandioca flour and fish. The inhabitants of Aldea Velha are poor fishermen; the river however abounds in fish, and has a good *barra*, so that *lanchas* (boats) can sail pretty far up it.

As this place had nothing that could long detain us, we took leave of our kind host the next day, and crossed the river. The stream was very deep, broad and rapid, and one of the mules we rode narrowly escaped drowning, which would have been an irreparable loss in this part of the country. A young Indian in the service of the commandant, who very skilfully managed our canoe, which was tossed about by the waves, was very serviceable on this occasion. In the shallow places near the bank we observed gulls and sea-swallows, and numerous flights of the *rynchops nigra* (Linn.) which is well known for its singular bill. Beyond the river are extensive woods, in which the plantations of the Indians lie scattered: they cultivate principally maize, mandioca, and rape, from the seed of which they extract oil. Here we again entered a thick beautiful forest, where the finest butterflies fluttered on variegated flowers, and the roaring of the surf of the sea struck our ears. The call of the *jacupemba* or Brazilian turkey, a bird of the pheasant kind, attracted the attention of our hunters; but as it is very shy, they did not kill any. We soon reached the sea-coast again, and proceeded four leagues farther, till we arrived

towards evening at the military post of Quartel do Riacho. The sea forms many inlets in this part, which give the road an unpleasing uniformity, for no sooner have you passed one promontory than another appears in the distance. We found here several kinds of sea-weed (*fucus*) which the sea throws up, but only a few shells. In some groups of rocks in the sea, the bright purple swallow (*hirundo violacea*) builds its nest. Upon this coast lie detached dwellings of the Indians at a great distance from each other, and scattered among the thickets. Some of the inhabitants venture in their canoes far out to sea, to catch fish. A small stream, the bottom of which was so soft that our beasts sunk deep into it, detained us a long time: two of our drivers stripping off their clothes sought with our saddle mules, and at last found, a firmer place, and we all got over without accident, though rather wet. It was not dusk when we reached the *quartel*.

Quartel do Riacho is a military post, consisting of one officer and six privates, for the purpose of forwarding orders and keeping up the communication with the parts on the Rio Doce. Upon the sea-shore are two houses, one of which is occupied by the families of some of the soldiers, who derive subsistence from their neighbouring plantations. The subaltern officer who commanded here was an intelligent man, and gave us much interesting information. From him we received more accurate details respecting the war carried on in the woods upon the Rio Doce with the hostile tribe of the Botocudos, as we had now arrived on the frontiers of the wildernesses of that nation. The officer himself had been wounded with an arrow in the shoulder, when he served in one of the stations on the Rio Doce; but he was now quite recovered of this dangerous wound. The tribe of the Botocudos (so called by the Europeans) rove about in the forests on the banks of the Rio Doce, up to its source in the Capitania of Minas Geraës.

These savages are distinguished by their custom of eating human

flesh, and by their warlike spirit: they have hitherto made an obstinate resistance to the Portuguese. If they sometimes appeared at one place with all the demonstrations of friendly sentiments, they committed hostilities and excesses at another; and hence there has never been a lasting good understanding with them. Many years ago, a military post of seven soldiers was stationed eight or ten leagues up the Rio Doce, at the spot where the *Povoação* of Linhares is now built; and this post was provided with one piece of cannon to cover the intended new road to Minas. At first the savages were frightened away by it, but when they had gradually become better acquainted with the Europeans and their weapons, their fears subsided. They once made a sudden attack on the station, killed one of the soldiers, and would have overtaken and massacred the others, who fled, had they not sought their safety in the river, and escaped in the boat, which happened to be just then coming with the relief. As the savages could not reach them, they filled the cannon with stones, and then retired into their woods.

After this event, the late minister of state, Count de Linhares, formally declared war against them, in a well-known proclamation: by his orders, the military stations already established on the Rio Doce were reinforced and increased in number, to secure the settlements of the Europeans, and the communication with Minas up the river. Since that time no mercy has been shewn to the Botocudos: they have been extirpated, wherever they have been found, without respect to age or sex; and only now and then, on particular occasions, some very young children have been spared and brought up. This war of extermination was prosecuted with the more inveteracy and cruelty, as it was firmly believed that they killed all their enemies who fell into their hands, and devoured them. When it was farther known that in some places, on the Rio Doce, they had expressed pacific disposi-

L. Clark sculp.

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EXCURSION up a BRANCH of the RIO DOCE.

tions in their manner by clapping their hands, and had then treacherously killed with their formidable arrows, the Portuguese who had crossed over to them, confiding in these amicable demonstrations, every hope of finding sentiments of humanity among these savages was totally extinguished. But that this opinion, derogatory to the dignity of human nature, was carried too far, and that the incorrigibility of these people proceeds as much from the manner in which they have been treated, as from their native rudeness, is strikingly evinced in the beneficial effects which the moderate and humane conduct of the governor, Conde dos Arcos, has produced in the capitania of Bahia, among the Botocudos residing on the Rio Grande de Belmonte. The traveller who has just quitted the theatre of this inhuman petty warfare on the Rio Doce, is particularly struck, and furnished with occasion for the most important reflections, when after the lapse of a few weeks he arrives in the district on the Rio Grande, and there sees the inhabitants, in consequence of a peace concluded three or four years ago, living with these very savages on the most friendly footing, which ensures to the latter the desired repose, and to the former security and the greatest advantages.

In order to make ourselves acquainted with the remarkable country on the Rio Doce, of which we had heard many interesting particulars at Capitania, we left the Quartel do Riacho early in the morning, accompanied by two soldiers, and crossed the *riacho* (brook) from which the station has received its name, close to the huts. From this place we had a very fatiguing journey of eight leagues in deep sand, amid the intense heat of December.

The soil is a heavy sand mixed with quartz and small flints, extremely fatiguing both to man and beast. For some distance inland the sands are covered with low bushes, especially of the dwarf cocoa-palm; behind these rise the thick forests, in which, not far from the

sea-beach, lies the Quartel dos Comboyos, where three soldiers are stationed, to keep up the communications.

We here found traces of the prodigious sea-turtles that come on shore to deposit their eggs in holes which they dig in the sand. In many places remains of these animals were lying about, such as shells and skeletons, in examining which we were much struck with the large size of the skulls; I found one which weighed not less than three pounds. The Indians eat the flesh of these turtles, and obtain a large quantity of fat from them: they also make diligent search for their eggs, twelve or sixteen dozen of which are often found in one hole. They are round, white, covered with a leather-like pliable skin, and contain an albumen as clear as water, and a yolk of a fine yellow, which is well tasted though rather fishy. We met some Indian families, who were carrying home whole baskets full of these eggs. The size of the sea turtles may be inferred from the shells we found here, which were five feet in length.

At noon, when the heat became very oppressive, our *tropa* was much exhausted, as we had not any water to quench the burning thirst of the animals, nor even of those of the company who were on foot, and dripping with perspiration. We halted, and sought shelter in the shade of the low bushes; but here too the ground was so heated, that we found but little refreshment; our feet indeed rested, and we relieved the animals by taking off their burdens. In this situation we derived great advantage from the experience of our young Indians; who went with some vessels among the bushes, and collected the water from between the leaves of the bromelias. This water is pure and clear soon after rain; but now when it had not rained for a long time, it was black and dirty; we even found frogs-spawn and young frogs in it. We strained it through a cloth, mixed it with a little brandy, lemon juice and sugar, and in this way it afforded us a delicious refreshment. On the bromelia shrubs we frequently met with

a small yellowish frog*, which like many animals of this kind, produces its young above the ground; we frequently found its small black larvæ. It cannot appear surprising, that reptiles belonging to the earth bring up their young in this country on trees, since in many parts of this quarter of the globe, which abounds in singular phenomena, even the human species live in trees; for instance, the Guaraunes, of whom an interesting account is given us by Humboldt.

After resting for some time we continued our journey till late in the night, and found ourselves at last, by moonlight, in a sandy, flat, open tract near the mouth of the Rio Doce. The two soldiers, whom we had taken as guides, lost their way, and we were obliged, weary as we were, to wait a long time before they found the right track, which took us to the Quartel da Regencia. This is a military post of five soldiers, stationed at the mouth of the river to forward orders along the coast, to convey travellers over the river, and keep up the communication with the village of Linhares. We passed the night in the tolerably spacious house of the soldiers, in which there were several rooms with wooden tressels, and a *tronco*†. These people fare very ill; fish, mandioca flour, black beans, and sometimes a little salt meat, are their only food. They are all people of colour, Creoles, Indians, Mamelukes, or Mulattos. The morning had scarcely dawned, when curiosity impelled us to go and see the Rio Doce, the most considerable river between Rio de Janeiro and Bahia: at this time, the full stream rolled proudly and majestically to the sea; its vast mass of water flowed in a bed which appeared to us to be twice as wide as the Rhine, in its broadest part. In a few days however it

* A new and nondescript species of small frog, *hyla luteola*, of a pale yellowish colour, with a darker stripe through the eye.

† The *tronco* is a military punishment. It consists of a long board, placed upright on its edge, in which are cut a row of round holes; through these the head of the delinquent is put. The board closes round the neck, and the man is obliged to lie horizontally on the ground.

had fallen a little. It is only in the winter months, principally in December, that it is so considerable: at other times, especially after a long continuance of dry weather, sand-banks appear every where in the middle of it; but at present no trace of them was to be seen. Its mouth is therefore never accessible; and large vessels cannot enter it on account of the shoals and sand-banks; nor even *lanchas*, except when the water is at the highest. The Rio Doce rises in the capitania of Minas Geraës, where it is formed by the junction of the Rio Piranga with the Ribeirão do Carmo: for it is after this junction that it assumes the name of the Rio Doce. It runs through a considerable extent of country, and forms several small falls, three of which, succeeding each other at small intervals, are called the Escadinhas. The banks of the beautiful river are covered with thick forests, which are the haunt of a great number of different animals. Here are frequently found the *anta* or American tapir, two kinds of wild swine, (*dicotyles*, Cuvier,) the peccary or *caytetu*, and the *porco a quechada branca*, (*taytetu* and *tagnicati* of Azara,) two species of deer (the *guazupita* and *guazubira* of Azara), and above seven varieties of the cat kind, among which the spotted ounce (*yaguarété*, Azara) and the black tiger (*yaguarété noir*, Azara) are the largest and most dangerous. But the rude savage Botocudo, the aboriginal inhabitant of this country, is far more formidable than all those beasts of prey, and the terror of these impenetrable forests. This part of the country is still very thinly peopled, so that there is still no communication kept up, except along the river. A few weeks ago indeed, a forest-path, here called *picade*, was opened along the south bank, but it is very far from being completed, and on account of the savages, not to be passed except by such as are well provided with arms. The Conde de Linhares, late minister of state, had particularly directed his attention to this fertile and beautiful country. He established new military stations, and built the village, now called after him Linhares,

eight or ten leagues up the river, at the place where the first military station had formerly been. He sent hither deserters and other criminals, to people the new colony, and these settlements would certainly have prospered in a short time, had not death too soon carried off that active minister. Since that period this district has been entirely neglected, and unless more energetic measures are adopted, will probably soon be completely desolate.

We were impatient to sail up the beautiful Rio Doce, in order to make ourselves acquainted, if possible, with the interesting theatre of the war in the forests with the Botocudos; but owing to the roughness of the river, occasioned by a violent wind on the 25th of December, we were advised by our soldiers to defer our departure till the next day. The following morning was warm and calm, and we accordingly embarked at day-break in a long canoe which was rowed by six soldiers. Our party consisted of nine persons, all well armed. In order to ascend the Rio Doce, when it is at its height, four men at least are necessary, who propel the canoe with long poles (*varas*.) As there are every where shallow places, which in the dry season appear as sand-banks, the poles can always reach them, even when the water is high; and with the most favourable combination of circumstances it is possible to reach Linhares in one day, but not till late in the evening.

The weather was very fine, and when we had become accustomed to the rocking of the narrow canoe, caused by the soldiers walking backwards and forwards to push it along, we found the excursion very agreeable. When it was quite day-light we saw the broad surface of the rapid stream glistening in the morning sun; the distant banks were so thickly covered with gloomy forests, that in the whole of the long tract which we passed, there was not a single open spot which would have afforded room even for a house. Numerous islands of various sizes and forms rise above the surface of the water; they are covered with ancient trees of the most luxuriant verdure.

Each has its particular name, and their number is said to increase the farther you ascend. The water of the Rio Doce, when at its height, is turbid and yellowish, and is universally asserted by the inhabitants to generate fevers. It abounds in fish: even the saw-fish (*pristis serra*) comes up far above Linhares, and into the *lagoa* of Juparanan, where it is frequently caught.

From the forests we heard the cries of numerous monkeys, particularly the *barbados*, the *saiassus*, &c. Here it was that we first saw in their wild state the magnificent maccaws (*psittacus macao*, Linn.) which are among the chief ornaments of the Brazilian forests; we heard their loud screaming voices, and saw these splendid birds soaring above the crowns of the lofty *sapucaya* trees. We recognised them at a distance by their long tails, and their glowing red plumage shone with dazzling splendour in the beams of the unclouded sun. Perroquets, maracanas, maitaccas, tiribas, curicas, camutangas, nandayas, and other species of parrots, flew, loudly screaming, in numerous flocks from bank to bank; and the large and stately Muscovy duck (*anas moschata*, Linn.) alighted on the branch of a cecropia, in the margin of the forest on the bank of the river. The black skimmer (*rynchops nigra*, Linn.) sat motionless and with contracted neck upon the sand-banks: toucans and the çurucuas, (*trogon viridis*, Linn.) uttered their loud cries. These wild animals, and the savage Botocudos, who are now however more rare, are the sole inhabitants of the banks of this river. There are scarcely any settlers; in two places only a few persons, sufficiently provided with arms for their defence, have fixed themselves. They always carry their guns with them, when they go to their plantations; and those who have no fire-arms have at least one of the bows called *bodoc*, to discharge balls and stones. It is but occasionally, and in their roving excursions, that the Botocudos appear in these parts so far down the river.

Towards noon we reached the little island called from its shape

Carapuça (Cap.) Here our weary people took some rest, and we found it absolutely impossible to reach Linhares this day. To secure our vessel from the rapid current of the river, we ran up between the main and an island, into a narrow channel, where a number of beautiful birds, especially parrots, were flying about, and the fine red maccaws produced a singularly striking effect as the setting sun illumined their scarlet plumage. The banks of these islands and of the channel were for the most part thickly overgrown with the high fan-like reed, the sheath of whose flower is used by the Botocudos for their arrows. When evening approached, our soldiers deliberated whether it would be better to pass the night on the Ilha Comprida (long island), or on one of the others. The first was rejected, because it is divided from the shore by only a narrow and shallow channel, and we should not have been secure against a visit from the savages. We therefore proceeded to the Ilha de Gambin, where the governors used formerly to pass the night when they visited the colony on the Rio Doce. The present governor has not continued these visits, and we found the bushes on the shore so thickly grown together, that one of my hunters was obliged to clear a place with his wood-knife, before we could set foot on shore. A large and cheerful fire was soon blazing in an open spot, whence a large owl (*curuja*) and a Muscovy-duck flew away, affrighted at the unexpected guests. We suffered some inconvenience from the swarms of mosquitoes, but slept quietly till the morning.

We left the island very early, proceeded up the river past several other islands, and into a channel between the Ilha Comprida and the north bank of the river. The current was by no means so strong here, but then we met with many fallen trunks of trees and large branches, which we had to clear away, before we could advance farther. The bushes and lofty ancient trees, which border this channel, present the most diversified and magnificent spectacle. Various kinds

of cocoas, especially the elegant *palmitto*, (in other parts called *jissara*,) with its tall slender stem, and the small bright green, beautiful feathery crown, adorn these dark forests, from the recesses of which the calls of unknown birds strike the ear. Below, close to the water, were some splendid flowers, still new to us, among which were a convolvulus (or a plant of that genus) with a remarkably large white flower, and a plant resembling a bean, of the class *diadelphia*, with a large deep yellow flower, which twined about the bushes in thick close wreaths. A *jacaré*, quietly basking in the sun, fled at the sound of our oars. We soon came to several islands, upon which the people of Linhares had made plantations; for it is only on these islands that they are quite safe from the savages, who have no canoes, and therefore cannot cross, except where the breadth and depth of the river are inconsiderable. The officer, called Guarda Mor, resides in the Ilha do Boi (Ox Island) and the priest of Linhares on the Ilha do Bom Jesus. Towards noon we came in sight of Linhares, and landed on the north bank, after having with great exertion made our way against the rapid current, in doing which we broke two of our poles.

When we reached Linhares, we proceeded to the house of Ensign Cardoso da Rosa, who commanded this post on the Rio Doce: he happened to be just then absent in the part of the settlement on the other side of the river, at the *fazenda* of Bomjardim, whither we were also invited soon after our arrival. We crossed the broad rapid stream very quickly in a light canoe, which was admirably managed by two negroes of the *fazenda*, and met with a very friendly and hearty reception in the house of Lieutenant Joao Felipe Calmon, where a cheerful company was assembled. Here we also found the ensign, whom we made acquainted with our views and the object of our journey. We inspected the *fazenda*, the owner of which has established the first sugar-works on the Rio Doce. His plantations of sugar-cane, rice, maize, &c. were in a most thriving state; the man-

diocca does not succeed so well in these parts. Mr. Calmon has been very serviceable to this country, by his judgment and activity, having encouraged the people by his example to cultivate the ground. With seventeen slaves, (at least this is his present number,) he has cleared a considerable tract of forest, and proved, by the flourishing state of his plantations, that the soil on the banks of this river is extremely fertile, and well adapted to all kinds of crops. We passed one day (December 28th) very agreeably here, both the ensign and the lieutenant exerting themselves to entertain us.

Linhares is still a very inconsiderable settlement, notwithstanding the pains, which, as we have above stated, the late minister Count Linhares took for its improvement. By his order the buildings were erected in a square, upon a spot cleared of wood, near the bank of the river, and on a steep cliff of clay. The houses of the place are small, low, covered at top with cocoa or uricanna leaves, of earth and not plastered. It has yet no church, and mass is read in a small house. In the middle of the square formed by the buildings, there is a wooden cross, to form which the head of a pretty large sapucaya tree, that grew there, has merely been lopped off, and a transverse beam nailed to it. The inhabitants have laid out their plantations partly in the wood surrounding the village, partly in the islands in the river. Mr. Calmon was however the first, and is still the only person who has established a *fazenda* and a sugar-house. When he was going to settle here opposite to Linhares, he took thirty or forty armed men, and attacked the Botocudos, who were assembled in a body, resolved to dispute the ground with him. One of these savages was killed; but it soon appeared that this horde, which numbered 150 bows, could not be driven away by force alone; another mode was therefore adopted; they were threatened in the rear, and by this stratagem induced to retreat. Since that time they have given him no farther molestation during the three years that he has resided here. If this

place had any trade, the various valuable kinds of wood, which these forests produce in abundance, might be turned to as good an account as the fertile soil of his *fazenda*. *Peroba*, an excellent timber for ship-building, is indeed considered as crown property, but Mr. Calmon obtained permission to build of this timber some large handsome sea-canoes, which he sends to Capitania and other places laden with the produce of his *fazenda*, and many valuable kinds of wood which have already been frequently mentioned.

In order to protect this settlement in general from the attacks and cruelties of the Botocudos, eight stations have been established, which are pushed forward in different directions into the great forests: they are also at the same time especially destined to protect the commercial intercourse, which it has of late been attempted to open up the river with Minas Geraës. In fact soldiers have already come down from that province, who were in sufficient numbers, well armed and provided with the defensive coat called *gibao d'armas*. These coats, some of which are kept at all the stations, are an indispensable covering against the arrows which the savages discharge with great force. They are wide, made of cotton, and thickly lined with several layers of cotton wadding, have a high stiff collar, which covers the neck, and short sleeves that protect the upper part of the arm; they come down to the knee, but are very inconvenient on account of their weight, especially in hot weather. The strongest arrow, even when discharged near at hand, does not easily penetrate such a coat, and it never has force enough to inflict any serious wound. The people indeed place too much confidence in these coats, for they assured us that even a ball would not pierce them. In order to convince myself of the truth of the assertion, I directed one of my hunters to fire at one with a rifle at the distance of eighty paces, and the ball penetrated both sides of the coat, which besides was not filled out. It appeared however on farther trials that the largest shot, fired at

the distance of sixty paces, fell flattened to the ground, without penetrating, and that these coats are therefore a sufficient defence against arrows.

At Capitania and other places they make this kind of coats of silk; these are indeed much lighter, but far more expensive. In the last action near Linhares, an uncommonly strong Botocudo discharged an arrow with extraordinary force, and at a short distance, at one of the soldiers. It penetrated the coat, and wounded the wearer but slightly in the side; yet even an arrow that is repelled always gives a violent shock.

A road has latterly been made from the *fazenda* of Bomjardim to the Quartel do Riacho; this road passes by a *lagoa*, called *Lagoa dos Indios**. At that place there is a second station called Quartel d'Aguiar. Some Indian families reside there, and eight Indian soldiers do the duty. The civilised Indians behave well as soldiers against their savage brethren. The latter therefore bear a violent hatred against them, and are said to aim at them first, because they consider them as traitors to their country. Some distance beyond Linhares, in the woods, is the second station of Linhares (the village itself being considered as the first station), with twenty-three soldiers: on the south side of the Rio Doce two stations have been established higher up the river beyond Bomjardim. The station of Anadya consists of twelve soldiers; and that of Porto de Souza, which is the most advanced, has twenty men. At Linhares there are eight of the coats described above, at Porto de Souza four, and at Anadya one: the men who wear them are always obliged to make the first attack in case of an action.

The commanding officer at Linhares has a very troublesome duty,

* After I had been at Linhares three soldiers were murdered on this road by the Botocudos, in April 1816; a particular account of which event will be given in the sequel.

for he is obliged, without regard to heat or rain, to make a tour to all the posts, which is a journey of ninety leagues, once a month. Mr. Cardoso da Rosa, who has been long stationed here, sends soldiers from the *quartels* to patrol the woods, for the security of the inhabitants. If savages are met with, the alarm is given by firing two shot in quick succession, upon which signal every one who can handle a gun hurries out. But the savages often attack the plantations, and have in this manner already killed many inhabitants of Linhares. A circumstance of this kind happened so lately as August 1816, to the second station of Linhares, where however a very resolute *Mineiro* (a native of Minas), a subaltern officer, had the command, and repulsed the savages.

The people who now live at Linhares are chiefly soldiers with an ensign, a surgeon and a priest, and a few planters, who derive a subsistence from their plantations. The priest, a favourite as we were told of Governor Rubim, at Capitania, assumed in the colony a consequence which did not belong to him, and interfered in all affairs, even though they had no concern with his official duties: he was the more feared, because he resided alternately here, and at Villa de Victoria near the governor.

This colony, which might easily be made one of the most important places on the East coast, was treated, at the time I was there, in a very harsh and injudicious manner. Thus persons who wished to take a journey, were obliged first to ask permission; no family was allowed to consume more than one bottle of brandy in three months; and there are many other such restrictions. This settlement is now probably near its end, unless it has since received succour; for in the sequel of these travels, I shall have occasion to relate what happened to it afterwards.

Our stay on the Rio Doce was certainly one of the most interesting parts of my travels in Brazil; for on this river, which is so rich in

fine scenery and remarkable productions, the naturalist finds employment for a long time, and the most diversified pleasures. But the fruits of his researches would be more considerable, if he could traverse without impediment and without danger, these still unexplored forests. It is said that it is not easy to find more delightful prospects than, for instance, that of the *Lagoa de Juparanan**; an extensive lake not far from Linhares, connected with the north side of the river by a narrow channel. This beautiful lake is mentioned by the early writers. Sebastian Fernandez Tourinho, who first sailed up the Rio Doce in 1572, states that he met with a lake to the westward, which is probably this *lagoa*; only the direction of the rivulet falling into the river does not agree, nor does the waterfall; and the distances also are different.

Mr. Freyreiss, who again visited Linhares some months later, communicated to me the following account of his visit to this *lagoa*, which I give in his own words.

“A channel, which is seldom above sixty feet broad, but deep, and about a league and a half in length, leads to the great lake, which abounds in fish. The banks of this channel are still the abode of the Botocudos, formerly called Aymores, who had about the middle of the channel a passage by means of creeping plants, which the Portuguese improperly called a bridge. This bridge was cut through by the Portuguese several years ago, and the savages have not endeavoured to repair it, or make a new one; deceived by this circumstance, the inhabitants became imprudently incautious, when some Botocudos suddenly appeared before the second station of

* The word *Juparanan*, or properly *Juparaná*, is not derived from the language of the Botocudos, who inhabit these parts, but from the *Língua geral*; and *Parana* signifies a sea or great water. This *lagoa* is not marked in Arrowsmith's map. Faden has noted it under its right name, but not placed it in its true situation.

Linhares, on the side of the channel, and shot a soldier with their arrows. This event took place a few days before our arrival, but the body of the man killed had this time not fallen into the hands of the Botocudos. On account of this circumstance and the narrowness of the channel, the settlers on the Rio Doce prefer the night when they go to the lake for the purpose of fishing. The lake, which is surrounded by hilly banks, is about seven leagues in length, from south-east to north-west, half a league broad, and from sixteen to eighteen leagues in circumference. Its depth is unequal, but in many places it is from eight to twelve fathoms. This great mass of water is formed by a little river and several streams that run into the lake from the N.N.W. Near Linhares it discharges itself through the above-mentioned channel into the Rio Doce, but rises considerably when strong south winds partly prevent it from flowing out by this channel. The bed and the banks of the lake are fine sand, on which ferruginous sandstone is here and there found. About five leagues from the entrance is a pretty little island of granite, which on account of its distance from the bank is not visited by the savages, and therefore affords a secure retreat to the fishermen."

So early as 1662 the Aymores (Botocudos), Puris, and Patachos, were enumerated by Vasconcellos among the tribes of the Tapuyas on the Rio Doce: and though the first are in fact the masters in these parts, the others sometimes extend their excursions into them. The same traveller also observes, very justly, that some of the Aymores or Botocudos are nearly as white as the Portuguese. The unhappy war which is carried on against the Botocudos on the Rio Doce renders it impossible to get acquainted, in these parts, with those remarkable people; if you see them here, you must be prepared for an arrow. But further to the north, on the Rio Grande de Belmonte, the inhabitants live at peace with them, and I therefore defer all my remarks on this interesting tribe of the aboriginal inhabitants to the account of my visit to that part of the country.

Linhares is a very agreeable residence for the lover of the chase : for at day-break the monkeys come so near to the houses, that you have not to go far in quest of them : parrots assemble in large flocks, and the splendid maccaws are enticed in the cool season by certain kinds of fruit. These large handsome birds generally build their nests every year in the same tree, when they have once found a strong hollow branch or trunk. They are frequently shot : their flesh is eaten ; the quill feathers are used for writing, and by the savages to feather their arrows, or by way of ornament. In these wilds, which are but seldom disturbed, it is not difficult to return home in the evening with a canoe loaded with game ; but in all hunting-excursions it is necessary to be constantly on your guard against the savages. By frequent practice the soldiers of Linhares are well acquainted with the manner of pursuing the savages in the forest, but they all confess that the Botocudos are far more expert hunters, and better acquainted with the forest than themselves ; hence the greatest precaution is requisite in these engagements and enterprises in the woods. In general the Mineiros (or inhabitants of Minas Geraës) are accounted the best hunters of the savages, as they are familiar with this way of life and skirmishing in the woods, and are also a bold and hardy race. Here at Linhares, the last considerable enterprise against the Botocudos was directed last August by the Guarda Mor, who was a Mineiro, banished hither from Minas. We were presented with some of the arms and ornaments of the Botocudos ; and even offered a little child which was brought up at Bomjardim after its mother had been killed in an action. The object of our visit to Linhares having been attained, we took leave of it, to continue our journey northward along the coast. We embarked in a large convenient canoe, lent to us by Lieutenant Calmon ; and the obliging owner had the politeness to accompany us. In our way down the

river we paid a visit to the Guarda Mor, on the Ilha do Boi, where he has made fine plantations of millet and mandioca. In his house we soon perceived that he was a Mineiro, for he lived more on millet than on mandioca flour, which is a characteristic custom of the inhabitants of that province. To reduce millet to flour, they make use of an instrument called a *preguiza*, or sloth, which Mr. Mawe has described in his Travels. Our canoe, which was very safe and commodious, provided with an awning, and well supplied with provisions, brought us to the *barra* of the Rio Doce, to Regencia, in four hours, a distance which had taken us a day and a half, when we went up the stream.

CHAPTER VIII.

JOURNEY FROM THE RIO DOCE TO CARAVELLAS, TO THE RIVER
ALCOBAÇA, AND BACK TO MORRO D'ARARA ON THE MUCURI.

*Quartel de Juparanan da Praya—River and Barra of St. Matthew—Mucuri
— Villa Viçosa—Caravellas—Ponte do Gentio, on the river Alcobaça—
Stay there.*

AFTER we had passed the night with our friends at the Quartel de Regencia, we with much trouble conveyed our mules the next morning over the river in the great boat. We then followed ourselves, rode in the afternoon, accompanied by the two gentlemen from Linhares, two leagues along the dreary sandy coast, and arrived at the Quartel de Monserra, or Juparanan da Praya, where seven soldiers are stationed. Near this Quartel is a long narrow *lagoa*, which is called Lagoa de Juparanan da Praya, to distinguish it from the much more considerable lake near Linhares. At the time of high water this *lagoa* has at this part of the coast a communication with the sea by a broad channel, which must be passed in boats; but it was now dry, and our loaded mules crossed it without wetting their feet. The station lies on the sandy beach close to the sea; just behind it the narrow *lagoa* expands, and beyond are thick forests, in which we could distinguish a great number of wild cocoa-palms. The soldiers have made in the neighbourhood some plantations, where they cultivate mandi-

occa, maize, and even fine water-melons, sufficient for their own use. They have likewise some boats, and add to their supply of provisions by hunting and fishing.

We here met with a very remarkable old man, called Simon, who has lived for many years, quite secluded, in a small house near this station, and has no apprehension of the savages. Though he is very old, he still enjoys uncommon strength and good spirits, and is beloved by all the neighbours. He cultivates his plantations himself, is an experienced hunter and fisherman, and is thoroughly acquainted with the surrounding country. We visited him several times in his little hermitage, and found him, with his limited wants, not only quite contented with his condition, but so good-humoured and merry that his cheerfulness communicated itself to all the company round him. He made us a present of the skin of the great ant-eater (*myrmecophaga jubata*, Linn.), here called *tamandua cavallo*, and which he had lately killed. At Monserra we obtained other rarities for our collections of natural history; for instance, the *scarabæus hercules*, the largest beetle of Brazil, which a soldier had caught and brought to us alive. In the sequel, a man brought us at one time four or five heads of this rare beetle; and on questioning him respecting the lamentable mutilation of this interesting subject, I learned that the ladies in many places wear these heads strung round their necks by way of ornament.

In order to procure the necessary escort through an uninhabited wilderness, eighteen leagues in extent, to St. Matthew's, we requested the ensign our companion, to give us two soldiers, as the papers which we had received from the minister, the Conde d'Aguiar, expressly authorised us to claim this assistance. We had shewn these papers to the governor at Capitania, and requested him to furnish us with the people necessary for the prosecution of our journey. Hereupon we received a letter from him to the ensign at Linhares, in which

he ordered him to give us a single soldier. Considering however the length and insecurity of the way to St. Matthew's, it appeared to the officer himself very hazardous to expose a single man to the danger of returning alone: our persuasions completely decided him, and we obtained two soldiers for our escort. We were afterwards informed that the governor had, very unreasonably, punished him for this with a long arrest; and we sincerely regretted having drawn upon this worthy man so unjust and harsh a treatment.

After taking leave of the kind friends who had accompanied us thus far, we proceeded the same day six or seven leagues further along the monotonous coast. Our two soldiers, a negro and an Indian, stopped very often to dig in the sand for turtles' eggs, with which they filled their knapsacks. Though this was disagreeable to us, because their stopping delayed our progress, we had in the evening every reason to rejoice at it. The tract from the Rio Doce to St. Matthew's, as we have observed before, is an uninhabited dreary wilderness, in the greatest part of which not even fresh water is to be found; the few places where this indispensable article can be procured, must therefore by no means be passed by, and for this reason it is highly necessary to have a guide well acquainted with the road. Unfortunately neither of our soldiers had ever been this way before. We missed the first watering-place, called Caçimba de S. Joao, but found the second, which is a *lagoa*, in a small low valley called Piranga, on the road side, at noon, when we had dispersed in all directions in search of water: it afforded some refreshment to us and our cattle. At the place where we stopped for the evening our search for water was however fruitless; none was to be found, and we were consequently unable to make use of the provisions which we had brought with us, they being too hard to be eaten without the addition of water. Our only resource was to satisfy our hunger with a little dry maize-flour, and the turtles' eggs fortunately collected by the soldiers, which we could

boil in sea-water. While our people were employed in fetching some, and in picking up drift-wood on the beach, we found to our great surprise, at a short distance from our fire, a prodigious sea-turtle (*testudo mydas*, Linn.) which was just going to deposit its eggs: nothing could be more welcome to our hungry company; the animal seemed to have come expressly to provide us with a supper. Our presence did not disturb it; we could touch it, and even lift it up; but to do this it required the united strength of four men. Notwithstanding all our exclamations of surprise and our deliberations what to do with it, the creature manifested no sign of uneasiness but a kind of hissing, nearly like the noise made by the geese when any one approaches their young. It continued to work, as it had commenced, with its fin-like hinder feet, digging in the sand a cylindrical hole from eight to twelve inches broad; it threw the earth very regularly and dexterously, and as it were keeping time on both sides, and began immediately after to deposit its eggs.

One of our two soldiers laid himself all along on the ground near this purveyor of our kitchen, and took the eggs out of the hole as fast as the turtle deposited them; and in this manner we collected 100 eggs in about ten minutes. We considered whether we should add this fine animal to our collections; but the great weight of the turtle, which would have required a mule for itself alone, and the difficulty of loading such an awkward burden, made us resolve to spare its life, and to content ourselves with its eggs.

Those huge animals, the midas, and the soft-shelled turtle (*testudo mydas* and *coriacea*), as well as the *testudo caretta*, or *cauanna*, deposit their eggs in the sand in the warmest months of the year, particularly in this uninhabited part of the coast, between the Riachio and the Mucuri; they come on shore for this purpose in the evening twilight, drag their heavy bodies up the sandy coast, dig a hole, in which they deposit their eggs, fill it up with sand, which they tread

down, and an hour or two after sun-set return to the sea. This was the case with the turtle which had so amply supplied us; when we came back to the strand a few hours afterwards, it was gone; it had filled up the hole, and the broad track left by it in the sand shewed that it had returned to its proper element. A single turtle of this kind can furnish an abundant repast with its eggs for a whole company; for the midas is said to lay at once ten or twelve dozen, and the soft-shelled from eighteen to twenty dozen. These eggs are a very nutritious food, and are therefore eagerly sought after on this desert coast by the Indians, and in the neighbourhood of the colony also by the whites.

Our frugal supper was soon finished; we afterwards kindled several small fires between the bushes of dwarf-palms, in order to keep the beasts of prey from our mules. The following morning we found on the sand the fresh prints of the feet of large animals of the cat kind, which had been prowling about during the night. Old Simon assured us that the black ounce or black tiger is not uncommon in those parts: the Portuguese call it *tigre* or *onça preta*; Koster in his Travels also mentions this formidable animal, but calls it *felis discolor*; an unsuitable appellation, as the whole animal is really of one colour only. It seems most correct to denominate this species after its native country, as it is found exclusively in Brazil; even Azara tells us that it is not met with in Paraguay. We conjectured that we heard the howlings of these animals; but our sleep was not disturbed, and we resumed our journey early the next morning.

On the first of January, which in our own country generally comes clothed in ice and snow, we had very warm sunshine as early as seven o'clock in the morning, and at noon an uncommon and intolerable degree of heat. The preceding evening, when we had been so incommoded by thirst, we had halted, without knowing it, very near fresh water: for we had scarcely rode an hour when we reached the

Barra seca, the outlet of a *lagoa* into the sea, which at certain times is so low that the communication is quite cut off, and that close to the beach this spot may be passed dry-shod. At this time however the water was high, and we were obliged to ford this deep rapid channel, which occasioned a long delay. All the beasts of burden were unloaded; the Indians and negroes who were acquainted with the water, stripped themselves, and after they had carried the chests upon their heads to the opposite side, we Europeans were also carried over. On the other side we found the ruins of the hut of a military station formerly kept up here, near which there was good fresh water.

Some Indians had passed the night at this place, probably to look for turtles' eggs and for the sake of fishing, as the *Barra seca* abounds in fish: in the neighbourhood there are extensive *campos* (open places cleared of wood), which are very well suited to breeding cattle. The huts of the Indians, made of palm-leaves, were still to be seen. At noon we reached a cavern in which there was a spring of clear fresh water; a discovery that at this time was invaluable to us. The evening and the following night were again passed in a desert on the coast: the *remiria littoralis* here formed some grassy spots in the deep sand; but the dwarf-palms were numerous, and behind them, further inland, lofty forests. Nothing but the tracks of beasts of prey in the sand shewed that living creatures at times visited this spot. We had hardly any water to drink, and consequently scarcely any thing to eat. At the approach of night a strong secure hut of cocoa-leaves, which we had all assisted to construct, was completed. We hoped to repose in it after the fatigues of the day, but swarms of mosquitoes tormented us so, that sleep was out of the question. Unfortunately we could not escape from them into the open air, on account of a heavy shower of rain which poured down. Next morning we found that all our mules had gone back in quest of water to the spring where they

had quenched their thirst the preceding day at noon; and half a day was lost before they could be brought back: luckily the saddle-mules had not gone so far; we therefore recovered them sooner, and rode on before.

In the evening we reached the *barra* of the St. Matthew, a moderate river, with pleasant banks, clothed with mangrove bushes, and farther up with forests. A couple of small vessels lay at anchor on the south bank; on the north side is the little village called Barra de St. Matthæus, which consists of twenty-five houses. The river descends from the ancient forests, which are full of free tribes of savages, forms several small cataracts, and is navigable for sumacas about nine leagues up. Its banks are the most productive part of the district, as the ants are said to do but little mischief here; in the forests there is abundance of *jacaranda*, *vinhatico*, *putumaju*, *cergeira*, and other useful kinds of wood. It receives several smaller rivers, among which the Rio de Santa Anna, the Rio Preto, or Mariricu, and the St. Domingos, are the most considerable. It was now high, as it was flood-tide, and nobody therefore would pay attention to our calling and firing, to fetch us over with a canoe. We wandered about a long time among the bushes and deep sand, and had almost resigned ourselves to the disagreeable necessity of passing the night where we were, without fire or provisions, when a boat, rowed by two negro slaves, came over and took us in. Our train did not arrive till late in the night; but they were better provided for this bivouac, as they had with them food, fire, and blankets, and there was a fine spring near the sea-coast to quench their thirst.

In the little village of Barra de St. Matthæus, we put up at a venda, the owner of which was called *Capitão Regente*. Our papers, and the recommendations of the minister, obtained us every where a very good reception. The *barra* of the river St. Matthew lies, according to Arrowsmith, in $18^{\circ} 15'$; according to others, in $18^{\circ} 50'$; and even

differing still more. The latter position seems to be the more accurate, since at the spot where that map places the St. Matthew, the river Mucuri must fall into the sea. About eight leagues up is the town of St. Matthew, the situation of which is said not to be very healthy on account of the contiguous marshes. It contains about 100 houses, and has in its district near 3000 inhabitants, both whites and people of colour. As one of the newest towns in the district of Porto Seguro, it is in a thriving condition. The inhabitants cultivate a great deal of mandioca, and export annually 60,000 *alquieres* of flour; and also planks from the neighbouring forests. It is only about eight leagues beyond the town of St. Matthew up the river that cultivated land is met with; that is, to the station of Galveyas, the last military post established to keep off the savages. About half a league up the river is the Indian village of Santa Anna, which is composed of about twenty Indian families, consisting of seventy persons. Soon after our departure, a Botocudo was killed at Santa Anna. He was an aged man, and wore large plugs of wood in the ears and lower lip. Mr. Freyreiss, who visited this part again in the month of February, took the skull of this savage with him, and it is now in the possession of Professor Sparmann.

In the woods on the banks of the river St. Matthew, the uncivilised Indians are very numerous, and they all live in constant warfare with the whites in this part of the country. In the course of the last year seventeen persons were killed by them. The northern bank is haunted by the Patachos, Cumanachos, Machacalis (called by the Portuguese Machacaris, they themselves cannot pronounce the *r* well), and other tribes, as far as Porto Seguro. The Botocudos also are numerous, and said to be chiefly in possession of the south bank; they are feared by the other tribes, and are considered as enemies by the rest, who on account of their inferior numbers make common cause against them. The plantations belonging to a *fazenda* higher up the river

were frequently robbed by the savages, till the proprietor devised a singular expedient to get rid of these hostile visitors. He loaded an iron cannon, which was at the *fazenda*, with pieces of old lead and iron, fastened the lock of a musket to it, placed it in the narrow path, by which the savages always used to come in a column, and laid a piece of wood across the path which was connected with the trigger by means of a string. The savages appeared in the dusk of the evening, and trod on the piece of wood, as had been intended. When the people of the *fazenda* hastened to the spot to see the result, they found the cannon burst, and thirty Indians killed and mutilated, some still on the spot and others scattered in the woods. The cries of the fugitives are said to have been heard far around. Since this terrible destruction the *fazenda* is said not to have been again disturbed by the savages.

In the river St. Matthew, the original Brazilian name of which is Cricaré, is found a rare animal, which at present is met with in only very few rivers on the east coast. This is the manati, or *peixe boi* of the Portuguese. The natural history of this singular animal is still obscure in many points; it is pretty frequent in this river, but is said sometimes to go into the sea, and along the coast, and then into other rivers; thus it has been taken, for instance, in the Alcobaça. At St. Matthew, the favourite haunt of the manati is a *lagoa* or inland water, much overgrown with grass and reeds. The hunting of it is attended with some difficulty. The hunter rows carefully and without noise in a small boat among the grass and reeds; if he sees the animal with its back above the water, as it usually appears when grazing, he approaches cautiously, and throws at it a harpoon fastened to a cord. The manati yields a great quantity of blubber, and its flesh is esteemed. The orbicular bone of the ear is looked upon by the ignorant people as a powerful specific, and sold at a high price. Though I repeatedly made great promises, during my

three or four months' stay in these parts, with a view to obtain one of these animals, my hopes were disappointed, and I was forced to content myself with the sight of the stuffed manatis, which I saw on my return from Brazil, in the cabinet of Natural History at Lisbon.

Besides this singular animal, the river St. Matthew has a great abundance of fish. Many species of a kind called *piau*, especially that which, from its food is called *piau de capim* (grass piau) are found at the time of high water, principally on overflowed meadows. Here the civilised Indians row about with their little light canoes, and shoot these fish with arrows. This kind of fish-hunting is met with in many places among the Indians. The bow used for the purpose is from two feet and a half to three feet long, of the size of the bow called *bodoc*, used for discharging balls; the arrow, about three feet long, is of reed, and the point of wood or iron, with a barb on each side.

About half a league from St. Matthew, the little river Guajintiba falls into the sea. It is usual to embark on it, and to proceed three leagues to the *fazenda* of As Itaúnas, which belongs to Mr. Marcelino da Cunha, high bailiff of the district of Porto Seguro. The banks of the little river, which however was now high, are covered with thick bushes; the most common, especially towards the sea, are the mangroves, the bark of which is useful for tanning hides. The water of this river is dark-brown, like that of most of the little forest streams in Brazil, and it abounds in fish: some fishermen had taken a whole boatful just as we passed. We landed on a desolate and as it seemed abandoned plantation, where the finest ananas grew wild, large, juicy, and aromatic. Pine-apples fit to eat are not found wild in Brazil, but they are cultivated in abundance in the plantations, and thrive there as luxuriantly as wild plants. A spirituous liquor is here distilled from this fruit; and that of the *anacardium* (cashew-nut) is employed for the same purpose. This tree grows every where in the sandy tracts

on the east coast of Brazil. In appearance it resembles our apple-tree: it has strong branches, and leaves which stand singly, and therefore affords but little shade; the flower is small, and of a bright reddish colour; the blackish kidney-shaped fruit grows attached to a fleshy tubercle, of the figure and size of a pear. This part of the fruit is eaten, but it has a rather rough acid taste. The black kernel is roasted, and is then very good, but it must first be peeled. The juice of the fleshy part of the fruit, being diuretic, is very efficacious in venereal complaints and dropsy.

Towards evening the journey was the more agreeable, as we were not tormented by the mosquitoes, which often spoiled our finest evenings. Lofty gloomy woods formed romantic groupes on the banks, and the full moon shining in all her splendour, completed the charming picture. As we approached the *fazenda*, we heard at a distance the drums of the negroes. The negro slaves are fond of retaining the customs of their country as far as lies in their power; thus, for instance, you see among them all the musical instruments mentioned by travellers in Africa, and among these the drum holds a distinguished rank. Whenever many negroes live together on a *fazenda*, they celebrate their festivals, paint and dress as in their native country, and perform their national dances. This may be seen, for instance, in Rio de Janeiro, at a place near the city, which is especially appropriated to the purpose.

At the *fazenda* of As Itaúnas, we met with a young Puri, who was brought up by the bailiff; he already spoke Portuguese, and is said to be of a very gentle disposition. The few words which we understood of his native language, soon gained us his confidence. We regretted that we had not our young Puri from St. Fidelis with us, he having been left behind on the Jucu. Itaúnas is a grazing farm, with a *coral*, or inclosure for the cattle, and a miserable hut for some Indians and negroes, who tend the animals. The owner has collected

some Indian families here, who in time are to form a settlement: they were previously intended to protect the sea-coast against the savages, and Itaiúnas is therefore properly considered as a military station. Some Indians, who happened to be going the same way as ourselves, accompanied us northwards from Itaiúnas. They were provided with their fowling-pieces, and perfectly acquainted with the country. We rode through two small streams, the Riacho Doce, and the Rio das Ostras, which are both very inconsiderable, but issuing from a picturesque dark woody back-ground, full of cocoa-palms, form a romantic landscape.

A little further on, we came to a spot where hostile savages have often been seen. This place bears the name of *Os Lençóes* (the white cloths), because on a rocky point, patches of shining white sand are interspersed with grass, and it therefore appears from the sea, as if white cloths were hung up here. The Patachos, who inhabit these parts, had long behaved peaceably, when one of their countrymen was killed, by which they were provoked to renew hostilities. Near the Rio das Ostras, we accidentally found on the sandy beach near the sea, a jacaré about five feet in length, which probably wanted to cross by land from one river to the other, and was surprised by us in its journey; on the right it had the rocky cliff, on the left the sea, and being unable to get out of the way, remained immovable. When much irritated with a stick, it indeed tried to bite, but it might be attacked without danger. This animal, which is so active and quick when young, appears to be very helpless on shore, when it is old, for it crept away very slowly. After proceeding about two leagues we reached the rivulet of Barra Nova, with a little hamlet of a few houses, which are built on a moderately high but steep eminence. We halted at this place to repose during the noon-day heat; and in the dusk of the evening arrived at the mouth of the Mucuri, not a

very large river, which issues from thick forests; mangrove bushes on its banks give it a pleasant appearance.

Villa de St. Jose do Port Allegre, commonly called De Mucuri, is situated on the north bank of the river near its mouth. It is a small place, consisting of thirty or forty houses, in the middle of which there is a little chapel, and forms a quadrangle, open on the side next to the sea. The houses are small, and almost all of them covered with straw: sheep, swine, and goats feed in the space in the centre. The inhabitants, who are chiefly Indians, are poor, and have no trade; they sometimes export a little mandioca-flour, but there are no sugar manufactories here on the river; only the *escrivam* of the *villa* (town clerk) sells some brandy and other necessities of life. There is also an ecclesiastic here, and two of the inhabitants fill by turns the office of *juiz* (judge), as in all the towns in Brazil.

Padre Vigario Mendes, the clergyman of the place, is the only person in these parts who has a pretty considerable *fazenda*. He has some cows there, which supply him with milk, a great rarity on this coast. Mr. Mendes, to whom we were particularly recommended by the minister, Conde da Barca, received us very politely. The minister possesses considerable tracts of land in these parts on the banks of the Mucuri, and measures were then taking to secure them from the savages.

The forests of this country abound in the most valuable kinds of wood. In order to turn them to advantage, it was intended to build a saw-mill; and a millwright from Thuringia, of the name of Kramer, was commissioned to erect it. Almost all the fine species of wood of the whole east coast are here found together: jacaranda, oiticica, jiquitiba, vinhatico, cedro, caichetà, ipé, peroba, putumuju, pao Brazil, &c. But as this country was still wholly in the possession of the Patachos, and the wild beasts, and it was therefore not possible

to erect the saw-mill, the minister ordered Mr. Jose Marcelino da Cunha, *ouvidor* (high bailiff) of the district of Porto Seguro, to repair hither, to assemble the necessary hands for establishing a *fazenda*, to make the plantations requisite for the support of the inhabitants and slaves, and to protect them against the attacks of the Tapuyas. It accidentally happened that Captain Bento Lourenzo Vas de Abreu Lima, an inhabitant of Minas Novas, who with twenty-two armed men had penetrated from the frontiers of the Capitania of Minas Geraës, along the banks of the Mucuri, through the wildernesses, had, just at this time, happily reached the sea-coast. His unexpected appearance in the Villa do Port Allegre, induced the minister to give the bailiff the further order, to furnish that enterprising Mineiro with the people requisite to form a passable road through those forests, in the route which he had taken. I had the pleasure to find this interesting man here, and to learn from himself the particulars of his bold and dangerous enterprise. Being employed in looking for precious stones, and continually living in the woods, he resolvéd to penetrate through those gloomy intricate solitudes down the river, which he conceived to be the St. Matthew. For several years he caused a path to be made at his own expense through the woods; and when the work was advanced to a certain point, he undertook the journey on foot with twenty-two soldiers and armed volunteers. He fell in with the *aldeia* of Captain Tomé, a celebrated Indian chief, who had collected Indians of different tribes in the forests of the interior, on the Upper Mucuri; he had previously baptized many of them in this place. The *aldeia* no longer exists, the chief being dead: but on the spot where it stood, there are bananas and other plants growing wild, which are now made use of by the savages in their excursions. After a journey of about fifty days, the Captain succeeded in reaching the sea-coast, when he discovered that he had followed the course of the Mucuri, and not of the St. Matthew, as he had designed.

This journey was attended with great hardships. The party were often in want of provisions; they found no animals to hunt, and had little success in fishing. They then chewed some roots and fruits, or made shift with palmit or wild honey, till a lucky chance threw some animal in their way. Fortunately they met with no Botocudos, who live in the upper part of those woods, but they frequently found their abandoned huts, and even sometimes conjectured that they were observed by those savages. The different Indian soldiers were very useful to the Captain, both as hunters and as a protection against the savages; for he had among his people Capuchos and others, and even a Botocudo who had been brought up by the Portuguese. They were very near losing all their baggage at the Falls of the Mucuri, four days' journey up the river. They had constructed a raft of trunks of trees, to convey their arms, provisions, clothes, &c. but the raft was carried away by the current, the bushes on the banks brushed off the whole cargo, and it was with the greatest difficulty that they fished up the fire-arms out of the water.

On the latter days of this bold and dangerous journey through the forest, the travellers were reduced to absolute famine; they were already quite exhausted, when they unexpectedly reached the last uninhabited plantation on the river, which belongs to Morro d'Arara, about two days' journey from the Villa de Mucuri. The whole company eagerly devoured the raw mandiocca roots, among which was unluckily a large proportion of *mandioca brava*, an unwholesome species*. Violent vomiting, which was the consequence, had weakened the discouraged adventurers still more, when some of their hunters had the good fortune to kill a large American tapir, which supplied them all with nutritious food. The following day they reached the goal of their bold

* Even the juice of this kind of mandiocca is pernicious, and kills animals; for example, sheep; of which Koster (p. 370.) gives an instance.

undertaking, and entered Villa de Mucuri, amidst the acclamations and *feux de joie* of the inhabitants. It was now determined to open a road through those forests, in the track (*picade*) of the captain; and to this end they waited only the arrival of the *ouvidor*. By degrees, the woodmen who were ordered for the purpose from St. Matthew's, Viçosa, Porto Seguro, Trancozo, and other places on the east coast, and who were mostly Indians, arrived and were set to work.

Between the mountains of Minas Geraës and the thinly peopled east coast, there are extensive wilds, in which rove many hordes of the aboriginal savage tribes, who will in all probability long remain independent of the Portuguese. Measures are taking to construct roads in different directions through these wilds, in order to facilitate the carriage of the products of Minas to the poorer and thinly peopled coast, and give them a quicker communication with the chief cities and the sea. As the rivers afford the means of the most speedy communication, it has been resolved to make these roads along them. One has been opened on the Mucuri, another on the Rio Grande de Belmonte, a third on the Ilheos, and two others are making on the Espirito Santo, and on the Itapemirim, to Minas.

The forests near the Mucuri are chiefly inhabited by Patachos. Botocudos rove but occasionally through them to the coast. Several other tribes of savages reside in these wildernesses: on the frontiers the Maconis, the Malalis, and others, live in fixed settlements. The Capuchos, the Cumanachos, Machacalis, and Panhamis, still rove about in the woods. These last four tribes are said to have formed an alliance with the Patachos, in order that thus united they may be able to oppose the more numerous Botocudos. To judge from the similarity of language, manners, and customs, these tribes seem to have a near affinity with each other. Of the Maconis, who live alone, many were baptised twenty years ago, and others by Captain Bento Lou-

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OPENING of the NEW ROAD along the MUCURI

renzo when he was among them. At present some of them have settled on the Mucuri, but another part of them is said to live more to the north, towards the river Belmonte. This tribe has, on the Rio Doce, the reputation of being extremely savage, though, according to other accounts, unjustly. The Malalis, now a very small tribe, reside far up the Rio Doce, near the military station of Passanha, and have settled near it, under the protection of the Portuguese, for security against their enemies the Botocudos. The languages of these two tribes, some specimens of which will be found in the Appendix to the second volume of these Travels, differ greatly from those of the other tribes. The five united tribes have in general, as I have said, an affinity in manners and customs. They commonly bore a hole in the lower lip, and put into it a short thin piece of cane, one end of which they dye red with *urucú*. They cut their hair short in the neck and over the eyes; some cut it close almost on the whole head. Like all the Tapuyas, they paint their bodies with red and black. They all believe thunder to be the voice of a powerful being, whom they call Tupan; a word common to many tribes, among others to the Puris, and which was used even by the Tupi tribes on the coast. Near relations never marry, but in other respects they observe no rule, and entirely follow their inclinations. Young females consider it as the highest mark of their favour to young men, if they paint them, for which purpose they generally carry some urucu about them*. The Patachos have hitherto always behaved in a hostile manner on the Mucuri; not long since they shot an Indian at the door of his dwelling, on the *fazenda* of Mr. João Antonio.

After remaining here ten days, we proceeded on our journey. The night was agreeably cool, and the full moon shone in the most lovely splendour when we quitted the Mucuri: her soft and friendly

* Besides the tribes here enumerated, the *Corografia Brasileira*, t. II. p. 74. mentions some others as inhabiting these parts, but whose names I never heard on the east coast.

light was reflected on the broad shining surface of the unruffled sea, and indemnified us for the uniformity of the road along the flat sandy coast ; while the great night-swallow hovered over our heads, but unfortunately at an elevation beyond the reach of our fowling-pieces*.

It is five leagues from the Mucuri to the river Peruipe ; before you reach the isthmus on the sea-coast, the road leads to Villa Viçosa. Here we missed our way, and came to the mouth of the Peruipe, where we found some scattered fishermen's huts. We were obliged to turn back. It was broad daylight, when we emerged from among thickets into a verdant meadow on the bank of the river, where we saw, under a charming grove of cocoa-palms, the town of Villa Viçosa, consisting of about one hundred houses. A white edifice, distinguished by its size among the low dwellings which surrounded it, was immediately recognised as the *camara*, or royal building ; we rode up to it, and found the *ouvidor* in company with the two naval captains, José da Trindade and Silveira Jose Mandel de Araujo, who, as we mentioned before, were commissioned by the government to make an astronomical survey of this coast, and prepare a chart of it. The suite of the *ouvidor* was of the most motley description ; for besides some Portuguese and negro slaves, he had with him ten or twelve young Botocudos of Belmonte, and a young Machacali.

The sight of the Botocudos astonished us beyond all expression ; we had never before seen such strange and singularly ugly beings. Their original countenances were farther disfigured by large pieces of wood which they wore in their lower lips and in their ears : the lip is

* This bird is a hitherto non-descript species of the genus, which I named *caprimulgus æthereus*, because it rises to a great height in the air, where it hovers like a falcon. It is 22 inches long ; its plumage is a dirty red, with dark brown and blackish spots. The upper small scapular wing feathers form a dark brown spot. A dark brown spotted transverse stripe marks the bottom of the breast.

thus made to project very much, and the ears of some of them hang like large wings down to their shoulders: their brown bodies were covered with dirt. They were already very familiar with the *ouvidor*, who had them always in the room with him, in order to gain their confidence more and more. He had some persons who spoke the Botocudo language, and let us hear some specimens of their singing, which resembles an inarticulate howling. Most of these young Indians had lately had the small-pox: they were still covered all over with marks and scars, which, as their bodies were emaciated by the disease, considerably increased their natural ugliness.

The small-pox, which was introduced into these parts by the Europeans, is extremely fatal to the Indians; many of their tribes have been wholly exterminated by it. Several of the attendants of the *ouvidor* had died at Caravellas; but most of them had recovered, and as I was assured, by means of brandy, which was given them in large quantities. The savages are exceedingly afraid of this disorder. A shocking story was told me of the cruelty of a certain planter. In order to revenge himself on the Tapuyas his neighbours and enemies, he is said to have laid in the woods clothes which had been worn by persons who had died of the small-pox, and many of these savages are reported to have perished miserably in consequence of this inhuman proceeding.

When the *ouvidor* set out for the Mucuri, we embarked, in order first to visit Caravellas and the river Alcobaça. The boat glided down between the beautiful green banks of the Peruípe, and where the river falls into the sea to the east, turned into a broad arm, which communicates with the Caravellas. Near the Villa are tall cocoa-palms, which give the landscape a beautiful and original character. The milk or water which is in the fruit, is very flat and ill-tasted in the old nuts that are brought to Europe; but here they are gathered before they are quite ripe, and then this liquor has an agreeable

sweetish bitter taste, and is extremely cooling and refreshing. In this country many good dishes are prepared from this admirable gift of nature: thus for instance, they scrape the nut and boil it with scarlet beans, to which it gives a very agreeable flavour; they also make excellent preserves of it, with sugar and spices, but which unfortunately will not bear the voyage to Europe. A cocoa-tree sometimes bears a hundred nuts at once, which are valued at about five or six dollars: so that a plantation of three or four hundred of these trees produces a considerable revenue. A healthy tree is sold for 4000 reas, or about a guinea. The wood of the tree is also useful, for it is hard and tough; the trunk therefore does not easily break in a high wind, but bends and creaks violently. The roots spread horizontally under the surface of the earth, and form a thick texture. From the Perupe, southwards, to Rio de Janeiro, the genuine cocopalp (*cocos nucifera*, Linn.) is extremely rare; but from Viçosa, northwards, especially at Belmonte, Porto Seguro, Caravellas, Ilheos, Bahia, &c. it is very common; on the whole east coast it bears the name of *cocos de Bahia*. This tree seems to be particularly fond of salt water, for it thrives best where the sand of the coast is washed by the spray of the sea*. A protuberance which the trunk of this species has when young, at the lower extremity, makes it easy to be known. In going by water to Caravellas, the eye is often charmed with the sight of groves of high cocoa-trees, beneath the dark shade of which the rural habitations make a very picturesque appearance. The bank is entirely covered with mangrove trees (*conocarpus* and *avicennia*), the bark of which is of great use in tanning, and is sent for that purpose to Rio de Janeiro. A tanner of that city keeps a number of slaves on the Caravellas merely to strip off and to dry whole cargoes of mangrove

* We find a confirmation of this in Humboldt's Travels, vol. I.

bark. A large vessel is constantly sailing to and fro to convey this bark, and it is therefore called the *casqueiro*. There are several kinds of mangrove trees; but for tanning, the bark of the red mangrove (*conocarpus racemosa*) is preferred: it differs very much, in its lower growth, and its broad oval leaf, from the white mangrove (*avicennia tomentosa*) which has a narrow longish leaf, bears an egg-shaped woolly seed capsule, about the size of a small plum, and grows more slender and higher.

Towards evening our passage became extremely agreeable; we proceeded from one channel into another, for between Viçosa and Caravellas there is a real labyrinth, formed by a multitude of mangrove islands. Among these thickets screamed swarms of parrots, but they were all of the species of the curica (*psittacus ochrocephalus*, Linn. or *amazonicus*, Latham). We saw white herons sitting on the singular roots of the mangrove trees, which shoot out high up the trunk, fall arching into the water, take root in the ground, and thus form perfect arcades in different directions. A small species of oyster is found in abundance on the bark of these trees, and the particoloured crab *aratu* (mentioned by Marcgraf) also lives in great numbers upon them.

A violent storm, accompanied by torrents of rain, overtook us at this place, and continued till our arrival at Caravellas, which we reached after dark, and where we took up our quarters at the *camara*, the residence of the *ouvidor*. Caravellas is the most considerable town in the district of Porto Seguro. It has straight streets intersecting each other at right angles, among which are five or six principal streets and several smaller ones; but they are all unpaved and overgrown with grass. The most considerable church stands in an open spot near the Casa da Camara. The houses of the town are neatly built, but for the most part of one story only. Caravellas carries on a brisk trade in the productions of the country, especially mandioca-flour,

a little cotton, &c. It sometimes exports 54,500 *alquieras* of flour in a year, which, reckoning the *alquiera* at the moderate rate of five patacks or florins, makes 272,500 florins. This trade brings hither a considerable number of vessels from Pernambuco, Bahia, Rio de Janeiro, Capitania, and the other ports on the east coast : thirty or forty small vessels are sometimes lying here at once ; and there are frequent opportunities to go, or send letters by the *casqueiro* to Rio. The vessels of Pernambuco are chiefly engaged in carrying mandiocca-flour, as this important article is scarce in that part of the country, and dry seasons sometimes occasion a real famine there, as Koster has observed.

As we intended, after our tour on the Mucuri, where we designed to spend some time, to return to this place, we now stopped only three days, and then set out for the Alcobaça, which flows through the ancient forests to the north of Caravellas. On its banks lies the *fazenda* of the minister, Conde da Barca, called Ponte do Gentio (bridge of the savages), which we desired to see. We proceeded for some hours up the Caravellas in a boat, and then continued our journey by land. Towards evening we came to the little *fazenda* de Pindoba, where Mr. Cardoso, the proprietor, very hospitably received us for the night. The country is wild and covered with still unexplored forests, and only here and there a dwelling or a plantation. As our conversation with Mr. Cardoso turned on the country and its natural curiosities, he ordered a stone to be brought, which had been found under ground ; it was a rough sand-stone cut into the form of a small axe. Our host, however, declared it to be a thunder-bolt, which had fallen and penetrated the ground during a tempest ; and he, as well as the other persons present, was highly dissatisfied with our opinion, that it was doubtless an implement made and lost by the savages. The marvellous has always the greatest charms for the uninformed.

At Pindoba we crossed a little forest-stream, mounted the horses lent us by the owners of the neighbouring *fazendas*, and rode through solitary wildernesses, where woods, thickets, and heaths succeed each other. On the scattered *fazendas* there are large sheds, in which great quantities of mandioca-flour, the chief production of this country, are prepared. These buildings are open on all sides, and consist merely of a roof of reeds or palm-leaves, supported by strong posts, and under which there are many large pans fixed in brick-work, to dry the flour.

In an ancient forest of noble tall trees, we were surprised by a strange chorus of a species of birds hitherto new to us. The whole forest re-echoed with their singular loud whistle, which is composed of five or six piercing notes. These noisy tenants of the wood were here assembled in flocks, and as soon as one began to utter his note, all the rest immediately joined in chorus. Our hunters, excited by the most eager curiosity, lost no time in penetrating into the thickets, but, notwithstanding their number, it cost them great trouble before they could shoot any of these screamers. This bird* is of the size of a blackbird, and of a very plain dirty ash grey colour. The Portuguese on the east coast give it the name of Sebastian; and in Minas Geraës it is called thrush of the forests. At the end of the wood we came to the house of Senhora Isabella, the owner of large mandioca plantations, an extremely charitable lady, and beloved on that account in the whole neighbouring country. As she has the reputation of being able to cure various diseases, she is visited by many sick and poor people, whom she either cures, or dismisses with presents

* *Muscicapa vociferans*: ten inches long; all the upper parts dark ash grey, in some places with a brownish or yellowish tinge; all the lower parts rather paler ash grey; breast and throat the darkest; the tip of the feathers of the lower parts here and there rather yellowish. In the Zoological Museum of Berlin, they have given it the name of *muscapa ampelina*.

and provisions. She received us very hospitably, and gave us, when we left her, a small hog and a large duck ; because, as she assured us, we should find nothing to eat at Ponte do Gentio.

We soon reached the river Alcobaça, which is here very narrow, and embarked upon it. We proceeded up it for a couple of hours in the cool of the evening, past the *fazenda* of Mr. Munis Cordeiro ; after which we came to the *fazenda* of the minister, situated on the north bank. The colour of the river, in which there is abundance of fish and many *jacarés*, is dark. Its banks are entirely covered with beautiful thick bushes and woods : in the water grows the aninga (*arum liniferum*, Arruda). Ponte do Gentio is a *fazenda* with a tract of land belonging to it, which the minister has purchased of the heirs of the Captain Mor, Joao da Sylva Santos, and which was formerly in a very flourishing condition. Its late possessor was an enterprising man, who in many expeditions against the savages had shewn that he did not fear them ; but always lived at peace with them on his *fazenda*. He was the first who sailed up the river Belmonte to Minas Novas. After his death the estate went to ruin for want of proper attention. Instead of preserving peace with the savages they were provoked. A negro shot in the forest one of the savages of the tribe of the Patachos ; this incensed the savages, who, to revenge themselves, attacked the negroes in one of the plantations, and killed three of them with their long arrows. This increased the disorder, and the value of the estate declined in consequence ; the minister bought it for a very small price. Efforts are now making to restore peace with the savages, and improve the state of the *fazenda*. At present some Indian families reside here, with six families of Ilhoes (inhabitants of the Azore islands), nine Chinese, some negro slaves, and a Portuguese as steward. The Chinese were brought by the government to Rio de Janeiro, to cultivate tea there ; subsequently some of them were sent to Caravellas, and others hither, to be employed as day-labourers ;

but they are too indolent, and perform none but extremely light work. They live together in a small house; one of them has turned Christian, and has married an Indian woman. They have retained the customs of their country; they keep its festivals, are fond of all kinds of poultry, and are said not to be very particular in the choice of their provisions. The interior of their reed hut is extremely clean and neat. Their beds, for instance, have fine white curtains, which are draped in a tasteful manner, and fastened up on the sides with very handsome brass hooks. These pretty beds form a strange contrast with the miserable reed hut in which they are placed. The Chinese sleep on a fine rush mat, and have a small round pillow for the head. We saw them eat their rice in the genuine Chinese fashion with two small sticks. They were much pleased when we visited them; they talked to us, in extremely broken Portuguese, about their dear native country, and how much more comfortable they were there than in Brazil. They also opened their trunks, in which they carefully preserved some indifferent Chinese porcelain, and a great number of fans of various kinds, which they brought with them for sale. The buildings of the *fazenda*, with the mandioca manufactory, are situated in a small hollow near the river between two eminences. On ascending the easternmost of them, on which the village stands, you overlook the country round to a great extent; and as far as the eye can reach, the whole to the most distant horizon is covered without interruption with gloomy forests; except that on the right bank of the river there appear a few spots upon which human habitations have been erected.

We traversed the neighbouring woods with our hunters, and some lazy Mamelukes who lived here. Many kinds of animals were killed; among which we obtained, for the first time, the common sloth, (*bradypus tridactylus*, Linn.) for we had hitherto seen none but the sloth with the black collar (*bradypus torquatus*, Illigeri).

At this place we were very near having the misfortune to lose Mr. Freyreiss. One morning he went out alone with his fowling-piece, and did not return at the usual time to dinner. Evening came ; it grew darker and darker, and we still looked for him in vain. Our fears for his safety increased every moment ; I therefore made several of our people fire frequently in order to give him a signal : at last we heard a faint report of a shot at a great distance. I immediately ordered the Indians, provided with burning torches, or rather fire-brands, to hasten to the side from which the sound had been heard. Happily they found our lost companion, and returned with him about midnight. He reached the *fazenda* very weary and exhausted, and related to us his dangerous adventure.

He had proceeded a considerable way upon a forest-path that was not very practicable, and which suddenly ceased. He continued to advance ; and when he thought of returning he had entirely lost the proper direction. He spent the rest of the day in seeking it, and marked the trees in order to know where he had already been ; but all his attempts to find his way were fruitless. At length he ascended a mountain, hoping that by having a wider prospect, he should be able to discover the track, but on every side nothing was to be seen but immense unbroken forests. At length he came to a brook, and waded down it, in the hope of reaching the Alcobaça, and by following its course to find his way back to the *fazenda* ; but in this hope he was again disappointed, for the brook soon expanded into a marsh, and was lost. His situation now became in the highest degree alarming. Exhausted with hunger, heated by his fatiguing walk, and wet through with the water of the brook, he sunk down, unable to proceed. But twilight now approached ; he mustered all his strength, and built himself a little hut of palm-leaves. Here he was dreadfully tormented by the mosquitoes ; nor was he less disquieted by the well-

founded apprehension of savages and wild beasts, and the more so, as for want of the necessary apparatus he could not kindle a fire to keep them off. He had made up his mind to wait for the return of daylight, which however could not offer him any very cheering prospects, since he had no hope of finding the right track, unless by some lucky accident; and he was so ill provided with powder and shot, that he could not have long subsisted by the produce of the chase. In this deplorable situation he at last heard---and who can paint his joy?---our firing at Ponte do Gentio. Inspired with new hopes, he sprung up, fired a couple of shot by way of answer, which, from the attention with which we listened in the silence of the night, were fortunately heard by us. If he had been a little farther off, or behind an eminence, he would not have been able to hear our firing, nor we his; it would have been impossible for us to find him, and his fate in the frightful wilderness would have been most lamentable, for he had intended to attempt, on the following morning, to seek the way back, exactly in the opposite direction to the *fazenda*.

This circumstance may serve as a proof how necessary it is to employ the greatest precaution, when any one will penetrate alone into these vast solitudes, without being in some measure acquainted with them, or possessing the extraordinary talent of the Indians for finding their way. The steward of Ponte do Gentio, a Portuguese, well acquainted with the chase in this country, once lost his way on such an expedition, and wandered about in the woods for seven days; but as he was provided with a tinder-box, powder and shot, so that he could supply his most urgent wants, he at last succeeded in reaching a plantation on the Alcobaga. Two Indians, who had been sent by the bailiff to follow his track and look for him, arrived soon after him. It is a mistaken notion that provisions are every where to be found in these forests. Notwithstanding the numerous species of wild

animals that inhabit them, you may often travel days together without seeing a living creature; and here too experience shews, that more animals always live near the abodes of man, than in the interior of the great forests.

Our collections received here some interesting additions; but our insects, especially the butterflies, were much damaged by the little red ants. We had no means of saving them but by sprinkling them with snuff. On the 25th of January we left Ponte do Gentio, and returned to the house of Senhora Isabella, where we found the people employed in preparing mandiocca-flour. Our attention was excited by a tame toucan: its droll motions, with its awkward shape and large bill, amused us much. It devoured, with extraordinary avidity, every thing eatable that came in its way, not excepting flesh. It was offered us as a present, but we declined accepting it, because this bird cannot bear our climate. The people obtain here a great quantity of honey from a kind of yellow bees without a sting. For this purpose they hang up, under the roof, billets of wood, hollowed out, the ends of which are stopped up with clay, and a small round hole bored in the middle for the bees to enter. This honey is very aromatic, but not quite so sweet as the European. Honey mixed with water is used here as a very agreeable cooling beverage.

The following day we rode back to Pindoba, and in the evening arrived again at Caravellas. Our business here was finished in two days, and we embarked again for Viçosa in a beautiful moonlight night. Thousands of fire-flies (*lampyris*, *elater*, and perhaps other luminous insects) flew about the bushes on the bank. When we arrived at the house of the *camara* at Viçosa, the *ouvidor's* Botocudos were still there. What incommoded us, even more than this disagreeable company, was the uninterrupted howling of a dog that had been bitten by a venomous serpent. They gave him the juice of the *cardo santo* (*argemone mexicana*), prickly poppy, a yellow-flowering

thistle, which is every where common*; but the animal died. The number of poisonous serpents in Brazil is here erroneously supposed to be greater than it really is. Even the inhabitants of the country assert the greater part of the serpent species to be venomous: they know the contrary only of a few kinds; for instance, the large species of boa. However there are certainly some venomous species, for example, the green viper, and the *jararacca*, both of the genus *trigonocephalus*; but by far the most terrible are the rattle-snake (*crotalus horridus*) and the çurucucú (*luchesis mutus*, Daudin, or *crotalus mutus*, Linn.); the latter, particularly that which grows to the length of seven or eight feet, is found in all parts of Brazil. The rattle-snake, called by the Portuguese *cobra cascavella*, frequents only the high and dry parts; in Minas Geraës and in the interior of the Capitania of Bahia, it is pretty common.

From Viçosa we returned to the Mucuri, but did not stop long in the town because the *ouvidor* was already at the spot where they are employed in founding the new *fazenda* at Morro d'Arara. Mr. Freyreiss had resolved to return from this place to rejoin our *tropa* at Capitania. I preferred sailing up the Mucuri to the works in the woods, in order to pass some months in those forests. We packed up our baggage, and passed a couple of days in Mucuri. From this place we made some excursions together on horseback, one of which was to inspect the beginning of the new road, which Captain Bento Lourenzo, with his Mineiros and other workmen, had already begun, and continued for about three leagues. This road begins immediately behind the houses of Port Alegre, and at first intersects marshy meadows and open tracts (*campos*) with hard reed-like grass, in which rude bridges had been made of boughs of trees: farther on it had

* Azara undoubtedly alludes to this plant, when he speaks in his Travels, vol. I. p. 132. of a fever being cured by the infusion of a thistle.

been carried through bushes and thick woods. It was at present in a rough state, a mere path (*picade*), and not very broad: here and there too immense trunks of trees were still lying in it. The leagues had been measured with a line, and inscribed on the fronts of the trees, which were barked and cut smooth for the purpose. In some places in the woods we found the huts yet standing in which the troop of workmen had lodged at night.

At the last plantation on the river Mucuri, which belongs to Mr. João Antonio, the road of the Mineiros approached the bank and the houses erected upon it. We arrived in company with Father Vigario Mendes, and the *escrivam* of Mucuri; and found there Captain Bento Lourenzo, who with all his people received us with a *feu de joie*, on an eminence on which the dwelling stands. It is the general custom in Brazil, with troops of armed men, and with the soldiers, when strangers visit them in the wildernesses of the interior, especially at the military stations, to fire a *feu de joie*, for which purpose they charge with more than the usual quantity of powder. We passed some hours very agreeably with the honest captain and the kind owner of the *fazenda*, Mr. João Antonio, and then returned by water to the town. On the morning of the 3d of February we set out for our respective destinations. Mr. Freyreiss crossed the Mucuri in a boat on his return to Capitania; and I embarked, in company with two other boats, to go up the river. When at a considerable distance, we mutually fired another parting salute of guns and pistols, and soon lost sight of each other. The place chosen for the *fazenda* and saw-mill of the minister, Conde da Barca, lies about a day and a half's journey up the Mucuri, and is named Morro d'Arara from the number of macaws (*araras*) found there. To this place I proceeded, accompanied by the *escrivam* of Belmonte, Capitam Simplicio da Sylveira, who had been particularly serviceable, when an attempt was made to negotiate a treaty with the Botocudos on the Belmonte. He and

a young Menian Indian* who accompanied him, spoke the language of those savages.

The banks of the Mucuri, every where bordered with thick woods, present, from the frequent windings of the river, which on the whole is narrow, a great diversity of picturesque forest scenery. We had to push forward our boat with much difficulty against the current which was high and rapid, a labour the more fatiguing, as the noon-day sun darted his scorching beams on our heads, and the wood of the boat became so heated that we could scarcely bear to handle it. The green kings-fisher, with the belly of a dirty red, (*alcedo bicolor*, Linn.) and the beautiful whitish green swallow (*hirundo leucoptera*) were very frequent here: the latter perches on dry branches and low trees in the water, or hovers over it; on land it is only found near the banks of rivers. We here saw, on old trunks bending over the water, and on rocks, great numbers of a kind of grey bats†, which sit there in the cool during the day: they are distinguished by their projecting nose. From a tree on the bank we shot the beautiful pigeon, which is called on the east coast *pomba trocães*, and near Bahia *pomba verdadeira*; it is the *columba speciosa*‡ (the scallop-necked pigeon) of naturalists.

In the afternoon we reached the last plantation, belonging to Mr. Joao Antonio, where some days before Captain Bento Lourenzo had saluted us with a *feu de joie*; he had now proceeded, with his people, farther into the forest. When the evening twilight arrived we landed

* The Menians, who live at Belmonte, are a degenerated relict of the Canaan Indians, whom we shall have occasion to notice in the sequel.

† *Vespertilio naso*, a new species, with a snout almost like a trunk, which projects a full line beyond the upper jaw. Whole length of the animal two inches four lines. The membrane of the wing very hairy; external ear narrow and very pointed: the hair on the upper part of the body dark yellowish brown; on the lower side pale yellowish grey.

‡ Temminck, *Histoire Naturelle des Pigeons, et des Gallinacées*, vol. I. p. 208.

in the thick forest and kindled our fires. The night was very warm and fine, but, as usual in hot countries, extremely damp. The voices of many birds, those of the *caburé*, the *choralua*, the *bacurau* (goat-sucker), and the *capueira* (*perdix guianensis*), are heard only at dusk, when they animate these vast and awful solitudes. The *caburé*, in particular, came very near us; its twittering note sounded from the tree nearest to the fire, which the bird seemed to survey with curiosity. Our hardy half-naked Indian boatmen immediately lay down without covering, and some of them at a distance from the fire on the damp ground, and slept very soundly. We, on the contrary, wrapped ourselves in our thick blankets, on a bed made of brushwood and cocoa-leaves.

Next morning, while breakfast was preparing, a flock of maccaws alighted near us with loud cries. Mariano, one of our people, immediately leaped up, took his gun, and cautiously approached the birds: the report echoed majestically through the solitary wilds, and the hunter returned joyful, with the first of those splendid birds that we had shot on this journey.

After dinner we embarked again, and landed in the evening on a sand-bank, upon which we kindled a fire. While we were employed in preparing the maccaw for our collection, we saw a large boat full of people rowing towards us. It was Mr. Charles Frazer, an Englishman, who possessed an establishment at Comechatiba, on the coast near Porto Seguro, with his attendants: his plan was the same as our own. We passed the night at this place, and set out in the morning together. Towards noon we reached, on the north bank of the Mucuri, the entrance of a narrow, shady channel, about ten or twelve paces in breadth. This natural channel, which was before impassable from thickly interlaced bushes which hung over it, had been cleared a few days before by command of the *ouvidor*, and the bushes cut

away. It is the entrance to a fine and pretty considerable lake called Lagoa d'Arara, which is encompassed all round by woody mountains. It was about a quarter of a league up the *lagoa* that the *ouvidor* had just begun to found the establishment of the minister at Morro d'Arara; timber had already been felled, and some huts built. The *ouvidor* received us politely, and I immediately made arrangements for remaining some months in this solitary wilderness.

CHAPTER IX.

STAY AT MORRO D'ARARA, MUCURI, VIÇOZA, AND CARAVELLAS, TILL OUR DEPARTURE FOR BELMONTE.

(From the 5th of February till the 23d July, 1816.)

Description of our Abode at Morro d'Arara.—Hunting Excursions.—The Mundeos.—Stay at Mucuri, Viçoza, and Caravellas.

To form some idea of our mode of life at Morro d'Arara, conceive a wilderness in which a company of men forms a solitary outpost, sufficiently provided by nature with the necessaries of life, in abundance of game, fish, and good water; but at the same time, by its distance from inhabited places, entirely confined to its own resources, and obliged to be constantly on its guard against the savage natives of the forest, by whom it is on every side surrounded.

Patachos, and perhaps Botocudos, prowled about us daily, to watch our motions; for this reason we all went constantly armed; we numbered between fifty and sixty able-bodied men. The wood on the side of a mountain, on the bank of the *lagoa*, had already been felled, so that it lay confusedly together like a rude abatis. Twenty-four Indians, who were particularly serviceable for this purpose, went out daily to work; some of them were furnished with axes, others with a sickle-shaped instrument (*fouce*) fixed to a long handle; the former cut down the trees, the latter the underwood and young bushes. When a large tree was felled it drew down many

other trees with it to the ground ; because all these forests are interlaced and twined together by the strongest ligneous climbing plants ; many trunks were broken off by others, and remained standing like colossal pillars : prickly plants, especially the stems of the *airi* palm, which are covered with thorns, lay every where on the ground, and made these abatis perfectly impenetrable. The *ouvidor* had caused five or six huts to be built near the *lagoa*, the roofs of which were covered with uricanna leaves. Four of our Indians, who, like most of their countrymen, were very good hunters, and still better fishermen and boatmen, were sent out every morning for the whole day, to fish, hunt, and examine our *mundeos* or traps for animals, and they always brought home in the evening, game and abundance of fish, principally *piabanhas*, *traïras*, *piau*, *robal*, and other species. As soon as all our people were collected together in the evening, we had no cause to fear an open attack of the savages. Against a surprise by night, which they do not readily attempt in dark, but preferably in moonlight, nights, we were secured by the vigilance of our dogs. A large dog belonging to the *ouvidor* distinguished himself above the rest ; he seemed to scent the savages when they prowled about on the mountain, beyond the *lagoa*. On these occasions he was quite furious, and barked long and without intermission towards the suspicious quarter. The Patachos, from their dark lurking places, doubtless observed us, not without wonder and dissatisfaction, and our hunters had need of great caution not to approach them unguardedly. We often heard these savages imitate the notes of the owls (*curuja*), of the *capueira*, and other animals, especially the night-birds ; but our Indians, who were equally skilled in this art, never failed to distinguish the imitation from nature. A person not acquainted with it, would perhaps have attempted to follow the call of the bird, when the arrows of the savages would have shewn him his mistake. When our people danced the *baduca* by moonlight, and played the guitar

to it, which is always accompanied by clapping of hands; this clapping was repeated by the savages on the other side of the *lagoa*. The *ouvidor*, who on all occasions took much pains to gain the savages, made frequent endeavours, while we were here, to entice them, and called out to them: *Schamanih!* (comrade) or *Capitam Ney* (great chief), &c. but all his endeavours were vain; though our Indians, whom we sent out on the watch, frequently perceived by the footsteps of the savages, that they had approached the abatis in the night, and reconnoitred our encampment on all sides. As we ourselves expected one evening to be suddenly attacked, because our dogs were uncommonly uneasy, we were always on our guard, and those who had to fetch water, collect fuel, or do any thing else in the forest, always took care to be well armed.

Our collections received large additions, particularly of quadrupeds, at Morro d'Arara, by means of our *mundeos*. The Indians are extremely clever in making these traps. For this purpose they choose, in preference, a spot near the bank of a river in the forest. They erect here a long fence of green boughs, which is placed at right angles to the bank, and must be from two feet and a half to three feet high. Every fifteen or twenty paces, a small opening is left, on which three long heavy pieces of wood are set up obliquely, propped up by several small pieces. The small animals, as they go backward and forward according to their custom, on the bank of the river, seek a passage through, and finding the opening in the hedge, tread upon the foundation which is composed of twigs woven together; the heavy pieces of wood fall down and kill the animal. It is usual to make thirty, forty, or more of these traps in a line, and game is caught in them daily. Frequently, and especially in dark nights, we found five, six, or more animals at one time. It is however necessary to examine the traps once or twice every day; because in the great heat, the game caught is soon spoiled or fly-blown.

By direction of the *ouvidor*, mundeos of this kind had been made in two places near Morro d'Arara: they were our chief means of subsistence, for though the people here lived principally on fish, we Europeans always preferred fresh meat. The paca (*calogenys paca*), the aguti (*dasyprocta aguti*), the macuca (*tinamus brasiliensis*), and the common tatu (*tatou noir*, Azara), the flesh of which is white, tender, and well flavoured, were particularly welcome to us for our table. One day, having gone out to examine the traps, we were on the *lagoa*, when the Indian who managed my boat suddenly pointed out to us an anta, which was swimming in the lake, and attempting to reach the shore. We fired at it from some distance, but most of the shot missed, till at last, the misshapen animal was wounded, but only slightly, because the shot could not penetrate far through its thick skin. We went on shore and followed the bloody track, but soon forgot it entirely, in consequence of the great danger into which my Indian fell. He came too close to a *jararacca** five feet long, which lay hid among the dry leaves: it raised itself up, shewed its formidable teeth, and was going to bite at him, when I killed it by a fortunate shot, and saved the terrified hunter. The Indians, and even the Portuguese hunters, always go barefooted to the chase; shoes and stockings being in this country dear articles for the countryman, and therefore used only on holidays. They are of course more exposed to the bite of the serpents, which often lie hid among the dry leaves; and yet such cases are more rare than would

* The *jararacca*, which is spoken of in our modern travels, is introduced in the systems under the name of *vipera atrox*; but it differs from the viper in the opening in the cheeks, which is found in all the venomous serpents of South America, that I had an opportunity to examine. In the Magazine of the Society of Enquirers into Nature, at Berlin, (3d year) p. 85, there is a description of the *jararacca*, by M. H. Tilesius, if this name has the same meaning at St. Catherine's as on the Continent. The *jararaccassu* is merely a very large old animal of this kind, which is naturally rather different in colour from younger ones.

be supposed. The horror and fear of serpents felt by the inhabitants is excessive; the common people entertain various and partly ridiculous prejudices respecting their nature: thus for instance, they believe that there are serpents with two heads; that others are attracted by light or fire, and that the venomous kinds of these animals spit out their poison when they are going to drink.

Some days afterwards I obtained another, quite harmless, but remarkably beautiful serpent*, in the skin of which vermilion, black, and greenish rings, alternate; it has some resemblance in figure to the coral serpent (*cobra coraes*), but is very different from it.

In these solitary wildernesses the chase was our most agreeable, most useful, and indeed only occupation; and though the insecurity of the forests laid us under many restraints, and obliged us to make it a rule never to go out, except in sufficiently numerous parties, yet we always procured abundance of game. Whenever we went out of our huts in the morning, we heard the loud drum-like voice of the barbados (*mycetes*) and the hoarse growl of the gigo†, another hitherto nondescript monkey; the maccaws, which flew loudly screaming over our huts, in pairs, threes, or fives, joined in this noisy concert, which re-echoed through the woods; and we were in like manner surrounded by flocks of parrots, of schaiias, maitacas, jurus, (*psittacus pulverulentus*, Linn.) curicas, and many other kinds.

* *Coluber formosus*, a nondescript species; 32 inches 7 lines long, including the tail, which is 7 inches: head of a bright orange colour; iris vermilion; in the mouth are 76 teeth; the fore half of the body, with alternate black and pale yellow green transverse stripes; the hinder alternating with black and broad vermilion stripes. It is an incomparably beautiful animal.

† *Callithrix melanochir*, 35 inches 10 lines long, including the tail, which is 21 inches 10 lines; the hair long, thick, and soft; face and four feet black; the hair blackish and whitish mixed, so that it appears ash grey; back reddish chesnut brown; the tail is whitish, often nearly white and sometimes yellowish.

At the huts, our people were still employed in completing the roofs. The two larger buildings, in which I lived, in company with the *ouvidor*, the two naval captains, and Kramer, the German millwright, were provided with clay-walls, and the roofs were finished. For the latter they used the leaves of the uricanna, a palm which has a small pliable stem: the beautiful large feathered leaves (*folia abrupte pinnata*) grow on slender stalks; several of them are formed into a bundle; the stalks, which are very long, are then twisted round a lath of cocoa-wood, and bound together under it with a *cipo verdadeira* (*bauhinia*), which is long enough to bind one bundle to another. The laths, with the leaves thus attached, are laid over one another in such a manner that two thirds of their breadth are covered. The ridge of the roof is then covered with other leaves, particularly the long cocoa fans, in order to render it quite water-proof. Such a roof, which they very well understand how to make here, is light and secure; care must however be taken to permit smoke sometimes to circulate through it, because otherwise the insects would destroy the dry leaves in the first year.

A spacious hut was now erecting for a workshop for the smith; for on account of the hardness of the different woods which were to be cut and worked, the tools very frequently stood in need of repairs. The smith employed here, was an inhabitant of the country on the Alcobaça, whom the *ouvidor*, to punish him for some fault, had ordered to be taken from his home by night, and brought hither to work. While the workmen were building the huts, the woodmen cleared the spot where it was proposed to erect the saw-mill. The *ouvidor* left us, and went for some time with many of his people to Caravellas; our company was consequently much diminished, but we soon received a large accession of numbers. Captain Bento Lourenzo had carried the new road so far with his Mineiros, that he had nearly approached our solitude. The *Picadores* (people who go before and mark

upon the trees the direction which the woodmen are to pursue) arrived a day earlier, and announced the coming of their company. The following evening the captain arrived with eighty or ninety men, and took up his quarters with us. A great number of people was now collected within this small compass: the sounds of the guitar, the song, and the dance (*baduca*), were heard till late in the night; large fires illumined the surrounding abatis and the dark forests, and tinged with their red glare the broad surface of the *lagoa*. The length of the road from Mucuri hither is about seven or eight leagues. The Mineiros had found, near Morro d'Arara, another large *lagoa*, abounding in fish, and in which there are great numbers of jacarés; they had to make a circuit round this lake, and to cross marshes, by which, and similar obstacles, their labour had been much retarded. The various races of men whom the captain had together in his troop, gave to our train a very picturesque and original appearance. Besides us Germans and Portuguese, there were in our company negroes, creoles, mulattos, mamelukes, Indians of the coast, a Botocudo, a Malali, some Maconis, and Capuchos, all soldiers from Minas Geraës.

The captain and his people stopped some days at Morro d'Arara, to have the tools and the locks of their guns repaired by our smith. He made his people continue their work every day: they carried the road past our abatis over the ridge of the mountains, and made a path, or picade, from our head-quarters to the new road, which we used in the sequel for hunting. On the 22d of February the captain's people left our habitations to prosecute their work through the forest. Some of us accompanied them for some distance along the new road into the woods. There we reposed under ancient venerable trees, and were regaled by the Mineiros with cooling beverage. This scene is represented in the annexed engraving. We are seen seated in a circle, while Captain Bento Lourenzo, distinguished from the rest by his

large grey beaver hat, prepares the drink, called *jacuba*, in a *cuia*. The fowling-pieces rest against the trunks of the trees, some having their locks covered with *pattioba* leaves, as a protection from the wet. Some Indians are still employed in felling trees, while they are guarded by Indian soldiers, seated on the provisions wrapped up in *pattioba* leaves. A negro is showing a monkey which he has shot, and the Mineiros and Indian soldiers are gradually assembling.

The captain himself returned once more with us to our habitations, and left us the next day to rejoin his people. We wished him success in the prosecution of his arduous enterprise, which was now exposed to many dangers, as he was going to undertake a tedious labour in the inmost recesses of the forest, in the approaching rainy season, which generates many diseases. Morro d'Arara now seemed quite deserted, when all our people had returned home in the evening from their work, we did not muster more than twenty-nine persons.

This did not diminish our success in procuring game; for new *mundeos* had been made, which were very productive. A list of the animals either shot, or taken in the *mundeos*, in this period of five weeks, will not be misplaced here, as it will afford an idea of the abundance of game in these vast forests;

Antas,	<i>Tapirus americanus</i>	-	3
Deer,	{ <i>Guazupita</i> , Azara	-	1
	{ <i>Guazubira</i>	-	2
Wild Swine,	<i>Dycoteles labiatus</i> , Cuv.		11
Monkeys,	{ <i>Barbados</i> (<i>mycetes</i>)		9
	{ <i>Micos</i> , a nondescript species		14
	{ <i>Gigos</i>	-	10
Cuatis,	<i>Nasua</i>	-	10
Tamanduas,	<i>Myrmecophaga</i>	-	2
Lontras,	<i>Lutra brasiliensis</i>	+	2

Iraras,	<i>Mustela</i>	-	-	4
Mbaracayas,	<i>Felis pardalis</i>	-	-	4
Gattos pintados,	<i>Felis tigrina</i> ?	-	-	3
Gattos muriscos,	<i>Felis jaguarundi</i>	-	-	2
Tatus,	<i>Dasypus</i>	-	-	30
Pacas,	<i>Calogenys paca</i>	-	-	19
Cutias,	<i>Dasyprocta aguti</i>	-	-	46

EATABLE BIRDS.

Mutum,	<i>Crax alector</i> , Linn.	-	8
Jacutingas,	<i>Penelope leucoptera</i>	-	5
Jacupembas,	<i>Penelope marail</i> , Linn.	-	2
Macucas,	<i>Magoua</i> , Buffon	-	5
Chororao,	<i>Tinamus variegatus</i> , Latham	-	6
Patos,	<i>Anas moschata</i> , Linn.	-	4

In all, 181 quadrupeds, and 30 large eatable birds.

With the monkeys that we killed, many young ones also fell into our hands; we were however unable to preserve these tender little creatures alive for any length of time, probably because we had not proper food for them.

Besides the supplies for our kitchen, our hunting excursions furnished me with materials for researches in natural history, and thus the time passed very quickly in this solitude. Among the animals found in these forests, I mention only some hitherto non-descript species; among others, the purple chatterer, or silk-tail*, the *sabia-sicca*†, a parrot with a remarkable varying note; the maitaca with

* *Ampelis atro-purpurea*; 7 inches 9 lines long; the plumage of the old birds is dark purple, on the crown inclining to bright red; quill feathers white. The plumage of the young birds is ash grey, with white quill feathers.

† *Psittacus cyanogaster*; plumage beautiful dark green; on the belly an azure blue spot; the tail rather long; this species is frequently kept in houses on account of its voice.

a red head*, &c. Of insects, we frequently procured the *cerambix longimanus*; and of the class of reptiles, the wood tortoise, *jabuti* (*testudo tabulata*), &c.

After an absence of about three weeks the *ouvidor* returned with some boats and many people. He brought us the melancholy news, that the savages had on the 28th of February murdered five men, women, and children, about a league from Villa do Port Allegre, on Captain Bento Lourenzo's new road. Some other persons, who on perceiving the large compact body of the savages, had quickly thrown themselves into a thicket, were fortunate enough to escape. A man from Mucuri, who was at work on his plantations in the woods near the spot, had heard the lamentable cries of the unhappy victims; he, and a young man his son, had immediately taken their guns and hastened to the aid of the sufferers; but before they reached the scene of the murder, the father discharged his piece, on which the savages immediately fled. They found the murdered persons weltering in their blood, without any sign of life, pierced with many arrows, and covered with numerous small wounds inflicted with the points of arrows: a child, which had hid itself behind a bush, had escaped unnoticed, and gave an account of the particulars of the mournful event. As the savages did not retire after this outrage, but still hovered about the plantations of Mucuri, these were abandoned by the owners, who all sought refuge in the town. The *ouvidor* had immediately given orders for an expedition, and collected armed people for the purpose from St. Matthew's, Villa Verde, Porte Seguro, and other places, after which he himself returned to Morro d'Arara. He then repaired with ten or fifteen persons to the new road, and remained there two days in the forest, to level a watercourse for the

* *Psittacus mitratus*; with a short tail 7 inches 8 lines long; fine bright green with dark blue quill feathers; the head down to the neck and the eyes scarlet.

minister's saw-mill. The two naval officers who came with him, sailed up the river to take a plan of its course, for two days' journey upwards as far as the falls; there they found Captain Bento Lourenzo, who had proceeded so far in his work. The *ouvidor* left Morro d'Arara on the 9th, and returned to the town; he took away with him such people and arms as he most wanted, in order to employ them against the savages; but the expedition availed nothing, for the wary Tapuyas were not to be found.

I was now left, with the steward of the *fazenda*, my two German attendants, five negroes, and six or seven Indians, who were slowly to continue the work. As our *mundeos* did not catch much game in the moonlight nights, we resolved to make new ones: this was done upon the mountain, on the other side of the new road. Thirty traps, and three pit-falls were prepared. Though the Patachos did us considerable injury, by several times taking away the animals caught, and by beating in the cover of a pit-fall, we still caught some game, till the place was disturbed by woodmen, who came from the town to build boats; the trees they felled were oiticica, jiquitibá, and cedro, which next to the sergeira are the best for boat-building.

The month of March had now arrived, and with it the beginning of the cold season, which here sets in with abundance of rain. We had often great heat in the morning, and towards noon violent thunder-storms, which occasionally lasted one or two days, and poured down torrents of rain. In such weather our solitary abode in the little and gloomy valley in the forest, was extremely dreary: vapours rose like thick clouds from the damp woods, and enveloped us so, that we could scarcely see the opposite thicket though so near us. This changeable and damp weather caused many diseases; fevers and head-ache were frequent, and even the native Indians were not exempt from them, so that it was necessary to send several of them to the town. We foreigners suffered particularly; we were

destitute of the requisite medicines, especially Peruvian bark, which is absolutely indispensable for travellers in these hot climates.

The fever had also attained the highest degree of violence among the company of Captain Lourenzo; he was himself extremely ill and enfeebled. From lying on the damp ground in the woods, from the want of strong liquors, having no other drink than water, and from the entire want of proper medicines, many of his people were so reduced that he was likewise obliged to send them to the town. He himself repaired to Morro d'Arara, where we took care of him for some time, and sent him away in some degree recovered. For my part, when I perceived that the fever would not leave me, I had recourse to the Peruvian bark *, which I had found here growing on the Mucuri.

* This bark consists of pieces from four to six inches long, one and a half to two inches broad, and half an inch (more or less) thick. Most of the pieces are much bent lengthwise, so that the inner side stands up and forms a channel from half to one inch broad, and from one sixth to a quarter of an inch deep. The colour of the outside is dark brown red, mixed with bright reddish spots; the inner side is of a much lighter colour, and has a woody appearance. The external side is wrinkled, veined, and furrowed longitudinally, and also has transverse cracks here and there, much like the *Angustura* bark. On this side too there are parts higher than the rest of the surface, of a grey and light red colour, which seem as if they were remains of an outer skin; it is probably a lichen growing on the bark. In breaking it is brittle, and rather shining, and shews no sign of wood or fibres. The whole bark appears on the breaking to consist of only one substance, which towards the outside is dark red, shining, and very resinous; internally, pale red, less shining, and but little resinous. It is heavier than water; the taste is unpleasantly bitter, more astringent than that of the red bark: the powder resembles that of the *rub. tinct.* only that of the Peruvian bark inclines to violet, and that of the *rub. tinct.* is brown; it is not to be compared with that of the red bark. A decoction of this bark is dark red brown; mixed with an infusion of galls, a greyish red brown precipitate is formed, and as strong as that of the other sorts of bark: with muriate of tin, the strongest and thickest precipitate became of a brownish violet red colour; with a decoction of oak bark there was no precipitate, but a combination of both; with acetate of lead, the precipitate was a dirty light brown, inclining to reddish: tartar emetic gave a slight liver-coloured, sulphate of iron a bluish dark grey, and sulphate of copper a greyish brown red precipitate. No satisfactory statements can be given respecting the internal use of this bark, as I had not brought a sufficient quantity for the purpose

The pieces given me of this bark, with which the captain had been cured, were peeled off very thick, and still fresh, so that they could not be reduced to powder. We therefore cut them in small pieces, and made a strong decoction, which we drank. The Portuguese, who were used to the climate, received benefit from this remedy; but we Germans found that it only deferred the fit, which afterwards returned with increased violence. As the want of suitable food was more and more sensibly felt under those distressing circumstances, and I saw that I should never recover my health while I continued to subsist on black beans, and fat or salt meat, to which we were now confined, I resolved to remove to the town, which I accordingly did on the 10th of March. The high winds which prevail on the sea-coast at this season, are far more conducive to health than the damp, close warm air in the forests. Our passage down the Mucuri was very agreeable, as we had no rain. In the town also provisions were scarce, as indeed there is in general much poverty in these parts; the people had nothing but mandioca flour, beans, and sometimes a little fish: we who were ill however had the good fortune to procure suitable food by purchasing some fowls. As the Brazilian bark did not seem to effect our cure, I sent a messenger to the Villa de St. Matthæus, who brought me back some genuine Peruvian bark. This, it is true, soon put a stop to the disorder, but it was several weeks before we quite recovered our strength.

Mr. Freyreiss came with the rest of our people to the Mucuri at the beginning of May. He had made a short stay at Linhares on the Rio Doce, but had found the state of the settlement there very different from what it was at the period of our visit. The Botocudos,

to give to Dr. Bernstein, who undertook the preceding description. The use of it seems to promise greater efficacy in weakness of the stomach than the other kinds of bark. He could not employ it in intermitting fevers.

more bold and fierce than ever, had again shewn themselves in a large body. On the south bank of the river, near the Quartel d'Aguia, on the *Lagoa dos Indios*, they had murdered three soldiers, and, as some affirmed, devoured them; an expedition had been dispatched against them from Linhares, comprehending all the people that could be collected (about thirty-eight): but they met with such a number of savages, that they judged it most prudent to retreat. On one of the *Tocayas** alone were found forty men armed with their bows. This issue of the affair had spread a panic at Linhares, and, as Mr. Freyreiss assured us, the inhabitants fled four and eight at a time, lest they should be devoured by these ferocious savages. The *fazenda* of Lieutenant Calmon was in a very alarming and dangerous situation. The Guarda Mor, who was detained as a prisoner at Linhares, had escaped to St. Matthew's, and the commander of the Quartel of Porto de Souza had deserted with six soldiers, &c. so that this settlement in one of the most fertile districts was likely to be soon broken up, unless the government should meanwhile adopt more judicious measures.

After I had passed some weeks more on the Mucuri with Mr. Freyreiss, to wait for the entire recovery of the sick, we travelled to Villa Viçozza, where we took up our abode in the house of the *camara*, whence we made excursions into the neighbouring country.

Villa Viçozza is a small village, agreeably situated among cocoa-trees. It carries on some trade in mandioca-flour, which is exported coastwise. The quantity exported last year is said to have amounted to 9000 alquieres, worth about 9000 crusados. Several of the inhabitants possess small vessels, (*lanchas*,) in which the produce of

* *Tocayas* are places which the savages prepare in the thickest of the forest to lie in ambush for their enemies. They generally have several in different places: we shall notice them more particularly in the sequel.

the plantations is exported by sea. A German ship-carpenter lives here ; he was brought hither by an English vessel which was wrecked, and now exercises his profession : he came immediately to visit us ; but he speaks his native language very imperfectly : in this country he was considered as an Englishman.

The owners of the vessels (*lanchas*) are the richest and most respectable inhabitants here. M. Bernardo da Motta is distinguished among them by his beneficent disposition and integrity. Possessing a knowledge of many of the disorders of the country, and considerable experience, which he has gradually acquired, he exerts himself to be serviceable to his sick countrymen by his advice, and by supplying them with approved remedies. In the hot climate of Brazil the inhabitants are subject to numerous diseases, and especially to various cutaneous disorders, and obstinate fevers, which, when properly treated by able physicians or surgeons, are indeed seldom dangerous, but of which many persons die here for want of the necessary assistance or from improper treatment. M. da Motta has endeavoured at Viçosa to remedy this evil as much as possible ; and though he does not possess any profound medical attainments, yet experience has taught him many excellent practical modes of treatment ; and from the modesty with which he tries, and adopts every thing good and useful that is communicated to him by others, his knowledge and the sphere of his beneficial exertions are continually increasing.

The greatest kindness that the king could confer on his subjects in Brazil, would be the appointment of able physicians and surgeons in the different parts of the country, and the establishment of good public schools, in order gradually to dispel from among the common people the rude ignorance and the blind superstition, which occasion and diffuse so much misery and mischief. Such schools are wholly wanting. Arrogant ecclesiastics, who are deficient either in energy

or inclination to labour for the instruction and education of the people, actively contribute, on the contrary, to repress sound reason and the exercise of the understanding, and to impede the progress of intellectual improvement. With all their rudeness, the common people have a great degree of self-conceit and pride, combined with a total ignorance of the state of the rest of the world; which is probably chiefly to be ascribed to the pernicious system of entire exclusion from foreign intercourse, which Portugal formerly pursued with regard to Brazil. A stranger is here considered as a wonder, or as something only half-human. While he deplores this darkness, the friend of humanity must rejoice in the hopes which the present more enlightened government authorise us to entertain.

The river Peruípe, which is moderately broad, forms before it falls into the sea two branches, of which the Barra Velha is stated to lie in the latitude of 18°. Its banks are not inhabited far up, and the military station of Caparica has been established there against the savages. Before its mouth there are sand banks, which render the navigation unsafe. During our stay here, a boat laden with flour was wrecked on them, and four men perished. The celebrated rocky islands called the Abrolhos, which are the terror of navigators, lie nearly between Caravellas and Viçosa, only a few miles from the coast: fishermen sail thither with their boats, stay several days or even weeks, and catch abundance of fish and sea-turtles. These islands are overgrown with low bushes, in which many sea-fowl build their nests, especially the grapiras (*halieus forficatus*.)

The country round Viçosa has fine extensive forests, which at this time were partly inundated by the frequent rains. Noble trees spread a refreshing shade; in particular we found here many cocoa-palms, the species of which known to the inhabitants, may be seen in the annexed list. In the country on the Mucuri and the Peruípe, the following species of palms are known, all of which have the ex-

ternal habits of the cocoa genus ; but it cannot be positively asserted that they all really belong to it, because we had not an opportunity of examining the flowers of all of them. Botanists will soon procure us more certain information on this subject from accurate observation.

A. Species of Palms without thorns.

1. *Cocos da Bahia*, (*cocos nucifera*, Linn.) does not grow wild, but cultivated, from the Mucuri, that is from the 18th degree, northwards to Bahia and Pernambuco, very frequently on the coast ; to the south it is very rare. When young it is distinguished by a protuberance of the trunk, at the bottom, close to the ground.

2. *Cocos de Imburi* ; with narrow, moderately long leaves, of a silver white below, and shining green above ; it produces a bunch of very hard small nuts, which are eaten only by the savages.

3. *Cocos de Pindoba** ; has no stem, but shoots out only beautiful long leaves from the ground ; close to the base it has a bunch of eatable nuts.

4. *Cocos de Pati* ; has a high thick stem, many strong, broad, colossal *frondes*, and makes a noble appearance ; the bunch of fruit is very large, consisting of many hard, small nuts.

5. *Cocos Ndaiá-assú* ; with a tall strong stem, handsome broad feathery leaves, and strong woody *rachis* ; the *pinnulae* are very smooth, even, and not indented, pointed, of a shining dark green above, and of a shining light green below. It has a large bunch of fruit, with many eatable nuts, which are about five inches long. The bunch of fruit is so large that one man cannot carry it. This

* In the various kinds of palms here enumerated, the names added to the word *cocos* are mostly the real ancient denominations, from the language of the Tupinambas and the other kindred Tupi tribes. Thus for instance, a famous chief among them was called *Pindobusu*, or the great Pindoba palm-tree. See *Southey's History*, &c. Vol. I. p. 289. and other places.

tree is of majestic growth, and the finest of the palms of this country; there were some large noble trees of this kind on the Lagoa d'Arara.

6. *Cocos de Palmitto*, on the Rio Doce, and in the more southern parts; northwards on the Mucuri, called *Cocos de Jissara*. It is the most elegant of all. The stem is very tall and slender; the crown small, consisting of eight or ten very beautiful bright green leaves, which are thickly feathered, and seem arched like ostrich feathers. Under the crown of leaves, the silver grey stem of the tree has a bright green excrescence three or four feet long, containing the young leaves and flowers, like a pith, which is eaten, and called *palmit*. Between the woody part of the stem and the green excrescence containing the pith, the yellow bunch of flowers breaks out and hangs down. The bunch of fruit is small, with little black nuts, scarcely of the size of a hazel-nut.

7. *Cocos de Guriri* (the *pissandú* of the Indians.) A dwarf palm, which grows in the sand on the sea-shore: with smooth leaves, but arched like a feather; the *pinnulæ* are often a little rolled inwards, and at the same time double. Next to the ground it has a spica or spadix, with little nuts on it, which at their root are rather pointed and covered with a sweet yellow red pulp, which is here eaten.

8. *Cocos de Piassaba*, or *Piaçaba*; one of the most useful, most remarkable, and at the same time most beautiful species; the fruit is of the size and shape of No. 5, and rather pointed. It begins to appear about Porto Seguro, and from that place northwards becomes more and more frequent, and is most plentiful in the district of Ilheos. Its stem is high and strong, the *pinnulæ* on the leaves stand rather detached, but all the *frondes* shoot upright, and do not bend down as in the other kinds; hence this singular palm has the appearance of a Turkish plume of herons' feathers. The sheath, when it withers, falls into very long, small woody fibres, which are twisted

into ropes for ships. The solid nut is turned for the purpose of making rosaries.

9. *Cocos de Aricuri*, or *Aracui* : a palm from fifteen to eighteen feet high, which grows in the sand on the sea-coast, in the neighbourhood of Alcobaça and Belmonte, with three, four, or more leaves, the footstalks of which have at their root, on both sides, blunt thornlike excrescences. When the *frondes* fall off, the footstalk remains : this forms a very rough short stem. The *frondes* are beautifully arched, of a shining green, and smooth. The bunch of fruit is composed of numerous round stone fruits, of the size of a large plum, which are covered with a fine orange-coloured flesh. Light hats are made of the leaves.

B. Species having real thorns.

10. *Cocos de Airi assú* ; the great airi palm, (called in some parts of Minas Geraës *brejeuba*.) with a trunk only from 20 to 30 feet high, which is of a dark brown colour, and covered all over with dark brown thorns, which stand in rings. The bunch of fruit is composed of small, very hard, dark brown nuts, of an oval shape, a little pointed, and of the size of a plum. This palm forms, in places where it abounds, impenetrable thickets : it grows in dry woods. Farther north it does not occur ; I did not meet with it even in the country about Porto Seguro. Hence, while the Puris, the Patachos, and the Botocudos on the Rio Doce, make their bows of the dark brown wood of this tree, the tribes living farther to the north, even the Botocudos on the Rio Grande de Belmonte, and the Patachos on the Rio do Prado, employ for this purpose the *Pao d'arco* (bow-wood, *bignonia*.)

11. *Cocos de Airi mirim* (pronounced *miri*.) has a slender prickly stem, with leaves close to the ground and on the stem ; the fruit is small, and is eaten by children.

12. *Cocos de Tucum* ; has a stem fifteen palms high, and grows in marshes ; whereas the airi kinds prefer dry situations. The stem

and leaves are prickly. The fruit is a small black nut, containing an eatable kernel. If the *pinnulæ* are broken, delicate green threads appear, which are very strong, and are twisted into twine, which is used to make fine green fishing-nets, and for other purposes.

With all the characteristic differences which these various species of palms present to the eye of the botanist, most of them have one general form; that of the *cocos* genus, with a slender stem, which in some is thicker above, in others below, and in others again every where equal; in most kinds it is furnished with raised rings, annulated, or rather scaly on the upper part; the leaves are feathered, like ostrich feathers, gently and beautifully arched, partly with *pinnulæ* that are curled and somewhat rolled up, partly erect; they are curled, and of a silver colour in the *Imburi*; gently bent like a feather in the *Jissara*; rising high, and spreading strong and broad in all directions, and hanging down to the ground in the beautiful lofty *Ndaia*; shooting perpendicularly upwards to a great height in the *Piassaba*, &c.

It appears from what I have said that the country through which I travelled is much poorer in varieties of palms than the regions of the South American continent, situated nearer to the equator, where Humboldt met with a great multiplicity of these magnificent plants, of which we find a most pleasing description in his admirable "Views of Nature." Next to the palm form, comes, in the high regions of the Andes of Peru, that of the arboraceous ferns, (*filix*,) which we do not find on the east coast of Brazil, though some modern works on that country erroneously place it there. The low species of plants of this family are, on the other hand, very numerous and various, both on the ground and on trees. Among them, the *mertensia dichotoma* is conspicuous, on the Mucuri, and in the country about Caravellas: it rises pretty high among the trees, and may be known by its growing double. Its smooth bright brown stem is cleared of the pith by the

negroes, and used for the tobacco pipes, which are called *canudo de samambaya*.

It was not merely in a botanical, but in a zoological view also, that we found the forests about Viçosa interesting. The cold season causing the forest birds to come down in great numbers, from the interior to the coast, enabled our hunters to shoot abundance of parrots, especially maitacas, (*psittacus menstruus*, Linn.) toucans, &c. which served us for food. The flesh of the parrot makes very strong broth, but I no where found any confirmation of what Southey says, that it is used as a medicine. The beautiful dark purple chattering (*ampelis atro-purpurea*) was frequent in these forests; the beautiful blue kiruá or crejoá, (*ampelis cotinga*, Linn.) which is distinguished by its splendid blue plumage among all the birds of Brazil, was less frequent on the Mucuri, as also a new species of parrot*, &c. The incomparable plumage of the kirua is employed by the nuns of Bahia, in making their beautiful flowers composed of feathers. The skins of these birds have been sometimes sent in considerable numbers to the capital. Among the smaller birds we may remark the *nectarinea cyanea*, (*certhia cyanea*, Linn.) and *spiza*, to which the general name of *çai* is given. We procured also some beautiful serpents, among which were several specimens of the *jararacca* and a skin of the *jiboya*, (*boa constrictor* of Daudin,) which does not live in Africa as that writer affirms, but is the most common species of this genus in Brazil.

On the 11th of June I left Viçosa, and proceeded to Caravellas, where I waited for the arrival of the Casqueiro from Rio de Janeiro.

* Five inches nine lines long; tail short; green: the breast, belly, and sides inclining to blue; the back dark coffee-colour; rump almost entirely black: two middle tail feathers green, the lower half red, the others a beautiful red, with broad black tips. In the Berlin Museum, this bird is classed by the name of *psittacus melanotus*. The chief characteristic of this species, but which is only to be distinguished when in a fresh state, is a naked vermilion-coloured skin round the eye.

CHAPTER X.

JOURNEY FROM CARAVELLAS TO THE RIO GRANDE DE BELMONTE.

*River and Town of Alcobaca. — River and Town do Prado. — The Patachos.
— The Machacalis. — Comechatiba. — Rio do Frade. — Trancozo. — Porto
Seguro. — Santa Cruz. — Mogiquiçaba. — Belmonte.*

AFTER we had waited four weeks at Caravellas, the long wished-for Casqueiro at length arrived. It brought us from Rio de Janeiro many things of which we were in need, and took our collections on board, to convey them to our friends in the capital. Captain Bento Lourenzo had also arrived at Caravellas, after having nearly finished his road. He now proceeded to Rio, where, as he subsequently informed me, he received an order as a reward for his exertions, together with the appointment of colonel, and inspector of the road on the Mucuri. When we had finished all our business, I set out on my journey northward along the coast; while Mr. Freyreiss, with his people, remained behind on the Mucuri.

I left Caravellas on the morning of the 23d of July. Though the coldest season of this climate had set in, the heat this day was oppressive. The inhabitants of these parts were now troubled with frequent coughs, colds, and headaches; for what they call the cold season, has the same effect on their constitutions, accustomed to the heat, as the first frost in November or December has upon us.

Many persons at Caravellas had died of the disorders incident to the change of temperature, while we foreigners experienced less inconvenience from it. The open plain in which Caravellas stands, is encompassed by marshy forests and thickets, in which the plantations of the inhabitants lie scattered. This forest is much pleasanter in the fine season of the year than we now found it; for it appeared much more beautiful when I visited it again, at the commencement of spring, in the month of November.

The cheerful song of the sabiah, (*turdus rufiventris*,) resounded in the dark shade of the cocoa-trees, one of which I accidentally met with here, that had taken root in the hollow trunk of a very large tree, and had already shot up to a considerable height. You ride through this forest to the mouth of the river Caravellas, where about a dozen fishermen's huts form a little hamlet. From the *barra* or mouth of the river, which is spacious and safe, you follow the flat sandy beach, against which the sea, agitated by the wind, rolled its hoarse dashing waves. On the land side this flat beach is bounded by thick bushes stunted by the wind; they consist of trees and shrubs, with dark green leaves, resembling those of the laurel, which are partly milky, juicy, and stiff; as the two kinds of *clusia*, with large beautiful white and rose-coloured flowers, that grow in abundance along the whole strand. Here, as well as on the whole east coast, the shrub known by the name of *almeciga*, (*icica*, *amyris*, *aublet*,) every part of which is very aromatic, is frequently found. From it exudes a highly odorous gum, which is used for various purposes, especially as pitch or resin for ships, and as a balsam and remedy for wounds. A chief part of the low thickets on the sea-shore consists of the two species of cocoa, the *cocos de Guriri* and *de Aricuri*, which grow commonly on the coast, and have been already mentioned in the account of our stay on the Mucuri. The first was now in flower, and loaded with unripe fruit; the other is handsomer, grows from 15

to 20 feet high, where the sea-wind does not blow too violently; but on the coast it is smaller. Its handsome orange-coloured round fruit has a sweetish taste, but is said not to be wholesome. On the flat firm sand, beyond the reach of the foaming surf, crept a beautiful purple bell-flower, (*ipomea littoralis*,) with long dark-brown shoots, like cords, and thick roundish oval, milky leaves; we found it on most parts of the coast, where it binds the sand. This is also done by the two yellow-flowering plants of the class diadelphia, the one lying down and spreading upon the ground, a new kind of *sophora*; the other the *guilandina bonduc*, Linn., often three or four feet high, with a broad, short, very rough prickly pod. Between these plants the hard strand grass, (*remiria littoralis*,) grows every where in abundance.

Towards evening we came to a rapid stream, which is called the Barra Velha, because it is the old or former mouth of the river Alcobaca, which we reached soon afterwards. These little streams on the sea-coast are often great obstacles to the traveller, as he is liable to be detained by them six or eight hours. We had arrived at the Barra Velha at the unfavourable time; it was much swelled and rapid; nothing remained therefore but to have the beasts unloaded and to stop here. Farther back in the thicket, a few people lived, but of this circumstance we were not informed till afterwards. Seated behind the fallen trunk of an old tree, which sheltered us in some measure from the piercing sea-wind that drifted the fine sand of the coast towards us, we soon kindled a brilliant fire, round which we all lay down upon the blankets and cloaks. We saw here one of the fine man-of-war birds, (*pelicanus aquilus*, Linn. *halieus*, Illig.) which are seen on the coast of Brazil flying at a considerable height, four, five, or more together. After taking a very scanty supper, we passed the night on this dreary spot, very insufficiently protected by our cloaks against the sharp piercing wind. We therefore joyfully hailed the

dawn of day which summoned us to continue our journey; but it was ten o'clock before the tide had ebbed sufficiently for us to let our mules swim across; the people carried the baggage over on their heads.

From this place we reached in a short time the mouth of the Alcobaga, which is pretty considerable where it discharges itself into the sea. Its banks, near the sea, are covered with thick mangrove bushes, but which are soon succeeded by lofty dark forests. Not far from the mouth of the river, and on its northern bank, the Villa de Alcobaga is built on a white sandy plain, which is covered with short grass, low creeping *mimosas*, white-flowering *plumbago*, and the beautiful rose-coloured flowers of the *vinca rosea*. Alcobaga has about two hundred houses and nine hundred inhabitants; most of the buildings are covered with tiles, and the church is of stone. Here, as well as on the whole coast, some trade is carried on with mandioca-flour, of which about forty thousand alquieres are said to be annually exported to the larger towns on the coast, and to all those places where the plant does not thrive so well. Some of the vessels called *lunchas* are employed in the carriage of this article, and bring back other necessities from Bahia. These small vessels ascend to a considerable height up the river, that is, to the plantation of Mr. Munis Cordeiro, one of the principal inhabitants of Alcobaga, whose excellent character has obtained him merited reputation among his countrymen.

The river Alcobaga, which in the ancient Brazilian language was called Taniän, or Itaniän, (Itanhem,) abounds in fish; even manatis are said to have been caught there; its *barra* has a sandy bottom, with twelve or fourteen palms water, and may be passed by heavily laden sumacas. The *sertoes*, or the ancient forests on its banks, are inhabited by the savage tribes of the Patachos and Machacaris, whom we have already often mentioned, who from this place and further

north, visit in a peaceful manner the habitations of the whites, and sometimes offer wax or animals fit for food, in exchange for other necessities. As these savages had now retired further into the forests, we did not obtain a sight of any of them. The forests on the Alcobaca contain abundance of useful kinds of timber and plants; for instance, the Brazil wood, but especially a profusion of *jacaranda* and *vinhatico*, which is collected by the civilised Indians, of whom the Villa was originally formed, but who are now for the most part replaced by whites and negroes. The situation of Alcobaca is healthy, as the sea-breezes constantly purify the air; but these winds and storms, during a great part of the year, are very disagreeable. Five leagues to the north of the Alcobaca, the Rio do Prado falls into the sea; the aboriginal inhabitants of these parts formerly called it the Sucuruçu*. The way along the coast thither is a firm even sand, but against which the sea dashed with great fury, as a high wind caused a heavy surf. In the thick bushes of the *guriri* and *aricuri* palms, which stretch along the shore, and are overshadowed by higher trees of the laurel kind, a small species of penelope is very frequent; it seems to be nearly related to the *parraqua*, (*penelope parraqua*, Timminck.) It is called on the east coast *aracuan*†, and is sought after by the hunter as very good food: in size as well as taste it nearly resembles our pheasants. My spaniel, which constantly hunted in the bushes, found many of these birds, which always rose in pairs with a great noise: it was not easy to fire at them here, as the thicket was too full of prickly plants and too intricate.

Towards noon we came to another *Barra Velha*, an ancient mouth

* The *Corografia Brasilica* writes *Jucuruçu*, but the inhabitants of these parts universally pronounce the name Sucuruçu.

† The *aracuan* appears at first sight to be the same with the *parraqua*; but is doubtless a different species, as it is always much smaller, and the colour of its plumage also is something different. It seems to be Humboldt's *phasianus garrulus*.

of the Rio do Prado, which our mules however were able to ford loaded, as we arrived just at the time of low water. On the other side there are again mangrove bushes near the river Prado, and the Villa lies on its north bank, on a rather elevated sandy plain. Stretched upon the sand on the bank, we had to wait very long, before some of the inhabitants thought fit to take us over in a boat. A tolerable lodging was assigned to us in the Casa da Camara.

The Villa do Prado, which was originally formed of Indians, is less considerable than Alcobaça; for it has only about fifty or sixty houses, and six hundred inhabitants. The houses are built partly in rows, partly scattered on a white sandy flat. The *vinca rosea* forms a covering to this hot soil, where our beasts found but very bad and scanty food. This little place is still more destitute of many necessities than Alcobaça. Some *lanchas* keep up a little coasting trade with mandioca-flour, of which about 8000 alquieres are annually exported, together with some sugar, and other productions of the woods and plantations. The river is tolerably large, abounds in fish, and its *barra* is not unfavourable to navigation, as loaded sumacas can enter. By order of the government, our countryman, Major Feldner of the engineers, penetrated into the woods, from Villa do Prado, in a north-westerly direction, in order to open a road to Minas Geraës. He quarrelled with the *ouvidor*, Marcelino da Cunha, who did not support the plan, and as he was totally dependant on the arrangements of this person, the whole undertaking failed. Major Feldner was obliged to pass some time upon an island: there he fell sick, and together with his attendants suffered such distress, that they were obliged to kill a dog to satisfy their hunger. A reclaimed Botocudo, named Simam, cured the patient of a violent fever, by a cup of honey which he procured for him. After taking it, a strong perspiration ensued, and the disorder was removed.

L. G. G. G. G.

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PATACHOS of the RIO DO PRADO.

The plantations of the inhabitants of Prado lie scattered in the woods on the Sucurucu. These wildernesses contain also great numbers of animals fit for the chase; beautiful species of woods and wild fruits. Brazil wood is abundant here; the shoemakers use it to dye the leather black; if ashes are added to this colour, it becomes reddish, (*rocho*). Amongst the birds which enliven the woods, near the town, the aracuan above-mentioned is very frequent: toucans and parrots are shot by the inhabitants, in great numbers, and eaten as delicacies on festivals: for in general mandioca-flour, black beans, salt meat, and at times some fish, are the constant food of the Brazilians, to which the traveller must also accustom himself. Among the natural plagues of this country, the principal is the sand flea, (*pulex penetrans*,) which is here extremely common in the sand on the coast; even in the houses these insects abound, and it is therefore necessary, frequently to examine the feet.

As a heavy rain came on, and besides, one of our mules had run away, I was obliged to stop two days in this dreary, sandy spot. On the second, however, I was amply indemnified for this unpleasant circumstance; for, on that day, a company of the savages, with whom I had long wished, in vain, to become acquainted, appeared in the town. They were of the tribe of the Patachos, none of whom I had ever yet seen, and had come down from the woods to the plantations but a few days before. They entered the town stark naked, with their arms in their hands, and were immediately surrounded by a crowd of people. They brought large balls of black wax for sale, and we procured a number of bows and arrows of them, in exchange for knives and red handkerchiefs.

These savages had nothing striking in their appearance, they were neither painted nor otherwise disfigured: some were short, most of them of the middle size, rather slender make, with large bony faces, and coarse features. But a few of them had handkerchiefs tied round

them, which had been given them on some former occasion; their leader, who had nothing remarkable in him, (the Portuguese called him captain,) wore a red woollen cap and blue breeches, which he had procured somewhere else. Food was their chief desire; some flour and cocoa-nuts were given to them; the latter they opened very dexterously, with a small axe; afterwards biting the white kernel out of the hard shell, with their strong teeth: their eagerness in eating was remarkable. In bartering, some of them were very intelligent. They asked chiefly for knives or hatchets, but one of them immediately got a red handkerchief tied round his neck. A cocoa-nut fixed upon a pole, was set up at the distance of forty paces, and they were desired to shoot at this mark, which they never missed. As nobody could converse with them, they did not stop long, and returned to their habitations. To make myself better acquainted with them, I went on the 30th of July, in a boat, up the river Prado, to the place where the savages had had their huts, but I did not meet with them, as they had retired to a greater distance.

Both the Patachos and Machacaris live here in the forests, on the banks of the Sucurucu. The latter have always been more inclined to peace with the whites than the former, with whom an amicable arrangement could not be made, till three years ago. But shortly before that time they had surprised in the forest, some inhabitants of Prado, on which occasion the *Escrivam* (Town clerk) was wounded, and several persons shot. The friendly Machacaris were afterwards employed, to bring about a pacification with the Patachos.

In their external appearance, the Patachos resemble the Puris and the Machacaris, only they are taller than the former; like the latter, they do not disfigure their faces, and wear their hair naturally hanging about the head, only cut off in the neck and on the forehead, though some shave the whole head, leaving merely a small tuft before and behind. Some of them pierce the lower lip, and the ear, and wear a

small piece of reed, in the little aperture. The men, like those of all the other tribes on the east coast, carry their knives fastened to a string round their necks; and they hung the rosaries which were given them, in the same manner. Their skin was of its natural red brown colour, and no where painted. They have a very strange custom of tying up the præputium with a bind-weed, which gives to the part a very singular appearance. Their weapons are, in the main, the same as those of the other savages; their bows are, however, larger than those of any of the other tribes; I measured one of them, and found it to be eight feet nine inches and a half, English measure; they are made of *airi* wood, (*Bignonia*). The arrows which they usually carry with them for the chase, are rather short; but they probably make those which they use in war longer, according to the custom of the other tribes. These arrows are tipped with feathers of the *arara*, *mutum*, or birds of prey; and they are pointed with *taquarussu* or *uba* reed: but no where did I find among the various tribes of the savages the bowstring made of the guts or sinews of animals, as Lindley erroneously states in his Narrative, (p. 22). Every man carries on his back a bag, or sack, made of bast or other materials, which hangs round his neck, and serves to hold various trifles. The women are not painted, any more than the men, and go entirely naked. The huts of these savages differ in their construction from those of the Puris, which have been described above. The stems of young trees, and poles stuck in the ground, are bent at the top, tied together, and a covering of cocoa or pattioba leaves laid on them. These huts are very flat and low; near each of them there is a sort of grate, consisting of four prongs stuck in the ground, on which are laid four sticks, and these are crossed by others, laid pretty close, for the purpose of roasting or broiling their game. The Patachos in many respects resemble the Machacaris or Machacalis; their lan-

guages too have some affinity, though in many points they are widely different.

Both tribes are said to unite against the Botocudos, and seem partly to treat their prisoners as slaves; for but lately they offered at Villa do Prado, a Botocudo girl for sale. No well-founded suspicion was ever entertained that these Patachos eat human flesh. The moral character of all these savage tribes is indeed very similar in the principal features, yet each of them has its peculiarities: thus the Patachos are, of all these tribes, the most distrustful and reserved; their look is always cold and sullen, and it is very seldom that they allow their children to be brought up among the whites, as the other tribes readily do. These savages roam about; their parties appear alternately on the Alcobaça, at Prado, Comechatiba, Trancozo, &c. When they visit any place, the inhabitants give them something to eat, and exchange trifling articles with them for wax and other productions of the woods, upon which they return to their wildernesses.

Well pleased at having had an opportunity of becoming acquainted with this tribe of the aboriginal inhabitants, I left Villa do Prado, and rode quickly after my beasts of burden and people, who had set out before me. The coast, on leaving Prado, assumes, farther to the north, a different form from what it had before. On the sea side rise high cliffs of clay, of a red and other colours, which has a basis of ferruginous, variegated sand-stone: the elevations of this coast are covered with wood, and numerous valleys open to the sea; these are overgrown with dark green, gloomy primeval forests, the abode of the Patachos. From all these valleys flow little streams, the *barras*, or mouths of which, are often very troublesome to the traveller, at the time of high water. Another inconvenience is presented by this coast to the traveller, in the groups of rocks which project immediately from the high cliffs into the sea. At ebb-tide you may ride round these

rocks on the dry beach ; but at time of flood they cannot be passed, because the waves break furiously against them, and dash their white foam to a great height. A person who happens to be about half way between two of these groups of rocks, under the high steep cliff of the coast, just at the time that the tide is rising, may incur great danger, as it is then impossible to escape the rapid swell of the sea. It is therefore necessary for the traveller to endeavour to obtain from the inhabitants of the country accurate information respecting the time which he ought to choose. He is often obliged to wait six hours, till the return of ebb, if he has once missed the favourable moment ; nor is there on the whole coast any way besides this, which keeps close along the sea. Between Prado and Comechatibá, there are such rocks at three different places : at one of them, I myself rode through the waves which came up to my saddle ; ten minutes later I should have had to wait six hours, and been obliged to return to an open spot on the coast. Even then the surf, dashing on the rocks, had a frightful appearance ; we travellers, unacquainted with the road, no longer ventured to push our mules into the furious billows, but a couple of negroes from a neighbouring *fazenda* rode before through the surf and shewed us the way. After we had happily passed this spot, we hastened to come away from this unsafe narrow strand, exposed to the incursions of the most dreadful of the elements, and galloped on at full speed. Farther out in the sea several species of mollusca are found on these rocks ; among others, two kinds of sea-urchins, one of which is eaten by the poorer class of inhabitants. The inedible kind is whitish, thickly covered with violet-coloured prickles ; the edible black, also covered with long prickles. On all these rocks too there are shell-fish, which afford a purple juice ; they are particularly abundant about Mucuri, Viçosa, Comechatibá, Rio do Frade, &c. Mr. Sellow, in one of his excursions, had occasion to make some observations on this subject ; and Mawe also mentions it in his Travels.

In some of the valleys on the sea-coast, are situated the habitations of different planters; among others, the residence of Senhor Callisto, who had already shewn me some civilities at Villa do Prado. Accompanied by two of my people on horseback, I rode quickly to the point of land, which is called Comechatibá, or properly in the old Indian language, Currubichatibá. The full moon was beautifully reflected in the sea, and illumined the solitary huts of some coast Indians, who had been waked out of their sleep by our beasts of burden, which were gone before. At a small distance from these huts lies the *fazenda* of Caledonia, which was settled here about seven years ago, by Mr. Charles Frazer. This gentleman, who has travelled over a great part of the globe, purchased about thirty strong negroes, to cultivate this *fazenda*. The Indians of the surrounding country worked for him for some years, cleared the fine eminences, which extend along the coast, of their wood, and cultivated the whole. On the sea-coast he planted a great number of cocoa-trees; the dwelling-house was constructed of clay, and covered with thatch; and in the same line, many huts were built for the negroes, and a large mandiocca manufactory and magazine erected. The manufactory was now, however, in a very dilapidated state. Eight or ten large earthen pans for drying the flour were, it is true, still there; but some of them broken. The situation and the soil of this estate are excellent; green hills with thickets rise on the sea-coast, and a large tract of ground was already cleared of the wood. But it seems they did not understand how to keep the negroes in order, for they were in a state of insubordination; they made use of the produce of the plantations for themselves, and often refused to do the work assigned to them; instead of which, they employed themselves in hunting in the surrounding woods, or in catching wild animals in their *mundeos*. Mr. Frazer was at this time at Bahia, and had left a Portuguese from Villa do Prado to look after the *fazenda* in his absence. The steward received us on

our arrival; the negroes, who were just then assembled to dance to the music of their drum, immediately flocked round to look at the strangers. The whole room was soon filled with these slaves, who were young, well made, and many of them tall and robust; but the steward had not authority sufficient to relieve us travellers, weary as we were, from these troublesome visitors. I stopped here a few days, and found an opportunity of visiting in the forest the huts of the Patachos, which had been but lately abandoned by their inhabitants: some Indians from Comechatibá conducted me thither.

The sea forms at this part a good harbour, which is protected, not indeed from the winds, but against the sea, by a reef of rocks, has good anchorage, and the advantage that its entrance is pointed out to mariners by a mark. The surf casts up on the sandy beach numberless varieties of fucus, corallines, and other zoophytes, but only a few species of conchylia. In the evening twilight, the great vampyre, or *guandirá*, (*phyllostomus spectrum*,) flew about in great numbers, and may be easily mistaken, when on the wing, for a small owl. Our mules were wounded by some of them, and bled profusely. This propensity of the larger species of bats in the torrid zone, to suck the blood of animals, is thought by the people of Brazil to be common to all the smaller species; but I met with no confirmation of the assertion that they also attack man in the same manner. The Indians residing here subsist on the produce of their plantations, by hunting, and especially by fishing; hence they are frequently seen in calm weather at sea in their canoes. They bring back large quantities of fish; and the shells, skulls and bones of the great turtles, (*tartarugas*,) lie scattered about their habitations.

To the north of Comechatiba the sea is again bordered by high steep cliffs and rocks, which at one place project so far into the water, that it is necessary to make a considerable circuit over the heights, on the top of which is a flat that bears the name of Imbassuaba. It is a

campo entirely surrounded with woods, and produced beautiful grasses and various wild plants, which were new to us, and formed a welcome addition to our collections. Among others, we found on the ground under the shade of the trees, the reindeer moss, (*lichen rangiferinus*, Linn.) in abundance. This plant, which in the north is the food of that most useful animal, the reindeer, is widely extended. From this place we soon came again to the sea-coast, and at the distance of a league and a half from Comechatiba, to the little river Cahy, which cannot be passed except at ebb tide. When we reached it, we were almost too late to cross it; but the negroes and Indians of the *fazenda*, who were perfectly acquainted with the road and the waters, waded through the stream, and carried our baggage on their heads and shoulders, fortunately without suffering any part of it to get wet, to the opposite bank. The Cahy, which like all these rivers flows from a dark woody valley, is inconsiderable at the time of the ebb, but at high water rapid and rough. Farther to the north, at the distance of three or four leagues, we met with another rather larger river, the Corumbao. On our way the flood rather impeded us, and the oppressive heat rendered it still more fatiguing.

The coast was sometimes high and steep, and then again low, covered with dark-green woods of the laurel kind. On the beach we often found the aricuri palm, as well as many beautiful new species of grass and reeds. The small valleys, which open to the sea, are partly filled with beautiful picturesque lakes or *lagoas*, which, where they could open themselves a passage to the sea, have outlets; they are generally full of various reedy plants. The tide continued to rise till about noon; and as the trunks of fallen trees blocked up the road in several places, we were obliged to ride through the advancing surge. In this manner we reached without accident the mouth of the Corumbao, which is said to be in 17° south latitude. At the *barra* of this little river, the fertile banks of which are stated to produce

various kinds of fine timber, of which however no use is made, there are several sandy islands, between which the flood now formed considerable waves. Its sandy or marshy banks are covered with mangrove bushes, and are at present haunted only by herons, and some species of sand-pipers and gulls, since the Aymores or Botocudos have driven away the inhabitants by their ferocious attacks. Near the river, on the north bank, dwelt at the period of our visit a family from Prado, whom the *ouvidor* had sent hither to ferry travellers over, and who lived by fishing. But as there is no protection in these solitary wildernesses, they abandoned the place a short time afterwards. I found in their hut a quantity of fish, part of which was just caught; and we provided ourselves with a supply for supper but had to pay a high price for them. The man took advantage of the hunger which was evident in the looks of the travellers, fatigued with the heat of the day, and demanded for his provisions thrice their value.

From this place the country became rather more open; here great numbers of the five and six-angled cactus grow on the dry sandy heights, and threaten the feet of the beasts with their sharp thorns. A league and a half to the north of Corumbao, the river Cramemoan falls into the sea. As far as that place you traverse a wide plain covered with many reedlike grasses, low *aricuri* and *guriri* palms, fine shrubs, &c. among which is a beautiful violet-coloured *clitoria*, which has a ligneous and upright stem: here and there marshy spots occur. Inland on the left, the eye enjoys a fine and extensive view to the mountains towards Minas Geraës; nearer in the foreground you distinguish a high mountain, about the fall of the river Prado, called Morro de Pascoal (which Lindley erroneously calls Monte Pascoa,) and which serves as a land-mark to ships at sea: it belongs to the Serra dos Aymores. This plain affords the botanist ample amusement and occupation.

It was twilight when we reached the little Indian village of Cramemoan, which was built by order of the *ouvidor* upon a hill on the river, and is properly intended to serve as a station by the name of Quartel da Cunha, for the security of this part of the country.

The Indians were not a little astonished at so uncommon and so late a visit of a loaded *tropa* in this solitary spot; they immediately crowded round to converse with us, while our people were lighting a fire in a solitary hut. They subsist by their plantations, by fishing in the river and the sea, and make in the forest *estoppa* and *embira*, (bast) which they send to Porto Seguro for sale. As powder and ball are scarce and extremely dear on the coast, they partly use in hunting bows and arrows, which they procure from the Patachos in the neighbouring forests in exchange for knives. Though these people were placed here by the *ouvidor*, for the express purpose of assisting travellers to pass the river, they are not satisfied with this destination, and live chiefly on their plantations in the neighbourhood. They are strong and robust, but so indolent, that in bad weather they will rather remain in their huts without provisions, than put themselves to any inconvenience in labouring. The Indians provided us with fish; we also obtained from them some cakes of mandiocca-flour, of which they had a stock ready made. The various methods of preparing mandiocca-flour for food have been transmitted to them from their ancestors, the Tupinambas, and other tribes of the *Lingoa geral*. The river Cramemoan has on its banks *rhizophora*, or *conocarpus* bushes. In the cool of the morning numbers of parrots were heard in the woods, of the species *psittacus amazonicus*, Latham, or *ocrocephalus*, Linn., which are here called *curica*: this bird frequents the mangrove bushes on the banks of the rivers where it builds its nest.

After we had reached the north bank with our whole *tropa*, we proceeded along the sea-coast over the level plain covered with thick bushes, which is bounded in the distance by hills; but we soon came

again to high and steep cliffs of clay and sand-stone, which must be ascended, because the violent surf renders the coast inaccessible. You follow a steep path to the top of these *barreiras*, and find there a dry elevated plain, a *campo*, which is called Jauassema, or Juassema. On this spot, according to the tradition of the inhabitants, there existed in the early period of the Portuguese establishment a large and populous town of the same name, or Insuacome, but which like S. Amaro, Porto Seguro, and other settlements, was destroyed by the warlike and barbarous nation of cannibals, the Abaquirá or Abatyra. This tradition is doubtless founded on the ravages which the Aymores, now the Botocudos, committed in the Capitania of Porto Seguro, when they invaded it in 1560; the account of which we find in Southey's *History of Brazil*, and in the *Corografia Brasilica*. At that time they also ravaged the settlements on the river Ilheos, or St. George, till the governor, Mendo de Sa, drove them back. It is said that pieces of bricks, metals, and similar articles are still found at Jauassema; they are the oldest memorials of the history of Brazil, for no monuments are met with on this coast more ancient than the time of the first settlement of the Europeans. Its rude inhabitants did not, like the Tultekian and Azteckian nations in Mexico and Peru, leave monuments to engage the attention of posterity after the lapse of thousands of years: for the memory of the rude Tapuya disappears from the earth with his naked body, which his brethren consign to the grave, and it is indifferent to future generations whether a Botocudo or a wild beast of the desert formerly lived on any particular spot. At Jauassema I found the piassaba palm, a particular kind, which will be more frequently mentioned in the sequel, distinguished by its large erect leaves; we had not previously seen this tree. Only a few plants were now in flower, but when I visited this part of the country again in November I found many rare and beautiful plants in

blossom ; among which was a fine epidendrum with scarlet umbels. This kind grows on all the cliffs on the sea-coast.

From this elevated plain the view of the retiring coast and the expansive ocean is sublime, and calculated to dispose the mind of the solitary traveller to serious contemplation. The windings of the coast are traced to the indistinct blue horizon ; the steep red cliffs on the sea-shore alternate with gloomy valleys, which as well as the eminence are covered with dark blackish-green forests : the high waves of the raging ocean roll on with deep and hollow sound ; in the obscure distance, the eye perceives its white foam dashing over the reefs of rocks, and the thundering roar of the eternally beating surf, interrupted by no voice of a living being, resounds majestically through the wide desolate wilds. Profound and awful is the impression which this sublime scene excites, when we reflect on its duration and uniformity, through all the changes of time.

We again reached the sea, and towards noon came to a place, where the waves, dashing at high water against the rocks, entirely blocked up the way. It was absolutely impossible to climb over the heights with loaded mules ; we therefore relieved the animals from their burdens, and waited with patience. In the vicinity of a little stream of clear water a fire was made ; blankets and ox-hides protected us in some degree from the cool piercing sea-air, and our frugal dinner was placed in a kettle over the fire. Dark forests entirely surrounded the little meadow on which our beasts were grazing : the *nectarinea flaveola*, (the black and yellow creeper, *certhia flaveola*, Linn.) and the *sylvia trichas*, crept and twittered among the bushes. The *caracara* (*falco crotophagus*) immediately shewed itself, and settled on the backs of our cattle, in order to pick off the insects. The mules seem to be fond of the visits of this singular bird ; for they stand still when it appears and walks about on their backs. Azara mentions it among the birds of Paraguay by the name of *chimachima*.

We staid on this romantic spot of the coast till the full moon rose; the water had now receded, so that we could ride round the rocks. This coast, from Prado to the Rio do Frade, was but lately considered as very dangerous on account of the savages, and nobody would have ventured to travel here alone. Lindley says the same; but now the people are on friendly terms with the Patachos, and do not fear them: yet as they cannot be wholly trusted, it is always better to travel in a large party. When I travelled this way again in November in the same year, I found, at very low water, extensive banks of sand and calcareous rocks, which stretch far into the sea, and which have probably been chiefly produced by zoophytes. Their surface is divided into regular parallel clefts; in the holes worn in them by the water, live crabs and other marine animals: the surface of these rocky banks is partly covered with a green moss of the nature of byssus. As the tide continued to ebb, we rode round many rocks, which at high water are quite inaccessible, and the broad mirror of the ocean shone beautifully in the light of the moon.

In the middle of the night we came to the bank of the Rio do Frade, a small river, which received this name because a Franciscan missionary was drowned in it. Its *barra* is navigable for large canoes, which can proceed two days journey up the stream, the banks of which are fertile. Twelve leagues to the west appears the *Monte Pascoal*. Some Indian families are placed on the opposite bank by the *ouvidor*, in order to convey travellers over; the name of *Destacamente*, or military station, of Linhares, has been given to this post, though these people are not soldiers. Their plantations lie scattered in the neighbouring thickets, among which they have their proper dwellings, to be in some measure protected against the sea-winds. At this time however they lived in a hut on the sandy plain near the sea-shore, which afforded very indifferent shelter against wind and weather.

Being always accustomed to ride before the party, I alighted at the bank of the river, which is too deep to be forded, and let my mule, which appeared to be very weary, stand still; but the animal was impatient to get acquainted with the dwellings on the other side, escaped from me, swam immediately across the river, and induced most of the beasts of burden to follow his example. We now found indeed shelter in the huts of the Indians, but from their wretched condition, little accommodation and refreshment after our ride in the night. All round we hung our wet clothes in the sea-wind, which entered the wretched hut on all sides, and then lay down to sleep on our blankets spread upon the sand. While we were here suffering not a little from cold, we saw the half-naked inmates of the house lie in their hammocks, where the fire, though constantly kept up, could not possibly warm them. The care of tending the fire was left to the woman, and her son, who was grown up, called from time to time to his mother not to neglect her business. The next morning was cool and windy; we packed up our wet clothes, and rode to Trancozo. The ebb being now at the lowest, the sea had left large tracts of flat rocky banks on the coast quite uncovered: some Indians, dwelling dispersed in the neighbouring thickets, were looking for molluscæ to eat. Several kinds of shell-fish were eaten by them, especially the black edible kind of sea-urchin, (*echinus*). After proceeding three leagues, we came to a place where a small rivulet falls into the sea; it is usually called Rio de Trancozo; but in the old Indian language was named Itapitanga, (son of the stones,) probably because it issues from stony mountains: it flows through a pretty deep valley, surrounded by eminences with extensive flat tops. On the south side you perceive from the low sea-coast the tops of lofty cocoa-palms, and the roof and cross of the Jesuits convent at Trancozo. Some persons sent before led us by a steep road up to the town, where we took up our quarters for the day in the *casa da camara*.

Trancozo is an Indian *villa*, built in a long square. In the middle is the town-house, and at the end, towards the sea, stands the church, which was formerly a convent of the Jesuits. Since the dissolution of the order, the convent has been demolished, and the library destroyed or dispersed. The town had, in the year 1813, about 50 houses, and 500 inhabitants, who are all Indians, many of them of a very dark brown complexion; very few Portuguese families reside here, and to these belong the priest, the *escrivam*, and a shopkeeper. Most of the houses were at this time empty, because the inhabitants live on their plantations, and merely come to church on holidays. They export about 1000 alquieres of mandiocca flour, some cotton, and various productions of the forests; among the latter, are principally boards, *gamellas* (wooden dishes), and canoes, besides some *embira* and *estoppa*, (bast of two different species of trees). In the year 1813, the produce of these various commodities, was 539,520 reas. The plantations of the Indians are in pretty good order; they cultivate various edible roots, such as batatas, (Spanish potatoes,) mangaranitos, (*arum esculentum*,) cará, aypi, or sweet mandiocca, &c., and sometimes sell these articles. Fishing is also a main employment of the Indians; in calm weather they go far out to sea, in their canoes, to fish. On this coast too, they also make *corale* or *camboas*, which have been spoken of before.

On the eminences at Trancozo some cattle are kept, and the *escrivam*, in particular, has a considerable herd; but the breeding of these animals is attended with very great inconveniences. The *campo* here affords dry nutritious pasturage, on which the cattle soon grow fat; but if they are not immediately afterwards put into a cool damp pasture, they all die. In order to avoid this danger, the herd is sent from time to time to the Rio do Frade. This change of pasture must be made several times in the year, and is probably the reason that the cows give but a very small quantity of milk. When I visit-

ed this place again in November, a large ounce had taken up her abode in the neighbourhood, and daily carried off some of the cattle belonging to the inhabitants of the villa. *Mundeos* were made, and the ounce's cub was fortunately killed; but the animal still prowled about the country, and filled the long nights with her doleful howlings. Hereupon the Indians placed some spring guns in a path which she used to take, and attained their object. The ounce was dispatched, and I purchased the skin at Trancozo, which shewed me that the animal belonged to the variety which is called, in the Sertam of the Capitania of Bahia, by the name of *cangussu*, and which is distinguished by a greater number of smaller spots.

The situation of Trancozo is particularly agreeable: from the end of the steep eminence near the church, we had a grand and extensive view of the calm, shining, dark-blue mirror of the ocean; the junction, which was very evidently to be seen, between the green sea water and the dark-blackish water of the river, gave the prospect a particular charm. The proud tops of the lofty cocoa palms waved over the low huts of the Indians, and the whole extent of the surrounding *campo* was covered with verdure. All these elevated heaths or flats are intersected by deep dells, some of which are of considerable breadth; from the middle of the eminences, the whole appears to be a continuous plain; it is only on the edge that you perceive the dells. At the bottom of the valleys flow little streams, which join the Itapitanga. The valley at the foot of the eminence of Trancozo is a fine meadow, diversified with shrubs, in which the beautiful pigeon here called *pucaçu* or *çaçaroba*, and in the systems *columba rufina*, is frequently met with. Thickets and high reed-like grass line the banks of the little stream, upon which a *lança* was now building. The more distant forests at the back of Trancozo are inhabited by Patachos. Father Ignacio, the worthy old priest of the place, told me, that these savages often show themselves in the *villa*; they always go

stark naked, and when he tied a handkerchief round the waist of the women, they always instantly pulled it off again.

The road from Trancozo to Porto Seguro has little variety; *fazendas* are situated on the flat summits of high cliffs, of a bluish white, red, or violet-coloured substance resembling clay,* and the tops of the cocoa-trees that overshadow them, are seen waving in the wind. You pass the Rio da Barra by a wooden bridge, which deserves to be mentioned as a rarity; and frequently have to ascend and descend the high cliffs on the coast, because the rocks on the sea-beach are inaccessible. One of these places was so steep that we were obliged, in descending, to unload the beasts, and to let down the chests singly. Upon the sand below on the sea beach we found many specimens of beautiful species of sea-weed, and some conchylia. People were busy in seeking the eatable sea urchins, upon the banks of rocks from which the water had retired. After we had gone three leagues, we issued from a small thicket, and found ourselves on the river Porto Seguro, on the north bank of which the red-tiled roofs of the lower part of the Villa do Porto Seguro, topped by tall cocoa-trees, afford a pleasing prospect. The upper part lies further back on an elevated ridge, and nothing is seen of it but the top of the Jesuits' convent. I immediately crossed the river to the *villa*, and obtained a lodging in the town-house, in the upper part.

Porto Seguro, in rank the first town of the district of Porto Seguro, but yet less considerable than Caravellas, is a place of small importance, of 420 houses, built in several detached parts at some distance from each other. The principal part is small, and consists of a few streets overgrown with grass, with houses for the most part low, and of one story, those with two stories being very few in number. Here

* This kind of Lithomarga has been spoken of above, between the river Itabapuna and the Itapemirim.

is the church, the former Jesuits' convent, now the abode of the professor of the Latin language, and the town-house, with the prison. The greatest part of the inhabitants have, however, removed from the eminence to another part of the town, nearer to the river, which is called Os Marcos, and is more advantageously situated for trade. This part of the town, which is the most considerable, is situated on the declivity, and is built in a straggling, irregular manner, chiefly consisting of low houses, most of which are surrounded with groves of orange and banana-trees. Here reside the most opulent of the inhabitants, the owners of the vessels engaged in the trade of Porto Seguro. The third part of the town lies close to the mouth of the river; it is called Potinha, or Ponta d'Area; and, excepting some vendas, consists for the most part of low scattered houses, inhabited by fishermen, or sea-faring people, and shaded by cocoa-palms. The upper town is generally very desolate and dead; many houses are even shut up, and dilapidated; for it is only on Sundays and holidays that people meet in this upper part, but it is then rendered very lively by the number of well-dressed persons. The Portuguese are very punctual in their attendance at mass, and all are anxious to appear there in their best apparel. People who go almost naked during the week, appear dressed in the neatest manner on Sunday. We must, indeed, do the Brazilians of all classes the justice to say, that cleanliness and neatness in dress are general among them.

Immediately above the pretty steep declivity, lies the convent of the Jesuits, a large massy building. I was received here with great hospitality by the professor, Antonio Joaquim Morreira do Pinha: from his windows we enjoyed a fine prospect of the calm surface of the sea; our eyes followed the vessels as they sailed from us to the remote horizon, and our thoughts accompanied them to our distant native country. On both sides we overlooked a great extent of coast,

against which the awful ocean, with incessant never-varying motion, rolls its hollow-sounding waves.

In these gloomy apartments of the ancient building, through which the winds whistle, where the Jesuits once exercised their power, we feel with peculiar force the vicissitudes of time. The cells once so animated with busy life, are now desolate, and silent bats harbour in the ancient walls. Of the library, which formerly existed here, not a trace is now left.

The river of Porto Seguro, called in the ancient Indian language, Buranhem, has a very good *barra*, or mouth, covered by a projecting reef of rocks, with a stony bottom ; it is deep, and very advantageous to the commerce of the town, which is by no means inconsiderable. There belong to it about forty of the little two-masted vessels, called *lanchas*, which go out to catch the *garupa* and *mero*, two kinds of sea-fish, and always remain from four to six weeks at sea ; they then return, each with a cargo of 1500 or 2000 salt fish, of which the town exports from 90 to 100,000 in a year. Some are consumed in the place itself, and the rest sent to Bahia, and other ports. As the fish are sold upon an average at from 160 to 200 reas a-piece, this trade produces a considerable profit to the town. Yet among the 2600 inhabitants, whom it is said to contain, there are very few in easy circumstances, most of them being deficient in the industry requisite to improve their condition. They generally exchange their fish at Bahia, and other places, for various necessities, and consume a great part of their salt fish themselves, which are therefore their chief subsistence. Hence many persons here are afflicted with the scurvy ; and the traveller, as soon as he enters the town, is immediately surrounded by a crowd of poor sickly objects. There is very little agriculture, and but few of the inhabitants possess plantations ; so that they procure the chief part of the mandiocca flour

which they consume, from Santa Cruz. The convent of St. Bento at Rio has a considerable *fazenda* in this neighbourhood, which is under the management of a priest. The people of Porto Seguro have the reputation of being good sailors, and as the commercial intercourse with Bahia is very active, there is more frequent opportunity here, than at any other part of the coast, to make a voyage thither. The vessels which are used in this trade, are but small *lanchas garupeiras*, which sail with great swiftness, even when the wind is not favourable. They carry two small masts, of which the mizen is the shortest; the mainmast has a broad square sail, the mizen a small triangular one; they can be set in such a manner, that the vessel runs as close as possible to the wind, when others cannot sail at all.

The earlier history of Porto Seguro presents many remarkable events. During the Dutch war in Brazil, this place had not above 50 inhabitants, and in the neighbourhood there were three Indian villages. At that time there were only 40 Portuguese on the river Caravellas. In the last half of the 17th century, some remains of the Tupinambas and Tamoyos united with their enemies, the Aymores, or Botocudos, against the Portuguese. The Tupiniquins were the allies of the latter; but their enemies were far superior to them, and destroyed Porto Seguro, St. Amaro, and Santa Cruz. In the first place, as Southey relates, they surprised the inhabitants at mass. Porto Seguro is said to have been more considerable at that time, than it now is. An allied chief of the Tapuyas, from the Rio S. Antonio, named Tateno, is said to have assisted this town against his countrymen, and saved it from entire destruction. Of the Indian villages above-mentioned, none now exists except the Villa Verde, which is situated a short day's journey up the river. It consists entirely of Indians; only the priest (*padre vigario*), and the *escrivam*, are Portuguese. Most of the Indians, however, live dispersed on their plantations, and visit their houses in the town on Sundays and holidays

only. Here is a ruined Jesuits' convent, the church of which is, however, still used. The *villa* has from 40 to 50 houses, and about 500 inhabitants: it exports about a thousand alquieras of mandiocca flour, and some planks. A little further up, the *ouvidor* has established the station of Aguiar, where there are six Indians, who are said already to export 500 alquieras of mandiocca flour.

Several small rivers join the Porto Seguro, or Buranhem, which is likewise called the Rio da Caxoeira, and among others is the Patatiba. From this junction to the mouth, which it reaches after a course of about three leagues, it bears the name of Amba's Agoas.

We staid some time at Porto Seguro, in order to make ourselves acquainted with the place and its neighbourhood; and then continued our journey northwards, along the coast, the road along the strand being the only one, and none whatever leading into the country. Our *tropa* had to ford several little rivers, which, at low water, are quite insignificant, but at flood-tide are impassable. They are known by the names of Rio das Mangues, and Barrã de Mutari. The horizon, on the land-side, was bounded by hills covered with dark forests; and the cocoa-palms rising above them, indicated at a distance the habitations lying concealed in their bosom.

The inhabitants of these parts still frequently speak of an attack made upon them about twenty-two years ago, by a couple of French frigates, the crews of which landed for the purpose of plundering the places in this neighbourhood. With a standard carried before them, a numerous and savage troop advanced towards Santa Cruz, but the inhabitants flew to arms, and posted themselves behind the thickets on the sea coast; their well directed fire killed several of the enemy, and wounded others; upon which the marauders hastily re-embarked, after having first murdered, out of revenge, a single wanderer, who, unsuspecting of harm, was accidentally passing that way.

At the shallow, sandy mouth of the Mutari, we found a flock of

the *anas viduata* of Linneus, a beautiful duck, which we had frequently shot more to the south, but had not seen for a considerable time. Though our hunters endeavoured to approach with the utmost caution, they did not succeed in shooting any of these shy birds. On my second visit to this part some months later, I found upon the coast numerous remains of large whales, which indicated a very extensive fishery. Large flocks of carrion vultures (*urubu*) covered the remains, which infected the whole coast to a great extent.

The river of Santa Cruz falls into the sea about five leagues from Porto Seguro; it is rather narrower than the latter, but has likewise a good and secure *barra*, protected by a projecting reef of rocks against the violence of the sea. Santa Cruz is well known as the most ancient settlement of the Portuguese in Brazil. Pedro Alvarez Cabral, landed there on the 3rd of May, 1500, and was amicably received by the inhabitants. The first mass was read, and the same name given to the country which it still retains; to the nearest river southward, the name of Porto Seguro was given, on account of its safe harbour. At a subsequent period Santa Cruz was made a parish, which still bears the name of "Freguesia de Nossa Senhora da Bella Cruz." The town of Santa Cruz lies at the mouth of the river, on the south bank; the church and a part of the town are situated upon an eminence, which is distinguished by a couple of cocoa palms. At the foot of this eminence lies the rest of the town, consisting of low houses, scattered in thickets of orange and banana trees.

The people of this town pay more attention to agriculture, than those of Porto Seguro, for it supplies that place with mandioca-flour, which is exported also to other parts of the east coast: the inhabitants of this town have, however, in general, the reputation of being very indolent, and perform little labour. The *garupa* fishery employs some ships, but at this time only four *lanchas* were engaged in it. Santa Cruz is in all respects much less considerable than Porto

Seguro. It is said to have been formerly much more flourishing, but the most opulent of the inhabitants are dead. The river Santa Cruz rises at the distance of but a few days journey, and issues from two principal sources, which unite and flow to the sea. Those sources are so near to the Rio Grande de Belmonte, that a shot fired not far from them, is said to be heard on the latter river, a little above the Ilha Grande, of which we shall speak in the sequel. The Rio Grande de Belmonte, however, soon afterwards takes rather a southerly course. On the upper part of the Santa Cruz, Botocudos rove about; but nearer to the coast, this river forms the boundary of their territory, the Patachos and Machacalis ranging over the country on the south bank. The plantations higher up the river were ravaged by the Botocudos not long ago, as was the town, in former times, by the Abaty-rás, Aymores, or Botocudos: and only two years ago, the *ouvidor* found it necessary to establish the station of Aveiros, where there are already some plantations. The country round Santa Cruz is very well adapted to the cultivation of various productions, but the Brazil wood does not grow in such abundance as about Porto Seguro.

At Santa Cruz I made my *tropa* immediately cross the river, and took up my abode in the village (*poçoação*) of St. André, situated at a small distance from the river on the north bank.

The inhabitants of this place gave us a very hospitable reception, and several sick persons immediately visited us; for all travelling strangers are here taken for physicians. Many of them had the ague, a disease which frequently occurs here; and I was fortunately able to furnish them with some genuine Peruvian bark. The dwelling in which we took up our quarters for the night was very agreeably situated: the few habitations of St. André lay scattered in picturesque groves and tufts of cocoa-trees, under which the ground was clothed with the freshest verdure; where, in the cool of the evening our cattle found repose after a hot journey along the sandy coast.

Among the trees which surrounded the dwelling, was an immense *gamelera* tree, (*figus*,) which spread its gigantic arms horizontally to a great distance, and bore a magnificent crown, on a short very thick trunk; the stiff oval leaves are broad and dark green, and the twigs contain a milky juice. On the trunk and branches of this tree there was a rich botanical collection; for many kinds of *bromelia*, a fine *cactus*, bind-weeds, mosses, and lichens, with many other juicy and leafy plants, were sociably assembled in the most remarkable manner, in the dark shade of this fig-tree. More to the south, on this coast, they give the name of *gamelera* to a very different kind of tree; but the *gamelera preta*, and *branca*, mentioned by Koster, seem to have an affinity to the tree in question. The wood of the *gamelera* is used by the savages in some parts to kindle fire, by turning it round in another piece of wood. The *anacardium occidentale*, Linn. (*acaju* tree) was also very common here; its sourish, pear-shaped fruit is frequently eaten; it was now in full blossom.

At St. André I found some of the inhabitants employed in making thin ropes, which, as soon as they were finished, they rubbed with the fresh juicy bark of the *arueira* shrub, (*schinus molle*, Peruvian mastic tree,) by which they are rendered of a bright dark-brown colour, and very durable in water, as the oily resinous juice of the bark completely covers and penetrates them; this method is however applied only to *tucum* ropes, which, when prepared in this manner, fetch a good price at Bahia. Ropes of *grawatha* (*bromelia*) or of cotton, are rubbed with mangrove leaves. The juice of the *arueira* is likewise used by the Indians in diseases of the eyes; but they take for this purpose only the greenish sap of the young plants.

When the unpleasant windy weather had a little abated, I took leave of our host at St. André, intending to reach the same day the river Mogiquçaba, which the inhabitants of the country generally call Misquçaba. The beach, as far as that river, is at low water

very fine, and as level as a threshing-floor. Sea-weeds and shells lie scattered on the hard sand, and we found a good specimen of the blue petrel dead on the beach ; it had probably perished in the late storms. On all these flat sandy coasts of the east of Brazil, the species of crab abounds, which is called by the Portuguese *ciri*. This singular animal has a bluish-grey body, and pale-yellowish white feet and belly. It digs itself holes in the soft sand wetted by the surf, as a retreat from impending danger. If any one approaches, it raises itself up, opens its claws, and runs as swiftly as an arrow sideways towards the sea. These crabs are good eating, either roasted or boiled ; they have also a medicinal use, for when pounded, their juice is said to be an effectual remedy for the piles.

I came to the little river St. Antonio, which, it being then low water, was very shallow at its mouth, but at flood-tide cannot be forded, as it flows into the sea in several arms, and has then large waves. The Botocudos lately committed hostilities higher up on its banks, and murdered all the inhabitants of a house. A young Botocudo, who had been brought up in this family, gave information of the approach of his countrymen ; but no attention was paid to his warning.

Beyond the St. Antonio I found on the sand a great number of skeletons of a kind of sea-urchins, (*echinus pentaporus*,) with five elliptical apertures*. They are extremely fragile ; we found them mixed with a great quantity of common shells. The thickets on the coast are in this part surrounded by extensive plots of reeds of the *uba* species, forming a beautiful fan, above which the long tuft of flowers shoots up. Horses and oxen were feeding on this spot. A few families have settled and founded a little village upon a small rivulet, which bears the name of Barra de Guayú. From this place I soon

* Probably the species designed by Bruguières, on the 149th plate, fig. 3. and by Bosc *Hist. Natur. des Vers*, Vol. II. pl. 14, fig. 5.

came to the river Mogiquiçaba, which is less considerable than the Santa Cruz. On the south bank, near its mouth, is a *fazenda* belonging to the *ouvidor* of this district, on which there is nothing but cattle and some wretched huts. About eighteen negro slaves are here employed, among other occupations, in making cordage for ships from the fibres of the *cocos de piassaba*, a palm which grows in these parts, and is very common farther to the north. These fibres are said to be taken from the sheath of the leaves; they are four or five feet long, hard, dry and strong, fall off of themselves, and are gathered up. By a peculiar method they are twisted into ropes, which are very strong and durable in water, but rather rough and unpleasant to the touch; they are sent in considerable quantities to Bahia, where they are used on board the ships. The fruit of this tree is a longish, pointed, dark-brown nut, about three or four inches in length: I think I have seen it in museums marked with the name of *cocos lapidea*: this tree is not found to the south of Santa Cruz. The country on the Mogiquiçaba has not much besides that is remarkable: thick forests cover it far and near, and only a few persons have settled, a little above the *fazenda* of the *ouvidor*. The river abounds in fish, and supplies the inhabitants with a great part of their food. Up the stream there are savages in the forests on the banks, but they do not shew themselves at the mouth: they are said to be all Botocudos. At this place is the entrance to the road which has been made on the Belmonte up to Minas; but it is still very incomplete, and part of it not passable.

On the Mogiquiçaba we had the pleasure of meeting with milk, of which we had been long deprived. The cows of this country are handsome and fat, but they do not give so much or so good milk as ours in Europe, which is probably owing to the dry sandy soil. Every evening the herds are driven into square inclosures, which are called *coral*: the calf is immediately separated from the cow, when it

is intended to milk her the next day. In the hut where we took up our lodging for the night, we found a very old superannuated female negro slave belonging to the *ouvidor*; such old women are very frequently looked upon by the common people in Brazil as *feiticeiras* or witches. She had well secured the door of the place where she slept, and appeared highly displeased when we attempted to open her sanctuary in order to procure some fire: as we could not possibly pass the night without it, exposed as we were to the piercing cold sea-wind; the closed door of the old woman was therefore opened by force.

A plain, five leagues wide, extends from Mogiquiçaba to the river Belmonte. About half way is a place where an arm of the river, now dry, formerly discharged itself into the sea; this spot is still called Barra Velha, or the old mouth. The road along the coast goes over even firm sand, but a nearer path leads through an uniform pasture with short grass, on which here and there stand detached groups of the *aricuri* and *guriri* palms. Here my *tropa* lost its way, and we got entangled among numerous ditches, pools, and marshes, where our baggage was in danger of sinking in. We extricated ourselves however better than we expected, and again came to the sea-coast, where the surf was this day uncommonly violent, and had driven on shore and dashed to pieces a *lança* from Belmonte, the crew of which was saved.

After a fatiguing and troublesome day's journey in the great heat and on dry burning sands, we descried with great joy in the evening the waving tops of the grove of palms, in which the Villa de Belmonte is situated. It is a small mean-looking place, now partly going to decay, which was settled fifty or sixty years ago with Indians, few of whom however are now there. The town-house, built of wood and clay, was near falling down; one wall was entirely gone, so that the interior was completely exposed to view. The town forms a square of about sixty houses, with nearly six hundred inhabitants; at one end stands

the church. The dwelling-houses are low clay huts ; the only one of any consequence belongs to the Captain Mor ; that of the *ouvidor*, in which I had a lodging assigned to me, was no better than the other buildings. The huts for the most part covered with straw, and the irregular, unpaved streets, overgrown with grass, make the place look like one of our meaner villages ; its only ornament is the number of cocoa-palms in this sandy plain, which every where surround the habitations, and unite their lofty summits into a waving grove. These trees are remarkably productive here ; the people think they render them so, by cutting a hole in the stems of the trees, a little above the surface of the ground.

Quite close to the town, the considerable Rio Grande de Belmonte falls into the sea : its mouth is said to be in $15^{\circ} 40'$ south latitude. It rises in the high mountain ridges of Minas Geraës, but first receives the name of Rio Grande in Minas Novas, after the junction of the Araçuahy and Jiquitinhonha, the gold and diamond washings of which have been already described by Mawe. At high water this large river is rapid, but its entrance is always bad and dangerous, having here and there sand-banks, which we could see now that it was low water, but which, even at high water, are dangerous to navigation, and have already been the destruction of many *lanchas*. Belmonte has three or four *lanchas*, by which a little trade is carried on with Bahia in mandiocca-flour, cotton, rice, and timber. The annual exportation is about a thousand alquieras of mandiocca-flour ; the same of rice, two thousand of millet, and some brandy, though there are only two distilleries here. The banks of the river are fertile, as they are partly inundated. At this time there was a Scotchman here, who carried on a pretty extensive trade with cotton ; he had just lost almost a whole ship load by the faithless misconduct of a captain. This poor little town has now derived some advantage from the communication which has been opened upon and along the river to Minas Novas, in

the Capitania of Minas Geraës, but still the place had scarcely a sufficiency of the necessaries of life, and for money we strangers could have obtained nothing, had not our most urgent wants been supplied by the care of some of our acquaintance among the inhabitants; from time to time however, the Mineiros bring to this coast in their canoes, provisions and other necessaries, such as millet, bacon, salt-meat, gunpowder, cotton, &c. which partly serve for the supply of Villa de Belmonte, and are partly sent on to Porto Seguro and Bahia.

The forests on the Belmonte are the chief abode of the Botocudo tribe, which we have so often mentioned, and on whose account the river was formerly not to be navigated without danger. Some adventurers indeed at an earlier period proceeded up the river, in canoes made of barrigudo wood; but the Captain Mor, João da Sylva Santos, was the first, who in 1804 ventured to sail up it to Villa do Fanado in Minas Novas. He drew up a detailed account of his expedition, in which he was accompanied by Captain Simplicio José da Sylveira, the *escrivam*, or town-clerk of Belmonte. By order of the Conde dos Arcos, governor of the Capitania of Bahia, the *ouvidor*, Marcelino da Cunha, after having previously treated the savages in a reasonable and prudent manner, concluded a treaty with them three years ago, which put an end to all hostilities on both sides. Only a single chief of those tribes named Jonué, who on account of his restless hostile disposition is called by his countrymen Jonué Iakiim, (the warlike,) has not acquiesced in this agreement: he roves about with his people far up the Belmonte, about the Caxoeira do Inferno, and shoots at the canoes that sail by; nay he even lives at variance with his countrymen who have made peace with the Portuguese. In order to gain the Botocudos, knives, axes and other iron tools, also cloths, caps, handkerchiefs, and other articles were sent to them, and the desired object was thereby attained. Captain

Simplicio was particularly active on this occasion: it may be considered as a proof of the good understanding that subsists, that many of the Portuguese already understand something of the language of those savages.

The obstacles to be apprehended from the savages being thus removed, the Portuguese began to cut a road to Minas Novas, through the great ancient forests on the south bank of the river. It is now quite finished, and would be very serviceable if all that has been boasted of it were really effected. No bridges have been constructed over the deep clefts or ravines of the little forest streams, or *corregos*, which intersect this road in many places; on which account loaded mules cannot pass them: it is said too that in various parts of this long journey through continuous forests, poisonous herbs grow, which kill the cattle. Confiding in the report of the excellence of this road, a Mineiro attempted to travel it, with a numerous *tropa*, laden with cotton, but he lost the greater part of his mules; it has been asserted indeed that he owed his misfortune, in some measure, to his own imprudence; but his failure deterred others, so that nobody now frequents the lower part of the road; the upper part on the contrary is used. I had occasion to convince myself that this road, which if it were in good condition would be of great advantage to this country, does not deserve the commendations that many have bestowed upon it, but something has since been done to improve it. The communication is kept up better by canoes on the river than by this road. Several of them annually come down from Minas with produce, and generally take in return salt and other commodities. It requires about twenty days to reach the first inhabited parts of Minas, in all cases a troublesome voyage, though Mawe seems to have imagined it to be easier than it is. In order to protect this communication against the savages, who are still hostile, several military posts have been established upwards to Minas: they are six in number,

the Quartel dos Arcos, Quartel do Salto, Quartel do Estreito, Quartel da Vigia, Quartel de S. Miguel, and of Tucaihos de Lorena. The first is generally called Caxoeirinha, from the little waterfalls formed by rocks in the neighbouring river. The navigation on the river affords some support to the Villa de Belmonte; the inhabitants, who are all fishermen, are, like most of their countrymen in Brazil, very skilful in the management of their canoes.

There is at Belmonte a peculiar race of civilized Indians converted to Christianity, who are distinguished by the name of Menien Indians, but call themselves Camacan. The remains of their ancient language, now greatly corrupted, bear testimony to their real origin, with which they are themselves well acquainted. Formerly they lived higher up the river, till the Paulistas (inhabitants of the Capitania of S. Paulo) expelled them from that place and destroyed many of them. Those who escaped fled to the *villa*, and settled there. They have gradually abandoned entirely their ancient mode of life, and are now quite reclaimed, having partly intermixed with the negro race, some being employed as soldiers, others as fishermen and planters. A few old people only still understand some words of their ancient language. They are skilful in handicraft work, and make rush-mats, (*esteiras*,) straw hats, baskets, fishing-nets, and smaller nets to catch crabs*, &c. They are likewise good hunters, like all the Indians, but have long since renounced the bow and arrows for the gun.

I passed some time at Belmonte in order to rest my people and the cattle, though the country is said not to be very healthy; fevers and catarrhs are frequent, and the people complained that this year (1816) had been uncommonly sickly. The mosquitoes are a great

* This net, called *puça*, is a strongly knotted sack, and is drawn by two men along the bottom of the water.

annoyance in this country ; one species, called *vincudo*, is reckoned particularly troublesome. It is said that in the hot season especially, they become so intolerable in the houses, that the inhabitants fly with their sleeping-mats to the sea-shore, in order to enjoy in the fresh sea-air, some remission from the attacks of these troublesome insects.

CHAPTER XI.

STAY ON THE RIO GRANDE DE BELMONTE, AND AMONG THE
BOTOCUDOS.

*Quartel dos Arcos. — The Botocudos. — Journey to the Quartel do Salto. —
Return to the Quartel dos Arcos. — Combat of the Botocudos. — Journey to
Caravellas. — The Machacalis on the Rio do Prado. — Return to Belmonte.*

IN order to make myself acquainted with the beautiful and interesting wildernesses on the river Belmonte, I resolved to pass some months in the *Sertoës*, and perhaps even to go up the river as far as Minas. I hired in the town two canoes, manned them with five men, and put on board my people and baggage. On the 17th of August I left Belmonte, as the tide was running up, and sailed through a small side-channel into the river, which is here of considerable breadth, and partly filled with sand-banks. The view of it resembles in many respects that of the Rio Doce, only it is much narrower, being from five to six hundred paces in breadth. Forests, and lofty reeds, of the kind called *uba*, or *canna brava*, line the banks, interrupted here and there by *fazendas* and plantations. At the edge of the sand-banks, we saw the black skimmer, (*rynchops nigra*, Linn.) sitting immovably; and the great carão, (*numenius carauna*, Latham,) a beautiful marsh-bird, stalked about there, timidly looking round; with much trouble we succeeded in killing one of these shy birds.

At the *fazenda* of Ibibura, which belongs to the heirs of the late Captain Mor of Belmonte, I halted for a time, to take in some provisions requisite for the voyage, and especially to furnish myself with brandy, which is so necessary against fevers. This *fazenda* has the only sugar-works on the river Belmonte; it has indeed, stood still for a long time, but, as it seems, is now to be set to work again. They also make here *agoa ardente de canna*, (common rum). The banks on both sides of the river are beautiful: tall uba reeds here wave in close plots, with a flower resembling a flag, and the leaves spread out like a fan; over them rises, as the second gradation, a stripe of slender cecropia trees, with silvery annulated stems; the back-ground is formed in a very picturesque manner, by the thick, gloomy forest, the diversified dark green foliage of which rises high behind in close masses. The bank itself is a thick texture of many kinds of plants, where pale blue and bright violet flowering bind-weeds grow luxuriantly, interlaced together, and beautiful grasses, especially of the *cyperus* kind, fill up the remaining space.

Towards sun-set we landed on a *coroa*, or sand-bank, near Ibibura, where some people, chiefly Menien Indians, live in scattered dwellings. I had here an opportunity to purchase a very beautiful skin of an ounce, lately killed. I should have been glad to have possessed, or at least to have seen, the skeleton of the animal, but the man who had shot it, assured me that he had left it at a great distance in the woods, but that I should find the skull on the Coroa de Timicui, farther up the river, where it is likewise usual to halt. Some fishermen who had built their huts at Ibibura gave us eggs of river tortoises, which were quite round, of the size of large cherries, and covered with a hard shining white shell: they have not the disagreeable fishy taste which the eggs of sea turtles have, and are therefore very good eating. The season was now beginning when these eggs are found fresh: they are buried in numbers on all the sand banks, and are

eagerly sought after by the fishermen.* When night set in, it began to rain violently, and we fled for shelter to some old deserted fishermen's huts, in which, however, we were annoyed by numberless fleas, and sand-fleas. Muskitos also tormented us, and nothing but the suffocating smoke of our fire procured us some respite from their attacks. These insects were the most intolerable on the skirts of the wood, where we saw also the vampyre hovering about. During the night we constantly kept in view our canoes with the baggage; we were consequently all wet through, and had to pass the night in our wet clothes.

The following morning we found our great canoe half full of water, and all our baggage wet; we had scarcely been able to keep our firearms and powder dry, in the huts. The water was baled out as soon as possible, and, to our general joy, the sun broke through the thick clouds, and warmed and dried our half-numbed limbs. We then proceeded in good spirits.

As we had heard on the Rio Doce the cries of the monkeys, especially the guaribas, and the sauassus, so here, the ancient forests resounded with the loud piercing cries of the araras, the anacans, (*psittacus severus*, Lin.) and many other parrots. On the flat sand-banks, which, the water being low, now appeared in the river that was diversified with beautiful islands, the yellow-billed tern (*sterna flavirostris*) sat in pairs: it hovers in the air, and darts down perpendicularly on the fish in the water, and if any person approaches its nest, it pounces down on him as if it would pierce his skull, a design which the inhabitants, in fact, ascribe to it.

* These eggs are those of the species of tortoise which we had taken in the Mucuri, with a hook and line. It seems to be a hitherto unknown species, distinguished by two short beards under the chin, and a very flat shell.

Towards noon we reached the mouth of the Obu, a small river which falls into the Belmonte ; some distance up the country there is on its banks a small village called by its name, of twelve or fourteen dwellings, where a great deal of mandiocca, rice, and maize, and some sugar-cane is cultivated and brought to the town for sale. There are no sugar works here ; the inhabitants merely press out the juice of the cane between two small rollers, and thus obtain the syrup necessary to supply themselves. The mouth of the little river is called Boca d'Obu, and before it lies an island named Ilha da Boca d'Obu. I directed the canoes to lie to at the mouth of this rivulet, in order to procure the flour necessary to supply my people in the sequel of the voyage, and we took the opportunity of rambling through the adjacent forest. A canoe, laden with flour, happening to come down from Obu, enabled us to accelerate our business ; we purchased of it what we wanted, and again put off from shore. At a broad part of the river, in the corner of a sand-bank, we perceived a flock of ducks of a species that we had not before observed, which were distinguished by a brownish yellow plumage *. When we approached them, they flew into the air, described a large circle, and then collected again. We pursued them for a long time in this manner, till they at length sought refuge behind an eminence on the bank. We immediately put a hunter on shore, who cautiously advanced towards them, and killed two at one shot, which afforded us a good supper.

We passed the evening on the Coroa de Piranga, where we dug turtles' eggs out of the sand. In this deep sand the tracks of the tapirs and ounces, which prowl about here by night, crossed each other in all directions. We saw no other living animals than terns,

* *Anas virgata*, a new species, with rusty yellowish plumage ; the whole internal wing black ; first quill-feathers with white shafts ; side feathers of the body with a yellowish white longitudinal stripe ; the total length of the male bird 17 inches 9 lines.

which in their solicitude for their young, darted down, loudly screaming, upon the intruders. We here built ourselves some small huts of cocoa-leaves, in which we passed the night. The next morning we pursued our route, the weather being serene and agreeable. We had never before seen the bank covered with such beautiful and variously interwoven plants. We were particularly struck with a splendid shrub, which has a very close affinity with the trumpet-flower, (*Bignonia*,) with large bright red blossoms, which glowed like fire in the dark shade. Climbing and parasite plants every where covered the lofty ancient trunks with an impenetrable texture; the young leaves of the sapucaya trees were budding forth, of a delicate rose colour; and close to the bank, where cecropia-trees like girandoles stretched out their branches covered with palmated leaves, waved over the sands the lofty tufts of the *canna brava*. Near to a deserted plantation we came to the mouth of a small river, the Rio da Salza, or Peruaçu, which unites the Rio Grande with the Rio Pardo. The mouth of the river Belmonte not being very favourable to navigation, a plan has now been formed to render this channel navigable for canoes, by removing all the obstructions, particularly the fallen trunks of trees. In the dry season this channel is said to be very shallow, but when the water is high, sufficiently deep.

As we heard the cry of the araras in the neighbouring forests, we could not resist the desire to make chase after them. We landed some of our hunters, and were this time successful. One of the hunters approached them cautiously, and killed two of these large beautiful birds at one shot, the report of which re-echoed majestically through the lofty forest. The hunters were here surprised at the sight of a troop of little sahuis (*jacchus penicillatus*, Geoffr.), but which, leaping like squirrels through the tops of the trees, hastened away too quickly to be pursued. These little monkeys are very numerous in the Brazilian forests; one of the kinds most known is the *simia jac-*

chus of Linneus, which is found already rather further to the North in the country about Bahia. The splendid araras, and other beautiful birds of the same family, adorn these dark woods clothed with every variety of foliage. A flock of twenty or more, such as we saw here, illumined by the bright beams of the sun, perched on a tree of the most brilliant green, is indeed a magnificent sight, which cannot be conceived by those who have not witnessed it. They climb with great dexterity about the luxuriant parasite plants (*cipos*), and proudly turn their bodies, with their long tails, on all sides to the beams of the sun. They at this time were very frequently about the lower and middle parts of a prickly climbing plant (*similar*?) here called *spinha*, of the fruit of which, now ripening, they are very fond, as was proved by its white kernels, which we frequently found in the crops of those we killed. It is therefore easy to shoot them at this season; whereas, at other times, they seek their food in the summits of the loftiest trees of the forest.

Charmed with the success of our first chase of the araras, we re-embarked, and passed the *Coroa da Palha*, where a small stream, the Riacho da Palha, falls into the river; and arrived, towards evening, at the Coroa de Timicui, where some old deserted fishermen's huts afforded us shelter for the night. It was here that I was to find the skull of the beautiful large ounce (*yaguarêtté*), the skin of which I had bought at Ipibura, and which had been killed in this part of the forest about a week before. A couple of hunters traversing the forest with some dogs in search of deer and other game, accidentally met with the animal not far from the river, and near to a small stream, and drove it, as usually happens, upon the trunk of a tree which lay obliquely, where it was mortally wounded by a ball. It had seized one of the dogs with its paw, when a second ball in the neck laid it dead. I found the skull on the sand-bank near our huts, but unfortunately it was already much damaged. The eye-teeth had been

pulled out, to be worn as amulets, the superstition of this country ascribing to them great virtue in the cure or prevention of various diseases. The skin of this ounce was marked in a very beautiful manner; it measured above five feet in length without the tail, and yet it was not one of the largest of the species. This, and the other large animals of the feline tribe, the black tiger and the *çaçaranna*, or red ounce, (*felis concolor*, Linn.) are not rare in all the woods on the Belmonte; but they are not much disturbed, because there are no dogs in that part of the country fit for this kind of hunting. The tracks of these voracious animals are found very commonly on all the sandy banks of the river; and during the silence of the night, their harsh, broken howl is frequently heard.

Induced by the many tracks of wild animals, I resolved to stop the following day at Timicui, and to have the neighbouring woods examined in all directions. The weather was very favourable, yet we could not secure any quadrupeds, but only eatable birds, among which were a Muscovy duck (*anas moschata*, Linn.), a *jacupemba*, or Brazilian turkey, an *arara* (macaw), five *capueiras* (*perdix guianensis*, Latham, or *perdix dentata*, Temminck,) which afforded us a good supper. My only remaining spaniel bitch was very useful in hunting the partridges; she soon found the covey, which flew away in all directions, and settled on the trees, where a sportsman, who has a good eye, easily discerns and shoots them. An opossum (*gambá*) which, to escape my dog, ran up the trunk of a tree, was pulled down by her, but on account of its disagreeable smell, she cautiously seized it only with the points of her teeth, and shook it to death. The macaws, as well as other parrots, afforded us a strong broth; the flesh of the former is coarse, but nourishing, and not unlike beef.

When we returned from our hunting excursion in the dusk of the evening, we saw a number of large bats hovering over the surface of

the water. We loaded our pieces with small shot, and were so fortunate as to kill some of them. On a close examination it appeared that they were of the species *noctilio*; their colour was a uniform rusty red; whereas others have a yellowish-white stripe down the back. I no where found this handsome bat more common than in this place. Our two people, whom we had left behind on the *Coroa* for the purpose of cooking, were delighted when they saw the game we brought with us; they too had found many interesting animals in their neighbourhood; round the cheerful blazing fire we related to each other the events of the day, while the dark wilderness around us re-echoed with the call of the *capueira*, the *choralua*, and the *bacurau*, (*caprimulgus*).

On the 21st we left Timicui early in the morning, and proceeded up the river to a long island, which is called Ilha Grande; it is thickly covered with lofty primæval forests, and now uninhabited; but formerly there was a plantation upon it belonging to the inhabitants of Belmonte. Our boats were directly opposite to this island, near the northern bank, when we were surprised by a heavy storm of rain, which so darkened the air that we could scarcely distinguish the adjacent woods. While we lay to, in order to let this violent storm pass over, we suddenly heard the noise of a herd of wild swine near us, which were flying, terrified at our approach. Notwithstanding the heavy rain, two of our boatmen immediately leaped on shore with their guns, followed the track, and in half an hour returned with a hog, (*dicotyles labiatus*, Cuvier,) which they had shot. Just as they were going to step into the boat with their booty, they perceived a large jararacca among the high grass on the bank, which they immediately killed, and fastened to the canoe. My hunters here happily escaped a great danger, for it was by mere accident that they did not tread upon the serpent as it lay in the grass; if they had touched it, the reptile would undoubtedly have bitten their naked feet.

When the storm had passed over we pursued our course. The river is in this part broad and beautiful; on the bank, there are at intervals sandy flats, on which deserted huts of cocoa-leaves are here and there met with; these serve the inhabitants of Belmonte for a shelter when they come up the river for the purposes of fishing or hunting. We frequently observed in this part the darter, (*plotus*,) and the great wild or Muscovy duck; and of the latter, especially early in the morning, we sometimes saw whole flocks. In the evening we landed on a *coroa*, in the part called *As Barrieras*, which is an extremely good place for hunting, and almost the only spot on the lower part of the Belmonte where the large yellowish-grey monkey, called here by the name of the miriqui (*ateles*), is met with.

Before day-break on the 22d we left the *coroa*, and had already proceeded some distance, when the morning saluted us with its cheerful beams. The dashing of our oars and the voices of our boatmen, who were contending for the reward which I had promised to the most diligent of them, animated and disturbed the whole country: flocks of Muscovy ducks, frightened at the noise, flew up before us. On the preceding day we had already perceived before us in the distance a chain of mountains, which we could now distinguish more clearly; it bears the name of Serra das Guaribas. This chain intersects the great forests, from north to south; it did not seem to be remarkably high, though it was not far distant from us.

At the place where we now were, the banks of the river began gradually to rise; mountains covered with dark forests appear on its sides; fragments of stone and rock announce the neighbourhood of primitive mountains, and the *coroas* or sand-banks become more rare, in proportion as the bed of the river grows narrower, and the water deeper. The dark shining surface of the river is often contracted between steep mountains, yet it still retains a considerable breadth. We heard and saw on the banks the beautiful araras, and observed to-day

for the first time, a very remarkable bird, the *aniuma* or Brazilian crane, (*palamedea cornuta*, Linn. or *horned screamer*, Latham,) which is not rare, so far up the river. This beautiful bird, of the size of a large goose, but with longer legs and neck, has on the forehead a thin horny excrescence, four or five inches long, and at the fore joint of each wing, two strong pointed spurs. It is shy, but soon betrays itself by its loud call, which, though much more sonorous and stronger, has some resemblance in its modulations to the cry of our wild pigeon, (*columba oenas*,) but accompanied with some strange guttural notes; this call sounds through the wilderness, and afforded a new amusement to our hunters. Several of these birds, frightened by the dashing of our oars, flew towards the forest: in their flight they resembled the *urubu* or carrion vulture, (*vultur aura*, Linn.)

In the afternoon we came to a bend of the river, where we were overtaken by a dreadful tempest, with torrents of rain and furious wind, by which our large covered canoe was violently shaken. It soon passed over, however, and when the sky cleared up, we saw nearly before us the island of Cachoeirinha, on which the Quartel dos Arcos is built. This military post was established two years and a half ago, by M. Marcellino da Cunha, *ouvidor* of the district, by order of the governor, Conde dos Arcos. At first a *destacamento* of about sixty men had been stationed three days' journey up the river, at the place called the Salto; but as the Indian soldiers posted there were very discontented, they were withdrawn to the island of Cachoeirinha, and Captain Juliano Frz. Leão, commandant of the Quartel of Minas Novas, occupied that place with ten or twelve men, who still form the Quartel do Salto. A few clay-huts, covered with straw, stand on the hither extremity of the island, which is partly cleared of wood, and brought into cultivation. The farther end is still covered with lofty forests. Mandiocca plantations have been formed here,

and round the buildings have been planted a great number of bananas, and mammão trees, (*papaw*, *carica*,) but the fruit frequently serves only to feed the Botocudos, whom the inhabitants willingly allow to take it, in order not to disturb the peaceable footing on which they live with them. Between the island and the north bank, the river is but narrow, and it was at this time so shallow as to be fordable; the south arm is broader. Padre Farya, a priest from Minas, has lately made there, opposite to the island, considerable plantations of maize, mandioca, rice, cotton, &c.: he lives quite sequestered; the road to Minas passes close by his house.

The post of Arcos was occupied by an ensign with twenty men; so many of whom however have deserted, that only about ten remained, chiefly people of colour, Indians, or mulattos. The soldiers fare very badly; their pay is small, and they are obliged to obtain by their own labour all their food, which consists of mandioca-flour, beans, and salt-meat. The whole stock of powder and ball seldom exceeds a couple of pounds; and very few of the old muskets are serviceable; so that in case of an attack, they would be under great embarrassment. It is moreover the duty of these soldiers to convey travellers and their goods or baggage up and down the river; hence they are mostly very expert at this employment, and may be considered as excellent boatmen. Their commandant had gone upon a journey some time before, and had left the command during his absence to a subaltern officer: this latter had punished a Botocudo who had been guilty of some misconduct, which so offended all those of his tribe, who generally reside here in considerable numbers, that they retired together into the woods. When the ensign on his return found the Quartel entirely deserted by the Botocudos, and learned the cause of their withdrawing, he sent a young man of their tribe, named Francisco, who was in his company, after them, to persuade them to return.

The Botocudos generally resident in the neighbourhood of the

Quartel, consist of four hordes, each of which has its particular chief, whom the Portuguese call Captain: they had all retreated further into the woods, and it was only known that one of them, Captain June, called by the savages Kerengnatnuck, was with his people, three days journey farther up, on the Salto: but whither the three others had retired was not known. The mission of Francisco did not immediately produce the desired effect; and I therefore persuaded the commandant to dispatch after them, for the same purpose, several young Botocudos, who had just returned from Rio de Janeiro, whither the *ouvidor* had sent them.

As I was furnished with recommendations to the commandant, I found myself very comfortable at this quartel. The prime necessities of life are, indeed, scarce in this wilderness, and the only articles of subsistence are, mandioca-flour, beans, and salt fish, of a species which is caught in abundance in the river: but on the other hand, the travelling naturalist, accustomed to privations, finds here ample occupation and the most agreeable amusement. We daily made hunting excursions in the forests, which are close to the bank, and returned home in the evening so weary, that we had scarcely time and strength left to note down the observations that we had made.

I took advantage of the absence of the Botocudos, to visit and examine the huts they had lately forsaken, which lay at a considerable distance from the river, in the inmost recesses of the wilderness. They consisted merely of leaves of cocoa-palms, which were fixed in the ground, in an oval figure, in such a manner, that their points, meeting at the top, formed a kind of arch. In those huts I found none of the utensils, except large thick stones, with which they are accustomed to break open certain wild cocoa-nuts, which they call *ororó*. Not far from one of these huts was the grave of a man, which I resolved also to examine. It was situated in a small clear spot, under some tall ancient trees, and was covered over with short thick pieces of wood.

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J. Clark del.

A FAMILY of EOTOCUDOS on a JOURNEY.

After these had been removed, we found the pit filled with earth, from which came some single bones. A young Botocudo, who had pointed out the grave, loudly expressed his dissatisfaction when we reached the bones; the digging was therefore suspended, and we returned for that day to the quartel: but I did not renounce the idea of more minutely exploring this grave.

Some days afterwards, I again repaired to the spot, in hopes of accomplishing my object before the return of the savages. We had provided ourselves, therefore, with a pick-axe, in addition to our fowling-pieces. It was our intention to complete our examination as speedily as possible, but in the narrow serpentine path, between the lofty trees, appeared many interesting birds, which detained us: we shot some of them, and I was just about to pick one up, when I was suddenly surprised by the short, but harsh tone of a rough voice. I instantly turned round, and lo! close behind me were several Botocudos! naked, and brown like the beasts of the forest, they stood with their great plugs of white wood in their ears and lower lips, and their bows and arrows in their hands. My surprise, I confess, was not small; had they been inimically disposed, I should have been pierced by their arrows before I could have suspected they were near. As it was, I advanced boldly towards them, and repeated what words I knew of their language: they pressed me, after the manner of the Portuguese, to their bosoms; clapped me on the shoulder, and pronounced in a loud tone, some harsh words; but particularly on seeing my double-barrelled gun, they repeatedly exclaimed with astonishment, *pun uruhú*, (several guns).

Some women laden with heavy sacks now came up one after another, surveyed me with equal curiosity, and communicated their remarks to each other. Both men and women were entirely destitute of clothing: the former were of the middle size, strong, muscular, and well made, yet in general rather slender, but the great plugs of

wood in their ears and lips disfigured them much : they carried bundles of bows and arrows under their arms, and some had also water-vessels made of taquarussu. They wore their hair cropped close, except a round tuft on the crown of the head ; this was the case even with the young children, a considerable number of whom the mothers carried on their shoulders, or led by the hand.

One of my people, named George, who understood something of the language of these savages, had come up in the mean time and entered into conversation with them, on which they immediately became extremely familiar. They inquired after their countrymen, whom the *ouvidor* had sent to Rio, and expressed great joy on hearing that they would find them at the post (*destacamento*). Their impatience was now so great, that they hurried quickly away. I was heartily glad that we had loitered on the way ; for if the savages, who had to pass close by the grave, had surprised us when engaged in our intended examination, their resentment might have involved us in great danger.*

I now resolved to defer my purpose till some more favourable opportunity ; and had gone but a few steps, when the leader of the party, Captain June, an old man of rough appearance, but of a good disposition, suddenly met me. He saluted us in the same manner as his countrymen ; but his appearance was still more extraordinary than that of the others, for he wore plugs in his ears and lip four inches and four lines English, in diameter ; he was likewise strong and muscular, but already wrinkled with age. As he had left his wife behind, he carried on his back two heavy sacks, and a great

* According to the accounts since received from Mr. Freyreiss from Brazil, my apprehensions of the consequences of being surprised by the savages, in the act of opening their grave, were ill founded ; for he has since opened several graves, in which operation the Botocudos themselves assisted him.

bundle of arrows, and reeds for arrows. He panted under his load, and ran quickly away with his body much inclining forwards. His first question likewise was, whether his countrymen had returned from Rio de Janeiro; and the most lively joy was expressed in his whole appearance, when we answered him in the affirmative.

When I soon afterwards returned to the quartel, I found a great number of Botocudos, lying at their ease, in all the rooms of the house. Some were sitting at the fire, and roasting unripe mammas fruit; others were eating flour which they had received from the commandant; and a great part of them were contemplating with astonishment, my people, whose appearance was very singular to them. They were not a little surprised at their white skin, light hair, and blue eyes. They crept through every corner of the house, in quest of provisions, and their appetite was always keen: they climbed up all the mammas trees, and where their fruit shewed by its yellowish green colour that it was beginning to ripen, it was immediately plucked; nay, many ate it quite unripe, either roasted on the hot coals, or boiled.

I immediately began to barter with these savages, giving them knives, red handkerchiefs, glass beads, and other trifles, for their arms, sacks, and other utensils. They manifested a decided preference for every thing that was made of iron; and, like all the Tapuyas on the east coast, immediately fastened the knives they had obtained, to a string tied round their necks. A very interesting scene was afforded us, by the reception which they gave to their countrymen and relations, the young Botocudos, who had been with the *ouvidor* to Rio, and now came in successively. They were welcomed with the greatest cordiality; old Captain June sung a joyful song, and some even affirmed, that they saw him shed tears of joy. It has been asserted that the Botocudos are accustomed, by way of welcome, to smell each others' wrists; Mr. Sellow among others says, he has observed this practice;

but though I was long and often among these savages, and frequently witnessed their interviews with new comers, I never observed, or heard of any thing of the kind.

The old Captain and his chief friends had taken up their quarters in a shed, open on all sides, and merely covered with a thatched roof, which was designed for the preparation of mandiocca-flour; here they had kindled a great fire, near the mandiocca wheel and the great stove for drying the flour, and lay around it involved in thick smoke, on the ashes, which gave to their brown skin a grey appearance. The Captain himself frequently rose, roughly demanded an axe and went to fetch fuel: from time to time too, he ventured an attack upon us or the Portuguese to obtain flour, or shook the melon-trees to get their fruit.

These Botocudos, who manifest such irreconcilable hostility on the Rio Doce, are so little feared here on the Belmonte, that people have even ventured to go several days' journey with them into the great woods to hunt, and to sleep with them there in their huts: such experiments however are not yet very frequent, as the distrust entertained of them cannot easily be quite overcome. This mistrust and the fear of putting themselves wholly in their power are not the only circumstances which make the Europeans averse to such excursions in the woods in company with the savages; to these must be added their great muscular strength, and ability to endure fatigue; for our people always returned quite exhausted from every excursion with the Botocudos. Their muscular strength enables them to go very swiftly in the hottest weather, both up and down hill; they penetrate the thickest and most entangled forests; they wade and swim through every river, if it be not too rapid; perfectly naked, therefore not incommoded by clothing, never getting into perspiration, carrying only their bow and arrows in their hand, they stoop with facility; and with their hardened skin, which fears neither thorns nor

other injury, they creep through the smallest gap in the bushes, and can thus pass over a great extent of ground in a day. My hunters had experience of this their bodily superiority, among others, from a young Botocudo, named Jukeräcke: he had learned to be a very good marksman with his gun, and was at the same time uncommonly skilful in the use of the bow. I sometimes sent him with other Botocudos into the wood to kill animals; for a little flour and brandy they willingly hunted a whole day. Jukeräcke in particular was very serviceable, as he was agile and shewed much aptness to all bodily exercises. At first my hunters accompanied these people; but they soon complained that the Botocudos were too swift of foot, and let them hunt alone. We made daily hunting excursions in the neighbourhood of the Quartel. When the savages are in these parts, the araras rarely shew themselves, because they are constantly disturbed; during the short absence of the Botocudos they had returned, and now found formidable enemies in our fowling-pieces. We killed several of those beautiful birds, which were doubly welcome, as the neighbourhood afforded us but little game for our table, and the other provisions at the Quartel were often so sparingly allotted to us, that we almost suffered hunger. Besides hunting we continued also to fish; soon after our arrival several saw-fish (*pristis serra*) were taken, which we found very good eating. Only one kind of fish, the *crumatan*, is here caught in nets; but several by the line, as *robal*, *piabanha*, *piau*, *jundiáh* (*silurus*), *cassáo*, (*squalus*?) *espadarta* (saw-fish), *çucurupora*, (*squalus*?) *çurubi*, *camurupi*, and many other kinds. The *crumatan*, a soft and very bony fish, is shot by the savages with bow and arrows*.

* The principal fishing implements used on the Belmonte, are, besides the *camboa*, or the *coral*, the *taraffa*, a large round net, which is cast out by one person; many small kinds of baskets; the *puça* made of wood split very thin, or reed, rather flat and curved, with an

The Botocudos, who like to be near the Europeans on account of the advantages they derive from them, have also learned by experience that provisions are sometimes scarce at this station ; some of them had therefore formed plantations of their own. There was such a one on the north bank of the river opposite to the station. At this spot there were some huts, about which the savages had planted banana trees : they however abandoned the huts again, after having buried some of their dead in them, and on their present return they even burned them ; but they still spared the banana trees for the sake of their fruit. Farther up on the Belmonte, in the territory of Minas Novas, there is another spot where some Botocudos had made plantations ; but from this place too they soon retired again in the woods, and the Machacaris have now formed a village or large *rancharia* there. These instances shew that the Botocudos already begin to make advances towards civilisation, but prove likewise that it will be very difficult for them to renounce their natural roving hunter's life, since they so easily return to it even from plantations which they have themselves made. Nothing but the increasing population of the Europeans, and the contraction of their

opening in the lower concave part ; the *jiquia*, a long conical basket of split cipo branches, held asunder internally by cipo hoops : the *musua*, like the preceding, but cylindrical, with an opening at both ends, and made of thin slips of the *canna brava* reed. At the openings of all these, and especially at the two ends of the last mentioned kind, small sharpened sticks are placed conically, pointing inwards in such a manner, that the fish can get in but not out again. These baskets are used especially to catch the great crab, (*camarao*), with brownish-orange and black stripes, which we found likewise in the small forest streams of the interior. This basket is made four or five palms long. They have also drag-nets, which often extend over a considerable space, and which occupy several persons at once in different canoes. Among the fishing tackle we may also mention the *civipoia*, which the children throw out in the harbour, and draw up by the lines fastened to it, to catch crabs and shrimps. This net is a sack fastened to a hoop. Lastly, the *tapasteiro* is a net fastened to a wooden cross, which is dragged along the bottom of the water, likewise to catch crabs and shrimps. The fisherman generally goes up to the middle in water, and always backwards. Round his neck he carries the vessel in which he puts the fish he has caught.

hunting grounds, can induce them to a gradual change in their mode of life.

The Botocudos who now lived under the same roof with us, afforded us the greatest entertainment, and frequently interesting scenes. Thus, the old captain from whom I had purchased his bow and arrows, came to me one day to borrow them, because, as he said, he could not hunt without them. I granted his request, but the appointed time passed over, and my arrows did not make their appearance; nor did I ever see them in the hands of the savage. I asked him for them in a friendly manner, but in vain. At length I learned that he had hidden them in the forest, and it was a long time before my serious expostulations, supported by the commandant of the Quartel, at last induced him to fetch them and give them up. Hatchets (in their language *carapó*) and knives have the greatest value in their estimation. They use the former especially to split the tough wood of the *pao d'arco*, (*bignonia*,) of which they make their bows: they barter their bows and arrows for them both; yet their appetite is so preponderant, that they part with the knife which they have just obtained for a little flour.

The island upon which the buildings of the Quartel are situated, is cleared of wood, as we have already observed, only on its hither or lower extremity, where are also the plantations which supply food both for the soldiers and the Botocudos: while the back part, on the contrary, is covered with shrubs (*capueira*) and forests, through which there are no paths: the same is the case on the neighbouring banks of the river. Except the Minas road on the south bank, you find in the thick forests nothing but narrow paths, which the Botocudos or the wild beasts have formed for themselves. We therefore made most of our hunting excursions partly by water in canoes: proceeding a part of the way up or down the river, then landing and penetrating into the woods. Some of these excursions were highly

agreeable, particularly those up the river. That place in the river which gives its name to the adjacent country, and is called Cachoeirinha, deserves particular mention. Going up the stream, it is from half to three quarters of an hour's rowing from the island of the Quartel; but downwards from the Cachoeirinha to the Quartel a quarter of an hour is sufficient, from the rapidity of the current. Here I found the river confined between two considerable mountains, which were covered with uninterrupted forests. These forests appeared in their greatest beauty, adorned with the hues of spring, partly with young leaves, ash-grey, dark, light, or yellow green, reddish brown, or rose-coloured; partly arrayed in white, deep yellow, violet, or pink blossoms; at the foot of these mountains, close to the river, masses of rock, some very large and of singular forms, are the forerunners of the mountain formation of Minas, which appears to begin here, for these blocks are not met with farther down the river.

A small island near the shore, wholly composed of pieces of rock, is remarkable for the multitude of birds' nests, with which some short crooked trees are absolutely loaded. The bird which builds these bag-shaped nests of the fibres of the *tillandsia*, is the *japui*, (*cassicus* or *oriolus persicus*,) with black and yellow plumage. I did not find it more to the south than Belmonte. These birds are very sociable; like all of the species *cassicus*, they build bag-shaped nests, which they fasten to a thin twig, and lay two eggs. At this time the nests were deserted, for the breeding season is in November, December, and January. The fishermen make a practice of taking out the young birds to use them as baits. Black orioles flew about the rocks on the river side in small parties; and the beautiful blood-red *tijé piranga*, (*tanagra brasiliensis*, Linn.) was very frequent here, as in the thick bushes on the banks of all the rivers.

On going up the river you come to a bend in the stream, where the whole channel is so filled with masses of rock that a narrow passage

only is left in the middle for canoes. The stream darts through rapidly, and then falls smoothly over the rocks; this is the place which is called the Cachoeirinha, or the little fall. The force of the rushing mass of water has hollowed out in the rocks, in the most singular manner, round openings, some of them of surprising regularity. I had a large canoe, which was managed by two Botocudos, Jukerücke and Ahó, and one of my people; but the current was so rapid here that all these were not able to push the canoe so near to the fall as I wished. In going up the river, the canoes are drawn over this and similar places, but coming down they are guided over them by the soldiers of the Quartels, who are well acquainted with the local circumstances of this country. When the water is high, the boats glide almost without danger and very rapidly over the obstacles, which, when the water is low, are often dangerous even for experienced boatmen. At such times, when the cliffs appear as they now did, this place reminds the spectator of similar picturesque scenery in Switzerland.

Many interesting species of plants grow here: among others a willow-like shrub, called by the inhabitants *ciriba*, probably a *croton*; it has very tough branches, which best serve for the boatman to hold fast by, when his boat is impelled by a moderate current. This *ciriba* appears to be the only substitute for the willow genus, on the east coast of Brazil; at least I did not find a single species of that family in all the part through which I travelled. Here likewise grows a shrub with white tufts of flowers, which exhale a very agreeable perfume like cloves, and another very pretty plant that appears to have an affinity with the genus *scabiosa*, and the pink flowers of which adorn the bare grey ancient rocks. Several bignonias overhung the river; they were loaded with large beautiful violet-coloured flowers which appear before the leaves, and were just opening.

No quadrupeds are seen here, nor any birds, except several species

of house-swallows, which pursue the insects in the cool air over the agitated water. But between the pieces of rocks on the sand, I observed the track of the lords of these solitary wildernesses, the Botocudos, which is the more accurately and perfectly impressed, as no deforming shoes cramp their toes. We visited the deserted huts which travelling Mineiros had built here, and then returned to the Quartel. On this excursion we had the satisfaction to shoot a beautiful *myua*, (*plotus anhinga*, Linn.) This bird is very shy; and in order to secure it, a person must be acquainted with the mode of chasing it, and proceed with great caution. The canoe is suffered to float down along the bank; those on board must not move; the hunter has his gun ready to fire, and keeps his eye fixed on the bird; as soon as the bird begins to raise his wings, he must fire, for he will not be able to get any nearer to it afterwards. My Botocudos remained quite still, I lay down in the fore-part of the canoe and fired; on which the bird immediately plunged into the river and dived under the canoe; but Jukeräcke very dextrously drew it out.

When we arrived again at the station, we found that there was a want of provisions, the fishing having been very unproductive; we therefore immediately sent off our hunters in two boats down the river. This time they had more success than usual, for in thirty-six hours the five hunters returned in the evening, bringing in the one canoe eleven, and in the other ten, in all twenty-one wild swine, of the species called *queixada branca*, (*dicotyles labiatus*, Cuvier); they had met in their excursion with fourteen herds of these animals. This may serve to give an idea of the great numbers of wild swine that inhabit the ancient forests of Brazil: the savages pursue these animals; there is nothing they are so fond of as these swine and monkeys.

The arrival of our hunters with the boats so richly laden was very welcome, not only to us hungry Europeans, but still more to the

assembled crowd of the Botocudos, who with greedy eyes seemed already to devour the booty. They were immediately all in a bustle, and very urgently offered their services to singe and prepare the swine, if we would give them a part. The savages are in fact extremely dextrous in this operation; young and old fell to work without loss of time; they immediately kindled several fires, threw the swine into the flame, quickly singed off the hair, scraped them clean, took out the entrails and washed them in the river; they received the head and the entrails for their pains. The soldiers were then employed to cut up the carcasses, to divide them into thin pieces and put them in salt; by which means we were furnished with provisions for some time.

Besides this supply of an urgent want, this excursion had procured many interesting subjects of natural history. My people had shot a Brazilian crane, (*palamedea cornuta*, Linn.) which it is not easy to kill, by cautiously approaching it on a sand-bank. As it was only lamed in the wing, it was preserved alive for some time and observed. Buffon has given a pretty correct representation of this bird by the name of *camichi*. Ours was a male, and had a pretty large horn upon the forehead (which the female bird also bears) merely attached to the skin, and therefore moveable. The Botocudos, encouraged by our diligence in hunting, also made excursions into the woods, from which they returned with some deer, agutis, and other animals, which in general they devoured immediately. They roast the flesh, which is called *bucaniren* or *muquiar*, and dry at the fire what they do not immediately eat, in order to preserve it. My assistant in hunting, Ahó, once shot several animals from a tree, and returned much pleased; but after such a successful excursion he always good-naturedly shared his game with his countrymen.

Many Botocudos had gone into the forest with borrowed axes, to make new bows and arrows, to supply the place of those which they

had parted with to us. The *tapicuru*, or *pao d'arco*, of which they make them, is a very high tree, with hard tough wood, which in August and September puts forth beautiful brownish red foliage, and then bears large and handsome yellow flowers. Its wood is whitish, but the internal heart is yellow, like sulphur, and it is from this part that the savages on the Belmonte, and in the more northern tracts, make their bows. As this labour is very troublesome, they are much averse to it, and preferred borrowing bows from us; nay, some of them even attempted to steal them.

As I had now full leisure to go farther up the river Belmonte, and make myself acquainted with the zoological productions of the adjacent forests, I undertook a journey to the Quartel do Salto, which, by land, is about twelve leagues from the Quartel dos Arcos, but by water three days journey, though four men with a canoe, not very heavily laden, must work hard, to perform the voyage in that time. My canoe was pretty light, and had four boatmen, perfectly acquainted with the river. I did not leave the Quartel dos Arcos till towards noon; we therefore passed that day only the above-mentioned Cachoeirinha, or the lower part of the river. The rocks that here confine the stream, and every where fill the bottom, and over which the river runs foaming, with a moderate fall, for about half a mile, are here great obstacles to the canoes. In passing down this waterfall the canoes are exposed to danger, on account of the rapidity of the current, from the projecting rocks and the various turns of the channels between them.

Before we reached the Cachoeirinha, we stopped upon the south bank, in order to cut in the forest some long poles of tough hard wood, which are used to push forward the canoes. We also cut some long *cipos*; three or four of these strong ligneous creeping plants were twisted into a rope, (*regeira*,) which was fastened to the fore-part of the canoe for the purpose of towing it. Thus prepared, we

commenced the fatiguing passage over the Cachoeirinha. Two boatmen, who sometimes waded up to the middle in water, and sometimes leaped from rock to rock, and occasionally slipped between the blocks of stone up to the neck in water, drew the empty canoe, and the rest of the people shoved behind. Meantime I clambered with my fowling-piece over the rocks on the bank, and shot a swallow of a species which was new to me*; other species, the white and green, and red-throated swallow†, every where flew about in numbers. A kind of fly-catcher (*muscicapa*) also builds among these rocks, with part of the plumage of a rusty red‡, which in the *Sertam* of Bahia is called *gibao de couro*, or leather jacket. It is found in Minas, and even on the east coast, but more rarely, and every where keeps among the stones, or on the roofs of the houses. Among these rocks on the Belmonte they are often seen sitting on the point of a block, from which they fly perpendicularly upwards after the insects, and then descend to their former place. All the plants lately found on this spot were more fully in blossom, besides several pink or violet-coloured trumpet-flowers, which blossom before the leaves appear, but whose tufts of flowers unfortunately wither and fall off very soon.

When my boatmen had surmounted the falls of the Cachoeirinha, the day was already far spent; and we therefore resolved to pass the

* *Hirundo melanoleuca*, a new species; with forked tail; upper part of the body black, lower part, white; a black transverse stripe under the throat. Whole length five inches, four and a half lines.

† *Hirundo leucoptera* and *igularis*; the latter, with a light rust-coloured throat, and pale, yellowish belly, is probably Azara's *Hirondelle à ventre jaunâtre*. Azara, Voyages, Tom. IV. page 105.

‡ *Muscicapa rupestris*, a new species; six inches eleven lines long; all the upper parts of the plumage, dark grey brown; the lower, as well as the tail feathers, rusty red; the latter having broad, dark brown spots; the feathers of the wings, dark brown, with irregular rusty transverse stripes.

night upon a sand-bank, on the margin of the stream, a little above the fall. This place is called *Raçaseiro*. We still enjoyed sunshine when it was already dark in the neighbouring forests; the hoarse evening notes of the araras announced to the owls and night swallows, that the season for their activity was come. As the weather was fine and serene, we passed the night without huts, near a good fire, myself covered with a thick blanket, the boatmen with a straw mat: a large dry ox hide served to lie upon. The following day we continued our voyage. From this place the river has rather less fall, but its general appearance remained the same. The water was shallow, interrupted by large blocks of granite, which were more numerous towards the bank, and were the largest at the edge of the ancient forests, where they lay close together. From these pieces of rock, by which the river is divided into several channels, we may infer its descent from the high ridges of Minas. Many of these blocks are mixed with a quantity of mica; gold too, and even precious stones are found here in all the rivers, particularly in the small streams that fall into them. The water of the Belmonte, which, at the season when the rivers swell, looks yellow and dirty, was now pure and bright, and we were therefore the better able to steer clear of the rocks that lay below the surface.

The sides of this valley rise rapidly into hills covered with primeval forests, and the large masses of rock lay in great numbers, extending even into the wood. As many kinds of trees lose their leaves at this season, but the most remain always green, the forest appeared half green and half grey; towards Minas this appearance is still more striking; nay, it is said, that in some parts the leaves fall off entirely. The various kinds of young leaves now just budding forth, began to give the landscape new life and beauty. The tapicurú (*bignonia*) was completely covered with its beautiful brown red leaves, just shooting out; the summits of the sapucaia (*lecytis*) appeared

clothed in the most beautiful pink; the *bougainvillea brasiliensis* twined round the tops of the trees, which were partly still without leaves, and covered them all over with its dark rose-coloured flowers; numerous varieties also of trumpet-flowers (*bignonia*), some rising high, some creeping on the ground, were growing in the greatest luxuriance, adorned with every variety of rose-coloured, violet, white and yellow blossoms. It would be impossible, at this season, for the best landscape-painter to represent the infinitely diversified tints of colour in the crowns of the gigantic trees composing these great forests; and, if he could succeed, every person who had not himself seen this country, would consider his performance to be a mere sport of his imagination. In this part of the river, we had, as before, great trouble in working our way in the manner above described, between numerous rocks, and through currents; and our people who towed the canoe often fell up to their necks in water, yet without letting the rope slip out of their hands.

The heat was already great, and numerous swarms of mosquitoes tormented us; but they are said to be far more insupportable when the water is high. On the evening of the second day we again kindled our fire on a sandy flat contiguous to the river; the moon shone in glorious splendor, and promised us fine weather for the following day. The next morning the whole valley, through which the river flows, was enveloped in a thick fog, which, however, was soon dispelled. When the atmosphere had cleared, we saw a flock of large swallows, of the swift species (*cypselus*), of a hitherto unknown kind, the soot black plumage of which had nothing remarkable in it; on account of their extremely rapid flight, we were not able to kill any of them.

We continued our voyage, passed round some considerable rocky cliffs, and then came to a remarkably great fall; which we however surmounted, as we had done the others, by the help of the

towing-rope, without unloading the canoe. We soon reached a place where the river flows pretty smoothly, and without much current. On the north bank there is a high projecting rock, under which there is a kind of cavern; this place bears the name of *Lapa*, or cave, of the Mineiros. This cavern, as it is called, is properly speaking, only a covered recess, formed by the projection, where travellers are accustomed to pass the night, when the evening surprises them in this place, because their fire is perfectly sheltered from the wind and rain. Beyond this place, the river is straitened between the mountains which border it, and large blocks of rock lie on its banks. We stopped for a time near a small stream (*corrego*); my boatmen went on shore, in order, as they said, to look for whetstones; all the stone of this little stream consisted of the various kinds of primitive rocks which occur in Minas, mixed with much mica; my people, among whom there was an experienced Mineiro, affirmed also, that gold was not unfrequently found here, and that the existence of this metal was indicated with certainty by the appearance of the stone. In the rough bed of this impetuous forest-stream, which descends through uninhabited wildernesses, we found traces of the Tapirs and Capybaras, the peaceable inhabitants of these solitudes. The stream supplies them with clear water, even in the rainy season, and the surrounding wilds afford them the most convenient retreats.

We passed some other inconsiderable falls, over which it gave us much trouble to get the canoe, on account of the shallowness of the water. Evening came upon us at a narrow part of the river; we took up our quarters on a sandy flat, upon the bank, between rocks. Two red ounces (*onça çuçaranna, felis concolor*, Linn.) had lately been prowling about here; their tracks were still quite fresh; and we were engaged in examining them, when our attention was drawn to a company of otters, which, while fishing, suffered themselves to be carried by the current down the river. They often raised their heads above water, and snorted aloud; but they were unfortunately beyond the

reach of our fire. These otters catch in the rivers a vast quantity of fish, the remains of which are left on the rocks: thus, for instance, I often found in such places the head and bony gills of a kind of *silurus**, marked with round black spots, on a yellow brown ground: the otter seems to reject these hard parts. Several kinds of animals shewed themselves near our night's quarters. Araras screamed in the forest, and large bats flew high over our heads, in the twilight. Even when the shades of night had completely enveloped the whole scene, we heard the singular unknown voices of owls and night swallows. The following morning we were again involved in thick fog, which, however, was not cold, but only damp. The powerful tropical sun soon pierced the thick veil which covered the valley, and dried us again.

We now proceeded to the greatest fall which we had to pass in this voyage: here it was necessary to unload the canoe at a rocky island, and every one lent a hand to lift it over the ledge of rock, three feet high, an operation which was greatly impeded by the water that rushed down. All the baggage had been carried by land to the other end of the island; but it cost much time and infinite pains before the canoe could be brought thither, cleared of the water, reloaded, and got afloat.

While my people were busy with the canoe, I cast my eyes accidentally on the opposite bank, and to my great astonishment, beheld a stout robust Botocudo, quietly seated there, cross-legged. His name was Jucakemet, and he was well known to my people, who however had not remarked him; he had been watching us at work without making the least noise. His grey-brown naked body was scarcely

* Here called *Roncador*: to the south of Capitania, this name is given to another kind of fish. I have not had an opportunity of seeing a perfect specimen of the first mentioned species.

distinguishable among the grey rocks : hence these savages can very easily approach unperceived, and the soldiers, in other places, who are at war with them, must therefore be extremely cautious. We desired this savage, who was sitting there alone, to swim over to us ; but he gave us to understand that the river was too rapid, and that he would return to the Quartel do Salto, which was not far off, and there wait for us. On the north bank also we perceived some Botocudos, who were going out a-hunting with one of the soldiers of the Quartel : they too refused to come down to us. We rowed past a high rocky cliff of a blackish colour, traversed with veins of yellow quartz, and soon arrived at the landing-place of the Quartel do Salto.

A considerable cataract near this military post rendering the river wholly unnavigable, it is necessary to go on shore at this place, and to proceed by land over a mountain ; beyond the Quartel, you may embark again in other canoes. I had my baggage landed and carried to the Quartel. The way leads up a steep cliff, where a small shed has been built for the goods going to Minas, which are landed here. On the summit you enter a forest, where *bromelia* plants covering the ground form an impenetrable thicket : *begonias*, five or six feet high, with their large leaves*, grow in abundance. Here stood, of colossal circumference, the *bombax ventricosa* of Arruda, the stem of which is smaller towards the ground, and under the crown, but bellying out in the middle, on which account the Portuguese have given it the name of *barrigudo*. There are several kinds of this protuberant bombax ; one has a smooth bark, only a little channelled ; in another, the stem is covered with short, strong, blunt thorns ; the leaves, which stand singly on the thin, and not very branching crown, are palmated. The flowers are large and beautiful, of a whitish colour ; as soon as

* The *begonia* genus has very numerous species in Brazil, some of which grow to a considerable height and size.

they wither, they fall off, and cover the ground under the trees. The large trunk of these trees is filled with a very juicy, soft pith, in which are found the larvæ of several large insects, which are sought by the Botocudos, roasted on a wooden spit, and eagerly devoured. If an incision is made in the tree, a quantity of clammy juice, or resin, exudes. In this wilderness a little solitary path led to the hills, where a party of Botocudos resides : many of them often visit this station, and work for a time, if food is given them in return for their labour.

The distance to the Quartel by land is about half a league : the way is alternately up and down hill through the forest, which is a great obstacle to the conveyance of goods, which must all be carried on men's shoulders. The Quartel do Salto lies on the river, in a rather broad part of the valley, where the water being low, a naked stony flat appeared, bordering the narrow stream on both sides. The buildings are of clay, covered with large, long pieces of the bark of the *pao d'arco*. The commandant, a subaltern officer and man of colour, received me well, and gave me a room in one of the buildings. He had only a couple of soldiers here, the rest having gone up to Minas with some boats ; all the rooms left vacant were now filled with Botocudos, who are allowed to make use of them, for the sake of remaining on good terms with them. Here I found Captain June's wife, an old woman, who also went stark naked, and had remained behind when the rest of the company proceeded to the Cachoeirinha. Besides this ugly hag, we found here other very well made Botocudos, some of whom were very handsomely painted after their fashion. Some had left the body of its natural colour, and merely painted the face as low as the mouth, of a bright red, with urucú ; others had painted the whole body black, leaving only the face, hands, and feet

of the natural colour. In the first chapter of the second part we shall give a description of the various modes in which these savages are accustomed to paint themselves.

Jucakemet had also arrived here: he was one of the tallest Botucudos that I had seen, and wore very large pieces of wood in his ears and lower lip. He had lately had a violent quarrel, as we were told, with Captain Gipakeiu, the leader of another party, and had even struck him, on which the other discharged an arrow at him, and wounded him slightly in the neck. He shewed us the scar. Jucakemet now carefully avoided that part of the country in which Captain Gipakeiu was ranging about; he was at the Salto, on the south bank of the river, and the latter on the north bank, in the country round the Quartel dos Arcos, engaged in hunting the wild swine in the great forests. The road to Minas runs close to the buildings of this station: from this place, upwards, it is passable and in good condition; but as we have observed before, downwards to Belmonte it cannot be used. A troop of mules, laden with cotton, had come down from Minas a few days before, and had taken salt in return; an article which is very scarce in that mountainous country. Some Mineiros, who were here for the purposes of trade, likewise complained much of the neglect of this boasted road on the lower parts of the river. When they travel this road, they give to their mules every day a mixture of oil and gunpowder, which they assert to be an excellent remedy against the effects of the unwholesome pasturage that is met with on some parts of the road; they are also accustomed often to give the animals a little salt. If this road were really as good as it has been represented, a considerable trade would soon be established with Minas, since the conveyance of goods by water from the Salto is attended with many difficulties, and the more so, as they must be all carried with great labour from the landing-place to the Quartel. It would at least be very easy to make a good road from the Salto to

the landing-place, to convey the goods by means of carts and oxen ; but the industry of the inhabitants of these wildernesses is not equal to such an exertion. It is to be hoped that the general complaints which have of late been made of the bad condition of a great part of this road, will lead at length to a careful survey and thorough repair of it.

I remained the following day at the Salto, and set out early in the morning on an excursion to the neighbouring waterfall, the noise of which may be heard at a considerable distance. In order to obtain a view of it, I found it necessary to clamber over large fragments of rocks, irregularly piled on each other. The river, which is compressed into a very narrow channel, rushes roaring and foaming down into the basin below, and spreads around it a cloud of vapour and fine spray : a little lower down it forms a second, more considerable cascade over a large ledge of rocks. I experienced here a repetition of the pleasure which I had enjoyed eight years before, in contemplating the far larger waterfalls in Switzerland. Many of the cascades on the Belmonte, especially the Cachoeira do Inferno, have perhaps some resemblance in miniature with the *Raudal* of Atures, and Maypures, of which Humboldt has given an interesting description in his "Views of Nature," only they are not so crowded together and continuous as in the immense Orinoco. Among the fragments of rocks which are wetted by the spray of the Salto, grow some beautiful kinds of shrubs ; among others, a very pretty narrow-leaved myrtle, which was now in flower.

Another object which had induced me to remain here a day longer, was the hope of obtaining a Botocudo skull. At the Quartel dos Arcos I had been prevented from digging up a body for this purpose ; here I was more fortunate. At a short distance from the buildings they had buried in the recesses of the forest, under luxuriant beautifully flowering plants, a young Botocudo, between twenty and thirty

years of age, who was one of the most turbulent warriors of this tribe. Provided with pick-axes we repaired to the grave, and took up the remarkable skull. We observed at the first sight an osteological curiosity: the large piece of wood, worn on the under lip, had not only pushed the lower fore-teeth out of their places, but even pressed together and effaced the alveoli or sockets of the teeth, in this youthful skull, which in general happens only to very old people. Azara in his *Travels in South America* observes, that the skulls of the Americans decay much sooner than those of Europeans. This does not accord with the testimony of Oviedo, quoted by Southey, (*Hist. Brazil*, I. 631.) that the Spanish swords could make no impression on the American skulls on account of their hardness; probably both assertions are equally unfounded.

Though I had taken the greatest care to keep my intention of opening the grave secret, the report of it soon spread in the Quartel, and excited a strong sensation among the unenlightened people. Impelled by curiosity, and yet with a secret terror, several of them came to the door of my lodging and desired to see the head, which however I had immediately hidden in my trunk, and endeavoured to send as soon as possible down to the Villa de Belmonte. Yet, as I now observed, the Botocudos had taken less offence at this proceeding than the soldiers of the Quartel, several of whom had indeed refused to assist in the operation. After I had obtained my purposes in this interesting spot, I returned to the landing-place, and embarked again early in the morning of the second day after my arrival.

The passage down the river is very rapid; in one day you reach the island of Cachoeirinha. We now passed without much difficulty over the Cachoeirinha, where we had been obliged to unload as we went up the river. Our canoe was very large; yet it made much water, because in shooting down the rock the fore part dipped into the water, which was violently agitated by the fall: we were therefore

all wet, and a little Botocudo whom I had brought with me, shed floods of tears from alarm. Our canoe glided with equal good fortune down all the other little falls. Near the *Lapa dos Mineiros* we saw some Botocudos on the southern bank employed in shooting fish with their arrows. One of them, who was the nearest to us, immediately beckoned to us with his hand to fetch him off, and give him something to eat. To see him more closely, and to barter with him for his arms, I made the boat steer towards the bank; but, impelled by his craving appetite, he did not wait for our arrival, plunged up to his neck in the water, and then came partly wading and partly swimming, and holding his weapons above his head, to a mass of rock which lay pretty far in the river, where he remained making signs, which indicated his rude uncurbed impatience. When we approached nearer, we found this Botocudo to be a tall robust man, who in all his gestures betrayed the most marked characteristics of his savage nature. He opened his mouth as wide as he could, and bawled out *nuncut* (to eat), on which we threw some handfuls of flour into his jaws; while he was greedily swallowing it, one of my people, who understood a little of the language of these savages, leaped on shore, seized his weapons, and brought them safely on board the canoe, telling us that this man was so savage that we must be on our guard against him; at the same time he stuck a knife into the point of his oar and presented it to the savage, who seemed to be well satisfied with this exchange; we then quickly pushed off our canoe into the stream. The Botocudo, whose hunger was not yet appeased, did not give up the hope of overtaking us; he ran a good while along the bank after the canoe, sprang from rock to rock, swam and waded through the water; till at length perceiving that the canoe was too far ahead for him to overtake it, he turned round dissatisfied, and went back into the forest. A little farther on we met with two other savages, who also conversed with us, and made

similar claims on our provisions; we had no inclination however to enter into any parley with them, and the more so, as we had no time to lose. Towards evening, when our canoe was gliding down the Cachoeirinha, it struck against a rock, and immediately stuck fast. I had before got out, and clambered on foot along the bank, because, not being a good swimmer, I would not expose myself to a ducking against my inclination. I was now very glad that I was only a distant spectator of the shock, which threw all my people in the canoe over one another. The water had got into the boat, and my little Botocudo again began to cry bitterly; however the canoe was extricated without farther accident, and we reached the Quartel dos Arcos before sunset.

On my arrival at the island, I found one of my people ill of the ague, which obliged me to stop some days; being provided with good Peruvian bark, I soon cured him. I then proceeded with some hunters to the Ilha do Chave, which is several leagues down the river, where, according to the accounts we had received, we were likely to find many *anhumas*, (*Brazilian crane*,) and abundance of game in general. In our passage down we killed some araras, and found several beautiful flowering shrubs on the bank; among the thickly interwoven summits of the forest we particularly distinguished the young rose-coloured leaves of the sapucaya tree, and the *petraea volubilis*, with its long bunches of sky-blue flowers.

During a heavy rain we reached towards evening the end of our day's journey, and landed on the sandy island. Towards night the rain abated a little, but a dry and quiet lodging for the night was totally out of the question; we crept completely drenched into some old ruinous fishermen's huts, the leafy roofs of which had been long gone to decay. We endeavoured to protect ourselves from the rain by some blankets and ox-hides, and kindled a fire to warm and dry ourselves; but as the rain poured down without ceasing, we could

scarcely keep it alight, and therefore waited with impatience for the end of this tedious night. The next morning some people were immediately dispatched in a boat to the forest to cut fire-wood, palm-leaves, poles, and *cipos*, that we might build a large roomy hut. The weather became indeed rather more favourable, but as our labour was frequently interrupted by showers of rain, it took us this and the whole of the following day to complete our dwelling. Here I was in the island with four of my people and a Botocudo named Aho, who had accompanied me for the purpose of hunting. Two of these always remained to guard our island and attend to the kitchen, while the others went over to the forest to hunt.

One day the canoe had scarcely put off on such an excursion, when I saw my hunters fire, and then immediately turn back. They had seen the four legs of some quadruped projecting out of the water, and taken it for a dead swine, but on approaching nearer, they saw an immense serpent, which had twined itself in many coils round a large *capybara* and killed it. They immediately fired two shot at the monster, and the Botocudo discharged an arrow into its body; then, and not before, it quitted its prey, and notwithstanding the wound darted away as if nothing was the matter. My people took up the *capybara* (*cabiai*, or thick-nosed tapir), which was quite fresh, having been but just killed, and returned to give me an account of the circumstance. As I much wished to obtain this remarkable serpent, I sent the hunters off again immediately to look for it; but all their endeavours were fruitless. The shot had lost their force in the water, and the arrow was found broken on the bank where the serpent had rubbed it off; being but slightly wounded, it had quickly retreated so far, that to my great regret it was not to be found again.

This reptile, the *sucuriuba* of the river Belmonte, or the *sucuriu*, as it is called, in Minas Gerães, is the largest kind of serpent in Brazil, at least in the above-mentioned countries; there are many errors

in the descriptions given of it by naturalists. Daudin has mentioned it by the name of *boa anacondo*. It is found all over South America, and attains the largest size of any species of this genus, in that part of the world. All the denominations alluding to the abode of the *boa* serpents in the water, belong to this kind; for the others never dwell in the water, whereas the *sucuriu* or *sucuriuba* lives constantly in and near water, and is therefore really amphibious in the literal sense of the word. This serpent is by no means beautifully marked: its back is of a dark blackish olive, and down it run longitudinally two rows of round black spots, in pairs, which are for the most part pretty regularly disposed. In solitary places unfrequented by man, it attains the prodigious size of twenty or thirty feet, and even more, in length. Daudin, in his Natural History of Reptiles, considers the serpent which he assumes to be the genuine *boa constrictor*, as a native of Africa, but this species, if it is also found in Africa, inhabits every part of Brazil, is there the most common land *boa*, and every where known by the name of the *jiboya*. The Belmonte is the southernmost of the rivers on the east coast, in which the *sucuriuba* occurs; farther to the north it is universally found. Very fabulous stories have been related concerning the way of life of these immense reptiles; and even in modern times, they have been copied out of old travellers. The accounts also which are given of its sleep in winter are not precise enough. It is said indeed, that they certainly become torpid during the hot season, in the marshy pools of the deserts, but this does not happen in the woody valleys of Brazil, which always abound in water, where they do not live properly in marshes, but in great lakes, ponds that are never dry, rivers and streams, the banks of which are cooled by the shade of the ancient forests.

On the day of our unsuccessful pursuit of the serpent, my people killed many interesting birds, among which was a small dark brown eagle, with a tuft of feathers at the back of the head, of a species hitherto

undescribed*, besides some araras, and a great *mutum*, (*crax alector* Linn.) which was very welcome to us for our table. The eagle was just going to seize a *jupati* (opossum), when he was shot; his whole figure indicated boldness and courage: his eye was lively and fiery, and the long feathers on the back of his head gave him a handsome appearance.

As the continuance of the rainy weather often prevented us from hunting, and especially from pursuing the *anhumas*, I took this opportunity to pay a visit to the Quartel dos Arcos, where, during my absence, a fresh horde of Boticudos had arrived, whose chief, Mariangiang, was called by the Portuguese Captain Gipakeiu, (the great Captain). It was already towards evening, and I was only a short distance from the station, when I accidentally saw, on a sand-bank, a couple of large tapirs. To make more sure of success, I sent my Botocudo, Aho, round by the wood, to cut off their retreat. When the animals perceived that their retreat was intercepted, they plunged into the water, and endeavoured to reach the opposite bank, but here they were stopped by our canoe. One of the two tapirs, on his return, again reached the sand-bank, and would have received an arrow from my Botocudo, had not the string of his bow happened to break, which gave the animal time to escape. We fired several times at the other, which dived, and then raised its head above the water,

* *Falco Tyrannus*, a new species: male bird, twenty-six inches seven lines long; the feathers of the back of the head lengthened and erect; hinder part of the head and neck, sides of the neck and upper part of the back, covered with white feathers, the tips of which are dark brown, which however lie over each other in such a manner, that the white is covered; all the rest of the bird, dark brown; larger covert feathers of the wings marked with a little white; quill feathers, with some grey brown dark-marbled transverse stripes; the large broad tail has four whitish transverse stripes, marbled with greyish brown; feathers of the thighs, legs, lower part of the back, rump, and *crissum*, dark brown, with narrow white transverse lines; the feet feathered down to the toes.

to take breath, but our shot was too light, and the canoe was too heavy to be rowed quickly forward ; we had no balls, and these animals cannot be shot till their heads are seen above water, near the canoe ; then aim must be taken at the ear: the terrified animal lost much blood, but yet it escaped, which it would scarcely have done, if we had had dogs with us. The ease and address with which these creatures swim, are very useful to them for evading the hunters who pursue them. Though the tapir, a large heavy animal, six or seven feet long, is defended by a very thick hide, yet the Portuguese always kill it with shot, and not with balls : but for this purpose they must absolutely have long rifle guns, and a strong charge of large shot ; these hunters too will fire twelve or sixteen times at an animal with shot, rather than load with ball. That they may be able on their excursions to kill all kinds of animals, the Brazilians always load their guns with shot, and kill in this manner a wild swine, or a tapir, as well as a *jacutinga* (*penelope*). The tapir is also hunted for its flesh, and dogs are very useful in the chase of this animal. It is usually found in the morning and evening, in the rivers, where it is fond of bathing, to cool itself. If the animal is severely wounded, and rather exhausted, the Brazilians often attack it swimming, with their knives in their hands, and endeavour to wound it. In this manner they turn to account the custom of their nation always to wear a stiletto, or a knife in their girdles, a custom which is observed even by the priests, and affords occasion to many murders.

Having been detained by this unsuccessful attempt, I did not reach the station till late at night ; and early in the morning I was awaked by the newly-arrived Botocudos, who were impatient to become acquainted with the stranger. They knocked violently at my door, which was locked, till I opened it, and immediately loaded me with numerous marks of friendship. Captain Gipakeiu was much prepossessed in my favour, because he had been told that I was a great admirer of the Botocudos, and burned with impatience to be

acquainted with him, their great chief. He was of the middle size, but strong and muscular; in his ears and lower lip he wore large pieces of wood; his face, as low as the mouth, was painted of a bright red; and he had drawn a black line under the nose, extending from ear to ear, but left his body of its natural colour. Towards the Portuguese he showed himself sincere and well disposed, and there had never been any occasion to complain of his conduct. Though he was not externally distinguished from the other members of his tribe, he enjoyed great consideration among his countrymen, which enabled him at times to be serviceable even to the Portuguese. Once, for example, when the latter first met the Botocudos on friendly terms, another of their chiefs appeared at the Quartel, and importunately demanded a great quantity of iron wares. As the station had at that time but a weak garrison, and was surrounded by numerous savages, it was thought advisable to comply with his desires. Soon afterwards Captain Gipakeiu arrived; the Portuguese complained to him of what had happened, on which he went into the woods, and obliged his countryman to restore the greatest part of the implements. He frequently embraced me in the Portuguese fashion, but our conversation was very singular, as neither of us could understand the other; however, the Captain soon made me comprehend that he was very hungry, and expected me to give him something to eat: to satisfy their unbounded appetite is always the most urgent want of these savages.

When I had treated him with mandioca-flour, and ingratiated myself still more into his favour, he sent to his hut in the forest for some articles for the purpose of bartering; among these was in particular a short speaking-trumpet, *cuntschun cocann**, which

* Instead of the tail of the armadillo, the more civilised Coroados in Minas Gerães use the horn of an ox for this purpose.

was made of the tail of the great armadillo (*dasypus maximus*). These savages use it to call their people together in the forests.

Opposite to the Quartel, on the other side of the river, lay the banana plantation, which has been mentioned above, as having been made by some Botocudos; upon it were some deserted huts, in which they had buried the bodies of two women. At this time, on the arrival of the Captain, these huts were burned, as they never again use habitations in which corpses have been interred. A number of new huts were, however, now built on this spot; life and activity reigned in the shady forest, for the new comers had taken up their abodes not merely on the bank, but much deeper in the wood. On all sides numerous brown youths were seen, some bathing in the river, some making bows and arrows, climbing the trees for fruits, shooting at fish, &c. On all sides men were dispersed in the neighbouring forest, calling to each other, gathering wood, or engaged in other pursuits. It presented a striking picture of a republic of savages forming a new settlement, and the bustle that prevailed among them could not be witnessed without pleasure.

When Captain Gipakeiu arrived with his people at the Quartel, each of them carried a couple of long poles, as a challenge to the company of Jucakemet, whom he supposed to be here, but who, as we have said before, prudently kept on the Salto, on the south side of the river. Captain Gipakeiu, with his people, remained for some days near the station, and then retired on the north bank into the forests, to gather the different fruits which were now ripening. This is a custom with all the savages. They know the exact time when every fruit ripens, and cannot be detained when it is at hand. At present it was the season for the cipo, a parasite plant, which they call *atscha* *. They tie up the green stalks of this plant in bundles,

* This plant is probably a *begonia*: it climbs up the trunks of the trees.

and take them to their huts ; there they roast them at the fire, and chew them ; they contain a strong nourishing pith, which tastes exactly like our potatoes.

When I had attained my object, and gained an acquaintance with the Botocudos who had arrived at the station, I returned to the Ilha do Chave, where my people were expecting me. On a small neighbouring island, which was covered with thick bushes, and separated from the main land only by a shallow inconsiderable channel, they had discovered deer, and killed one of them. It was of the species called *guazupita* by Azara, the most common kind all over Brazil. The flesh of this animal we found very different from that of ours in Europe ; it is very far from well-flavoured, extremely lean, dry, and of such a coarse grain, that it can scarcely be compared with the flesh of an old cow. However, as the choice of provisions in these solitary wilds is extremely limited, every animal fit to eat was welcome to us. We remained another week on this island, during which time we had frequent rain ; but my hunters indemnified me for the inconvenience it occasioned, by procuring many interesting additions to my collections. A large owl regularly uttered its loud cry every morning and evening in the twilight. After a long search for it, we at last succeeded in taking it. It seems to belong to a hitherto non-descript species* ; we also killed the great whitish variegated goat-sucker, (*caprimulgus grandis*, Linn.) whose loud whistle resounds far and wide through the gloomy solitude of these forests, and other beautiful birds, among which I shall mention the black humming-

* *Strix pulsatix*, so called from its note, which resembles a knocking ; without ears ; male bird 17 inches 4 lines long ; 44 inches 9 lines broad ; greater part of the plumage of a beautiful light reddish brown grey colour ; a white spot on the throat ; scapular feathers, delicately marbled of a dark colour, the wings and tail the same ; quill-feathers with darker and lighter transverse stripes ; all the under parts of a light yellow, inclining, on the breast and belly, to a rusty reddish yellow.

bird with a white tail, which has not yet been described in works on natural history*. Some fine large *anhumas* were also killed; these animals chiefly frequent this part of the country; we heard almost daily their loud concert, and their singular sonorous voice was a summons to my hunters to take their guns.

On the 25th of September I left the island, and returned with all my people to the Quartel. On the way we met with a company of Botocudos, who were seated round their fire; they belonged to the party of Captain Gipakeiu, had waded through the river, which is shallow at this place, and, contrary to their custom, taken up their abode on the south bank. Many of their young people leaped into our boat, to go with us to the station. We had scarcely arrived there when another company of savages came from the south bank; this was the horde of Captain Jeparack, which I had not yet seen. It was a strange sight to behold all these brown people raising their bows and arrows above their heads, and wading across the river; the noise made by their passage through the water was heard at a great distance.

All these savages carried on their shoulders bundles of poles six or eight feet long, for the purpose of fighting with Captains June and Gipakeiu and their hordes; but the latter was now at a distance in the forest, and even June, with his troop, was just then absent from the Quartel. The savages ran eagerly through all the rooms in the buildings to look for their adversaries, but not finding them, left their poles standing at the Quartel, as the sign of a challenge, and departed again towards evening. During the following days, however,

* *Trochilus ater*, a hitherto undescribed humming-bird, whose plumage is not pretty; male .5 inches long; bill slightly curved; body nearly black, only in some places of a shining grey and copperas colour; sides under the wings, rump, and tail, white, on the latter a border of a violet colour, the middle feathers varying with dark green and steel-blue.

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J. B. Bailey, Strand.

SINGLE COMBATS of the BOTOCUDOS.

they kept up a constant communication between both banks, as they usually do when the river is low. On the 28th Captain Jeparack again came with a company of his people: this time too they had long poles, and enquired for Captain Gipakeiu, but again in vain: as they, however, constantly remained in the neighbourhood, they at length found an opportunity of gratifying their desire of fighting. Captain June, with his three grown-up sons, and the rest of his men, who sided with Captain Gipakeiu, had accepted the challenge.

One Sunday morning, when the weather was most beautifully serene, we saw all the Botocudos of the Quartel, some with their faces painted black, and others red, suddenly break up, and wade through the river to the north bank, all with bundles of poles on their shoulders. Soon afterwards Captain June, with his people, came out of the wood, where a number of women and children had sought refuge in some large huts. Scarcely had the news of the approaching combat become known in the Quartel, when a crowd of spectators, among whom were the soldiers, an ecclesiastic from Minas, and several strangers, whom I also joined, hastened over to the field of battle. Each took for his security a pistol or a knife under his coat, in case the combat should be turned against us.

When we landed on the opposite bank, we found all the savages standing close together, and formed a half circle about them. The combat was just beginning. First, the warriors of both parties uttered short rough tones of defiance to each other, walked sullenly round one another like angry dogs, at the same time making ready their poles. Captain Jeparack then came forward, walked about between the men, looked gloomily and directly before him, with wide staring eyes, and sung, with a tremulous voice, a long song, which probably described the affront that he had received. In this manner the adverse parties became more and more inflamed: suddenly, two of them advanced, and pushed one another with the arm on the

breast, so that they staggered back, and then began to ply their poles. One first struck with all his might at the other, regardless where the blow fell : his antagonist bore the first attack seriously and calmly, without changing countenance ; he then took his turn, and thus they belaboured each other with severe blows, the marks of which long remained visible in the large wheals on their naked bodies. As there were on the poles many sharp stumps of branches which had been cut off, the effect of the blows was not always confined to bruises, but the blood flowed from the heads of many of the combatants. When two of them had thus thrashed each other handsomely, two more came forward ; and several pair were often seen engaged at once : but they never laid hands on one another. When these combats had continued for some time, they again walked about with a serious look, uttering tones of defiance, till heroic enthusiasm again seized them, and set their poles in motion.

Meanwhile, the women also fought valiantly ; amidst continual weeping and howling, they seized each other by the hair, struck with their fists, scratched with their nails, tore the plugs of wood out of each other's ears and lips, and scattered them on the field of battle as trophies. If one threw her adversary down, a third, who stood behind, seized her by the legs, and threw her down likewise, and then they pulled each other about on the ground. The men did not degrade themselves so far as to strike the women of the opposite party, but only pushed them with the ends of their poles, or kicked them on the side, so that they rolled over and over. The lamentations and howlings of the women and children likewise resounded from the neighbouring huts, and heightened the effect of this most singular scene.

In this manner the combat continued for about an hour ; when all appeared weary, some of the savages showed their courage and perseverance, by walking about among the others, uttering their tones of

defiance. Captain Jeparack, as the principal person of the offended party, held out to the last ; all seemed fatigued and exhausted, when he, not yet disposed to make peace, continued to sing his tremulous song, and encouraged his people to renew the combat, till we went up to him, clapped him on the shoulder, and told him that he was a valiant warrior, but that it was now time to make peace ; upon which he at length suddenly quitted the field, and went over to the Quartel. Captain June had not shewn so much energy ; being an old man, he had taken no part in the combat, but constantly remained in the back-ground.

All of us then left the field of battle, which was covered with ear-plugs and broken poles, and returned to the Quartel ; where we found our old acquaintance Jukeräcke, Medcann, Ahó, and others, sadly covered with bruises ; but they showed to what a degree man can harden himself, for none of them paid any regard to his swollen limbs ; but they sat or lay down on their open wounds, and ate with a hearty appetite the flour which the commandant gave them. The bows and arrows of all these savages had stood, during the whole combat, leaning against the neighbouring trees, without their touching them ; but it is said sometimes to have happened, on similar occasions, that they have thrown aside the poles, and taken to their arms, for which reason the Portuguese do not much like to have such combats in their neighbourhood. It was not till some time afterwards that I heard the cause of the combat, of which we had been spectators. Captain June, with his people, had been hunting on the south bank of the river, in the grounds of Jeparack, and killed some wild swine. This was considered by the latter as a great insult ; for the Botocudos always observe, more or less strictly, the boundaries of a certain hunting-district, beyond which they are in general careful not to trespass : such offences are the usual occasions of their quarrels and wars. Only one combat similar to that here described had ever

occurred before near the Quartel dos Arcos, and it was therefore a peculiarly lucky accident, that afforded me the view of this spectacle during my short stay at this place. It is very rarely that travellers witness such a scene, which is however so important to those who would obtain a thorough knowledge of the savages, and their character. Not long after my departure from the Quartel, as I was informed, another and a still greater combat took place there, on occasion of the return of Captain Gipakeiu, who was a friend and ally of Captain June.

As various matters obliged me to return to the Mucuri, I left the island of Cachoeirinha at the end of September, and sailed down the river to Villa de Belmonte. The passage was rather tedious, because the water was at this time low ; but the chase, and the observation of many natural curiosities, rendered it agreeable and entertaining. In the banks of the river, which were now uncovered, we observed the holes made by the extraordinary fish, which Linneus calls *loricaria plecostomus* (the harness fish) ; here it bears the name of *cachimbo*, or *cachimbao* ; in the northern parts, on the river Ilheos, it is called *acari*, and Marcgraf, who observed it at Pernambuco, describes it by the name of *guacani*. This fish digs holes of inconsiderable depth in the bank, to protect itself, when it desires to repose, from the violence of the current, at the season when the water is high ; sometimes, as the fishermen assert, it knocks at the bottom of the canoes, which it is said to do with its head, while it is eating the slime and *byssus*, which usually adhere to the bottom of the vessels.

The spring was already far advanced, and we frequently heard in the forests the loud hoarse voice of the *mutum* (*crax alector*, Linn. ; peacock pheasant of Guiana,) which resounds through the wilderness, and greatly facilitates the chase of this large and beautiful bird. They appear in the greatest numbers about the time when the rivers are rising. We passed two nights on the sand-banks in the river,

and this afforded us an opportunity of killing some araras, and other fine birds. Near one of these sand-banks, not far from the Boca d'Obu, we met with a great many monkeys (*macacos* or *micos*), among which there is a particular kind, with a yellow breast, here called *macaco di bando**.

On the 28th of September I reached the Villa de Belmonte. As soon as I had made the necessary preparations for my journey to the Mucuri, I set out; but the weather being extremely unfavourable, I had to encounter numerous difficulties. I was forced to ride through the Corumbao and the Cahy, which were now much swollen, and then to continue my journey, wet through, along the coast, while the rain poured down in torrents. Some Portuguese travellers, whom we met, informed us, that on their journey they had seen the Patachos on the Cahy, but on the other side of the river; we did not see any of these savages, which was quite as agreeable to us in this solitary place.

After undergoing many fatigues, but without encountering any accident of consequence, we reached Caravellas and Mucuri, where I passed three weeks with Messrs. Freyreiss and Sellow, who had been my companions in the preceding part of my journey; after which I returned to Belmonte. On my way thither, on the Rio do Prado, or Sucurucu, I had an opportunity of making myself acquainted with the Machacaris, whom I have frequently mentioned. I much wished to visit an *aldeia*, which had been settled, as I was informed, by those savages, farther up the Prado. I therefore proceeded up the river from the *fazenda*, where I had in vain looked for the Patachos in the month of July. On its banks, it was very easy to

* *Cebas xanthosternos*, a new species: with strong dark brown limbs, and a round tail, large head, dark brown whiskers, brownish body, and yellow breast and throat: whole length 32 inches 8 lines; of which the tail is 17 inches 7 lines.

distinguish the different strata of sand lying over each other ; and I observed, that about ten feet below the surface, a considerable quantity of water constantly ran out of the strata into the river. This great accumulation of water in the earth affords an easy explanation of the rapid rising of the rivers during the rainy seasons in these hot countries : it was now November, the very height of the rainy season in this part of the country, when all the *lagoas* are full.

The banks of the river farther up present very picturesque views ; among these is especially, a spot on the south bank, called *Oiteiro* (the eminence) ; here, upon gentle elevations, and shaded by cocoa palms, are *fazendas*, in a most delightful situation. As the summer was now at hand, many beautiful trees and shrubs were in flower on the bank : the *visnea*, with its silky shining leaves, brown on the under side ; *rhexias*, with large violet flowers ; the *melastoma* species, with leaves of a beautiful silvery white on the lower side ; *bignonias*, which with their splendid flowers climbed round and adorned the shrubs, above which rose the *genipaba* tree (*genipa Americana*) with its large white blossoms. The naturally dark green colour of the Brazilian forests was now relieved by the young yellow green, or red shoots ; and under all the thickets there was a darker shade, which was very agreeable in the great heat, but was rendered much less pleasant to the wanderer by the mosquitoes which it invited. The banks were covered with a beautiful flower, a white *amaryllis* with purple stamina.

The surface of the river had now acquired a dark brown colour, from the streams flowing from the forests, marshes, and mountains, and formed a perfect camera obscura, in which the green banks, with their flowers, were reflected in the most beautiful manner. On the surface of the water there were floating islands of *pontederia*, on which we saw the pretty *jassana* (*parra jacana*, Linn.) whose loud

voice, resembling laughing, we heard at a great distance. I came to a place where a *lancha* was building; the workmen employed upon it said that the woods on the Sucurucu did not contain much more ship timber; large trees were indeed to be found there, fit for canoes, but for these, softer kinds of wood may also be employed. On the bank I saw many little basins, filled with reeds, rushes, grass, and water, which had been inclosed with reeds, in order to catch fish in them. The reed fence is opened when the tide is coming up, to let in the fish; it is then closed, and the fish are taken out when the tide is down. Towards evening my voyage was very pleasant: the silence which reigned in the vast wilderness that surrounded me, was interrupted, after the grasshopper had ceased chirping, only by the loud and strange voice of the tree frog*, the melancholy whistle of the *mandalua*, (*caprimulgus grandis*, Linn.) and the loud screams of owls in the dark forests. It was pretty late in the night when I reached the station of Vimieyro, where the dwelling and plantations of Senhor Balançueira, judge of the Villa do Prado, are situated on a high ridge, that extends along the bank of the river. The master of the house was indeed absent, but I found, by his orders, a friendly reception, and a good night's lodging. The sound of music and dancing was heard near the houses of the Indians, about ten families of whom reside here.

The next day displayed to my view a magnificent wild landscape. As far as the eye could reach, nothing was to be seen but gloomy dark-green tops of trees, which crowded close together form a vast impenetrable primeval wilderness, where the rude Patacho and Machacari share the dominion with the ounce and the black tiger. Two flat spots, in the middle of which an eminence rises, indicate the

* This is probably the same frog which, at Viçosa and other places, is called *sapo marinho*.

places where the two arms of the Sucurucu (the ancient Indian name of the Rio do Prado) descend, the one in a northerly, the other in a southerly direction: the former bears the name of the Rio do Norte, the latter is called Rio do Sul. In the distance is seen the Serra do João de Leão, and de St. André, which belong to the Serra dos Ay-mores, a chain of mountains, about four days journey from the sea-coast, not far from the fall in the river, where game and fish are said to abound. The Sucurucu soon becomes narrower when you go up towards its sources; a proof that its course is not very long. Not far from the place where I now was, the two arms join to form the river: farther up all European settlements suddenly cease; for on the Rio do Norte there is none whatever, and on the Rio do Sul only a single one, which is immediately above the junction of the two arms.

When I had long enjoyed the beautiful romantic prospect, I went to the bank of the river to the habitations of the Indians. Among these people I found a woman of the tribe of the Machacaris, who perfectly understood the language of the Patachos, which is a very rare circumstance; for as the latter are of all the savage tribes particularly distrustful and reserved, it is not common for any one not belonging to their tribe to learn their language. Not far from this spot, but deeper in the recesses of the forest, lies the *aldeia* (village), as it is called, of the Machacaris, which had been frequently mentioned to me, but where only about four families of these people live together in one house. As I was very desirous to make myself acquainted with this tribe also, I went thither with some Indians. The way was very inconvenient, for we had to wade half a league through marshes and water, and to clamber over fallen trunks of trees.

I found the savages all dwelling together in a spacious house; they have lived here about ten years, and are tolerably civilized. Some of them are very friendly and sociable, others on the contrary remained shy and reserved: some speak a little Portuguese, but amongst each

other they always use their native language. They have plantations of mandioca, some maize and cotton for their own use. The *ouvidor* has furnished them with a wheel to grind or bruise the mandioca roots ; but, according to the custom of their forefathers, they procure a great part of their subsistence by hunting. Bows and arrows are still their usual weapons, but some of them are also well skilled in the use of the gun. The bows of the Machacaris differ from those of the other tribes, a deep furrow being cut lengthwise in the fore part*, where while one arrow is discharged another may lie ready ; so that the second arrow, which the other Indians have to take up from the ground, is at hand to be discharged. I here found a remarkably large handsome bow of *pao d'arco*, which has a hook on the upper part that is very serviceable to fasten the bow-string. The arrows of this tribe as well as the bows are remarkably well made ; they have a head of hard wood, and at the lower extremity the shaft is considerably prolonged beyond the feathers : here too, as among all the tribes of the east coast, three kinds of arrows are in use, which I have already described when treating of the Puris. I found here too the same knotted sacks as among the Patachos, with whom the Machacaris indeed agree in many particulars. Their make is just the same as that of the Botocudos, but rather more clumsy. They are tall, strong, and broad-shouldered. In general they do not much disfigure their bodies, only they tie up the *membrum virile* with a bind-weed like the Patachos ; most of them also make a small hole in the lower lip, in which they sometimes wear a little piece of cane. They

* Far up the river Belmonte, in Minas Novas, there is an island, where the Machacaris, Panhamis, and other tribes have settled together, and made plantations. The weapons of the Machacaris, which I received from that place, exactly resemble those of the same tribe on the Sucurucu ; I have likewise found these bows and arrows of the Machacaris among the Botocudos.

let their hair grow, and crop it behind; and sometimes too they shave their heads like the Patachos. They are said also to build their huts in the same manner. The languages of the two tribes are however different, as will be seen by the specimens which will be annexed to these Travels. They make common cause against the more numerous Botocudos, but they have often had disputes and wars with each other. I obtained weapons from these people in exchange for knives. They regaled me with *caïi*, the favourite beverage of the Indians in general, who, like all rude people, are very fond of strong liquors. What the root of the *jatropha manihot* supplies to the Brazilian, is furnished to the Guaraune by the juice of the *mauritia* palm, to the South Sea islander by his *awa*, and to the Calmuck by his *kumiss*.

The house of the Machacaris lies in a real wilderness, where the cries of the monkeys and other wild animals are heard close at hand: they have cut down and burned the woods there and made their plantations. After a short stay, I returned down the Sucuruçu in my canoe.

During the oppressive heat of noon, I was charmed with the dark shady paths, leading under lofty trees, and through thickly interwoven bushes, to the habitations of the Indians, which here lie scattered and detached on the bank of the river. Many of these coast Indians work for the Portuguese planters for hire, and at the same time cultivate their own plantations; others, especially young men, serve as sailors on board the ships, or *lanchas*, belonging to the town.

In this part we again found very picturesque views, which it would be a great pleasure to see represented by the pencil of an able landscape painter, to be able to recal them to mind in a more lively manner. I saw an old tree hanging over the water, which afforded a real botanical collection. From the top shot forth *cactus pendulus*, and *phyllanthus*, the branches of which hung down like ropes;

in the middle, *caladium* and *tillandsia* grew luxuriantly from among various mosses, and ferns and other plants sprung up at its base. The branches of this remarkable tree were loaded with a great number of bag-shaped nests of the guasch, (*oriolus hæmorrhous*, Linn.) which, like all of that genus, builds in companies. Thus is the active principle of life, diffused every where, and under the most diversified forms, in these tropical climates. In many places small darkly shaded forest streams run into the river, on the banks of which the *aninga* (*arum liniferum*, Arruda), which we have already mentioned, grows in abundance. Its conical stem, thick below and tapering above, attains the height of six or eight feet. At several places there are *fazendas*, where the wood has been cleared away, and where some cattle are now kept: great numbers of orange trees have also been planted round the buildings.

Overtaken by a most violent thunder-shower, I returned to the *villa*, and then proceeded to Comechatuba. A large boat had lately been cast on shore on this spot, and six persons who were on board, perished: a confirmation of the fact that these coasts are dangerous to navigation; there are no charts of them, and only light and small coasting vessels are employed. The king is conferring a great benefit on the country, by causing an accurate survey of these coasts to be made.

At the *fazenda* of Caledonia I was received in the most hospitable manner, by Mr. Charles Frazer, and found there, to my great joy, newspapers from Europe. I was obliged to pass a long dreary night on the bank of the river Corumbao, because the ebb was already past. It rained incessantly; to build a hut was quite out of the question, as we had neither branches nor leaves; it was as much as we could do to keep up a miserable fire. The next morning we looked for crabs (*ciri*), which abound in the river and the neighbouring lagoon. Two species live here, one in the sea, the other in the rivers.

We secured a large *medusa pelagica*, which the sea drove toward the shore; and extracted from its intestines a small whitish crab, which was still quite alive. We observed a great number of carrion vultures, which often sat all crowded together on one tree: besides these birds, we remarked also gulls, which flew screaming about the mouth of the river, and the sea eagle or osprey, (*falco haliastor*, Linn.) which hovered over the water, eagerly watching for fish. I had often seen this beautiful bird of prey, but it had always been too cautious for my hunters: on my arrival at Belmonte, I found it however, in the collection which my people, who had remained behind, had made in my absence. It resembles in every respect the German osprey, and like many other birds, seems to contradict the assertion, that the animated creation of America has nothing in common with that of the other parts of the globe.

On the 28th of December I arrived again at Belmonte, and proceeded to make the necessary preparations for my further journey northwards, along the coast. During a stay of three months and a half on the Belmonte, our collection of natural history had received a very interesting addition of remarkable objects, which had been obtained partly in the forest up the river, and partly near the town, on a large *lagoa*, called the *braço*, or the arm, and which, though of no great breadth, extends for several leagues. Great numbers of water-fowl live here, especially ducks, divers, gulls, herons, sand-pipers, storks (*tuyuyú*, here called *jabirú*), &c. My hunters were never in want of fresh game here, while the people in the town were suffering want: the *lagoa* abounds also in fish, for which reason the inhabitants of this country are generally found occupied in fishing. This water is enclosed on all sides by a *campo*, or heath, four leagues in extent, where great numbers of cattle are bred. It is said that there were originally some thousands here, but the number is very much reduced. A large ounce (*yaguarété*), which now haunted the

neighbourhood, was very injurious to the herds: it generally sucked the blood only of its prey, without touching the flesh: this was a great hindrance to the chase; the people had not proper dogs to search out the haunt of this voracious creature, and were therefore obliged to look calmly on, while one or two of the beasts were usually killed every night.

END OF THE FIRST PART.

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