







NORTH  
AMERICA

UNITED  
KINGDOM

Falmouth  
Plymouth

EUROPE

Azores

Madeira

Canary Is.

Cape Verde Is.

AFRICA

\*Fernando Noronha

Penedo de San Pedro

Bahia

Abrothos Is.

Rio de Janeiro

St. Helena

Madagascar

Mauritius

Cape of Good Hope

AMERICA

PERU  
Lima

Valparaíso

Santiago

Concepción

Leubu

Valdivia

Chiloé I.

Chonos

Beagle Channel

False C. Horn

Cape Horn

Tierra del Fuego

Berkeley Sound

Falkland Is.

C. Pembroke

Punta Alta

Mar Chiquita

Monte Video

Buenos Aires

Maldonado

Puerto Belgrano

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PORTRAIT OF A GENTLEMAN: PROBABLY ROBERT FITZROY

# *A NARRATIVE OF THE VOYAGE OF H.M.S. BEAGLE*

being passages from the *Narrative* written by  
Captain Robert FitzRoy, R.N., together with extracts  
from his logs, reports and letters; additional material  
from the diary and letters of Charles Darwin, notes  
from Midshipman Philip King and letters from  
Second Lieutenant Bartholomew Sullivan. Selected  
and edited by David Stanbury

London  
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1977



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# ILLUSTRATIONS

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## INTRODUCTION

The voyage of H.M.S. *Beagle* during which Charles Darwin was a passenger formed the central part of a series of three expeditions mounted by the Admiralty to survey and chart the South American coastline. This process started in 1826 and continued until 1837. The political unrest which occurred in South America following the collapse during the Napoleonic War of the Spanish and Portuguese dominion had led to a disturbed state of affairs. The British Foreign Secretary, George Canning, realized that it was important to replace this influence and to protect and guard this revolution-ridden continent; for there was considerable commercial advantage in expanding the trade between Britain and South America. In order to forestall President Munro of the United States in becoming the sole protector of the new governments of South America, Canning recognized the rebel régimes of Mexico, Colombia and Buenos Aires as early as 1824. The new nations of South America had only raw materials to export and manufactured goods were in great demand. This need Britain set about filling, and during the 1820s vast sums of money were invested by banking and public companies in mining corporations and in South American governments. A fleet of over 250 British merchant ships was carrying on a thriving trade in manufactured goods to that continent. There was therefore a need both for a British naval presence in South American waters, of which the *Beagle* formed a minor part, and also for accurate charts of the coastline to assist shipping. In 1825 Captain Philip Parker King was sent out with two vessels, the *Adventure* and the *Beagle*, to start this survey. His task was to visit the newly opened territories and map coastlines, channels, islands and harbours for British shipping. Much of the detailed information on the South American coast had previously been kept as a naval secret by the Spanish authorities. King's part of the task was completed in 1830 and the Admiralty published his charts of the Magellan Strait area. These proved useful not only to ships bound for Chile and Peru but to those going to the recently settled British possessions in the Pacific.

Hydrographic surveys were directed from the Hydrographic



Department by Britain's greatest hydrographer, Sir Francis Beaufort. His name is usually associated with the scale of wind forces he introduced, but he made a much more important contribution to the 170 major surveying expeditions sent out during his term of office. One of these, in the autumn of 1831, was commanded by Captain Robert FitzRoy and was to take H.M.S. *Beagle* on her second voyage to the coasts of South America. Sir Francis wanted the *Beagle* to continue and improve on the results of the first voyage. It was necessary to fill in the gaps in the charts of many parts of the tortuous coastline of the southern tip of South America, including Cape Horn itself. These detailed maps and surveys involved very considerable trials to the vessel involved. It had to find its way round difficult and dangerous shores, often in appalling weather conditions, all the time not just making a passage from one place to another but recording the detail of the outline of the coast. Groups had to be landed in order to take sights and measurements and in shallow water the ship's boats were extensively employed in taking soundings and charting shoals.

Captain FitzRoy furnished the Admiralty with 82 coastal sheets, 80 plans of harbours and 40 views covering the southern portions of the continent of South America. He gained considerable public honour and recognition, and received the Royal Geographical Society's medal in 1837, establishing himself as a first-rate hydrographer and surveyor. In addition to its surveying instruments the *Beagle* carried 22 chronometers so that an accurate chain of meridian distances and determinations of longitude could be established across the Pacific, Indian and Atlantic Oceans. This series of measurements enabled the distances between widely separated places to be more accurately determined. In the Royal Navy there had long been a tradition combining voyages of survey and discovery to make the most of these opportunities for scientific investigation and research into natural history. The voyage of the *Beagle* was no exception, though for the first time the Admiralty made no official provision for scientific research, apart from providing some equipment for preserving specimens. To this end the captain provided, and the Admiralty tolerated, an artist and a naturalist and they set about making collections of rocks and sketches of animals and plants. The captain also conducted his own research into meteorology and anthropology and encouraged all the officers to take a lively interest and curiosity in all they saw on the long voyage. However it must always be remembered that the voyage of the *Beagle* was undertaken not in order to take a naturalist round the world but to survey and chart the coasts

of South America. It is one of the fortunate accidents of history that the naturalist Captain FitzRoy chose was Charles Darwin!

Robert FitzRoy was an aristocrat. He was the grandson of the Duke of Grafton and the nephew of Lord Castlereagh. He was born on 5 July 1805, the year of the battle of Trafalgar, at Ampton Hall in Suffolk. Five years later his parents moved to Northamptonshire and the following year his mother died. He was sent to school in 1811 at Rottingdean near Brighton, and in 1817 he transferred to Harrow School where he remained for a year. At the age of twelve he then entered the Royal Naval College at Portsmouth as a 'Scholar' where he had a brilliant career. In October 1819 he gained the first College Medal and the mathematics prize, gaining full marks in his examinations where he worked out additional series of alternative correct solutions to the set exam problems.

He sailed as a 'College Volunteer' in the *Owen Glendower* to South America and a year later was promoted to the rank of midshipman. After service in the Mediterranean and the Channel he was promoted Lieutenant in August 1824, the best of 27 candidates who sat the examination. He was appointed to the *Thetis*, a ship whose loss figures in this account of the *Beagle's* voyage. In the *Thetis* he once again sailed the Channel coast and round the Mediterranean and did considerable service in South American waters. In August 1828 he was appointed as Flag Lieutenant to the Commander-in-Chief of the South American Station, Admiral Ottway. There is no doubt that this able young officer of twenty-three had considerably impressed the Admiral, and when a command became available it was given to Robert FitzRoy.

In 1825 the Admiralty had sent out Captain Philip Parker King with the ships *Adventure* and *Beagle* under his command to start the survey of the coasts off the southern tip of South America. During this survey the captain of the *Beagle*, Captain Pringle Stokes\*, became increasingly depressed with the miserable task of surveying this desolate coastline and, more particularly, at the thought of yet another voyage to Tierra del Fuego, and shot himself. He was not a very good shot, and it was only after lingering in considerable agony, still aboard the *Beagle*, that he finally died in the captain's cabin. After burying him at sea, Captain King returned to the Commander-in-Chief to request that Lieutenant Skyring, the first lieutenant of the *Beagle*, be appointed to the command. However he was overruled by Admiral Ottway and the young Flag Lieutenant FitzRoy was given the command instead.

\* Not related to John Lort Stokes who was assistant surveyor on the *Beagle's* second voyage.



The challenge of taking over a ship which included the unsuccessful candidate for command, and in which the previous captain had recently committed suicide, and then sailing it to one of the most inhospitable coasts in the world was one which brought out the best in FitzRoy. He set about the task of surveying this forbidding coast with enthusiasm and zeal and soon gained the ready co-operation both of Skyring and the rest of the demoralized ship's company. During this first surveying voyage of the *Beagle*, the natives of Tierra del Fuego stole one of the stout 'whale boats' so vital to the surveying activities of the ship. FitzRoy instantly took hostages to ensure its return but the natives seemed satisfied with the bargain and kept the boat. FitzRoy then changed his plans and decided to bring back to England his Tierra del Fuegian native hostages in order to train and educate them, in the hope that when they were returned to their native land they would spread their new ideas of Christianity and civilization amongst their fellows and make life easier for any seamen who in future years should visit or be wrecked on these inhospitable coasts. When he returned to England as commander of the *Beagle* in 1830, he enlisted the help of various churchmen in educating his Fuegian friends. In 1831 he stood as Tory candidate in the Parliamentary elections for Ipswich, but was defeated. Dismayed at the possibility that the Admiralty would not send him back to South America to continue the survey, he spent a considerable amount of his own money in chartering a ship to repatriate the natives. However, at the last moment, though not in time to save his deposit on the charter, he was reappointed to command the *Beagle* on its second surveying voyage of South America.

In June 1831 he set about the task of preparing the *Beagle* for this voyage with his usual zeal and energy. Once again considerable amounts of his own money were used in order to fit the ship out with the best possible stores and supplies for its arduous voyage, and to modify and strengthen it for comfort and safety. This time the Admiralty would not allow a second ship to be involved in the expedition. Two ships greatly eased the twin problems of obtaining stores whilst in remote regions, and providing a back-up safety factor in case of shipwreck or disaster on dangerous coasts. The two South American surveying voyages before and after the famous *Beagle* voyage both had at least two ships, very often of much larger size than the tiny *Beagle*. FitzRoy had to manage on his own, and his repeated personal attempts to hire or buy schooners or additional vessels to solve the problem were always frowned on and forbidden by the Admiralty, resulting in considerable financial loss to

himself. After a great deal of preliminary difficulties, and an official enquiry, the *Beagle* finally sailed on its second surveying voyage on 27 December 1831.

During that voyage FitzRoy was involved in three political incidents. While sailing from Monte Video to the harbour at Buenos Aires an argument occurred over health regulations with the Argentine guard ship which then fired a shot through the *Beagle's* rigging. Although she was armed and could fire back, there was still great danger to the twenty-two vulnerable chronometers stored in their special boxes, both in firing a broadside in reply and in receiving a direct hit to a cabin full of clocks. So the *Beagle* turned round and returned to Monte Video where the resident British frigate was pressed into service in her defence. Almost as soon as he was left alone in Monte Video another incident occurred when FitzRoy was requested by the inhabitants to land forces to help protect them against a mutiny of negro soldiers. This incident is fully reported in the *Narrative* and in Darwin's *Diary* but FitzRoy, although he seems to have acted with all the care and common sense that was required, nevertheless received reprimands both from the Admiralty and the Foreign Office for interfering in this situation.

When he arrived at the Falkland Islands, which are still after 140 years an area of dispute between the British and the Argentine governments, he found them in a state of anarchy. Murder, robbery and mutiny prevailed. In addition to the account included in the *Narrative* of his reactions to this chaotic situation, he also outlined in the original version the long history of the discovery and the settlement of the Falkland Islands and the dispute between the various authorities involved. However, he failed to report his actions either to the Admiralty or to the Foreign Office and was soon in desperate trouble as inaccurate reports of his activities reached London. He promptly received another reprimand for interfering in the Falkland Islands, although there was little else that he could have done. Reprimands were to become almost a part of his way of life. He received them for hiring small vessels essential to the intricate coastal surveys; he received them for failure to act in a polite and responsible way to his rather unhelpful Senior Officer in the *Pylades*; he received them for purchasing the schooner *Adventure* as a companion vessel and even came close to risking court martial by placing so many of his officers and crew in the additional ship as to leave the *Beagle* undermanned. Indeed he himself became so upset at having to sell the schooner *Adventure* that he seriously considered resigning his command, although his First Lieutenant Wickham persuaded him to continue.



The kind of exploit which showed FitzRoy at his very best was the wreck of *H.M.S. Challenger*. As soon as the plight of his old comrade Captain Seymour of the *Challenger* became clear, he spared no effort and indeed showed considerable personal endurance and bravery in riding to the rescue, locating the shipwrecked crew and stores, shaming the sluggish Commodore Mason into sending out ships to search for the wreck and making certain that the crew were rescued. While engaged in this rescue FitzRoy was obtaining information about the geography, geology and produce of the country and the lives, language, literature, and history of the Indian peoples through whose territory he was riding. The long original account in the *Narrative* – of which this edition gives a considerably abbreviated version – is a great testimony to his abilities and energy when at his ‘zealous’ best.

His Majesty’s Surveying Sloop the *Beagle* was the third ship of that name in the Royal Navy. She was built at Woolwich in 1819 and her first remarkable exploit was to pass under old London Bridge and ascend the river to fire a salute at the coronation of George IV. The sloop was the first rigged man-of-war to get so far up the Thames. She was commissioned for the first survey voyage in 1825 and after that journey to South America, returned to London where she was stripped and cleaned out. When the second voyage was being prepared, *H.M.S. Chanticleer* was found not fit for service and so the *Beagle* was recommissioned.

She was a small vessel of 235 tons; 90 × 25 × 9 feet. When FitzRoy was fitting out for the second voyage he had the deck raised eight inches aft and twelve inches forward, giving better sailing qualities and considerable extra comfort to the crew. The class of ships to which she belonged were known as ‘coffins’ or ‘half-tide rocks’ as the water was supposed to constantly flow over the mid-decks. The bulwarks were too high and the ships were deep waisted, making them distinctly dangerous in heavy seas. They had a bad name as several had been lost during the winter on ‘packet’ service. Those who sailed in the *Beagle*, however, were confident of her ability to weather difficult seas and although she was too lively for the comfort of at least some of her officers and passengers, she was always considered safe in difficult waters. She was rigged as a barque with a small mizzen mast and a poop deck especially arranged for taking surveying measurements. The quality of the equipment and the skill with which the ship was sailed were a source of great pride to all those who worked in the *Beagle*. Darwin and the two surveyors worked in the large poop cabin, and next to the captain’s cabin on

the deck below was the special compartment constructed to contain and protect the chronometers. There is evidence that the Admiralty refused to allow sufficient chronometers to be taken on the voyage and that FitzRoy had to purchase his own. He certainly paid for an instrument maker to travel on the *Beagle* to service not only the chronometers but all the other surveying instruments and meteorological equipment. The ship was severely overcrowded and it was only when officers and groups of the crew were away in whalers or hired vessels on surveying expeditions that conditions on board became bearable. A detailed look at the log of the *Beagle* reveals the immense amount of care and trouble that had to be taken to keep a lone ship in seaworthy condition in some of the worst seas in the world. The *Beagle* was for most of its voyage so far from anything resembling help or a dockyard that very great care had to be taken to make sure that the sails and the rigging stood up to the enormous amount of strain which was placed on them, often in dangerous and difficult situations. Following its return to London in 1836, the *Beagle* was again commissioned for a survey voyage of the coast of Australia sailing with many of her old officers and crew, including Wickham as captain. Darwin visited the *Beagle* in May 1837 and wrote:

‘She sails in a week for Australia. It appeared marvellously odd to see the little vessel and to think I should not be one of the party. If it were not for the seasickness I should have no objection to starting again.’

Before long Wickham was invalided out and John Lort Stokes, who had been the assistant surveyor and mate on the second voyage, took over command of the *Beagle*. She eventually returned to Woolwich in 1843.

The *Beagle* inspired feelings of great affection in those who sailed in her, as evidenced by the comments of Captain John Lort Stokes, her last commander, on finally paying her off.

‘My old friend has extensively contributed to our geographical knowledge. Many events have occurred since my first trip to sea in her. I have seen her under every variety of circumstances, placed in peculiar situations and fearful positions, from nearly the Antarctic to the Tropic, cooled by the frigid clime of South America or parched by the heats of North Australia. Under every vicissitude from the grave to the gay I have struggled along with her and after wandering together for 18 years, a fact unprecedented in the Service, I naturally part from her with regret. Her movements latterly have been anxiously watched and the chances



are her ribs will separate and that she will perish in the river where she was first put together.'

In fact the *Beagle* was transferred in 1845 to the Commission of Customs by Admiralty order for duty in the preventive service at Southend. She was moored at Crouch Creek receiving the distinguishing number 7 and in 1870 the hulk was finally sold at public auction to shipbreakers for £525. Many of the original crew of the *Beagle* volunteered to join the second voyage, and considering the difficulties and dangers they had experienced on the first voyage this must be a compliment not only to the ship, but to its captain. Nevertheless FitzRoy had also recruited a number of unhelpful and dissatisfied seamen who caused trouble at the outbreak of the voyage and when he reached South America there were a number of desertions. Even on an apparently happy ship like the *Beagle* with a crew largely of volunteers and with an enlightened captain, 611 lashes were administered during the five years of the voyage. Most of the crew were extraordinarily young. At the start of the voyage FitzRoy himself was twenty-six, Darwin twenty-two, almost all the other officers in their twenties, and indeed some of them only fourteen. Most of the crew were under thirty-two and the one or two older seamen gave up as soon as they got to Rio de Janeiro. Altogether during the voyage twenty-five seamen deserted and thirty-eight were discharged. When the *Beagle* sailed from England she had seventy-four persons aboard and FitzRoy lists these on pages 35-6. However, he says little about his officers who were young men of wide interests and distinction.

John Wickham, the first lieutenant, had been on the first voyage and went on to be captain of the *Beagle* on its third voyage. Captain King said of him: 'There is not a more deserving person in the service nor a better sailor nor a more correct, gentlemanly, high-minded man' and he was greatly loved by Darwin and indeed the others on board the ship. He suffered from seasickness when in small boats and yet did a tremendous share of the hard work of surveying in detached small vessels. He kept, or tried to, a neat, tidy and happy ship. He suffered from dysentery during the third voyage and was invalided from the service in 1840. He later became Governor of Queensland in Australia.

The second lieutenant, Sullivan, 'took the palm for talk' and was a cheery, open-hearted, friendly officer, four years younger than FitzRoy, whom he followed through Naval College, and sailed with as a midshipman. He was brought to the *Beagle* by FitzRoy when the latter

first became captain. He acted as a surveyor and did more than his fair share of the small boat journeys. He was described as: 'A perfect sailor, a first-rate observer and navigator, a capital gunnery officer and indeed an all-round man'. He was an amateur botanist and made a collection of natural history specimens during the voyage. After his time on the *Beagle* he went on a survey of the west coast of Africa but after only a few weeks he transferred with his wife and young family to the Falkland Islands where he took a leading part in the early history of that settlement, spending several years in residence there and writing a great deal about its geology and natural history. He too became a captain and eventually got the job of Naval Officer at the Board of Trade over the head of his old friend FitzRoy. He became a K.C.B. and an admiral and was present at FitzRoy's funeral. He went to considerable trouble to make sure that his old commander's portrait was placed in the Royal Naval College at Greenwich and that the state repaid to FitzRoy's widow some of the large amounts of his own money which her husband had used on hiring vessels, fitting out the *Beagle* and generally extending the quality and scope of his survey in South America.

By tradition the ship's surgeon was the naturalist and Robert McCormick, who was appointed surgeon to the *Beagle*, had trained himself for the post of a ship's naturalist. He obtained stores and collecting materials from the Admiralty and in theory was all prepared, but his personality and limitations were such that he did not remain long aboard the *Beagle* with FitzRoy and returned home as soon as it reached South America.

Benjamin Bynoe then took over as acting surgeon and indeed this talented and charming man served on all three voyages of the *Beagle*. His 'affectionate kindness' to those who were ill and his skill in attending to them were never forgotten by his shipmates, all of whom paid tribute to his qualities. On the third voyage of the *Beagle* to Australia he was the official naturalist and made extensive collections of geological and other specimens. He took particular interest in botany and made extensive collections for Kew. He was an excellent shot, wrote the first account of a marsupial birth, and invented a still for obtaining fresh water from sea water. During the second voyage of the *Beagle* he made an extensive collection of natural history specimens and frequently went ashore on collecting expeditions with Darwin. When John Stokes was seriously wounded by a spear on the third voyage of the *Beagle*, his life was saved by a major operation which Bynoe conducted on the same surveying table in the poop cabin that King, Darwin and Stokes had all shared



during the voyage to South America. Dr Bynoe was a Fellow of the Royal College of Surgeons and did further work as a naval medical officer including service on convict ships.

Among the midshipmen on the second voyage of the *Beagle* was Philip Gidley King, the fourteen-year-old son of Captain P. P. King. He had sailed off with his father on the first voyage when only nine and eventually remained behind in Australia to live with his parents. He was a skilled artist and draughtsman and became very great friends with Darwin, and some of his experiences are quoted in this narrative.

John Lort Stokes was the assistant surveyor on the *Beagle* and FitzRoy described him as his 'oldest and constant ally in the surveying game'. Stokes took a considerable interest in natural history and when eventually he became captain he kept detailed observations on the animals and plants of Australia. He was nearly killed when speared by aboriginal natives but Bynoe saved his life. He surveyed the coast of New Zealand at FitzRoy's request and in later surveying voyages trained up two future hydrographers of the Navy on his staff. In 1864 he himself was proposed as hydrographer but not appointed. He became a rear admiral in 1864 and a full admiral in 1877.

In fact, it is a remarkable tribute to FitzRoy's skill at choosing his junior officers that, during Darwin's period of service, no less than five of the *Beagle*'s officers were destined to reach the rank of admiral; two became captains of the *Beagle*; two, eventual Fellows of the Royal Society. They also included Governor Generals-to-be of New Zealand and Queensland; a Member of Parliament; future Heads of the Board of Trade and the Meteorological Office; two artists who achieved considerable renown in the country of their adoption; three doctors; the prospective Secretaries of the Geological Society and the Royal Geographical Society; an Inspector of Coastguards; an Australian property magnate; the founding father of the British colony of the Falkland Islands; six highly professional surveyors; four botanists of sufficient standing to correspond with the great Hooker of Kew; five active collectors whose specimens were to be eagerly described by the Zoological Society and the Natural History Museum; one of the founders of the science of meteorology; and the author of *The Origin of Species*. By any standards a talented bunch!

But how did the young Cambridge graduate Charles Darwin come to be part of it? In August 1831, the Professor of Astronomy at Cambridge, George Peacock, wrote to the Professor of Botany, John Henslow:

'Captain FitzRoy is going out to survey the southern coast of Tierra del Fuego and afterwards to visit many of the South Sea islands and to return by the Indian archipelago. The vessel is fitted out expressly for scientific purposes combined with the survey. It will furnish therefore a rare opportunity for a naturalist and it will be a great misfortune that it should be lost. An offer has been made to me to recommend the proper person to go out as naturalist with this expedition. He will be treated with every consideration. The captain is a young man of very pleasing manners, a nephew of the Duke of Grafton [in fact a grandson], of great zeal in his profession and who is very highly spoken of. If Leonard Jenyns could go, what treasures he might bring home with him, as the ship would be placed at his disposal whenever his enquiries made it necessary or desirable. In the absence of so accomplished a naturalist, is there any person who you can strongly recommend? He must be such a person as would do credit to our recommendation.'

Professor Henslow promptly recommended the recently graduated Charles Darwin. However, during the next few days a variety of hazards very nearly prevented Darwin from accepting the offer. The letter to him was delayed; Leonard Jenyns nearly accepted himself; Darwin's father objected strongly, and finally time began to run out. Through the good offices of his uncle, the famous potter Josiah Wedgwood, Darwin persuaded his father to let him at least try for the post, and after a number of further difficulties Darwin, the hydrographer and Captain FitzRoy finally met at the Admiralty. FitzRoy was a great believer in phrenology and was 'doubtful whether anyone with a nose shaped like Darwin's could possess sufficient energy to complete the voyage' but the two young men soon charmed each other and the offer was firmly accepted. Darwin's intentions of entering the church, marrying and moving to a quiet country parish soon evaporated and he settled down to the serious business of being a ship's geologist and naturalist, the 'philosopher'. He can have had only one serious regret about his decision and that was the endless agonies that he suffered through seasickness. Almost constantly while the ship was at sea his life was made a misery by its movement. In fact during the five years of the *Beagle*'s voyage he took every available opportunity to be on shore. He actually spent over half of the five-year voyage ashore and, on land at least, showed remarkable physical endurance. He undertook long journeys on horseback camping out and living rough and he frequently climbed difficult and dangerous mountains. On more than one occasion his reactions and



strength helped to save the captain's life or the lives of others in the crew.

The relationship between Charles Darwin and Robert FitzRoy has always intrigued commentators. They were two active, enthusiastic, lively-minded young men and there is no doubt that each in his own way possessed an abundance of charm. That they had some disagreements during the five years when they were living in close proximity and sharing the same dining table is not surprising. In fact, to have had no arguments at all would have verged on the miraculous! The letters which they wrote to each other during the voyage reveal an almost undergraduate enthusiasm for the projects they were engaged in. Their politics were diametrically opposed, FitzRoy the typical tory and Darwin the liberal whig, but although their diaries and letters show that politics were discussed and argued about, they were still making jokes about their differences when the voyage ended. None of the differences over ideas which came about after the voyage was over are foreshadowed in the letters, journals and diaries of the voyage itself. There is evidence that FitzRoy's strict fundamentalist views developed after his marriage when he returned from the voyage. During the voyage home the two men co-operated in writing an account of the work of the missionaries in New Zealand which they published jointly in Cape Town and in their respective accounts of the journey they reveal very similar attitudes. Darwin certainly tried to take communion before sailing off to Tierra del Fuego and FitzRoy, who had no chaplain, held divine services on board rather less frequently than most other captains of this period (about six times a year).

FitzRoy and Darwin maintained an intermittent correspondence and a steady friendship over many years. FitzRoy was still visiting Darwin at Down House in 1857, almost twenty years after the end of the shared voyage; but he reacted strongly to *The Origin of Species*. At the British Association discussion between Thomas Huxley and Bishop Wilberforce, FitzRoy stood up clutching a Bible to say that he 'regretted the publication of Mr Darwin's book' and denied that it was 'a logical arrangement of facts'. He said he had 'often expostulated with my old comrade of the *Beagle* for entertaining views which were contradictory to the first chapter of Genesis'. Most of this expostulation must I think have occurred after the voyage rather than over dinner in the captain's cabin.

From Mauritius in April 1836 Darwin wrote:

'The captain is daily becoming a happier man. He now looks forward

with cheerfulness to the work which is before him. He, like myself, is busy all day in writing, but instead of geology it is the account of the voyage. I sometimes fear his "book" will be rather diffuse but in most other respects it certainly will be good. His style is very simple and excellent. He has proposed to me to join him in publishing the account; that is for him to have the disposal and arranging of my journal and to mingle it with his own. Of course I have said I am perfectly willing if he wants materials or thinks the chit-chat details of my journal are in any way worth publishing. He has read over the parts I have on board and likes it.'

In fact on his return FitzRoy consulted the publisher Colburn and wrote to Darwin in December 1836:

'He recommended a joint publication. One volume might be for King [the account of the first voyage of the *Beagle*], another for you and a third for me. The profits, if any, to be divided into three equal portions. What think you of such a plan? Shall I accept the offer of Mr Colburn or wait and talk the matter over when we meet? I shall be in London and remain there after 13 January. I told Mr Colburn I should give him the answer in January.'

And this was the scheme that was adopted. Darwin set about the writing of his volume, basing it principally on his own journal which he expanded by more than half its length, and he remained not too happy about the other versions. In a letter to Professor Henslow in March 1837 he said:

'Now the scheme is that the captain makes a plum pudding out of his own journal and that of Captain King's kept during the last voyage which together will make two volumes and a third I am to have to myself. I intend making it in a journal form but following the order of places rather than that of time, giving results of my geology and habits of animals where interesting. I have been going steadily and have already made a hole in the work which I fear is more than the captain can say.'

FitzRoy was delayed partly by ill health and partly by the enormous task of editing and preparing the sailing directions for South American coasts and the many charts which were the results of the *Beagle's* survey. This work kept him very busy and although Darwin soon finished his volume FitzRoy was still struggling with the task. In 1837 he received Darwin's manuscript and was very upset by the wording of Darwin's



preface. He felt that this did not give sufficient recognition of the 'obliging, disinterested and kind hearted officers on board the *Beagle*' who had assisted Darwin in his studies. It was most uncharacteristic of Darwin not to thank others and although the original version of the preface does not exist, its lack of thanks must surely be due to oversight rather than any deliberate omission on Darwin's part. This disagreement, which Darwin alludes to in his autobiography, resulted in a very curt note indeed from FitzRoy to Darwin, but Darwin must have apologized directly and a few days later FitzRoy was again writing to him and explaining that full recognition should be given to the assistance that the *Beagle*'s officers had given Darwin. FitzRoy wrote:

'I was also astonished at the total omission of any notice of the officers, either particular or general. My memory is rather tenacious respecting a variety of transactions in which you were concerned with them and others in the *Beagle*. Perhaps you are not aware that the ship which carried us safely was the first employed in exploring and surveying, whose officers were not ordered to collect and were therefore at liberty to keep the best of all, nay all, their specimens for themselves. To their honour they gave you the preference.'

However the storm, as so many others, soon blew over and FitzRoy continued working steadily on his volumes. By March 1839 he was writing to Darwin about the advertisements which were to be inserted at the beginning of the book and he went on to say:

'I am sure you will agree with me in thinking it desirable to avoid swelling the volumes with ordinary advertisements. King's is 600 pages, mine is 696, yours I would conclude with your appendix to be between 640 and 700 and my appendix is 360. These with about 50 plates will be tolerably thick volumes.'

They were indeed thick volumes! FitzRoy's *Narrative* contains over a quarter of a million words and his verbose Victorian style does not now make easy reading. Even in its own time it was the subject of satire and in the British Museum there is a handwritten send-up of the *Narrative* by a 'Captain Ross' in which FitzRoy's extensive use of notes, appendices, quotes and elaborate explanations is made fun of. Darwin himself was not too happy about the captain's book. In a letter to his sister he wrote in April 1839:

'The captain is going on very well, that is for a man who has the most

consummate skill in looking at everything and everybody in a perverted manner. He is working very hard at his book which I suppose will really be out in June. I looked over a few pages of Captain King's journal [Volume 1 of the *Narrative*]. I was absolutely forced against all love of truth to tell the captain that I supposed it was very good but in honest reality no pudding for little schoolboys ever was so heavy. It abounds with natural history of a very trashy nature. I trust the captain's own volume will be better.'

The *Narrative*, or to give it its full ponderous title *Narrative of the Surveying Voyages of His Majesty's Ships Adventure and Beagle between the years 1826 and 1836 describing their examination of the southern shores of South America and the Beagle's circumnavigation of the Globe in three volumes with an appendix*, was finally published by Mr Colburn in 1839. FitzRoy wrote to Darwin in June 1839:

'My silence has been caused by my own attention having been extremely occupied lately by subjects unconnected with our work which have engaged me so continually that I have not even yet read your volume. I have dipped into it here and there but have reserved its steady perusal for the ensuing fortnight in the country. My wife has it now with her and from what we have seen in various glimpses I have no doubt whatever that I shall be deeply interested by reading it attentively, much of it requires close thinking, I apprehend, when undisturbed by daily or rather hourly calls upon one's time. I cannot think that there is an expression in it referring to me personally which I could wish were not in it. At all events neither I nor my wife have yet lighted upon anything that induces me to doubt in the smallest degree that I shall not be thoroughly at ease in that respect. When I have read it through I will write fully and freely to you on that subject.'

We do not unfortunately have that full and free letter but a few days later FitzRoy put as a postscript to a letter to Darwin: 'I am eagerly and most agreeably occupied with your book'.

Darwin's account, which formed the third volume, was so successful that it was twice reprinted and a new edition as a separate volume was required by 1845. From that time onwards it has gone on being reprinted, now under its title of *The Voyage of the Beagle*. Captain FitzRoy's version, on the other hand, was never reprinted, which must have irked him more than a little. A considerable portion of the original *Narrative* now appears for the first time for modern readers in this



Folio Society edition. This gives an opportunity of looking at the historic voyage of the *Beagle* from the captain's point of view and perhaps in putting its importance as a voyage of survey and exploration into perspective. I would like to think that Captain FitzRoy would not be too upset at seeing his account republished even though an editor has had the temerity to shorten it!

This present edition, then, has been based primarily on Robert FitzRoy's *Narrative* of the second surveying voyage of H.M.S. *Beagle*. His manuscript journal has unfortunately not been traced and may not now exist. Only in one short section (pages 189–202) has it been possible to use this original and much more lively journal as it was read to the Royal Geographical Society. The original *Narrative* is extremely long and to prepare this edition it has been précised down and extensive sections have been omitted. FitzRoy wrote long accounts on the anthropology and the historical background of the areas he visited; he used long extracts from the works of other authors, often in foreign languages, and he includes an extensive apparatus of notes and appendices. In fact there were so many appendices that they were collected into a fourth volume of 350 pages which even FitzRoy called a 'disorderly group of documents'! His last two *Narrative* chapters, written well after his return from the voyage, are curiously different from the rest of the account, one of them dealing with the origins of the inhabitants of South America and their relation to the tribes of Israel, and the other with the consequences of the Biblical Deluge. Both of these long and slightly eccentric 'fundamentalist' chapters have been omitted. FitzRoy's account of the voyage follows a chronological order but as Charles Darwin was so often absent from the ship on inland expeditions, sections of Charles Darwin's diary have been included both to provide additional information and to contrast with the style and the single-minded vision of the captain. Darwin's own diary or journal was expanded by him to form the third volume. In this work other extracts from official and private letters, reports and instructions from the Admiralty comments and accounts by others on board ship have been included to give, it is hoped, a different and a more balanced view of one of the most famous voyages of all time.

The illustrations which have been used in this edition are by one of the artists who worked on board the *Beagle*, Conrad Martens. When FitzRoy sailed from England, he had employed Augustus Earle to act as artist. In fact most of the officers, including FitzRoy himself, were

talented water-colour artists. However, by the time they reached South America, Earle was ill and very soon invalidated himself from the ship. FitzRoy was lucky enough to find a successor in Conrad Martens and although later on in the voyage economy forced him to relinquish his services, Martens' drawings were the basis of the engravings used to illustrate the first edition of the *Narrative*.

Conrad Martens was born in London in 1801. His father was a German merchant from Hamburg, and after his death in 1816 Martens studied landscape painting under Copley Fielding, going on sketching tours in Devon. In 1833 he was offered a cruise to India with Captain Blackwood of the sloop *Hyacinth* but while at Rio de Janeiro he met a returning officer who told him that the *Beagle* required an artist and topographer, so he travelled to Montevideo and joined her on 1 December 1833. FitzRoy described Martens in a letter to Charles Darwin as follows:

'Mr Martens, Earle's successor, a stone pounding artist who exclaims in his sleep: "Think of me standing on a pinnacle in the Andes or sketching a Fuegian glacier". By my faith in bumpology I am sure you will like him and like him much. He is, or I am woefully mistaken, a gentlemanlike, well informed man. His landscapes are really good compared with London men though perhaps in figures he cannot equal Earle. He is very industrious and gentlemanlike in his habits, not a small recommendation.'

Martens found himself with skilled observers and proficient draughtsmen and his own work became more detailed and accurate. Darwin and Martens became close friends and frequently went on expeditions together. Darwin wrote home: 'Our artist who joined us at Montevideo is a pleasant sort of person, rather too much of the drawing master about him, but he is very unlike to Earle's eccentric character.'

In October 1834 it became necessary for Martens to leave the *Beagle*. The sale by Captain FitzRoy of the schooner and the return of its officers and crew to the *Beagle* had caused an accommodation and cabin crisis and there was no longer any room for this talented artist. However, after a stay in Valparaiso, Martens followed on to Tahiti, New Zealand and finally Sydney by other vessels. He set up his studio at Sydney and later when the *Beagle* visited Australia Darwin bought two water-colour sketches from him at three guineas a time. The working notebooks, sketches and finished water-colours of Martens have now been brought together and show an accurate, careful and artistic view



of the scenery which surrounded the *Beagle* on its expedition. His method involved swift execution and directness of touch and an ex-pupil states that he never lifted the pencil from the paper. He used four strengths of line for perspective and no cross-hatching. Colour notes and cloud effects were written on the side of the sketches. These were then worked up into drawings which, if they gained the captain's approval, finally became engravings. In this edition some of the working sketches and the water-colour drawings that Martens used to prepare these engravings have been used as the illustrations. Martens continued to live in Australia where he became an important illustrator of the early stages of the country's development. He continued to correspond with Darwin and died in 1878.

Following the publication of the *Narrative*, Robert FitzRoy continued working as one of the Elder Brethren of Trinity House and in June 1841 he was elected as an M.P. for Durham. This election resulted in considerable controversy and a very long and acrimonious exchange of letters and pamphlets between FitzRoy and a Mr William Sheppard, resulting in a 'duel' in the Mall outside the United Services Club in which Sheppard strode up to FitzRoy and waving a whip delivered the immortal line: 'Captain FitzRoy, I will not strike you, but consider yourself horsewhipped'. FitzRoy felled him with his umbrella and friends had to separate them. It is difficult at this distance of time to sort out the exact rights and wrongs of this protracted argument: but once again FitzRoy felt that he was right and stuck through thick and thin to this opinion, publishing a long series of letters outlining his point of view.

In parliament FitzRoy took a particular interest in those matters connected with the sea and was responsible in pressing for legislation to provide examinations for ships' masters. He did other committee work, particularly in connection with the west coast of Africa, and was a Conservator of the River Mersey. In 1842 he attended the Archduke Frederick of Austria when he paid an official visit to this country to look particularly at dockyards and factories.

In 1843 he was offered the governorship of New Zealand and on accepting he resigned both his job with Trinity House and his seat in parliament and sailed with his wife and family to New Zealand. He had already during the voyage of the *Beagle* shown particular interest in the special problems of this emerging country; the conflict between the missionaries, the natives and the other settlers. Unhappily, as was the

case with the voyage of the *Beagle*, he failed to keep his superiors in London adequately informed of his trials and troubles and his decisions were seldom popular, partly, no doubt, as he frequently took the side of the natives. In his defence it must be said that he was given very little support in an extremely difficult situation by his Government. Once again, he spent considerable sums of his own limited money. Eventually the volume of complaints about him became too great and in 1845 he was relieved of his office and recalled to Britain.

His interest in steam-propelled vessels had always been considerable, and he went as a passenger on various frigates during an experimental cruise by Napier's Channel Squadron, writing about his experiences and forecasting many of the developments soon to come. He was made Acting Superintendent of the Woolwich Dockyard for two months, and in 1848 conducted the experimental trials of a new screw-driven frigate called, appropriately for him, the *Arrogant*! The fitting-out trials of this ship involved considerable technical problems but eventually it was commissioned and the 36-gun frigate sailed for Lisbon with FitzRoy on board. There in 1850 he resigned from active service in the Navy owing to personal pressures – which mainly consisted of the ill health of his son, who had in fact sailed with him, and the accounts he received of his wife's financial problems at home. When he returned to this country he discovered that these problems had in fact been inaccurately reported, and that his son's health was much improved. He tried but was unable to regain his active commission. He then became a managing director of the General Screw Steam Shipping Company and was elected a Fellow of the Royal Society in 1851. In 1852 his wife died and there was at one time a strong possibility that he would be sent out by the Navy to conduct a tidal survey, an exploit he would have thoroughly enjoyed, but it came to nothing. In 1853 he became Private Secretary to the Commander-in-Chief of the Army, Lord Hardinge, and was unsuccessful in an application to become Superintendent of the Compass Department. He showed a great interest in proposals for cutting a canal through the Isthmus of Panama and spoke frequently on this topic at the Royal Geographical Society.

In August 1854 the Board of Trade set up the post of Meteorological Statist at a salary of £600 a year. This resulted from consultations between the Admiralty and the Royal Society and its purpose was to collect statistics about weather conditions, principally for the benefit of those at sea, to see whether this information could be used to save life and to speed up passages at sea. Very appropriately, FitzRoy was



appointed and he entered into this new job with his old zeal and enthusiasm, although once again there was the problem of failure to keep his superiors adequately informed. Over the next few years he founded the present Meteorological Office, bringing into use phrases like 'forecast' and 'gale warning'; he continued to canvass his idea that knowledge of air pressure obtained from a barometer enabled some degree of accurate forecasting of future weather conditions. He re-married and reached the rank of rear admiral in 1857. He applied for the job of Chief Naval Officer at the Board of Trade but this was given to his old second lieutenant, Sullivan. He took a leading part in the Committee of Management of the Royal National Lifeboat Institution and wrote his *Weather Book* in 1862. This was reprinted and translated into many languages and forms the foundation of present meteorological science. In 1860 he spoke at the British Association on 'Storms' and it was at this same meeting that the famous clash between Thomas Huxley and Bishop Wilberforce took place over Darwin's views on evolution. But continuing ill health, criticism and deafness brought about a breakdown in 1865; and driven beyond endurance by worries about his health and also by the pressure of work at the office, he committed suicide by cutting his own throat with a razor on 30 April 1865. He was, without doubt, a talented man in his own right. He certainly deserves to be remembered as one of the founders of meteorological science, and as a surveyor of remarkable zeal and enthusiasm, rather than simply as the captain of the ship which took Charles Darwin round the world.

That circumnavigation is now most famous for the part it played in the formulation of the theory of evolution. There is no dispute that the gradual accumulation of facts, observations, specimens and ideas by Charles Darwin during the long years of the *Beagle's* voyage were the raw material which his genius later transformed into one of the most important contributions ever made to our understanding of the world in which we live. But it should not be forgotten that Captain FitzRoy and the officers of the *Beagle* also contributed an important, if not essential element: a remarkable mixture of abilities talents and interests, which provided the crucible for the crystalization of an idea which has changed the thinking of man. I hope this edition of Captain FitzRoy's own *Narrative* does something to explain why.

DAVID STANBURY

## 1. THE START OF THE VOYAGE

*From Captain FitzRoy's Narrative:*

At the end of my first voyage in H.M.S. *Beagle* while on our passage home I addressed the following letter to my commanding officer and kind friend, Captain P. P. King.

*Beagle, at sea, 12 September 1830*

SIR,

I have the honour of reporting to you that there are now on board of His Majesty's Sloop, under my command, four natives of Tierra del Fuego.

Their names and estimated ages are:

York Minster	26
Boat Memory	20
James Button	14
Fuegia Basket (a girl)	9

I have maintained them entirely at my own expense, and hold myself responsible for their comfort while away from, and for their safe return to their own country: and I have now to request that, as senior officer of the expedition, you will consider of the possibility of some public advantage being derived from this circumstance; and of the propriety of offering them, with that view, to His Majesty's Government.

I am now to account for my having these Fuegians on board, and to explain my future views with respect to them.

In February last, the *Beagle* being moored in Townshend Harbour, on the south-west coast of Tierra del Fuego, I sent Mr Murray, with six men, in a whale-boat, to Cape Desolation.

Mr Murray reached the place, and secured his party and the boat in a cove near the cape: but during a very dark night, some Fuegians, whose vicinity was not at all suspected, approached with the dexterous cunning peculiar to savages and stole the boat.

Thus deprived of the means of returning to the *Beagle*, and unable to make their situation known, Mr Murray and his party formed a sort



of canoe, or rather basket, with the branches of trees and part of their canvas tent, and in this machine three men made their way back to the *Beagle*, by his directions: yet, although favoured by the only fine day that occurred during the three weeks which the *Beagle* passed in Townshend Harbour, this basket was twenty hours on its passage.

Assistance was immediately given to Mr Murray and the other men, and a chase for our lost boat was begun, which lasted many days, but was unsuccessful in its object, although much of the lost boat's gear was found, and the women and children of the families from whom it was recovered, were brought on board as hostages. The men, excepting one of them, escaped from us, or were absent in our missing boat.

At the end of February the *Beagle* anchored in Christmas Sound; but before this time all our prisoners had escaped, except three little girls, two of whom we restored to their own tribe, near Whale-boat Sound, and the other is now on board.

From the first canoe seen in Christmas Sound, one man was taken as a hostage for the recovery of our boat, and to become an interpreter and guide. He came to us with little reluctance, and appeared unconcerned.

A few days afterwards, traces of our boat were found at some wigwams on an island in Christmas Sound, and from the families inhabiting those wigwams I took another young man, for the same purpose as that above-mentioned. No useful information respecting our lost boat was, however, gained from them, before we were obliged to leave that coast, and she remained the prize of their companions.

Afterwards, when in Nassau Bay, our captives informed us that the natives of that part of the coast, and all to the eastward, were their enemies, and that they spoke a different language. This intelligence was extremely disappointing, and made me anxious to persuade one of this eastern tribe to come on board and stay with us; but I had then no hopes of doing so, and gave up the idea: however, some time afterwards, accidentally meeting three canoes, when away in my boat exploring the Beagle Channel, I prevailed on their occupants to put one of the party, a stout boy, into my boat, and in return I gave them beads, buttons, and other trifles. Whether they intended that he should remain with us permanently, I do not know; but they seemed contented with the singular bargain, and paddled again towards the cove from which they had approached my boat. We pulled on along shore, attended by other canoes, which had been endeavouring to barter with us whenever we stopped; but at dusk they ceased following us, and went ashore.

When about to depart from the Fuegian coast, I decided to keep

these four natives on board, for they appeared to be quite cheerful and contented with their situation; and I thought that many good effects might be the consequence of their living a short time in England. They have lived, and have been clothed like the seamen, and are now, and have been always, in excellent health and very happy. They understand why they were taken, and look forward with pleasure to seeing our country, as well as to returning to their own.

Should not His Majesty's government direct otherwise, I shall procure for these people a suitable education, and, after two or three years, shall send or take them back to their country, with as large a stock as I can collect of those articles most useful to them, and most likely to improve the condition of their countrymen, who are now scarcely superior to the brute creation.

ROBT. FITZROY

This letter was forwarded to the Admiralty by Captain King, as soon as he arrived in England; and a few days afterwards the following answer was received.

Admiralty Office, 19 October 1830

SIR,

Having laid before my Lords Commissioners of the Admiralty your letter and its enclosure from Commander FitzRoy, of the *Beagle*, relative to the four Indians whom he has brought from Tierra del Fuego under the circumstances therein stated; I am commanded to acquaint you that their Lordships will not interfere with Commander FitzRoy's personal superintendence of, or benevolent intentions towards these four people, but they will afford him any facilities towards maintaining and educating them in England, and will give them a passage home again.

JOHN BARROW

I was, of course, anxious to protect the Fuegians, as far as possible, from the contagion of any of those disorders, sometimes prevalent, and which unhappily have so often proved fatal to the aboriginal natives of distant countries when brought to Europe; and, immediately after our arrival in England, they landed with me, after dark, and were taken to comfortable, airy lodgings, where, next day, they were vaccinated, for the second time.

Two days afterwards they were carried a few miles into the country, to a quiet farm-house, where I hoped they would enjoy more freedom



and fresh air, and, at the same time, incur less risk of contagion than in a populous sea-port town, where curiosity would be excited.

Meanwhile, the *Beagle* was stripped and cleared out, preparatory to being paid off. On 27 October the *Beagle*'s pendant was hauled down.

Both vessels' crews were dispersed, as usual, unfortunately; and of those who had passed so many rough hours together, but few were likely to meet again. I much regretted the separation from my tried and esteemed shipmates, and from our excellent little vessel.

Early in November I received the sad intelligence that the young man, called Boat Memory, was taken ill; and that the symptoms of his disorder were like those of the small-pox. Dr Armstrong, of the Royal Hospital at Plymouth, whose advice I solicited, suggested that he and the other three Fuegians should be received immediately into the hospital, with the view of preventing further infection, and ensuring the best treatment for the poor sufferer. The Admiralty having thus sanctioned the admission of the Fuegians into one of the best hospitals, and assured that they could not be under better treatment, I felt less anxiety in leaving them for a time, as I was obliged to do, in order to attend to duties connected with the survey; but I had hardly reached London, when a letter informed me of the untimely fate of Boat Memory. He had been vaccinated four different times; but the three first operations had failed, and the last had just taken effect, when the disease showed itself. It was thought that the fatal contagion must have attacked him previously.

This poor fellow was a very great favourite with all who knew him, as well as with myself. He had a good disposition, very good abilities, and though born a savage, had a pleasing, intelligent appearance. He was quite an exception to the general character of the Fuegians, having good features and a well-proportioned frame. It may readily be supposed that this was a severe blow to me, for I was deeply sensible of the responsibility which had been incurred; and, however unintentionally, could not but feel how much I was implicated in shortening his existence.

Of course, I was anxious that no time should be lost in arranging a plan for their education and maintenance; and deeming the Church Missionary Society to be in some measure interested about the project I had in view, I applied to their secretary, introducing them and myself to the notice of the Rev William Wilson, of Walthamstow. Mr Wilson at once relieved my mind from a load of uncertainty and anxiety, by saying that they should be received into his parish, and that he would talk to the master of the Infant School about taking them into his house,

as boarders and pupils. In a short time, it was arranged that the schoolmaster should receive, and take entire charge of them, while they remained in England, and should be paid by me for their board and lodging, for his own trouble, and for all contingent expenses.

The inside of a stage-coach was taken, and under the guidance of Mr Murray (the *Beagle*'s late master), attended by James Bennett, they arrived in Piccadilly, and were immediately carried to Walthamstow, without attracting any notice. Mr Murray told me that they seemed to enjoy their journey in the coach, and were very much struck by the repeated changing of horses.

I took them myself from the coach-office to Walthamstow; they were glad to see me, but seemed bewildered by the multitude of new objects. Passing Charing Cross, there was a start and exclamation of astonishment from York. 'Look!' he said, fixing his eyes on the lion upon Northumberland House, which he certainly thought alive, and walking there. I never saw him show such sudden emotion at any other time. They were much pleased with the rooms prepared for them at Walthamstow; and the schoolmaster and his wife were equally pleased to find the future inmates of their house very well disposed, quiet, and cleanly people; instead of fierce and dirty savages.

At Walthamstow they remained from December 1830 till October 1831; and during all that time were treated with the utmost kindness by the benevolent men whose names I have mentioned; by their families, and by many others in the neighbourhood, as well as casual visitors, who became much interested in their welfare, and from time to time gave them several valuable presents.

The attention of their instructor was directed to teaching them English, and the plainer truths of Christianity, as the first object; and the use of common tools, a slight acquaintance with husbandry, gardening, and mechanism, as the second. Considerable progress was made by the boy and girl; but the man was hard to teach, except mechanically. He took interest in smith's or carpenter's work, and paid attention to what he saw and heard about animals; but he reluctantly assisted in garden work, and had a great dislike to learning to read. By degrees, a good many words of their own languages were collected (the boy's differed from that of the man and the girl), and some interesting information was acquired, respecting their own native habits and ideas. They gave no particular trouble; were very healthy; and the two younger ones became great favourites wherever they were known. Sometimes I took them with me to see a friend or relation of my own, who was anxious



to question them, and contribute something to the increasing stock of serviceable articles which I was collecting for their use, when they should return to Tierra del Fuego. My sister was a frequent benefactress; and they often talked, both then and afterwards, of going to see 'Cappen Sisser'.

During the summer of 1831, His late Majesty expressed a wish to see the Fuegians, and they were taken to St James's. His Majesty asked a great deal about their country, as well as themselves; and I hope I may be permitted to remark that, during an equal space of time, no person ever asked me so many sensible and thoroughly pertinent questions respecting the Fuegians and their country also relating to the survey in which I had myself been engaged, as did His Majesty. Her Majesty Queen Adelaide also honoured the Fuegians by her presence, and by acts of genuine kindness which they could appreciate, and never forgot. She left the room, in which they were, for a minute, and returned with one of her own bonnets, which she put upon the girl's head. Her Majesty then put one of her rings upon the girl's finger, and gave her a sum of money to buy an outfit of clothes when she should leave England to return to her own country.

I must now revert to matters more immediately connected with the *Beagle's* second voyage.

My own official duties, relating to the survey, were completed in March 1831; when my late commanding officer, Captain King, addressed a letter to the Lords Commissioners of the Admiralty expressive of his approbation of the part I had taken, under his direction, and recommending me to their lordships.

From the various conversations which I had with Captain King, during the earlier period of my service under him, I had been led to suppose that the survey of the southern coasts of South America would be continued; and to some ship, ordered upon such a service, I had looked for an opportunity of restoring the Fuegians to their native land.

Finding, however, to my great disappointment, that an entire change had taken place in the views of the Lords of the Admiralty, and that there was no intention to prosecute the survey, I naturally became anxious about the Fuegians; and, in June, having no hopes of a man-of-war being sent to Tierra del Fuego, and feeling too much bound to these natives to trust them in any other kind of vessel, unless with myself – because of the risk that would attend their being landed anywhere, excepting on the territories of their own tribes – I made an agreement with the owner of a small merchant-vessel, the *John of London*, to carry

me and five other persons to such places in South America as I wished to visit, and eventually to land me at Valparaiso.

My arrangements were all made, and James Bennett, who was to accompany me, had already purchased a number of goats, with which I purposed stocking some of the islands of Tierra del Fuego – when a kind uncle, to whom I mentioned my plan, went to the Admiralty, and soon afterwards told me that I should be appointed to the command of the *Chanticleer*, to go to Tierra del Fuego.

My agreement with the owner of the *John* was, however, in full force, and I could not alter it without paying a large proportion of the whole sum agreed on for the voyage.

The *Chanticleer* was not, upon examination, found quite fit for service; and, instead of her, I was again appointed to my well-trying little vessel, the *Beagle*. My commission was dated 27 June, and on the same day two of my most esteemed friends, Lieutenants Wickham and Sullivan, were also appointed.

When it was decided that a small vessel should be sent to Tierra del Fuego, the Hydrographer of the Admiralty was referred to for his opinion, as to what addition she might make to the yet incomplete surveys of that country, and other places which she might visit.

Captain Beaufort embraced the opportunity of expressing his anxiety for the continuance of the South American Surveys, and mentioning such objects, attainable by the *Beagle*, as he thought most desirable: and it was soon after intimated to me that the voyage might occupy several years. Desirous of adding as much as possible to a work in which I had a strong interest, and entertaining the hope that a chain of meridian distances might be carried round the world if we returned to England across the Pacific, and by the Cape of Good Hope; I resolved to spare neither expense nor trouble in making our little expedition as complete, with respect to material and preparation, as my means and exertions would allow, when supported by the considerate and satisfactory arrangements of the Admiralty; which were carried into effect (at that time) by the Navy Board, the Victualling Board, and the Dockyard officers at Devonport.

The *Beagle* was commissioned on 4 July 1831, and was immediately taken into dock to be thoroughly examined, and prepared for a long period of foreign service. As she required a new deck, and a good deal of repair about the upper works, I obtained permission to have the upper-deck raised considerably, which afterwards proved to be of the greatest advantage to her as a sea-boat, besides adding so materially to the



comfort of all on board. While in dock, a sheathing of two-inch fir plank was nailed on the vessel's bottom, over which was a coating of felt, and then new copper. This sheathing added about fifteen tons to her displacement, and nearly seven to her actual measurement. Therefore, instead of 235 tons, she might be considered about 242 tons burthen. The rudder was fitted according to the plan of Captain Lihou: a patent windlass supplied the place of a capstan: one of Frazer's stoves, with an oven attached, was taken instead of a common 'galley' fire-place; and the lightning-conductors, invented by Mr Harris, were fixed in all the masts, the bowsprit, and even in the flying jib-boom. The arrangements made in the fittings, both inside and outside, by the officers of the Dockyard, left nothing to be desired. Our ropes, sails, and spars, were the best that could be procured; and to complete our excellent outfit, six superior boats (two of them private property) were built expressly for us, and so contrived and stowed that they could all be carried in any weather.

Considering the limited disposable space in so very small a ship, we contrived to carry more instruments and books than one would readily suppose could be stowed away in dry and secure places; and in a part of my own cabin twenty-two chronometers were carefully placed.

Anxious that no opportunity of collecting useful information, during the voyage, should be lost; I proposed to the hydrographer that some well-educated and scientific person should be sought for who would willingly share such accommodations as I had to offer, in order to profit by the opportunity of visiting distant countries yet little known. Captain Beaufort approved of the suggestion, and wrote to Professor Peacock, of Cambridge, who consulted with a friend, Professor Henslow, and he named Mr Charles Darwin, grandson of Dr Darwin the poet, as a young man of promising ability, extremely fond of geology, and indeed all branches of natural history. In consequence an offer was made to Mr Darwin to be my guest on board, which he accepted conditionally; permission was obtained for his embarkation, and an order given by the Admiralty that he should be borne on the ship's books for provisions. The conditions asked by Mr Darwin were, that he should be at liberty to leave the *Beagle* and retire from the expedition when he thought proper, and that he should pay a fair share of the expenses of my table.

Knowing well that no one actively engaged in the surveying duties on which we were going to be employed, would have time – even if he had ability – to make much use of the pencil, I engaged an artist, Mr Augustus Earle, to go out in a private capacity; though not without the

sanction of the Admiralty, who authorized him also to be victualled. And in order to secure the constant, yet to a certain degree mechanical attendance required by a large number of chronometers, and to be enabled to repair our instruments and keep them in order, I engaged the services of Mr George James Stebbing, eldest son of the mathematical instrument-maker at Portsmouth, as a private assistant. It was wished that two persons should accompany the Fuegians, and endeavour to pass some time in their country: but it was not easy to find individuals sufficiently qualified, and in whom confidence could be placed, who would willingly undertake such an enterprise. One young man was selected by Mr Wilson, but a companion for him could not be found in time to embark on board the *Beagle*.

In October the party from Walthamstow arrived, in a steam-vessel, at Plymouth, and not a few boats were required to transport to our ship the large cargo of clothes, tools, crockery-ware, books, and various things which the families at Walthamstow and other kind-hearted persons had given. In the small hold of the *Beagle*, it was not easy to find places for the stowage of so many extra stores; and when dividing the contents of large chests, in order to pack them differently, some very fair jokes were enjoyed by the seamen, at the expense of those who had ordered complete sets of crockery-ware, without desiring that any selection of articles should be made.

Instructions were given, by the secretary of the Church Missionary Society, to the young man who wished to accompany the Fuegians, and although he was rather too young, and less experienced than might have been wished, his character and conduct had been such as to give very fair grounds for anticipating that he would, at least, sincerely endeavour to do his utmost in a situation so difficult and trying as that for which he volunteered.

The established complement of officers and men (including marines and boys) was sixty-five: but, with the supernumeraries I have mentioned, we had on board, when the *Beagle* sailed from England, seventy-four persons, namely:

Robert FitzRoy	.....	Commander and Surveyor.
John Clements Wickham	.....	Lieutenant.
Bartholomew James Sullivan	.....	Lieutenant.
Edward Main Chaffers	.....	Master.
Robert MacCormick	.....	Surgeon.
George Rowlett	.....	Purser.
Alexander Derbyshire	.....	Mate.



Peter Benson Stewart	Mate.
John Lort Stokes	Mate and Assistant Surveyor.
Benjamin Bynoe	Assistant Surgeon.
Arthur Mellersh	Midshipman.
Philip Gidley King	Midshipman.
Alexander Burns Usborne	Master's Assistant.
Charles Musters	Volunteer 1st Class.
Jonathan May	Carpenter.
Edward H. Hellyer	Clerk.

Acting boatswain: sergeant of marines and seven privates: thirty-four seamen and six boys.

On the List of supernumeraries were:

Charles Darwin	Naturalist.
Augustus Earle	Draughtsman.
George James Stebbing	Instrument Maker.
Richard Matthews and three Fuegians: my own steward: and Mr Darwin's servant.	

Our complement of seamen, marines, and boys was complete at our return, and generally during the voyage; because, although many changes happened, we had always a choice of volunteers to fill vacant places.

Many of the crew had sailed with me in the previous voyage of the *Beagle*; and there were a few officers, as well as some marines and seamen, who had served in the *Beagle*, or *Adventure*, during the whole of the former voyage. These determined admirers of Tierra del Fuego were Lieutenant Wickham, Mr Bynoe, Mr Stokes, Mr Mellersh, and Mr King; the boatswain, carpenter, and sergeant; four private marines, my coxswain, and some seamen.

I must not omit to mention that among our provisions were various antiscorbutics – such as pickles, dried apples, and lemon juice – of the best quality, and in as great abundance as we could stow away; we had also on board a very large quantity of Kilner and Moorsom's preserved meat, vegetables, and soup: and from the Medical Department we received an ample supply of antiseptics, and articles useful for preserving specimens of natural history.

Not only the heads of departments exerted themselves for the sake of our health and safety, but the officers subordinate to them appeared to take a personal interest in the *Beagle*; for which I and those with me felt, and must always feel, most grateful.

Perhaps no vessel ever quitted her own country with a better or more

ample supply (in proportion to her probable necessities) of every kind of useful provision and stores than the little ship of whose wanderings I am now about to give a brief and very imperfect narrative; and, therefore, if she succeeded in effecting any of the objects of her mission, with comparative ease and expedition, let the complete manner in which she was prepared for her voyage, by the Dockyard at Devonport, be fully remembered.

On 15 November I received my instructions from the Lords Commissioners of the Admiralty.

*From Charles Darwin's Diary:*

21 November 1831: About six o'clock, a marine, being drunk and whilst crossing from the hulk to another vessel, slipped overboard and was not seen again. His body has not been found.

22 November: Went on board and returned in a panic on the old subject, want of room. Returned to the vessel with Cap. FitzRoy, who is such an effectual and goodnatured contriver, that the very drawers enlarge on his appearance and all difficulties smooth away.

23 November: This has been a very important day in the annals of the *Beagle*; at one o'clock she was loosed from the moorings and sailed about a mile to Barnett pool. Here she will remain till the day of sailing arrives. This little sail was to me very interesting, everything so new and different to what one has ever seen, the coxswain's piping, the manning the yards, the men working at the hawsers to the sound of a fife; but nothing is so striking as the rapidity and decision of the orders and the alertness with which they are obeyed. There remains very little to be done to make all ready for sailing. All the stores are completed and yesterday between five and six thousand canisters of preserved meat were stowed away. Not one inch of room is lost, the hold would contain scarcely another bag of bread. My notions of the inside of a ship were about as indefinite as those of some men on the inside of a man, viz. a large cavity containing air, water and food mingled in hopeless confusion.

24 November: A very fine day and an excellent one for obtaining sights. Every body hailed the sun with joy, for until the time is well taken, we cannot leave harbour. I went on board several times in the course of the day; but did not succeed in doing any good, as they were changing the place of anchorage and that is not the time for a Landsman to give trouble about his own lumber.

25 November: Very busily employed on board in stowing away my



clothes and after that in arranging the books, did not leave the vessel till it was dark.

*26 November*: Again employed all day long in arranging the books; we (Stokes and myself) succeeded in leaving the Poop Cabin in very neat order. After having finished this and bringing on board some things of my own, King and I walked on the sea-shore. The day has been a very fine one and the view of Plymouth was exceedingly striking. The country is so indented with arms of the sea that there is a very new and different scene from every point of view.

*27 November*: An idle day, had a pleasant sail in Captain FitzRoy's boat and then called on several people.

*Monday, 28 November*: Cap. FitzRoy gave a very magnificent luncheon to about forty persons: it was a sort of ship warming; and every thing went off very well, in the evening a waltz was raised which lasted till every body went away.

*2 December*: Worked all day long in arranging and packing my goods in the drawers. Erasmus, my brother, arrived in the afternoon and I spent with him a very pleasant evening.

*3 December*: Incessantly busy in ordering, paying for, packing all my numberless things; how I long for Monday, even seasickness must be better than this state of wearisome anxiety. Erasmus being here is a great pleasure, but I do not see much of him.

*4 December*: I am writing this for the first time on board, it is now about one o'clock and I intend sleeping in my hammock. I did so last night and experienced a most ludicrous difficulty in getting into it; my great fault of jockeyship was in trying to put my legs in first. The hammock being suspended, I thus only succeeded in pushing [it] away without making any progress in inserting my own body. The correct method is to sit accurately in centre of bed, then give yourself a dexterous twist and your head and feet come into their respective places. After a little time I daresay I shall, like others, find it very comfortable. I have spent the day partly on board and partly with my brother: in the evening, Cap. King and son, Stokes, my brother and myself dined with Cap. FitzRoy.

In the morning the ship rolled a good deal, but I did not feel uncomfortable; this gives me great hopes of escaping seasickness. I find others trust in the same weak support. May we not be confounded. It is very pleasant talking with officer on watch at night, every thing is so quiet and still, nothing interrupts the silence but the half hour bells. I will now go and wish Stewart (officer on duty) good-night and then for practising my skill in vaulting into my hammock.

## 2. *CROSSING THE ATLANTIC*

*From Captain FitzRoy's Narrative:*

In November 1831, the *Beagle* was ready for sea, but a succession of hard gales from the westward prevented her leaving England until the end of December. Twice she sailed, and went a few leagues; yet was obliged to return in order to avoid the risk of being damaged, or losing a boat, at the very beginning of her voyage. At last the westerly gales seemed exhausted, a dead calm succeeded, and, warned by the appearances so peculiar to easterly winds, we unmoored at daylight on the 27th, and, as soon as the tide would allow, for there was still no breeze, we warped from our sheltered and picturesque retreat in Barn Pool, under that beautiful place Mount Edgecumbe.

Of the bitter feelings experienced by most of us when every sail was trimmed, and the land sinking fast from our view, I will say nothing: yet there were enlivening hopes, and all were glad to be freed from the tiresome uncertainty of the past month, all were anxious to enter upon a voyage which, though likely to be very long, promised much that would interest and excite, and perhaps reward.

To the executive officers of a ship it is always a most satisfactory feeling, independent of other thoughts, to be fairly at sea, and away from the scenes of irregularity which so often take place in ports. Those scenes, however, are now much less offensive, and the sailor is far less heedless than he was formerly, if we may take Fielding's description as authority. That humorous sensible author says, in one of the most entertaining accounts of a voyage ever written, 'To say the truth, from what I observed in the behaviour of the sailors in this voyage, and comparing it with what I have formerly seen of them, at sea, and on shore, I am convinced that on land there is nothing more idle and dissolute; but, in their own element, there are no persons, near the level of their degree, who live in the constant practice of half so many good qualities.'

Individual misconduct, arising out of harbour irregularities, obliged me to have recourse to harsh measures before we had been two days at



sea; but every naval officer knows the absolute necessity of a certain degree of what inexperienced persons might think unnecessary coercion, when a ship is recently commissioned. Hating, abhorring corporal punishment, I am nevertheless fully aware that there are too many coarse natures which cannot be restrained without it, (to the degree required on board a ship,) not to have a thorough conviction that it could only be dispensed with, by sacrificing a great deal of discipline and consequent efficiency. 'Certainty of punishment, without severity' was a maxim of the humane and wise Beccaria; which, with our own adage about a timely 'stitch', is extremely applicable to the conduct of affairs on board a ship, where so much often depends upon immediate decision, upon instant and implicit obedience.

*Captain's Log. H.M.S. Beagle. 28 December 1831:*

Punishment:

Disrate William Bruce: Able Seaman to Landsman for breaking his leave, drunkenness and fighting.

Disrate Thos. Henderson: Bosun's mate to Able Seaman for breaking his leave and drunkenness.

Disrate Stephen Chamberlaine: Able Seaman to Landsman for breaking his leave.

Disrate John Wasterham: Captain of Foretop to Able Seaman for breaking leave.

Disrate James Lester: Cooper to Landsman for breaking leave.

John Bruce: 25 lashes for drunkenness, quarrelling and insolence.

David Russel: Carpenter's crew with 34 lashes for breaking his leave and disobedience of orders.

James Phipps: 44 lashes for breaking his leave, drunkenness and insolence.

Elias Davis: 31 lashes for reported neglect of duty.

*From Captain FitzRoy's Narrative:*

Never, I believe, did a vessel leave England better provided, or fitted for the service she was destined to perform, and for the health and comfort of her crew, than the *Beagle*. If we did want any thing which could have been carried, it was our own fault; for all that was asked for, from the Dockyard, Victualling Department, Navy Board, or Admiralty, was granted.

The wind increased, and drove us onwards into the Atlantic as fast as a heavily laden small vessel, with her scuppers in the water, could

be forced. We steered as southerly a course as was safe, in hopes of keeping the east wind longer, and the result proved that we were right; for although the *Beagle* had a fair wind all the way to the Canary Islands, vessels which sailed from England only one day after her, and steered more westerly, lost the east wind very soon, and were retarded by another succession of strong and contrary gales, similar to those which had detained us a whole month.

We crossed the Bay of Biscay without a gale; though the heavy rolling of a vessel so deep in the water, running before a strong wind, was almost as disagreeable as the effects of one would have been. After witnessing high seas and storms in various parts of the world, I can call to mind only two or three that exceeded what I have myself experienced, or what I have heard described, as having been sometimes encountered in this famed bay.

*From Charles Darwin's Diary:*

29 December 1831: At noon we were 380 miles from Plymouth, the remaining distance to Madeira being 800 miles. We are in the Bay of Biscay and there is a good deal of swell on the sea. I have felt a good deal [of] nausea several times in the day. There is one great difference between my former seasickness and the present, absence of giddiness: using my eyes is not unpleasant: indeed it is rather amusing whilst lying in my hammock to watch the moon or stars performing their small revolutions in their new apparent orbits. I will now give all the dear bought experience I have gained about seasickness. In first place the misery is excessive and far exceeds what a person would suppose who had never been at sea more than a few days. I found the only relief to be in a horizontal position: but that it must never be forgotten the more you combat with the enemy the sooner will he yield. I found (in) the only thing my stomach would bear was biscuit and raisins: but of this as I became more exhausted I soon grew tired and then the sovereign remedy is sago, with wine and spice and made very hot. But the only sure thing is lying down and if in a hammock so much the better.

The evenings already are perceptibly longer and weather much milder.

30 December: At noon Lat. 43 South of Cape Finisterre and across the famous Bay of Biscay: wretchedly out of spirits and very sick. I often said before starting, that I had no doubt I should frequently repent of the whole undertaking, little did I think with what fervour I should do so. I can scarcely conceive any more miserable state than when such



dark and gloomy thoughts are haunting the mind as have today pursued me. I staggered for a few minutes on deck and was much struck by the appearance of the sea. The deep water differs as much from that near shore as an inland lake does from a little pool. It is not only the darkness of the blue, but the brilliancy of its tint when contrasted with the white curling tip, that gives such a novel beauty to the scene. I have seen paintings that give a faithful idea of it.

*31 December:* In the morning very uncomfortable; got up about noon and enjoyed some few moments of comparative ease. A shoal of porpoises dashing round the vessel and a stormy petrel skimming over the waves were the first objects of interest I have seen. I spent a very pleasant afternoon lying on the sofa, either talking to the captain or reading Humboldt's glowing accounts of tropical scenery. Nothing could be better adapted for cheering the heart of a seasick man.

*1 January 1832:* The new year to my jaundiced senses bore a most gloomy appearance. In the morning almost a calm, but a long swell on the sea. In the evening it blew a stiff breeze against us. This and three following days were ones of great and unceasing suffering.

*Monday, 2 January:* Heavy weather. I very nearly fainted from exhaustion.

*Letter from Charles Darwin to Robert FitzRoy, 1846:*

I often think of your many acts of kindness to me, and not seldomest on the time, no doubt quite forgotten by you, when, before making Madeira, you came and arranged my hammock with your own hands and the news of which as I afterwards heard brought tears into my father's eyes.

*From Captain Fitzroy's Narrative:*

Though so deep in the water, our little vessel's movements were uncommonly easy, and all our best timekeepers being hung in particularly good jimbals, I had no fear of their rates being altered, except by the effect of a change of temperature. This was a point about which I was especially anxious, as so much would depend upon the going of our chronometers, and I did not then think that the motions of a ship affected those instruments so little: as I have since proved to be the case by trying them frequently in boats, or small craft of only a few tons burthen. In her previous voyage the *Beagle* was as easy a sea-boat as could be desired; but, having raised her upper deck, altered her stowage and trim, loaded her more heavily, and sheathed her with two-inch plank, preparatory to this second expedition, I had abundant cause to

feel anxious until the practical effects of such material changes were ascertained.

A little alteration was required near the compasses, for owing to some ill-placed iron-work they did not quite agree; but, after this change was made, we were gratified by finding four first-rate compasses, three fixed for steering, and one for bearings, agree precisely. Another source of satisfaction, connected with the compasses, was the knowledge that they were not affected, unless in a very trifling degree, by local attraction: for while lying in Barn Pool we swung the vessel in order to ascertain its quantity, but were agreeably surprised to find that none could be detected amounting even to one degree. This was attributed to her having only brass guns; and to some very large iron davits for the quarter boats, which were placed rather closely abaft and above the compasses, and perhaps counteracted the effect of iron in the hold, which was so much more distant.

On 3 January we were occupied in looking for the 'Eight Stones'; but nothing was seen to indicate either rocks, or shoals, or even shallow water. The sun was shining brightly on a deep blue sea, of one uniform colour: no soundings could be obtained; and had there been a shoal or rock within seven miles of us at any hour of that day, it could not have been passed unnoticed. So many vessels have searched, in vain, for this alleged group of rocks, that their existence can now hardly be thought possible.

At daylight, on the 4th, the rocky high islet of Porto Santo, Madeira, was seen looming through haze and clouds which hung around it. We steered between Porto Santo and the Desertas, intending to anchor in Funchal Roads; but the wind drew round to south-west, with such strong squalls, that I abandoned my intention, and at once steered for Tenerife.

In fine weather, and it is fine at Madeira nine months in the year, the view of this steep and lofty island, covered with bright verdure, and enlivened by numerous scattered houses, as white as snow, is very striking to a stranger who arrives from the low, and tame-looking shores of the south coast of England.

While passing at a few leagues from the land, a violent squall came from the west, which was near doing damage: after one puff there was a short calm, with heavy rain, and then a sudden blast struck the ship so violently that we were obliged to take in all sail and run before it during the few minutes it lasted. This squall was one of very many which have reminded me of the old doggel lines:



*When rain comes before the wind,  
Halyards, sheets, and braces mind :  
But if wind comes before rain,  
Set and trim your sails again.*

At daylight the next morning we saw the Salvages, and at sunset thought we could distinguish the Peak of Tenerife.

Early on the 6th we saw part of the island, and soon afterwards the upper clouds dispersed, and we enjoyed a magnificent view of the monarch of the Atlantic: the snow-covered peak glittering in the rays of the morning sun. Yet as our ideas are very dependent upon comparison, I suppose that persons who have seen the Himalaya Mountains, or the Andes, in all their grandeur, would not dwell much upon the view of Tenerife, had it not become classical by its historical associations, and by the descriptions of Humboldt and many distinguished travellers.

About noon we approached the sun-burned, uninviting town of Santa Cruz. Lying upon a level, arid space, at the foot of hills, that rise slowly to a considerable height, so as to shut out the more elevated part of the island; hardly a tree to be seen, and no appearance of cultivation; guarded by a rocky shore, on which there is always a disagreeable – often a dangerous surf; it offers indeed little to tempt delay. But notwithstanding this unpromising exterior, and a port so exposed that Spanish ships of war were ordered by their government to moor there with four anchors, there is much to be found in the higher and interior parts of Tenerife which amply repays the labour of ascending to and exploring those regions. In one of the churches in Santa Cruz is still hanging the remains of a flag, taken from the English, or left behind, when Nelson lost his arm.

Our anchor had just touched the ground, when a boat from the Health Office approached nearly alongside, conveying the British vice-consul and some quarantine officers, who told us, after hearing whence we came, that it would be impossible to grant permission for any person to land; and that until we should have performed a strict quarantine of twelve days' duration, no personal communication could be expected. This regulation was adopted on account of the reports which had reached them respecting the cholera in England.

Observations on shore being indispensable for our purpose, and finding, after some discussion, that there was no chance of attaining our object in a manner that would at all compensate for the delay caused by

anchoring and performing quarantine, we weighed without further loss of time, and made sail for the Cape Verde Islands.

This was a great disappointment to Mr Darwin, who had cherished a hope of visiting the Peak. To see it – to anchor and be on the point of landing, yet be obliged to turn away without the slightest prospect of beholding Tenerife again – was indeed to him a real calamity.

During the whole of the 7th, the Peak was visible; but on the following day no land was in sight, and we made rapid progress.

In again trying for soundings with three hundred fathoms of line, near the Island of St Jago, we became fully convinced of the utility of a reel, which Captain Beaufort had advised me to procure. Two men were able to take in the deep sea line, by this machine, without interfering with any part of the deck, except the place near the stern, where the reel was firmly secured. Throughout our voyage this simple contrivance answered its object extremely well, and saved the crew a great deal of harassing work.

*15 January:* In consequence of a thick haze, very prevalent about the Cape Verde Islands, land was not distinctly seen until we were within three miles of it, and we then found ourselves rather too far westward, owing to a current setting towards the west, at the rate of two knots an hour; this was close to the north point of St Jago. Next day we anchored in Port Praya.

If a general reader should honour these pages by his perusal, and find such details about wood, water, fish, birds, etc., at places about which few know, and still fewer care – extremely tiresome, he will of course pass them over; but, in my own exculpation, I must beg to be permitted to remind him that the *Beagle* was employed by Government, to obtain practical information likely to be useful to shipping; and that I might neglect my duty by omitting to mention such matters, when speaking of places which are seldom visited, and hitherto but slightly known.

The vicinity of Port Praya offers little that is agreeable to the eye of an ordinary visitor, though interesting enough to a geologist. A desolate and hilly country, sunburned and stony, with but few trees even in the valleys, and those only the withering, spectre-like trunks of old palms, surrounds the harbour. The distant and higher parts of the island, however, present a striking outline; and in the interior there is more to be seen, as the following extract from a few notes made by Mr Rowlett, the purser, will show.

'We procured some indifferent horses and rode to Ribeira Grande,



the remains of an old town, about nine miles west of Port Praya, which was formerly the residence of the Portuguese governor of the Cape Verde Islands; but in consequence of the anchorage becoming blocked up, the seat of government was shifted to the small straggling town, or rather village, which stands upon a height overlooking the port of Praya. We passed through the fertile and beautiful valleys of Achao and San Martin, and enjoyed drinking some of the finest water we had ever tasted. On a commanding height stood the ruins of a very large fortress, and within the limits of the old town were remains of a cathedral, a bishop's palace, and a college; besides a modern church, in tolerable repair, an inhabited convent, and a hospital supported by charity. In the convent we saw some good paintings from scriptural subjects; and there were some curious old tombs, on one of which, said to be that of a bishop, was the date 1571, and on another we thought the almost obliterated figures were 1497.

'No person who has only visited the port of Praya can form the slightest idea of the beauty of the interior country; it exceeded any thing I had seen, either in Brazil or in the West Indies.

'Fruit was abundant; there were oranges, grapes, plantains, bananas, sour-sops, mammee apples, pomegranates, guavas, quinces, sapodillas, papaw apples, pines, citrons, medlars, figs, and occasionally apples.'

Notwithstanding its unfavourable exterior, its small and dirty town, and its black or brown population, I am inclined to think Port Praya of more consequence to shipping than is usually supposed. Water may be procured by rafting the casks, placing a pump in the well, and hiring a few of the natives to do the more laborious work of filling and rolling. The local authorities are attentive and obliging: it is indeed their interest to be so, because much of their trade, and even many of the necessities of life, depend upon the visits of shipping. Fowls, turkeys, and pigs, are very plentiful, but it is better to procure them by barter than with money. Clothes, new or old, are eagerly sought for, and their full value may be obtained in the produce of the island.

The population is said to be about thirty thousand, a few of whom are Portuguese by birth, and many are descended from Portuguese parents, but the greater number are negroes.

I could hear no decided account of any earthquake having happened; but being so near Fogo, now an active volcano, one may suppose that St Jago is not exempted from an occasional shock.

The exports of the Cape Verde Islands are small quantities of sugar, cotton, and coffee. Hides of small bullocks, sheep and goatskins, are

likewise exported; and horses, mules, and asses, of an inferior description, are sometimes sent to the West Indies. The Archilla weed, so much used in dyeing, is however the staple commodity, and, under proper management, might be made highly profitable. At the time of our visit, the yearly revenue arising out of the government monopoly of this article amounted to fifty thousand dollars; and in some years it has been as much as three hundred thousand dollars. This weed grows like a kind of moss upon the cliffs, and is collected by men who climb up or are let down by ropes, like the samphire gatherers.

The natural dye is blue, approaching to purple; but by using metallic and other solutions, it may be turned to purple, crimson, or scarlet.

Money having been slowly remitted of late years from the mother-country, a great part of the archilla has been applied to the payment of the authorities, the clergy, and the troops (such as they are). A story is told of the last governor having caused a sham mutiny, in order that he might have a good reason for selling the archilla gathered that year, and with the produce paying the troops – and himself. He was brought out with a rope round his neck into the street, and there obliged to promise that he would sell the archilla, then in the government storehouse, to the best bidder.

A kind of castor oil plant is found, from which a small quantity of oil is obtained, and a sort of soap. Yams are very scarce, being grown only at one part of the island. Mandioca is common, but it degenerates rapidly, and will not produce even a second crop. Vegetables of various kinds are abundant in their seasons.

In a valley near the town is a very remarkable tree, of the Baobab kind, supposed to be more than a thousand years old; but I am not aware of the grounds upon which this assertion is made.

#### *From Charles Darwin's Diary:*

24 January 1832: After our one o'clock dinner, Wickham, the captain and myself walked to the famous Baobab tree and measured it more accurately. Cap. FitzRoy first took an angle by a pocket sextant and afterward climbed the tree and let down a string, both ways gave the same result, viz. 45 feet in height. Its circumference measured 2 feet from the ground (there being no projecting roots) gave 35. Its form is oval, and its greatest visible diameter was 13 feet. So that in an accurate drawing its height would be 3.4 of its breadth. Cap. FitzRoy made a sketch, which gave a good idea of its proportion, yet in this the height was only about 2.4 of [its] breadth. Proving, what one so often observes,



that a faithful delineation of nature does not give an accurate idea of it. We returned home, after our merry and pleasant walk, just as it was dark.

A very pretty schooner came in this morning: it is strongly suspected that she is a slaver in disguise; she says she is a general trader to the coast of Africa. The captain means to overhaul her in the morning and make out what she is. I suppose every thing is well concealed, else she would not have come into a harbour where a pennant was flying.

*From Captain FitzRoy's Narrative:*

Wild guinea-fowls are found in flocks, and there are wild cats in the unfrequented parts of the island; but if induced to take a gun in pursuit of the guinea-fowls, I would advise a stranger not to overheat himself, or sleep on shore at night; for fatal fevers have been contracted by Europeans who were unguarded as to their health while passing a few days in this hot climate, after being for some time accustomed to the cold weather of a high northern latitude.

Except during the rainy season, the wind is always north-easterly, and then the sky is clear and the sun very powerful; but a dry haze hangs over the island in a peculiar manner, and a quantity of fine dust, quite an impalpable powder, frequently settles on every exposed surface, even on the sails and rigging of a vessel, when passing near the islands.

On 8 February our instruments were re-embarked, and, after swinging the ship to ascertain the amount of local attraction, we weighed anchor and sailed. By the compass fixed upon a stanchion in front of the poop, not twenty minutes difference of bearing could be detected, in any position of the vessel: the object observed being the highest point of a sharp peak, distant eleven miles.

On the 10th we spoke the *Lyra* packet, going from England to Rio de Janeiro, and received a box from her, containing six of Massey's sounding-leads, those excellent contrivances which we frequently found so useful. These machines, as formerly made, did not answer for a much greater depth than one hundred fathoms; because their hollow cylinder yielded to the pressure of the water: but Mr Massey has since remedied that defect in their construction.

On the 13th a very confused swell seemed to presage a change of weather. Hitherto the wind had been steady from the north-east, and the sky clear; but on this day large soft clouds, light variable breezes, rain, and sometimes a short calm, showed us that we had passed the limits of the north-east trade wind. 14th: Similar weather, with a good deal of rain, but still breeze enough to keep us moving on our course.

On the 15th, the wind was steady from east south-east, and the sky free from heavy threatening clouds. We had then entered the south-east trade wind, without having had two hours calm.

St Paul Rocks, or Peñedo de San Pedro, were seen on the horizon at sunset of the 15th. They appeared extremely small, being about eight miles distant; and had we not been looking out for them, I doubt whether they would have attracted attention. I never saw such mere rocks at so great a distance from any land.

At daylight next morning, two boats were sent to land upon, and examine them; while the *Beagle* sailed round this 'sunk mountain top', sounding, and taking angles. Good observations were made during the day, as the sky was clear, and the water smooth.

When our party had effected a landing through the surf, and had a moment's leisure to look about them, they were astonished at the multitudes of birds which covered the rocks, and absolutely darkened the sky. Mr Darwin afterwards said, that till then he had never believed the stories of men knocking down birds with sticks; but there they might be kicked, before they would move out of the way.

The first impulse of our invaders of this bird-covered rock, was to lay about them like schoolboys; even the geological hammer at last became a missile. 'Lend me the hammer?' asked one. 'No, no,' replied the owner, 'you'll break the handle;' but hardly had he said so, when, overcome by the novelty of the scene, and the example of those around him, away went the hammer, with all the force of his own right-arm.

While our party were scrambling over the rock, a determined struggle was going on in the water, between the boats' crews and sharks. Numbers of fine fish, like the groupers of the Bermuda Islands, bit eagerly at baited hooks put overboard by the men; but as soon as a fish was caught, a rush of voracious sharks was made at him, and notwithstanding blows of oars and boat hooks, the ravenous monsters could not be deterred from seizing and taking away more than half the fish that were hooked.

At short intervals the men beat the water with their oars all round the boats, in order to drive away the sharks; and for a few minutes afterwards the groupers swarmed about the baited hooks, and were caught as fast as the lines could be hauled up – then another rush of sharks drove them away – those just caught were snatched off the hooks; and again the men were obliged to beat the water. When the boats returned they were deeply laden with birds and fish, both welcome to those who had been living on salt provisions.



From the highest point of the rock, no discoloured water, nor any breaking of the sea, could be discerned, apart from the place itself; and from the soundings taken in the boats, as well as on board the ship, I conclude that it is unconnected with any shoal, being merely the summit of a steep-sided mountain rising from the bottom of the ocean.

*Charles Darwin, in a letter home, 8 February 1831:*

I find to my great surprise that a ship is singularly comfortable for all sorts of work. Everything is so close at hand, and being cramped makes one so methodical, that in the end I have been a gainer.

I already have got to look on going to sea as a regular quiet place, like going back to home after staying away from it. In short, I find a ship a very comfortable house, with everything you want, and if it was not for seasickness the whole world would be sailors. I do not think there is much danger of Erasmus setting the example, but in case there should be, he may rely upon it he does not know one tenth of the sufferings of seasickness.

I like the officers much more than I did at first, especially Wickham, and young King, and Stokes, and indeed all of them. The captain continues steadily very kind and does everything in his power to assist me. We see very little of each other when in harbour, our pursuits lead us in such different tracks. – I never in my life met with a man who could endure nearly so great a share of fatigue. He works incessantly, and when apparently not employed, he is thinking. If he does not kill himself, he will, during this voyage, do a wonderful quantity of work. I find I am very well, and stand the little heat we have had as yet, as well as anybody. We shall soon have it in real earnest. We are now sailing for Fernando Noronha, off the coast of Brazil, where we shall not stay very long, and then examine the shoals between there and Rio, touching perhaps at Bahia.

*From Captain FitzRoy's Narrative:*

At sunset that day we were out of sight of St Paul (or St Peter), and soon after dark were hailed by the gruff voice of a pseudo-Neptune. A few credulous novices ran upon the fore-castle to see Neptune and his car, and were received with the watery honours which it is customary to bestow, on such occasions.

Next morning we crossed the Equator, and the usual ceremonies were performed.

*Deep was the bath, to wash away all ill;  
Notched was the razor – of bitter taste the pill.  
Most ruffianly the barber looked – his comb was trebly nailed –  
And water, dashed from every side, the neophyte assailed.*

The disagreeable practice alluded to has been permitted in most ships, because sanctioned by time; and though many condemn it as an absurd and dangerous piece of folly, it has also many advocates. Perhaps it is one of those amusements, of which the omission might be regretted. Its effects on the minds of those engaged in preparing for its mummeries, who enjoy it at the time, and talk of it long afterwards, cannot easily be judged of without being an eyewitness.

*Midshipman P. G. King, aged 14 at the time of the voyage, wrote about the event in retrospect:*

On approaching Neptune's whereabouts as usually looked out for by seamen, the ship's company became up to any and every sort of devilments, and the usual liberty to indulge in the ceremonial observances was accorded: discipline for the moment being partially dispensed with. Father Neptune must have his tribute and it was freely given him. The story has been often told, but the effect produced on the young naturalist's mind was unmistakably remarkable. His first impression was that the ship's crew from the captain downwards had gone off their heads. 'What fools these sailors make of themselves', he said as he descended the companion ladder to wait below till he was wanted.

The captain received his godship and Amphitrite, his wife, with becoming solemnity; Neptune was surrounded by a set of the most ultra-demoniacal looking beings that could be well imagined, stripped to the waist, their naked arms and legs bedaubed with every conceivable colour which the ship's stores could turn out, the orbits of their eyes exaggerated with broad circles of red and yellow pigments. Those demons danced a sort of nautical war dance exulting on the fate awaiting their victims below.

Putting his head down the after companion the captain called out 'Darwin, look up here!' Up came the young naturalist in wonderment but yet prepared for any extravagance in the world that seamen could produce. A gaze for a moment at the scene on deck was sufficient, he was convinced he was amongst madmen, and, giving one yell, disappeared again down the ladder. He was of course the first to be called by the official secretary and Neptune received him with grace and



courtesy observing that in deference to his high standing on board as a friend and messmate of the captain his person would be held sacred from the ordinary rites observed in the locality. Of course Mr Darwin readily entered into the fun and submitted to a few buckets of water thrown over him and the captain as they sat together by one of the youngsters as if by accident.

*From Charles Darwin's Diary:*

17 February 1832: We have crossed the equator, and I have undergone the disagreeable operation of being shaved. About 9 o'clock this morning we poor 'griffins', two and thirty in number, were put altogether on the lower deck. The hatchways were battened down, so we were in the dark and very hot. Presently four of Neptune's constables came to us, and one by one led us up on deck. I was the first and escaped easily: I nevertheless found this watery ordeal sufficiently disagreeable. Before coming up, the constable blindfolded me and thus led along, buckets of water were thundered all around; I was then placed on a plank, which could be easily tilted up into a large bath of water. They then lathered my face and mouth with pitch and paint, and scraped some of it off with a piece of roughened iron hoop: a signal being given I was tilted head over heels into the water, where two men received me and ducked me. At last, glad enough, I escaped: most of the others were treated much worse: dirty mixtures being put in their mouths and rubbed on their faces. The whole ship was a shower bath, and water was flying about in every direction: of course not one person, even the captain, got clear of being wet through.

*From Captain FitzRoy's Narrative:*

Before sunset on the 19th we saw the island of Fernando Noronha, with its singular peak towering aloft, and at midnight anchored in the roadstead.

Next morning I landed with difficulty for observations, the surf being so high that any common boat would have been swamped. By taking great care, our broad and well-built whaleboats landed the instruments and a small party, and re-embarked them afterwards, without accident.

We landed in a small bay under the (so called) citadel, but there is a safer and in every way preferable landing-place about a mile to the northward. My object being chiefly to take sights of the sun, for time, and compare the chronometers used on shore as soon as possible with

those on board, I preferred landing as near as I could to the place where the lamented Captain Foster observed; but it was difficult to ascertain the house in which his pendulum observations were made. Not even the governor could tell me, for he had arrived since Captain Foster's departure; and most of the inhabitants of the island had changed their dwellings frequently, being all exiles from Brazil.

We obtained some fire-wood from one of the islets northward of the principal island; but it was full of centipedes and other noxious insects, from which it was not easy to free it even by charring and washing. Water we did not try to get, because of the heavy surf, but there is no scarcity of it on the island. Neither live-stock nor vegetables could be procured from the apathetic inhabitants.

This place is rather picturesque; and the lofty barren peak, already mentioned, is conspicuous from every point of view. Near the summit is a station from which a look-out is kept, not only over all the island, but over many leagues of the surrounding sea; so that neither ship nor boat can approach or depart, during daylight, without being noticed.

No boats are allowed to be kept on the island, and no intercourse is held with shipping without permission and the strictest inspection.

We sailed from Fernando Noronha the same evening, passed round the north-east extremity of the island, and steered for Bahia de Todos Santos. Having remained only one day at anchor, in consequence of information that no better landing could be expected for many days; and wishing to ascertain the rates of the chronometers, as well as to procure a supply of water, I decided to go to Bahia, as the nearest port convenient for both purposes. At daylight on the 28th we made the land about Bahia, and before noon were at anchor in the port.

As we sailed in rapidly from the monotonous sea, and passed close along the steep but luxuriantly wooded north shore, we were much struck by the pleasing view. After the lighthouse was passed, those by whom the scene was unexpected were agreeably surprised by a mass of wood, clinging to a steep bank, which rose abruptly from the dark blue sea, showing every tint of green, enlivened by bright sunshine, and contrasted by deep shadow: and the general charm was heightened by turretted churches and convents, whose white walls appeared above the waving palm trees; by numerous shipping at anchor or under sail; by the delicate airy sails of innumerable canoes; and by the city itself, rising like an amphitheatre from the waterside to the crest of the heights.

We found ourselves in the middle of the rainy season, and although favoured by a fine day at arriving, cloudy weather and frequent rain



succeeded it, and during the short stay we made, much embarrassed our observations.

*From Charles Darwin's Diary:*

28 February 1832: About 9 o'clock we were near to the coast of Brazil; we saw a considerable extent of it, the whole line is rather low and irregular, and from the profusion of wood and verdure of a bright green colour. About 11 o'clock we entered the bay of All Saints, on the northern side of which is situated the town of Bahia or San Salvador. It would be difficult [to] imagine, before seeing the view, anything so magnificent. It requires, however, the reality of nature to make it so. If faithfully represented in a picture, a feeling of distrust would be raised in the mind, as I think is the case in some of Martens' views. The town is fairly embosomed in a luxuriant wood and situated on a steep bank overlooks the calm waters of the great bay of All Saints. The houses are white and lofty and from the windows being narrow and long have a very light and elegant appearance. Convents, porticos and public buildings vary the uniformity of the houses: the bay is scattered over with large ships; in short the view is one of the finest in the Brazils. But these beauties are as nothing compared to the vegetation; I believe from what I have seen Humboldt's glorious descriptions are and will for ever be unparalleled: but even he with his dark blue skies and the rare union of poetry with science which he so strongly displays when writing on tropical scenery, with all this falls far short of the truth. The delight one experiences in such times bewilders the mind; if the eye attempts to follow the flight of a gaudy butterfly, it is arrested by some strange tree or fruit; if watching an insect one forgets it in the stranger flower it is crawling over; if turning to admire the splendour of the scenery, the individual character of the foreground fixes the attention. The mind is a chaos of delight, out of which a world of future and more quiet pleasure will arise. I am at present fit only to read Humboldt; he like another sun illumines everything I behold.

29 February: The day has passed delightfully: delight is however a weak term for such transports of pleasure: I have been wandering by myself in a Brazilian forest: amongst the multitude it is hard to say what set of objects is most striking; the general luxuriance of the vegetation bears the victory, the elegance of the grasses, the novelty of the parasitical plants, the beauty of the flowers, the glossy green of the foliage, all tend to this end. A most paradoxical mixture of sound and silence pervades the shady parts of the wood: the noise from the insects is so loud that in the

evening it can be heard even in a vessel anchored several hundred yards from the shore: yet within the recesses of the forest a universal stillness appears to reign. To a person fond of natural history such a day as this brings with it pleasure more acute than he ever may again experience. After wandering about for some hours, I returned to the landing place. Before reaching it I was overtaken by a tropical storm. I tried to find shelter under a tree so thick that it would never have been penetrated by common English rain, yet here in a couple of minutes, a little torrent flowed down the trunk. It is to this violence we must attribute the verdure in the bottom of the wood: if the showers were like those of a colder clime, the moisture would be absorbed or evaporated before reaching the ground.

1 March: I can only add raptures to the former raptures. I walked with the two mids a few miles into the interior. The country is composed of small hills and each new valley is more beautiful than the last. I collected a great number of brilliantly coloured flowers, enough to make a florist go wild. Brazilian scenery is nothing more nor less than a view in the Arabian Nights, with the advantage of reality. The air is deliciously cool and soft; full of enjoyment one fervently desires to live in retirement in this new and grander world.

4 March: This day is the first of the carnival; but Wickham, Sullivan and myself nothing undaunted were determined to face its dangers. These dangers consist in being unmercifully pelted by wax balls full of water and being wet through by large tin squirts. We found it very difficult to maintain our dignity whilst walking through the streets. Charles V has said that he was a brave man who could snuff a candle with his fingers without flinching; I say it is he who can walk at a steady pace, when buckets of water on each side are ready to be dashed over him. After an hour's walking the gauntlet, we at length reached the country and there we were well determined to remain till it was dark. We did so, and had some difficulty in finding the road back again, as we took care to coast along the outside of the town. To complete our ludicrous miseries a heavy shower wet us to the skins; and at last gladly we reached the *Beagle*. It was the first time Wickham had been on shore, and he vowed if he was here for six months it should be [the] only one.

5 March: King and myself started at 9 o'clock for a long naturalizing walk. Some of the valleys were even more beautiful than any I have yet seen. There is a wild luxuriance in these spots that is quite enchanting. One of the great superiorities that tropical scenery has over European is the wildness even of the cultivated ground. Coconuts, bananas, plantain,



oranges, papaws are mingled as if by Nature, and between them are patches of the herbaceous plants such as indian corn, yams and cassada: and in this class of views, the knowledge that all conduces to the subsistence of mankind, adds much to the pleasure of beholding them. We returned to the ship about half after 5 o'clock and during these eight hours we scarcely rested one. The sky was cloudless and the day very hot, yet we did not suffer much. It appears to me that the heat merely brings on indolence, and if there is any motive sufficient to overcome this it is very easy to undergo a good deal of fatigue. During the walk I was chiefly employed in collecting numberless small beetles and in geologizing. King shot some pretty birds and I a most beautiful large lizard. It is a new and pleasant thing for me to be conscious that naturalizing is doing my duty, and that if I neglected that duty I should at same time neglect what has for some years given me so much pleasure.

*From Captain FitzRoy's Narrative:*

Bahia has declined ever since its separation from Portugal: unsettled, weak governments, occupied too constantly by party strife to be able to attend to the real improvement of their country, have successively misruled it. Revolutions, and risings of the negro population, interrupting trade, have repeatedly harassed that rich and beautiful country, and are still impending.

Were property secure, and industry encouraged, the trade from Bahia might be very extensive, particularly in sugar and cotton: but who will embark much capital upon so insecure a foundation as is there offered?

The immense extent and increase of the slave population is an evil long foreseen and now severely felt. Humanely as the Brazilians in general treat their slaves, no one can suppose that any benevolence will eradicate feelings excited by the situation of those human beings. Hitherto the obstacles to combinations and general revolt among the negroes, have been ignorance, mutual distrust, and the fact of their being natives of various countries, speaking different languages, and in many cases hostile to each other, to a degree that hardly their hatred of white men can cause them to conquer, even for their immediate advantage.

Could the Brazilians see clearly their own position, unanimously condemn and prevent the selfish conduct of individuals, emancipate the slaves now in their country, and decidedly prevent the introduction of more, Brazil would commence a career of prosperity, and her population would increase in an unlimited degree. In that immense and most fertile

country, distress cannot be caused by numerous inhabitants; food is abundant, and the slight clothing required in so warm a climate is easily procured.

*From Charles Darwin's Diary:*

12 March 1832: We have had some festivities on board; the day before yesterday there was a grand dinner on the quarter deck. Cap. Paget has paid us numberless visits and is always very amusing: he has mentioned in the presence of those who would if they could have contradicted him, facts about slavery so revolting, that if I had read them in England, I should have placed them to the credulous zeal of well meaning people. The extent to which the trade is carried on; the ferocity with which it is defended; the respectable (!) people who are concerned in it are far from being exaggerated at home. I have no doubt the actual state of by far the greater part of the slave population is far happier than one would be previously inclined to believe. Interest and any good feelings the proprietor may possess would tend to this. But it is utterly false (as Cap. Paget satisfactorily proved) that any, even the very best treated, do not wish to return to their countries. 'If I could but see my father and two sisters once again, I should be happy. I never can forget them.' Such was the expression of one of these people, who are ranked by the polished savages in England as hardly their brethren, even in God's eyes. From instances I have seen of people so blindly and obstinately prejudiced, who in other points I would credit, on this one I shall never again scruple utterly to disbelieve. As far as my testimony goes, every individual who has the glory of having exerted himself on the subject of slavery, may rely on it his labours are exerted against miseries perhaps even greater than he imagines.

*From Charles Darwin's Autobiography:*

FitzRoy's character was a singular one, with many very noble features; he was devoted to his duty, generous to a fault, bold, determined and indomitably energetic, and an ardent friend to all under his sway. He would undertake any sort of trouble to assist those whom he thought deserved assistance. He was a handsome man, strikingly like a gentleman with highly courteous manners, which resembled those of his maternal uncle, the famous Ld Castlereagh, as I was told by the minister at Rio. Nevertheless he must have inherited much in his appearance from Charles II, for Dr Wallich gave me a collection of photographs which he had made and I was struck by the resemblance of one to



FitzRoy; on looking at the name I found it Ch. E. Sobieski Stuart, Count d'Albanie and illegitimate descendant of the same monarch. FitzRoy's temper was a most unfortunate one, and was shown not only by passion, but by fits of long-continued moroseness against those who had offended him. His temper was usually worst in the early morning, and with his eagle eye he could generally detect something amiss about the ship, and was then unsparing in his blame. The junior officers when they relieved each other in the forenoon used to ask 'whether much hot coffee had been served out this morning?' which meant how was the captain's temper? He was also somewhat suspicious and occasionally in very low spirits, on one occasion bordering on insanity. He seemed to me often to fail in sound judgment and common sense. He was very kind to me, but was a man very difficult to live with on the intimate terms which necessarily followed from our messing by ourselves in the same cabin. We had several quarrels, for when out of temper he was utterly unreasonable. For instance, early in the voyage at Bahia in Brazil he defended and praised the slavery which I abominated, and told me that he had just visited a great slave owner, who had called up many of his slaves and asked them whether they were happy, and whether they wished to be free, and all answered no. I then asked him perhaps with a sneer, whether he thought that the answer of slaves in the presence of their master was worth anything. This made him excessively angry, and he said that as I doubted his word we could not live any longer together. I thought that I should have been compelled to leave the ship; but as soon as the news spread which it did quickly, as the captain sent for the first lieutenant to assuage his anger by abusing me, I was deeply gratified by receiving an invitation from all the gun-room officers to mess with them. But after a few hours FitzRoy showed his usual magnanimity by sending an officer to me with an apology and a request that I would continue to live with him. I remember another instance of his conduct. At Plymouth, before we sailed he was extremely angry with a dealer in crockery who refused to exchange some articles purchased in his shop: the captain asked the man the price of a very expensive set of china and said 'I should have purchased this if you had not been so disobliging'. As I knew that the cabin was amply stocked with crockery, I doubted whether he had any such intention; and I must have shown my doubts in my face, for I said not a word. After leaving the shop, he looked at me, saying 'You do not believe what I have said', and I was forced to own that it was so. He was silent for a few minutes, and then said 'you are right, and I acted wrongly in my anger at the blackguard'.

*From Captain FitzRoy's Narrative:*

Well-known authors have already said so much of Bahia, its spacious harbour, and delightful environs, that it would be impertinent in the writer of a mere narrative to add his hasty remarks to the calmly considered information which their works contain. But I will venture to notice that however pleased a stranger to Bahia may be at the sensations conveyed through his eyes, previous to landing, he will be miserably disappointed when he finds himself in the dirty, narrow, crowded, and hot 'lower towns'; and that the sooner he gets into a sedan chair, and desires the almost naked bearers to make the best of their way to the 'upper town', where he will enjoy fresh air, a pleasing view, and freedom from annoyances, the less his organs will be offended, and his temper tried.

We sailed from Bahia on 18 March. The bank which projects from the light-house point had been minutely examined by us, during the *Beagle's* stay in port; on one day, indeed, she went out and anchored at the outer end of the shoal, in order to determine its extent, and assist the boats in sounding; therefore I did not hesitate to stand across it; but there is not water enough over the shallower parts for any ship drawing more than fourteen feet, especially if there is a swell. The shoalest spot is near the outer end; ships of any size may pass between the inner extremity and the point of land adjacent to it.

After losing sight of the land, our course was shaped to the south-east, towards the eastern limit of the great bank of soundings which extends so far to seaward of the Abrolhos islets. Having reached the parallel of the islands, and being to the eastward of the easternmost soundings laid down in any chart, without finding any ground with three hundred fathoms of line, I began to steer westward – sounding continually, and keeping a sharp look-out at the mast-head. At two in the afternoon of the 26th, we had no bottom, with three hundred fathoms of line; and at the next cast, about an hour afterwards, found only thirty fathoms, without there being the slightest change in the colour of the water, or in its temperature, or any other indication of so sudden a change in the depth. We hauled to the wind directly, worked to the eastward in order to ascertain the precise limit of the bank, and lost soundings as suddenly as we had previously struck them. A grapnel was then put overboard, with two hundred fathoms of line, and we again steered westward, till a heavy pull upon the line, and a sudden jerk, showed that we had hooked the bank.



The ship was hove-to, and the necessary observations made on the spot. The grapnel, when hauled up, was found to be straightened, a proof, in addition to that afforded by the lead, that the bottom was rocky.

I had imagined, from what I had heard, that the rock of which these islets were chiefly composed was coral; but was surprised to find only coralline growing upon gneiss or sandstone.

We anchored near the islets, at dusk, on the 28th, after being in frequent anxiety, owing to sudden changes in the depth of water; and next morning, moved to a better berth at the west side, very near them. They are rather low, but covered with grass, and there is a little scattered brushwood. The highest point rises to about a hundred feet above the sea. Their geological formation, Mr Darwin told me, is of gneiss and sandstone, in horizontal strata. When our boats landed, immense flights of birds rose simultaneously, and darkened the air. It was the breeding and moulting season; nests full of eggs, or young unfledged birds, absolutely covered the ground, and in a very short time our boats were laden with their contents.

A large black bird, with a pouch like that of a pelican, but of a bright red colour, was very remarkable, as it hovered, or darted among the bright verdure, and at a distance looked handsome; but when seen close, it at once descended to the level of a carrion-eating cormorant or buzzard.

Turtle are to be found at times: we observed the shell and skeleton of an extremely large one lying on a sandy spot at the north side of the northern islet. Some very fine fish, of the cod kind, were caught; one was so large, that, until hauled on board, it was supposed to be a shark. The anchorage is good, and easy of access: all swell is stopped by the shallow places, and by the islets themselves. There is no fresh water.

30 March: We sailed and sounded in various directions, but such irregular depths I never found elsewhere. Sudden jumps, from thirty to ten, sometimes even to four fathoms, in successive casts of the hand-lead, gave us frequent alarm; but by keeping a boat ahead, and two leads going briskly, we avoided danger, and giving up exploring, regained before dark the safe channel which runs north and south between the Abrolhos and the main land, and steered to pass near Cape San Tomé, or St Thomas. Next day we were off that cape, but saw none of the breakers which have been so frequently reported to lie at a dangerous distance from the neighbouring shore; although we looked out for them, and steered so as to pass the places where I was informed they would be seen.

*From Charles Darwin's Diary:*

1 April: All hands employed in making April fools. At midnight nearly all the watch below was called up in their shirts; carpenters for a leak: quarter-masters, that a mast was sprung: midshipmen, to reef top-sails. All turned in to their hammocks again, some growling, some laughing. The hook was much too easily baited, for me not to be caught: Sullivan cried out: 'Darwin, did you ever see a grampus: bear a hand then'. I accordingly rushed out in a transport of enthusiasm, and was received by a roar of laughter from the whole watch.

2 April: A rainy, squally morning, very unusual at this time of year in these latitudes; being now about 130 miles east of Rio. A large flock of Mother Cary's chickens are hovering about the stern in same manner as swallows do on a calm summer evening over a lake. A flying fish fell on the deck this morning; it struck the mast high up, near the main yard: sticking to the fish was a crab, the pain of which caused perhaps this unusual degree of action.

3 April: This morning Cape Frio was in sight: it is a memorable spot to many in the *Beagle*, as being the scene of the disgraceful wreck of the *Thetis*. All day we ran along the coast and in the evening drew near to the harbour of Rio. The whole line is irregularly mountainous, and interspersed with hills of singular forms. The opening of the port is recognized by one of these, the well-known Sugarloaf. As it would be impossible to get a good anchorage or enjoy the view so late in the evening, the captain has put the ship's head to the wind and we shall, to my great joy, cruise about for the night. We have seen great quantities of shipping; and what is quite as interesting, porpoises, sharks and turtles; altogether, it has been the most idle day I have spent since I left England. Everybody is full of anxiety about letters and newspapers. Tomorrow morning our fates will be decided.



### 3. SOUTH AMERICA

*From Captain FitzRoy's Narrative:*

On 4 April when the sea-breeze set in, we steered for Rio harbour. The sun shone brightly, and there were enough passing clouds to throw frequent shadows over the wooded heights and across vallies, where, at other times, the brightest tints of varied green were conspicuous: yet I did not think the place half so beautiful as formerly. The charm of novelty being gone, and having anticipated too much, were perhaps the causes; and it is possible that so much wood has been cleared away in late years, as to have diminished sensibly the rich and picturesque appearance which it certainly once possessed.

*Charles Darwin, in a letter home:*

We shall in all probability stay more than a month at Rio. I have some thoughts, if I can find tolerably cheap lodgings, of living in a beautiful village about four miles from this town. It would be excellent for my collections, and for knowing the tropics. Moreover I shall escape caulking and painting, and various other bedevilments which Wickham is planning. One part of my life as sailor (and I am becoming one, i.e. knowing ropes and how to put the ship about etc.) is unexpectedly pleasant: it is liking the bare living on blue water: I am the only person on the ship who wishes for long passages: but of course I cautiously bargain with Aeolus, when I pray to him that with the winds he may keep the sea equally quiet. Coming out of Bahia my stomach was only just able to save its credit. I will finish this letter full of I, I, I, when at Rio.

*Rio de Janeiro. 5 April:* We lay to during last night, as the captain was determined we should see the harbour of Rio, and be ourselves seen, in broad daylight. The view is magnificent and will improve on acquaintance: it is at present rather too much to behold mountains as rugged as those of Wales, clothed in an evergreen vegetation, and the tops ornamented by the light form of the palm. The city, gaudy with its towers and cathedrals, is situated at the base of these hills, and

commands a vast bay, studded with men of war, the flags of which bespeak every nation. We came, in first-rate style, alongside the admiral's ship, and we, to their astonishment, took in every inch of canvas, and then immediately set it again. A sounding ship doing such a perfect manœuvre with such certainty and rapidity is an event hitherto unknown in that class. It is a great satisfaction to know that we are in such beautiful order and discipline. In the midst of our tactics, the bundle of letters arrived. – 'Send them below', thundered Wickham, 'Every fool is looking at them and neglecting his duty.'

*From Midshipman P. G. King's account:*

Though Mr Darwin knew little of nautical matters he one day volunteered his services to First Lieutenant Wickham. The occasion was when the ship first entered Rio Janeiro. It was decided to make a display of smartness in shortening sail before the numerous men-of-war at the anchorage under the flags of all nations. The ship entered the harbour under every yard of canvas which would be spread upon her yards including studding sails aloft on both sides, the lively sea breeze which brought her in being right aft. Mr Darwin was told to hold to a main royal sheet in each hand and a top mast studding tack in his teeth. At the order 'Shorten Sail' he was to let go and clap onto any rope he saw was short-handed, this he did and enjoyed the fun of it, afterwards remarking 'the feat could not have been performed without me'.

*From Captain Fitzroy's Narrative:*

As we shortened sail under the stern of our flag-ship, I was surprised by finding Sir Thomas Baker, the commander-in-chief, giving directions for the positions to be taken forthwith by the ships of his squadron then present, and orders for the boats to be prepared for landing marines. This was in consequence of one of those disturbances almost usual in South America, especially in Brazil. Some outrages had been committed in the town, and a mutiny had broken out among the troops. Under old and established governments, revolt and mutiny are events which so seldom occur that their shock is not only felt at the time, but transmits vibrations through succeeding ages. In these unsettled states, however, they recur so frequently, that even on the spot they cause little sensation, and excepting by those personally concerned, are scarcely remembered afterwards.

Few strangers visit the metropolis of Brazil without being disappointed, if not disgusted. Numbers of almost naked negroes,



hastening along narrow streets – offensive sights and smells, an uncivil and ill-looking native population – indispose one to be pleased, even with novelty; but impressions such as these soon wear off. In the environs of the city are many good houses, in beautiful situations; and while enjoying delightful rides amidst the richest and most varied scenery, or resting in the shade of a veranda, refreshed by the sea-breeze, and overlooking a prospect hardly to be surpassed in the world, the annoyances and the nuisances of the town are forgotten.

Having so many good chronometers on board; being practised in observations such as they require; and placing great confidence in their results; I felt inclined to give attention and time to them rather than to perplex myself, and cause much delay, by attempting series of observations which would give occupation to an astronomer, and could not be undertaken by me, while actively engaged in coast-survey, without interfering with other duties.

As I found that a difference, exceeding four miles of longitude, existed between the meridian distance from Bahia to Rio, determined by the French expedition under Baron Roussin, and that measured by the *Beagle*; yet was unable to detect any mistake or oversight on my part; I resolved to return to Bahia, and ascertain whether the *Beagle's* measurement was incorrect. Such a step was not warranted by my instructions; but I trusted to the Hydrographer for appreciating my motives, and explaining them to the Lords of the Admiralty. In a letter to Captain Beaufort, I said, 'I have not the least doubt of our measurement from Bahia; but do not think that any other person would rely on this one measure only, differing widely, as it does, from that of a high authority – the Baron Roussin. By repeating it, if it should be verified, more weight will be given to other measures made by the same instruments and observers.'

We sailed with the ebb-tide and sea-breeze, cleared the port before the land-wind rose, and when it sprung up steered along the coast towards Cape Frio. Most persons prefer sailing from Rio early in the morning, with the land-wind; but to any well-manned vessel, there is no difficulty whatever in working out of the port during a fresh sea-breeze, unless the flood-tide should be running in strongly.

On this passage one of our seamen died of a fever, contracted when absent from the *Beagle* with several of her officers, on an excursion to the interior part of the extensive harbour of Rio de Janeiro. One of the ship's boys, who was in the same party, lay dangerously ill, and young Musters seemed destined to be another victim to this deadly fever.





VIEWS OF MONTE VIDEO HARBOUR



It was while the interior of the *Beagle* was being painted, and no duty going on except at the little observatory on Villegagnon Island, that those officers who could be spared made this excursion to various parts of Rio harbour. Among other places they were in the River Macacú, and passed a night there. No effect was visible at the time; the party returned in apparent health, and in high spirits; but two days had not elapsed when the seaman, named Morgan, complained of headache and fever.

The boy Jones and Mr Musters were taken ill, soon afterwards, in a similar manner; but no serious consequences were then apprehended, and it was thought that a change of air would restore them to health. Vain idea! they gradually became worse; the boy died the day after our arrival in Bahia; and, on 19 May, my poor little friend Charles Musters, who had been entrusted by his father to my care, and was a favourite with every one, ended his short career.

*From Charles Darwin's Diary:*

4 June: I also found King, who had arrived late the evening before in the *Beagle*. He brought the calamitous news of the death of three of our ship-mates. They were the three of the Macacú party who were ill with fever, when the *Beagle* sailed from Rio. First, Morgan, an extraordinary powerful man and excellent seaman; he was a very brave man and had performed some curious feats; he put a whole party of Portuguese to flight, who had molested the party; he pitched an armed sentinel into the sea at St Jago; and formerly he was one of the boarders in that most gallant action against the slaver, the *Black Joke*. Second, Boy Jones, one of the most promising boys in the ship and had been promised but the day before his illness, promotion. These were the only two of the sailors who were with the cutter, and picked for their excellence. And lastly, poor little Musters; who three days before his illness heard of his mother's death. Morgan was taken ill four days after arriving on board and died near the Abrolhos, where he was lowered into the sea after divisions on Sunday – for several days he was violently delirious and talked about the party. Boy Jones died two days after arriving at Bahia, and Musters two days after that. They were both for a long time insensible or nearly so. They were both buried in the English burial ground at Bahia; where in the lonely spot are also two other midshipmen. The other five of the party were all slightly attacked; none of them for more than a day or two. Macacú has been latterly especially notorious for fevers: how mysterious and how terrible is their power. It is



remarkable that in almost *every* case, the fever appears to come on several days after returning into the pure atmosphere. I could quote numbers of such cases: is it the sudden change of life, the better and more stimulating food, which determines the period?

*From Captain FitzRoy's Narrative:*

The danger appears to be incurred while sleeping; or when over-heated; not while awake and moderately cool; therefore we may infer that a check to the perspiration which takes place at those times is to be guarded against, rather than the breathing of any peculiar gas, or air, rising from the rivers or hanging over the land, which might have as much effect upon a person awake, as upon a sleeper. Also, to prevent being chilled by night damp, and cold, as well as to purify the air, if vapour or gas should indeed be the cause of fever, it is advisable to keep a large fire burning while the sun is below the horizon.

Mr Bynoe, the surgeon, consulted with the best medical advisers at Bahia, and afterwards at Rio de Janeiro, and he and I had the melancholy satisfaction of knowing that the best had been done for his patients.

My chief object in now mentioning these melancholy facts is to warn the few who are not more experienced than I was at that time, how very dangerous the vicinity of rivers may be in hot climates. Upon making more inquiry respecting those streams which run into the great basin of Rio de Janeiro, I found that the Macacú was notorious among the natives as being often the site of pestilential malaria, fatal even to themselves. How the rest of our party escaped, I know not; for they were eleven or twelve in number, and occupied a day and night in the river. When they left the ship it was not intended that they should go up any river; the object of their excursion being to visit some of the beautiful islets which stud the harbour. None of us were aware, however, that there was so dangerous a place as the fatal Macacú within reach. I questioned every one of the party, especially the second lieutenant and master, as to what the three who perished had done different from the rest; and discovered that it was believed they had bathed during the heat of the day, against positive orders, and unseen by their companions; and that Morgan had slept in the open air, outside the tent, the night they passed on the bank of Macacú.

As far as I am aware, the risk, in cases such as these, is chiefly encountered by sleeping on shore, exposed to the air on or near the low banks of rivers, in woody or marshy places subject to great solar heat. Those who sleep in boats, or under tents, suffer less than persons

sleeping on shore and exposed; but they are not always exempt, as the murderous mortalities on the coast of Africa prove. Whether the cause of disease is a vapour, or gas, formed at night in such situations, or only a check to perspiration when the body is peculiarly affected by the heat of the climate, are questions not easy to answer, if I may judge from the difficulty I have found in obtaining any satisfactory information on the subject.

*Charles Darwin, in a letter home:*

Botofogo Bay, 25 April 1832

. . . And now for the Captain, as I daresay you feel some interest in him. As far as I can judge, he is a very extraordinary person. I never before came across a man whom I could fancy being a Napoleon or a Nelson. I should not call him clever, yet I feel convinced nothing is too great or too high for him. His ascendancy over everybody is quite curious; the extent to which every officer and man feels the slightest rebuke or praise would have been before seeing him incomprehensible. It is very amusing to see all hands hauling at a rope, they not supposing him on deck, and then observe the effect when he utters a syllable; it is like a string of dray-horses, when the waggoner gives one of his awful smacks. His candour and sincerity are to me unparalleled; and using his own words his 'vanity and petulance' are nearly so. I have felt the effects of the latter . . . but the bringing into play of the former ones so forcibly makes one hardly regret them. His great fault as a companion is his austere silence produced from excessive thinking. His many good qualities are numerous: altogether he is the strongest marked character I ever fell in with.

*From Captain FitzRoy's Narrative:*

In our passage from Rio de Janeiro to Bahia, we passed between the Abrolhos Islands and the main land, having a fresh southerly wind, and cloudy weather, with frequent rain. Of course there was some anxiety until we saw the islands, and it was necessary to keep the lead constantly going; but we got into no difficulty, and, assisted by Massey's log, as well as Massey's lead, we made a short passage, without an hour's delay or scant wind. This was favourable for the chronometer measurement, and I was deeply gratified by finding, soon after our arrival, that the measure from Rio to Bahia confirmed that previously made, even to a second of time.

On 23 May, we sailed the second time from Bahia, and steered to



pass as near as possible to the eastern side of the Abrolhos; but, owing to unfavourable winds, could not approach nearer to them than in fourteen fathoms water.

When examining many of the cases of preserved meat, prepared by Kilner and Moorsom, with which the Admiralty had ordered us to be provided, we found that several had burst and caused a most disagreeable smell. This was not the fault of the tin cases, but an unavoidable accident consequent upon their being stowed where salt water had occasional access, and corroded the tin. In so small and so crammed a hold as ours, it was not easy to make stowage for every thing that ought to be kept dry, particularly with a hatch-deck, while rolling about in the Bay of Biscay; but being warned by this first appearance of decay, our internal arrangement was partly changed, and some of the hatches on the lower deck temporarily caulked down.

*Captain's Log. H.M.S. Beagle. 25 May 1832:*

Found decay in preserved meats, cans burst, 38lb meat condemned and thrown overboard.

*From Captain FitzRoy's Narrative:*

Delayed by southerly winds and a long heavy swell from the southward, we made rather a tedious passage back to Rio, and did not anchor until the night of 3 June.

Next day (4th) the usual sets of equal altitudes were observed; and after the chronometer rates were ascertained, I had the satisfaction of finding that this third meridian distance agreed exactly with the first and second. Upon further examination, it was seen that the Abrolhos Islands were laid down correctly in the French chart, with respect to Bahia; but that the meridian distance between those islands and Rio de Janeiro differed more than four miles from that resulting from three measures made by our twenty chronometers.

While watering, and rating the chronometers, a few comparatively leisure days afforded a seasonable opportunity for trying the qualities of boats, and exciting fair emulation among their crews. With the Commander-in-chief's permission, and the encouragement of the officers of his squadron, then in the port, some good boat-races were arranged; and knowing how much might afterwards depend upon the qualities of the *Beagle's* boats, it was very gratifying to find them excellent. Four of the set were built by Mr Johns, the well-known boat-builder in Plymouth dockyard, and the other two by Mr May, our carpenter. Captain

Talbot, of the *Warspite*, and Captain Waldegrave, of the *Seringapatam*, tried their best boats and best men on two successive days, to the encouragement of the boats' crews and boat-sailors of the squadron, and much to the surprise of the Brazilians, who had never witnessed any thing like a regatta.

*Charles Darwin, in a letter home, 1 March 1832:*

We have beat all the ships in manœuvring, so much so that the commanding officer says we need not follow his example, because we do everything better than his great ship. I begin to take great interest in naval points, more especially now, as I find they all say we are the No. 1 in South America. I suppose the captain is a most excellent officer. It was quite glorious to-day how we beat the *Samarang* in furling sails. It is quite a new thing for a 'sounding ship' to beat a regular man-of-war, and yet the *Beagle* is not at all a particular ship; Erasmus will clearly perceive it when he hears that in the night I have actually sat down in the sacred precincts of the quarterdeck.

*From the Captain's Orders, H.M.S. Beagle:*

- 27 The ship's company are always to be allowed three quarters of an hour for breakfast, one hour and a half for dinner and three quarters of an hour for supper when in harbour. At sea – half an hour for breakfast, one hour for dinner and half an hour for supper are to be allowed.
- 28 The watch below are not to be disturbed without *absolute necessity* or the order of the commanding officer.
- 29 When boats or men are away from the vessel, or employed on duty at meal times, the officer of the watch will send to the cook to keep their allowance hot if they have not their provisions with them.
- 30 The ship's company lights are to be put out at half past eight at sea and nine in harbour.
- 31 Jackets, round hats, of any kind or caps may be worn when the officers please, excepting only when mustered by a senior officer or sent on duty to a man-of-war.  
Frock coats being as inconvenient as cocked hats in small vessels, I wish the junior officers who go aloft and have active duty to attend to on deck, or sent away in boats, to avoid the use of them as much as possible.
- 32 As I am confident that the officers of this sloop do not require the restraints of etiquette and ceremony to remind them of the respect



due to His Majesty's Service and those engaged in it, I wish it to be known that when not engaged on duty there is no objection to their reading, sitting or smoking on any part of the *Beagle's* upper deck excepting the quarterdeck. Neither is there any objection on my part to their wearing any dress that please them when off 'duty'. Attention to duty of course must never be relaxed but while duty is properly done I shall always be anxious to increase as much as possible the few comforts that a small vessel can possess.

*From Captain FitzRoy's Narrative:*

On 5 July we sailed from Rio de Janeiro, honoured by a salute, not of guns, but of hearty cheers from H.M.S. *Warspite*. Strict etiquette might have been offended at such a compliment to a little ten-gun brig, or, indeed, to any vessel unless she were going out to meet an enemy, or were returning into port victorious: but although not about to encounter a foe, our lonely vessel was going to undertake a task laborious, and often dangerous, to the zealous execution of which the encouragement of our brother-seamen was no trifling inducement.

*From Charles Darwin's Diary:*

5 July: A little after 9 o'clock we tripped our anchor, and with a gentle breeze stood out of the bay. Captains Talbot and Harding accompanied us beyond Santa Cruz. As we sailed past the *Warspite* and *Samarang* (our old Bahia friend) they manned the rigging and gave us a true sailor like farewell, with three cheers. The band at same time striking up 'To glory you steer'. The captain had intended touching at Cape Frio, but as the lightning did so, we made a direct course for the south. Near to the Isla de Raza the wind lulled, and we are now becalmed and shall probably remain so during the night. The moon is now shining brightly on the glassy water; everyone is in high spirits at again being at sea and a little more wind is all that is wanted. The still and quiet regularity of the ship is delightful; at no time is 'the busy hum of men' so strongly perceived as when leaving it for the open ocean.

*From Captain FitzRoy's Narrative:*

While in harbour, a few alterations had been made in the disposition of our guns and stores, as well as some slight changes in the sails and rigging; and as the *Beagle's* equipment afterwards remained unaltered, I will here briefly describe it. She was rigged as a bark; her masts were strongly supported by squarer cross-trees and tops, and by larger rig-

ging than usual in vessels of her tonnage, 242 tons. Chains were used where found to answer, and in no place was a block or a sheave allowed which did not admit the proper rope or chain freely. There were large trysails between the masts, made of stout canvas, with several reefs, and very useful we found them. On the forecastle was a six-pound boat-carronade: before the chestree were two brass six-pound guns: close to the bulwark on each side of the waist were the 'booms'; and amidships two boats, on the diagonal principle, one stowed inside the other, and as close to the deck as possible; being secured by iron cranks, or supports. Aft the main-mast were four brass guns, two nine-pound, and two six-pound: the skylights were large; there was no capstan; over the wheel the poop-deck projected, and under it were cabins, extremely small, certainly, though filled in inverse proportion to their size. Below the upper deck her accommodations were similar to, though rather better than those of vessels of her class. Over the quarter-deck, upon skids, two whale-boats, eight-and-twenty feet long, were carried; upon each quarter was a whale-boat twenty-five feet in length, and astern was a dinghy.

A few leagues southward of the port is a good situation for enjoying a general view of the picturesque mountains in its vicinity. When near the shore one only sees those of an inferior order; and it is not until an offing is gained that the bold and varied outlines of the distant Organ Mountains, the sharp peak of the Corcovado, and the singular heights over Tijuca, can be seen.

After a tiresome continuance of south-west winds, I became anxious to make Santa Catarina, but before we could reach it the wind changed, and enabled us to steer along the coast towards the south.

While sailing along the level uninteresting coast, with a fresh breeze off the land, we found it bitterly cold, though the thermometer never was below 40°. Faht: so much does our perception of heat or cold depend upon comparison. Some of our exaggerated opinions as to the coldness of the southern hemisphere may have arisen from the circumstances under which voyagers usually visit high southern latitudes, immediately after enduring the heat of the tropics, and without staying long enough to ascertain the real average temperature during a whole year.

On 22 July we were near the River Plata, and as the weather, after sunset, became very dark, with thunder and lightning, though with but little wind, we anchored in the vicinity of Cape Sta Maria to avoid being drifted about by irregular currents. For upwards of an hour St Elmo



fires were seen at each mast-head, and at some of the yard-arms: the mast-head vane also, fixed horizontally, and framed with copper, had an illuminated border round it. Those who have not seen this light, always a favourite with sailors, because they say it only appears when the worst part of the storm is over, may excuse my saying that it resembles the light of a piece of phosphorus – not being so bright, or so small, as that of a glow-worm, nor yet so large as the flame of a small candle. I was curious enough to go out to a yard-arm and put my hand on a luminous spot; but, of course, could feel nothing, and when I moved my hand the spot reappeared.

*From Charles Darwin's Diary:*

22 July 1832: I have just been on deck; the night presents a most extraordinary spectacle; the darkness of the sky is interrupted by the most vivid lightning. The tops of our masts and higher yard ends shone with the electric fluid playing about them; the form of the vane might almost be traced as if it had been rubbed with phosphorus. To complete these natural fireworks, the sea was so highly luminous that the penguins might be tracked by the stream of light in their wake. As the night looked dirty and there were heavy squalls of rain and wind, we have dropped our anchor.

*From Captain FitzRoy's Narrative:*

Heavy rain, much thunder, and a fresh southerly wind followed; but as we were prepared for bad weather, and the sea did not rise much, we maintained our position till daylight next morning, notwithstanding an officer of the watch startling me by reporting that we must be very near the land, because he heard bullocks bellowing. These noises must have been the discordant 'braying' of the bird called by seamen 'jack-ass penguin'.

*From Charles Darwin's Diary:*

The night was dirty and squally: we were surrounded by penguins and seals which made such odd noises that in the middle watch Mr Chaffers went below to report to Mr Wickham that he heard cattle lowing on shore.

*From Captain FitzRoy's Narrative:*

On the 23rd we entered the great estuary of this shallow though wide river, a hundred and twenty miles across at this part, yet averaging less

than ten fathoms in depth; and above fifty miles wide between Monte Video and the opposite point, called Piedras, where the average depth is not more than three fathoms. Very great care is required by vessels navigating the Plata, because of its exceedingly dangerous shoals, its strong and irregular currents, and the sudden tempests to which it is subject. The shoals and currents may be guarded against by a very careful attention to the lead, and a ground-log; but the fury of a violent pampero must be endured. The land on each side of the Plata is so low, and those extraordinary plains called pampas, hundreds of miles in extent, are so perfectly free from a single obstacle which might offer any check to the storm, that a pampero sweeps over land and water with the weight of a rushing hurricane.

*From Charles Darwin's Diary:*

26 July 1832: We entered the bay about 9 o'clock. Just as we were coming to an anchor, signals were made from the *Druid*, a frigate lying here; which (to our utter astonishment and amusement) ordered us to 'Clear for action' and shortly after 'Prepare to cover our boats'. We set sail and the latter part of order was shortly explained by the arriving of six boats heavily armed with carronades and containing about forty marines, all ready for fighting, and more than 100 blue jackets. Captain Hamilton came on board and informed us that the present government is a military usurpation; and that the head of the party had seized upon 400 horses, the property of a British subject; and that in short the flotilla of boats went to give weight to his arguments. The revolutions in these countries are quite laughable; some few years ago in Buenos Aires, they had fourteen revolutions in twelve months; things go as quietly as possible; both parties dislike the sight of blood; and so that the one which appears the strongest gains the day. The disturbances do not much affect the inhabitants of the town, for both parties find it best to protect private property. The present governor has about 260 gaucho cavalry and about the same number of negro infantry; the opposite party is now collecting a force and the moment he enters the town the others will scamper out. Mr Parry (a leading merchant here) says he is quite certain 150 men from the frigate could any night take Monte Video. The dispute has terminated by a promise of restitution of the horses; but which I do not think is very clear will be kept. I am afraid it is not impossible that the consequences will be very unpleasant to us. The *Druid's* officers have not for some weeks been allowed to go on shore, and perhaps we shall be obliged to act in the same manner. How



annoying will be the sight of green turf plains, whilst we are performing a sort of quarantine on board.

*From Captain FitzRoy's Narrative:*

Unfavourable winds, and currents setting out of the river, delayed our progress, and obliged us to anchor frequently. As I found that it would be advisable to visit Buenos Aires, in order to communicate with the government, and obtain information, we sailed from Monte Video on the 31st, and two days afterwards anchored off Buenos Aires. There, however, we did not remain an hour; for the misconduct of a Buenos Airean officer on board a vessel under their colours, and a vexatious regulation with respect to quarantine, decided my returning forthwith to Monte Video; and commissioning a capable person to procure for me copies of some original charts, which I thought would be exceedingly useful, and which could only be obtained from the remains of hydrographical information, collected by Spain, but kept in the archives of Buenos Aires. The *Beagle* anchored again off Monte Video, on 3 August, and as soon as the circumstances which occasioned her return were made known to Captain G. W. Hamilton, commanding the *Druid* frigate, that ship sailed for Buenos Aires.

*From Charles Darwin's Diary:*

2 August 1832: We certainly are a most unquiet ship; peace flies before our steps. On entering the outer roadstead, we passed a Buenos Aires guard-ship. When abreast of her she fired an empty gun; we not understanding this sailed on, and in a few minutes another discharge was accompanied by the whistling of a shot over our rigging. Before she could get another gun ready we had passed her range. When we arrived at our anchorage, which is more than three miles distant from the landing place, two boats were lowered, and a large party started in order to stay some days in the city. Wickham went with us, and intended immediately going to Mr Fox, the English minister, to inform him of the insult offered to the British flag. When close to the shore, we were met by a quarantine boat, which said we must all return on board, to have our bill of health inspected, from fears of the cholera. Nothing which we could say about being a man-of-war – having left England seven months, and lying in an open roadstead – had any effect. They said we ought to have waited for a boat from the guard-ship and that we must pull the whole distance back to the vessel, with the wind dead on end against us and a strong tide running in. During our absence, a boat had come with

an officer, whom the captain soon despatched with a message to his commander to say 'He was sorry he was not aware he was entering an uncivilized port, or he would have had his broadside ready for answering his shot'. When our boats and the health one came alongside, the captain immediately gave orders to get under weigh and return to Monte Video. At the same time, sending to the governor, through the Spanish officer, the same messages which he had sent to the guard-ship, adding that the case should be thoroughly investigated in other quarters. We then loaded and pointed all the guns on one broadside, and ran down close along the guard-ship. Hailed her, and said, that when we again entered the port, we would be prepared as at present and if she dared to fire a shot we would send our whole broadside into her rotten hulk. We are now sailing quietly down the river. From M Video the captain intends writing to Mr Fox and to the admiral; so that they may take effective steps to prevent our flag being again insulted in so unprovoked a manner.

*Report to Hydrographer from Commander FitzRoy, 16 August 1832:*

. . . With reference to the expressions which have offended the Buenos Airean Government, I beg to inform you, and I request that you will make it known, if necessary, that I did *not* say, that 'I should go to some other country where the government was more civilized', but, that my expression to the health officer *was*, 'Say to your government that I shall return to a more civilized country where boats are sent more frequently than balls.'

In hailing the guard vessel I did *not* in *any* way allude to the *government* and my words to *her* commander were 'If you dare to fire another shot at a British man-of-war you may expect to have your hulk sunk, and if you fire at *this* vessel, I will return a broadside for every shot!'

*From Captain FitzRoy's Narrative:*

Scarcely had the *Druid* disappeared beneath the horizon, when the chief of the Monte Video police and the captain of the port came on board the *Beagle* to request assistance in preserving order in the town, and in preventing the aggressions of some mutinous negro soldiers. I was also requested by the consul-general to afford the British residents any protection in my power; and understanding that their lives, as well as property, were endangered by the turbulent mutineers, who were more than a match for the few well-disposed soldiers left in the town, I landed with fifty well-armed men, and remained on shore, garrisoning



the principal fort, and thus holding the mutineers in check, until more troops were brought in from the neighbouring country, by whom they were surrounded and reduced to subordination. The *Beagle's* crew were not on shore more than twenty-four hours, and were not called upon to act in any way; but I was told by the principal persons whose lives and property were threatened, that the presence of those seamen certainly prevented bloodshed.

*From Charles Darwin's Diary:*

5 August 1832: This has been an eventful day in the history of the *Beagle*. At 10 o'clock in the morning the minister for the present military government came on board and begged for assistance against a serious insurrection of some black troops. Captain FitzRoy immediately went ashore to ascertain whether it was a party affair, or that the inhabitants were really in danger of having their houses ransacked. The head of the police (Dumas) has continued in power through both governments, and is considered as entirely neutral; being applied to, he gave it as his opinion that it would be doing a service to the state to land our force. Whilst this was going on ashore, the Americans landed their boats and occupied the custom house. Immediately the captain arrived at the mole, he made us the signal to hoist out and man our boats. In a very few minutes, the yawl, cutter, whaleboat and gig were ready with fifty-two men heavily armed with muskets, cutlasses and pistols. After waiting some time on the pier Signor Dumas arrived and we marched to a central fort, the seat of government. During this time the insurgents had planted artillery to command some of the streets, but otherwise remained quiet. They had previously broken open the prison and armed the prisoners. The chief cause of apprehension was owing to their being in possession of the citadel, which contains all the ammunition. It is suspected that all this disturbance is owing to the manœuvring of the former constitutional government. But the politics of the place are quite unintelligible: it has always been said that the interest of the soldiers and the present government are identical; and now it would seem to be the reverse. Captain FitzRoy would have nothing to do with all this: he would only remain to see that private property was not attacked. If the national band were not rank cowards, they might at once seize the citadel and finish the business; instead of this, they prefer protecting themselves in the fortress of St Lucia. Whilst the different parties were trying to negotiate matters, we remained at our station and amused ourselves by cooking beefsteaks in the courtyard. At sunset the boats were sent on board and

one returned with warm clothing for the men to bivouac during the night. As I had a bad headache, I also came and remained on board. The few left in the ship, under the command of Mr Chaffers, have been the most busily engaged of the whole crew. They have triced up the boarding netting, loaded and pointed the guns and cleared for action. We are now at night in a high state of preparation so as to make the best defence possible, if the *Beagle* should be attacked. To obtain ammunition could be the only possible motive.

6 August 1832: The boats have returned. Affairs in the city now more decidedly show a party spirit, and as the black troops are enclosed in the citadel by double the number of armed citizens, Capt. FitzRoy deemed it advisable to withdraw his force. It is probable in a very short time the two adverse sides will come to an encounter; under such circumstances, Capt. FitzRoy being in possession of the central fort, would have found it very difficult to have preserved his character of neutrality. There certainly is a great deal of pleasure in the excitement of this sort of work; quite sufficient to explain the reckless gaiety with which sailors undertake even the most hazardous attacks. Yet as time flies, it is an evil to waste so much in empty parade.

*Report to Captain Hamilton, H.M.S. Druid, from Commander FitzRoy:*  
14 August 1832

SIR,

I am anxious to lose no time in laying before you a statement of occurrences which yesterday occasioned the presence of the British flag in the central fort of Monte Video, and its return on board this day.

Yesterday at nine in the morning Señor Muños, and the captain of the port came on board His Majesty's Sloop *Beagle*, and requested assistance in preserving order in the town and in preventing aggressions which were anticipated from the mutinous negro troops.

I immediately went on shore, alone, and there received a letter from the British consul-general requesting to see me to consider what protection I could afford to the property of individuals, said, by him, to be in danger. After seeing the consul, I sought and obtained the opinions of many respectable individuals, and, in particular that of the chief of police, Señor Luis Lamas.

In consequence of their united opinions and requests, I returned to the *Beagle* and directly afterwards re-landed with fifty armed men. After waiting about half an hour upon the mole, Señor Lamas arrived; and having dismounted and left his escort, he walked with me and the



*Beagle's* crew to the central fort (that in which are the government offices). A public notice was then issued.

In the fort, I remained until it was ascertained that the mutinous black troops, in number about two hundred and fifty, were within the citadel and surrounded by so strong an armed force, in number nearly five hundred, that there could be no doubt of the impossibility of the property of individuals being in danger or of the tranquility of the town being seriously disturbed by those few blacks.

Seeing no sufficient cause for our retaining the fort any longer, or for our remaining on shore, I informed the British consul, also Señor Pérez, and Señor Luis Lamas of my intention to re-embark.

At eleven this morning the whole party who had landed from the *Beagle* returned on board. A notice was printed at my direction and is now in circulation. Since writing the above various party quarrels have taken place in the town and until the 12th the shops were shut and the inhabitants obliged to keep within their houses.

On the 12th the president Don Fructuoso Rivera arrived and the constitutional government proclaimed.

This day, the 14th, the president has made his formal entry into the town and his government appears to be re-established.

*From Charles Darwin's Diary:*

15 August 1832: The *Druid* has returned from Buenos Aires and brought from its government a long apology for the insult offered to us. The captain of the guard-ship was immediately arrested and it was left to the British consul's choice whether he should any longer retain his commission.

*From Captain FitzRoy's Narrative:*

Some days after this little interruption to our usual avocations, we sailed across the river to Point Piedras, anchored there for some hours to determine its position, then went to Cape San Antonio, and from that cape began our survey of the outer coast. To relate many details of so slow and monotonous an occupation as examining any shore, of which the more interesting features have long been known, could answer no good purpose, and would be very tiresome to a general reader; therefore I shall hasten from one place to another, dwelling only, in my way, upon the few incidents, or reflections, which may have interest enough to warrant their being noticed in this abridged narrative, or are absolutely necessary for carrying on the thread of the story.

*Charles Darwin, in a letter home, 14 July 1832:*

Everyone has put on cloth clothes, and preparing for still greater extremes, our beards are all sprouting. My face at present looks of about the same tint as a half-washed chimney sweeper. With my pistols in my belt and geological hammer in hand, shall I not look like a grand barbarian? I do not think I have ever given you an account of how the day passes. We breakfast at eight o'clock. The invariable maxim is to throw away all politeness: that is, never to wait for each other, and bolt off the minute one has done eating, etc. At sea, when the weather is calm, I work at marine animals, with which the whole ocean abounds; if there is any sea up, I am either sick or contrive to read some voyage or travels. At one we dine. You shore-going people are lamentably mistaken about the manner of living on board. We have never yet (nor shall we) dined off salt meat. Rice and pea and calavanses\* are excellent vegetables, and with good bread, who could want more? No one could be more temperate, as nothing but water comes on the table. At five we have tea. The midshipmen's berth have all their meals an hour before us, and the gun-room an hour afterwards.

*From Captain FitzRoy's Narrative:*

22 August 1832: From Cape San Antonio to rather more than half-way towards Cape Corrientes, the sea-coast is sandy and low. Behind the beach are sand-hills, and farther inshore are thickets affording shelter to numbers of jaguars. In sailing along, even with both leads going, we were, for a few minutes, in imminent danger of grounding upon a bank, or ledge, which extends six miles ESE from Point Medanos. The water shoaled so suddenly, and so irregularly, that I could not tell which way to steer; and as we had been running directly before the wind, it was impossible to retreat by the safest track (that which we had made in approaching): however, by persevering in pushing eastward, away from the land, steering one way or another as the water deepened, we at last got clear. We then stood out to gain an offing, rounded the bank, and hauled close inshore again nearly opposite to a large salt lagoon, called Mar Chiquita, which approaches the sea so closely as to have occasioned an idea that, by cutting through the narrow strip of land which separates them, a fine port might be formed.

In the vicinity of Mar Chiquita, the country is very fertile, and well watered. Sheltered to the south by a range of down-like hills, whence

\* A sort of pulse.



numerous small brooks originate, it gives abundant pasturage to many thousands of cattle, and is considered by the Buenos Aireans to be the finest district of their territory.

On a round-topped hill, near Mar Chiquita, we saw an immense herd of cattle, collected together in one dark-coloured mass, which covered many acres of ground. A few men, on horseback, were watching them, who, seeing us anchor, drove the whole multitude away at a gallop, and in a few minutes not one was left behind. Probably they suspected us of marauding inclinations.

Cape Corrientes is a bold, cliffy promontory, off which, notwithstanding the name, I could not distinguish any remarkable current. It is said to be hazardous for a boat to go along-shore, near the high cliffs of that cape, because there are rocks under water which sometimes cause sudden and extremely dangerous 'blind breakers'. More than one boat's crew has been lost there, in pursuit of seals, which are numerous among the rocks and caves at the foot of those cliffs. Hence to Bahia Blanca is a long and dreary line of coast, without an opening fit to receive the smallest sailing vessel, without a remarkable feature, and without a river whose mouth is not fordable. Even the plan of it, on paper, has such a regular figure, that an eye accustomed to charts may doubt its accuracy; so rarely does the outline of an exposed sea-coast extend so far without a break. A heavy swell always sets upon it; there is no safe anchorage near the shore; and, as if to complete its uninviting qualities, in the interior, but verging on this shore, is a desert tract, avoided even by the Indians, and called, in their language, Huecuvu-mapu (country of the Devil). In exploring this exposed coast, southerly winds sometimes obliged us to struggle for an offing; and we lost several anchors in consequence of letting them go upon ground which we thought was hard sand lying over clay, but which turned out to be tosca,\* slightly covered with sand, and full of holes. The lead indicated a sandy, though hard bottom; but we found it every where so perforated and so tough, that, drop an anchor where we might, it was sure to hook a rock-like lump of tosca, which sometimes was torn away, but at others broke the anchor. Finding this to be the case, I had a stout hawser bent to the crown of the anchor, and after shortening in cable, tripped the anchor by the hawser, and then weighed it, uninjured, without much difficulty.

Along this extent of sea-coast, half way between the currents in the vicinity of the Plata, and those occasioned by strong tides near Blanco Bay and the River Negro, we found no current. Whether there was a

\* Soft dark brown limestone.

rise of tide it was not easy to ascertain by the lead-line, when at anchor, from the bottom being so uneven; and to land was impossible, on account of a furious surf.

Several kinds of fish were caught at our temporary anchorages, and noticed carefully by Mr Darwin. Anchorage is not a word I should use in this case (where the anchor was only let go for a short time while the ship's position could be fixed with accuracy, and our triangulation carried on in a satisfactory manner), as it might deceive a stranger to the coast: stopping-place would be better.

While examining the positions nearest to Blanco Bay, we had occasional alarms – such as the wind shifting and blowing strong directly towards the land; our soundings shoaling suddenly to three, or less than three fathoms; or thick weather coming on while a boat was away sounding – but these are everyday events in a surveying vessel actively employed.

Near Blanco Bay we found the water greatly discoloured, and the soundings were not such as to tempt us onwards; however, it was necessary to proceed. We steered towards a little hill, which I fancied must be Mount Hermoso, and soon after sunset, on the 5th, anchored in what we afterwards found to be the roadstead near that hillock, at the head of Blanco Bay, close to the entrance of Port Belgrano, but divided from it by a bank.

As the bad apologies for charts of this place, which we possessed at our first visit, left us as much at a loss as if we had none, I set out with the boats next morning to seek for a passage into Port Belgrano.

Our boats were soon stopped by shoal water, and I found, to my vexation, that the *Beagle* was anchored at the head of an inlet, between the shore and a large bank extending far towards the south-east, and that before going farther west she must retreat eastward, and look for another passage. This was an unexpected dilemma; but our prospect was improved by the appearance of a small schooner running towards us, from Port Belgrano, with a Buenos Airean (or Argentine) flag flying.

Very soon she came near enough for our boat to reach her, and an Englishman came on board, who offered to pilot the *Beagle* to a safe anchorage within the port. This was Mr Harris, owner of the little schooner in which he sailed (a resident at Del Carmen, on the River Negro, and trading thence along the coast), with whom we had much satisfactory intercourse during the next twelvemonth.

By his advice we weighed anchor, stood across the great north bank,



in very little more water than we drew, until we got into a channel where there was water enough for any ship, and a soft muddy bottom: there we hauled up west-north-west, by his direction, and with a fresh wind sailed rapidly into the extensive and excellent, though then little known harbour, called Port Belgrano; and at dusk anchored near the wells under Anchorstock Hill.

So constantly did Mr Harris give this course, on subsequent occasions, that it became quite a joke; but it is nevertheless a strong corroboration of the uniformity of the general direction of the inlets, ridges, and ranges of hills.

To give an idea of the general appearance, or almost disappearance, of the very low land around this spacious port, I will mention, that when the *Beagle* had crossed the north bank, and hauled up in the fair way, Mount Hermoso was nearly beneath the horizon; some bushes on the flat land southward of us could be just distinguished; and ahead in the north-west quarter, no land could be made out, except the distant Ventana mountain, which we saw for the first time on that day.

In consequence of this extent of water being intersected by banks, and having so few marks, it is very difficult of access; and no place can offer less that is agreeable to the eye, especially when the tide is out, and much of the banks shows above water. A more disagreeable place to survey, or one that would occupy more time, we were not likely to find, I thought, as I looked around from the mast-head; but upon questioning Mr Harris, I learned that a succession of similar inlets indented a half-drowned coast, extending hence almost to the Negro; and that, although the dangers were numerous, tides strong, banks muddy, and the shores every where low, the intervening ports were so safe, and so likely to be useful, that it was absolutely necessary to examine them.

7 September: Messrs Darwin, Rowlett, and Harris set out with me to visit the Buenos Airean settlement, called Argentina. Mr Harris undertook to be our guide, but after two hours' sailing and pulling we found ourselves near the head of a creek, between two soft mud banks, where we could neither row nor turn the boat. We could not land because the mud was too soft to bear our weight, so there we stayed till the tide flowed. About two hours after this stoppage there was water enough for us to cross a large bank, and gain the right channel, from which we had deviated, and then, with a flowing tide, we made rapid progress, until the 'Guardia' was announced to us. This was a small hut near the water side, but to reach it we had to wind along a tortuous canal, between banks of soft mud: and when we arrived at the landing-

place seven hours had been passed among rushy mud banks, surrounded by which we were often prevented from seeing any solid land. The water was every where salt, the tide running strongly, and the boat often aground.

Waiting to meet us was an assemblage of grotesque figures, which I shall not easily forget – a painter would have been charmed with them. A dark visaged quixotic character, partly in uniform, mounted on a large lean horse, and attended by several wild looking, but gaily dressed gauchos, was nearest to us. Behind him, a little on one side, were a few irregular soldiers, variously armed, and no two dressed alike, but well mounted, and desperate-looking fellows; while on the other side, a group of almost naked Indian prisoners sat devouring the remains of a half-roasted horse; and as they scowled at us savagely, still holding the large bones they had been gnawing, with their rough hair and scanty substitutes for clothing blown about by the wind, I thought I had never beheld a more singular group.

The tall man in uniform was the commandant of the settlement, or fortress, called Argentina: he and his soldiers had arrived to welcome us, supposing that we were bringing supplies from Buenos Aires for the needy colony. The Indian prisoners had been brought to work, and assist in carrying the supplies which were expected. Finding that we were neither Buenos Aireans, nor traders from any other place, it was supposed that we must be spies sent to reconnoitre the place previous to a hostile attack. Neither the explanations nor assertions of Mr Harris had any weight, for as he was our countryman, they naturally concluded he was in league with us; yet, as the commandant had some idea that we might, by possibility, be what we maintained we were, he disregarded the whispers and suggestions of his people, and offered to carry us to the settlement for a night's lodging.

Leaving the boat's crew to bivouac, as usual, I accepted a horse offered to me, and took the purser up behind; Mr Darwin and Harris being also mounted behind two gaucho soldiers, away we went across a flat plain to the settlement. Mr Darwin was carried off before the rest of the party, to be cross-questioned by an old major, who seemed to be considered the wisest man of the detachment, and he, poor old soul, thought we were very suspicious characters, especially Mr Darwin, whose objects seemed most mysterious.

In consequence, we were watched, though otherwise most hospitably treated; and when I proposed to return, next morning, to the boat, trifling excuses were made about the want of horses and fear of Indians



arriving, by which I saw that the commandant wished to detain us, but was unwilling to do so forcibly; telling him, therefore, I should walk back, and setting out to do so, I elicited an order for horses, maugre the fears and advice of his major, who gave him all sorts of warnings about us. However, he sent an escort with us, and a troop of gaucho soldiers were that very morning posted upon the rising grounds nearest to the *Beagle*, to keep a watch on our movements.

We afterwards heard, that the old major's suspicions had been very much increased by Harris's explanation of Mr Darwin's occupation. 'Un naturalista' was a term unheard of by any person in the settlement, and being unluckily explained by Harris as meaning 'a man that knows everything,' any further attempt to quiet anxiety was useless.

As this small settlement has seldom been visited by strangers, I will describe its primitive state. In the midst of a level country, watered by several brooks, and much of it thickly covered with a kind of trefoil, stands a mud-walled erection, dignified with the sounding appellation of 'La fortaleza protectora Argentina.' It is a polygon, 282 yards in diameter, having about twenty-four sides, and surrounded by a narrow ditch. In some places the walls are almost twenty feet high, but in others I was reminded of the brothers' quarrel at the building of ancient Rome, for there is a mere ditch, over which a man could jump. It is, however, said by the gauchos, that a ditch six feet wide will stop a mounted Indian, and that their houses require no further defence from attacks of the aborigines. How, or why it is that such excellent horsemen do not teach their horses to leap, I cannot understand.

Within, and outside the fort, were huts and a few small houses: more were not required for the inhabitants, who, including the garrison, only amounted to four hundred souls. Some half-dozen brass guns were in a serviceable condition; and two or three other pieces occupied old carriages, but did not seem to be trustworthy.

There is pasture for cattle near the streams which descend from the Sierra Ventana: large salinas (spaces covered with salt) lie within an easy distance of the settlement: of brushwood for fuel there is plenty, though there are no large trees: and report says that there are valuable minerals, including coal and iron, in the Ventana mountain. I believe there is no good foundation for this report. Mr Darwin's opinion is against the supposition.

The most serious objection to the locality, as an agricultural, or even as a mere grazing district, is the want of rain. Two or three years sometimes pass without more than a slight shower; and during summer the

heat is great. In winter, there are sharp frosts, sometimes snow; but neither ice nor snow ever lasts through the day.

Good fresh water may be generally obtained, independent of the few running streams, by digging wells between four and ten feet deep: and in this way we found no difficulty in obtaining an ample supply.

We returned to the *Beagle* without another delay among the mud-banks, and found the rising grounds (heights they could not be called), nearest the ship, occupied by the troop of gaucho soldiers. As they did not interfere with us, our surveying operations were begun, and carried on as usual. Mr Darwin, and those who could be spared from duties afloat, roamed about the country; and a brisk trade was opened with the soldiers for ostriches and their eggs, for deer, cavies,\* and armadillos.

*It is interesting to compare this account with the one from Charles Darwin's Diary:*

7 September 1832: In the morning the captain, Rowlett, the pilot and myself started with a pleasant breeze for the Settlement: it is distant about twenty miles. Instead of keeping the middle channel, we steered near to the northern shore: from this cause and from the number of similar islands, the pilot soon lost his reckoning. We took by chance the first creek we could find: but following this for some miles, it gradually became so narrow, that the oars touched on each side and we were obliged to stop. These islands rather deserve the name of banks; they consist of mud which is so soft, that it is impossible to walk even the shortest distance; in many the tops are covered by rushes; and at high water the summits of these are only visible. From our boat nothing within the horizon was to be seen, but these flat beds of mud; from custom an horizontal expanse of water has nothing strange in it; but this had a most unnatural appearance, partaking in the character of land and water without the advantages of either. The day was not very clear and there was much refraction, or as the sailors expressed it, 'things loomed high'. The only thing within our view which was not level, was the horizon; rushes looked like bushes supported in the air by nothing, and water like mud banks and mud banks like water. With difficulty the boat was turned in the little creek; and having waited for the tide to rise, we sailed straight over the mud banks in the middle of the rushes. By heeling the boat over, so that the edge was on a level with the water, it did not draw more than a foot of water. Even with this we had much

\* Rodents, like large guinea pigs.



trouble in getting her along, as we stuck several times on the bottom. In the evening we arrived at the creek, which is about four miles distant from the settlement. Here was a small schooner lying and a mud hut on the bank. There were several of the wild gaucho cavalry waiting to see us land; they formed by far the most savage, picturesque group I ever beheld. I should have fancied myself in the middle of Turkey by their dresses. Round their waists they had bright coloured shawls forming a petticoat, beneath which were fringed drawers. Their boots were very singular; they are made from the hide of the hock joint of horses' hind legs, so that it is a tube with a bend in it. This they put on fresh, and thus drying on their legs is never again removed. The spurs are enormous, the rowels being one to two inches long. They all wore the poncho, which is [a] large shawl, with a hole in the middle for the head. Thus equipped with sabres and short muskets, they were mounted on powerful horses. The men themselves were far more remarkable than their dresses; the greater number were half Spaniard and Indian; some of each pure blood and some black. The Indians, whilst gnawing bones of beef, looked, as they are, half recalled wild beasts. No painter ever imagined so wild a set of expressions. As the evening was closing in, it was determined not to return to the vessel by the night; so we all mounted behind the gauchos, and started at a hand gallop for the fort. Our reception here was not very cordial. The commandant was inclined to be civil; but the major, although second in rank, appears to be the most efficient. He is an *old* Spaniard, with the old feelings of jealousy. He could not contain his surprise and anxiety at a man-of-war having arrived for the first time in the harbour. He asked endless questions about our force etc. and when the captain, praising the bay, assured him he could bring up even a line of battle-ships, the old gentleman was appalled and in his mind's eye saw the British marines taking his fort. These ridiculous suspicions made it very disagreeable to us; so that the captain determined to start early in the morning back to the *Beagle*. The settlement is seated on a dead level turf plain, it contains about 400 inhabitants, of which the greater number are soldiers. The place is fortified, and good occasion they have for it. The place has been attacked several times by large bodies of Indians. The war is carried on in the most barbarous manner. The Indians torture all their prisoners and the Spaniards shoot theirs. Exactly a week ago the Spaniards, hearing that the main body of their enemies were gone to northward, made an excursion and seized a great herd of horses and some prisoners. Amongst these was the head chief, the old Toriano who has governed

a great district for many years. When a prisoner, two lesser chiefs or *caciques* came one after the other in hopes of arranging a treaty of liberation, it was all the same to the Spaniards; these three and eight more were lead out and shot. On the other hand, the commandant's son was taken some time since; and being bound, the children (a refinement in cruelty I never heard of) prepared to kill him with nails and small knives. A *cacique* then said that the next day more people would be present and there would be more sport, so the execution was deferred, and in the night he escaped.

A Spanish friend of Mr Harris's received us hospitably. His house consisted in one large room, but it was cleaner and more comfortable than those in Brazil. At night I was much exhausted, as it was twelve hours since I had eaten anything.

8 September: We rode to the boat early in the morning; and with a fresh breeze arrived at the ship by the middle of the day. It was then reported to the captain that two men on horseback had been reconnoitring the ship. The captain well knowing that so small a party of Spaniards would not venture so far, concluded they were Indians. As we intended to wood and water near to that spot, it was absolutely necessary for us to ascertain whether there was any camp there. Accordingly three boats were manned and armed; before reaching the shore, we saw five men gallop along the hill and then halt. The captain upon seeing this sent back the other two boats, wishing not to frighten them, but to find out who they were. When we came close, the men dismounted and approached the beach; we immediately then saw it was a party of cavalry from Bahía Blanca. After landing and conversing with them they told us they had been sent down to look after the Indians. This to a certain degree was true, for we found marks of a fire; but their present purpose evidently was to watch us; this is the more probable as the officer of the party steadily kept out of sight, the captain having taxed them with being so suspicious, which they denied. The gauchos were very civil and took us to the only spot where there was any chance of water. It was interesting seeing these hardy people fully equipped for an expedition. They sleep on the bare ground at all times, and as they travel, get their food; already they had killed a puma or lion; the tongue of which was the only part they kept; also an ostrich, these they catch by two heavy balls, fastened to the ends of a long thong. They showed us the manner of throwing it; holding one ball in their hands, by degrees they whirl the other round and round, and then with great force send them both revolving in the air towards any object. Of course



the instant it strikes an animal's legs it fairly ties them together. They gave us an ostrich egg, and before we left them they found another nest or rather depositary in which were twenty-four of the great eggs. It is an undoubted fact that many female ostriches lay in the same spot, thus forming one of their collections. Having given our friends some dollars they left us in high good humor and assured us they would some day bring a live lion. We then returned on board.

*From Captain FitzRoy's Narrative:*

My friend's attention was soon attracted to some low cliffs near Point Alta, where he found some of those huge fossil bones, described in his work; and notwithstanding our smiles at the cargoes of apparent rubbish which he frequently brought on board, he and his servant used their pick-axes in earnest, and brought away what have since proved to be most interesting and valuable remains of extinct animals.

*From Charles Darwin's Diary:*

22 September 1832: Had a very pleasant cruise about the bay with the captain and Sullivan. We stayed some time on Punta Alta about ten miles from the ship; here I found some rocks. These are the first I have seen, and are very interesting from containing numerous shells and the bones of large animals. The day was perfectly calm; the smooth water and the sky were indistinctly separated by the ribbon of mud banks: the whole formed a most unpicturesque picture. It is a pity such bright clear weather should be wasted on a country, where half its charms do not appear. We got on board just in time to escape a heavy squall and rain.

23 September: A large party was sent to fish in a creek about eight miles distant; great numbers of fish were caught. I walked on to Punta Alta to look after fossils; and to my great joy, I found the head of some large animal, imbedded in a soft rock. It took me nearly three hours to get it out. As far as I am able to judge, it is allied to the rhinoceros. I did not get it on board till some hours after it was dark.

24 September: Employed in carefully packing up the prizes of yesterday. In the morning one of the schooners arrived, and the other is shortly expected. They have had a very bad passage of six days. Mr Rowlett brings back an excellent account of Rio Negro. Nothing could exceed the civility of the governor and the inhabitants; it was rendered the more striking from the contrast of our reception at the fort of Bahia Blanca.

25 September: The schooner has been taken to the creek. Mr Wickham and a party of men have erected tents on shore and are living there, during the refit of the vessel. I accompanied the little settlement and whilst they were rigging the tents I walked to Punta Alta and again obtained several fossils. I came quite close to an ostrich on her nest; but did not see her till she rose up and with her long legs stretched across the country.

*From Captain FitzRoy's Narrative:*

Four kinds of armadilloes were described to us by these men, of which we saw but two: the quiriquincha, with nine bands; the mataca-bola, which rolls up into a ball; the peludo, which is large and hairy; and the molito, of which I heard only the name. Mr Rowlett saw a black fox, and he was told that there are wolves in the neighbourhood. Two small burrowing animals are also found: the zorillo, or skunk; and the tucutucu. While speaking of animals, I should say that Commandant Rodriguez told me that he had once seen, in Paraguay, a 'gran bestia', not many months old, but which then stood about four feet high. It was very fierce, and secured by a chain. Its shape resembled that of a hog, but it had talons on its feet instead of hoofs; the snout was like a hog's, but much longer. When half-grown, he was told that it would be capable of seizing and carrying away a horse or a bullock. I concluded that he must have seen a tapir or anta; yet as he persisted in asserting that the animal he saw was a beast of prey, and that it was extremely rare, I here repeat what he said.

Abundance – I may well say shoals of fish were caught by our men, whenever we hauled the nets at a proper time (the beginning of the flood-tide); and as they were chiefly unknown to naturalists, Mr Earle made careful drawings of them, and Mr Darwin preserved many in spirits. We procured plenty of good fresh water from wells near the beach, and small wood for fuel in their immediate neighbourhood. The climate is delightful, and healthy to the utmost degree, notwithstanding such extensive flats, half-covered with water, and so many large mud-banks.

In our rambles over the country, near Port Belgrano, we every where found small pieces of pumice-stone; and till Mr Darwin examined the Ventana, supposed they had been thrown thence: he has, however, ascertained that it is not volcanic; and, I believe, concludes that these fragments came from the Cordillera of the Andes.

The aborigines of these regions attach considerable importance to



the Ventana, chiefly on account of its use as a landmark; for, rising abruptly to the height of 3,340 feet in a flat country, where there is not another hill of consequence, it is of no small use to them in their wanderings. I was told by Mr Darwin that he found it to be chiefly of quartz formation; but I need not risk causing a mistake, by repeating here the information which he gave me, when it is given fully in his own words in the accompanying volume.

After a few days' examination of Port Belgrano, and making inquiries of Harris, as well as those persons at Argentina who knew something of the neighbouring waters and shores, I was convinced that the *Beagle* alone could not explore them, so far as to make her survey of any real use, unless she were to sacrifice a great deal more time than would be admissible, considering the other objects of her expedition. What then was to be done? Open boats could not explore the seaward limits of those numerous shoals which lie between Blanco Bay and the River Negro, because there are dangerous tide-races, and often heavy seas. The *Beagle* herself, no doubt, could do so, and her boats might explore the inlets; but, the time that such a proceeding would occupy was alarming to contemplate. I might run along the outer line of danger in the *Beagle*, and connect it with the soundings in the offing; but how could an English ship surveying a frequented coast overlook six large ports, only because their examination required time, and was dangerous?

At last, after much anxious deliberation, I decided to hire two small schooners – or rather decked boats, schooner-rigged – from Mr Harris, and employ them in assisting the *Beagle* and her boats. Mr Harris was to be in the larger, as pilot to Lieutenant Wickham – and his friend Mr Roberts, also settled at Del Carmen, on the River Negro, was to be Mr Stokes's pilot in the smaller vessel. These small craft, of fifteen and nine tons respectively, guided by their owners, who had for years frequented this complication of banks, harbours, and tides, seemed to me capable of fulfilling the desired object – under command of such steady and able heads as the officers mentioned – with this great advantage; that, while the *Beagle* might be procuring supplies at Monte Video, going with the Fuegians on her first trip to the southward, and visiting the Falkland islands, the survey of all those intricacies between Blanco Bay and San Blas might be carried on steadily during the finest time of year. One serious difficulty, that of my not being authorized to hire or purchase assistance on account of the Government, I did not then dwell upon, for I was anxious and eager, and, it has proved, too sanguine. I made an agreement with Mr Harris, on my own individual

responsibility, for such payment as seemed to be fair compensation for his stipulated services, and I did hope that if the results of these arrangements should turn out well, I should stand excused for having presumed to act so freely, and should be reimbursed for the sum laid out, which I could so ill spare. However, I foresaw and was willing to run the risk, and now console myself for this, and other subsequent mortifications, by the reflection that the service entrusted to me did not suffer.

The formal agreement with Mr Harris being duly signed, I despatched him forthwith to the River Negro, in search of his vessels, and sent the purser with him to ascertain the state of things at Del Carmen, especially with a view to future supplies.

Our boats were constantly employed while these arrangements were pending, and directly they were finished, the *Beagle* got under sail to examine the entrance and outer parts of the port. For several days she was thus engaged, anchoring always at night. In a week the schooners arrived, bringing our purser and their owners. The *Paz*, of about fifteen tons burthen, was as ugly and ill-built a craft as I ever saw, covered with dirt, and soaked with rancid oil. The *Liebre*, of about nine tons burthen, was a frigate's barge, raised and decked – oily like the other; but as both had done their owners good service in procuring seal and sea-elephant oil, I saw no reason to doubt our being able to make them answer our purpose. Yet the prospect for those who had so handsomely volunteered to go in any thing, with or without a deck, could not be otherwise than extremely unpleasant; for they did not then foresee how soon a thorough cleansing and complete outfit would be given to both vessels, and how different they would afterwards appear.

Lieutenant Wickham, with the sailmaker, armourer, cooper, and a small party, were immediately established under tents, on the banks of a small creek. The little schooners were hauled ashore for examination and a thorough refit; and then, having left them the stores and other necessaries which they would require, I went with the *Beagle* towards Blanco Bay; completed the examination of a narrow though deep channel, by which any ship may enter Port Belgrano, passed round the great north bank, and again anchored under Mount Hermoso. While some officers and men were on shore there, building a sea-mark on the mount, and otherwise employed for the survey, a gale of wind came on from SE., which soon sent so heavy a sea into the roadstead near the mount, that the *Beagle* was obliged to strike topmasts and veer a long scope of cable upon two anchors, besides having another under foot.



Unluckily, our party on shore had only one day's provisions, so while the gale lasted their situation was sufficiently disagreeable; the keen air and hard exercise sharpening their appetites, while they had nothing to eat after the first day; and having no guns, they had no prospect of procuring anything. Mr Darwin was also on shore, having been searching for fossils, and he found this trial of hunger quite long enough to satisfy even his love of adventure. Directly it was possible to put a boat on the water, one was sent, with provisions secured in a cask which was thrown overboard at the back of the surf, and soon drifted ashore to the famishing party. This gale lasted several days, and proved to us not only how heavy a sea is thrown into this bight by a south-east gale; but also, that the holding-ground is sufficiently good to enable a ship to withstand its effects.

*From Charles Darwin's Diary:*

1 October 1832: The morning threatened us with heavy weather; but it blew over in a hail storm. We have anchored near to a cliff, upon which the captain intends to erect some land-mark as a guide in entering the harbour.

2 October: Early in the morning the captain with a large party landed in the four whale boats. Dinner for all hands was taken, as it was intended to work at the land-mark all day and return in the evening. King and I went in one direction to geologize and Mr Bynoe in another to shoot. During our walk I observed the wind had freshened and altered its point; but I paid no further attention to it. When we returned to the beach, we found two of the boats hauled up high and dry and the others gone on board. The captain, two hours previously, had had some difficulty in getting off and now the line of white breakers clearly showed the impossibility. It was an unpleasant prospect to pass the night with thin clothes on the bare ground; but it was unavoidable, so we made the best of it. Mr Stokes and Johnson were left in command and made what arrangements they could. At night no supper was served out; as we were eighteen on shore and very little food left. We made a sort of tent or screen with the boat's sails and prepared to pass the night. It was very cold, but by all huddling in a heap we managed pretty well till the rain began, and then we were sufficiently miserable.

3 October: At daybreak things wore a very bad appearance. The sky looked dirty and it blew a gale of wind; a heavy surf was roaring on the beach; and what was the worst of all, the men thought this weather would last. The *Beagle* was pitching very deeply and we thought it not

impossible she would be forced to slip cable and run out to sea. We afterwards heard she rode it out well, but that some of the seas went right over her, although having 120 fathoms of cable out. It was now time to look after our provisions: we breakfasted on some small birds and two gulls, and a large hawk which was found dead on the beach. Our dinner was not much better, as it consisted in a fish left by the tide and the bones of the meat, which we were determined to keep for the next day. In the evening, however, to our great joy and surprise the wind lulled and the Captain in his boat was able to come within some hundred yards of the coast; he then threw over a cask with provisions, which some of the men swam out to and secured. This was all very well; but against the cold at night there was no remedy. Nothing would break the wind, which was so cold that there was snow in the morning on the Sierra de Ventana. I never knew how painful cold could be; I was unable to sleep, even for a minute, from my body shivering so much. The men also who swam for the provisions suffered extremely, from not being able to get warm again.

4 October: By the middle of the next day we were all on board the *Beagle*; and most thoroughly after our little adventure did we enjoy its luxuries. In the evening we moved our anchorage and stood in towards our old place.

5 October: Some of the men felt rather unwell, but none of us are made at all ill by it. The wind has been very light all day, and we have made little progress.

*Midshipman P. G. King's account:*

It was necessary to erect a beacon as a guide to vessels making for Bahía Blanca, south of the entrance to the River Plata. The *Beagle* anchored some distance from that bar bound bay on the open coast line about a mile from the shore. Three boats' crews were sent away and effected a landing through the surf, a day's provisions had been supplied to them supposing they would return in the evening. A gale from the south-east however sprang suddenly up making a dead lee shore from which their little vessel could for two days be seen holding on to her two anchors, pitching bows under. Mr Darwin and the writer were of the shore party which turned the boats bottom up on the beach for shelter for the nights they passed without more food than they had saved from their first supper with the addition of a dead hawk picked up on the shore. The scene to Mr Darwin and indeed to the others was a novel one and the probability that the ship might drag from her anchors or part her



cables was present to many minds. However the gale moderated and a boat was seen to leave the *Beagle*, the captain himself in it, with a case of provisions which was thrown into the surf just outside the breakers. Several splendid looking men soon stripped and went to land the cask, the danger being that it might be dashed to pieces on the rocks. The head of the cask was soon knocked in and Mr Darwin and the party stood round it to receive each his share.

*From Captain FitzRoy's Narrative:*

One of our party on shore, who is not likely to forget building a mark on Mount Hermoso, discovered many curious fossils in some low cliffs under the mount; and judging from what Mr Darwin then found, future collectors may reap a rich harvest there, as well as at Point Alta.

We next returned to the creek, and while some assisted the outfit of Lieutenant Wickham's little vessels, others explored the upper parts of the port, quite to its end, and Mr Darwin took advantage of the opportunity to make some of those interesting excursions which he describes in his volume. At this time there were no soldiers to watch us, neither was there any longer a suspicion of our character; for it appeared that an express had been sent off to Buenos Aires, at our first arrival, giving an exaggerated and rather ludicrous account of our officers, instruments and guns – to which an answer had been immediately returned, desiring the commandant to afford us every facility in his power, and checking the old major rather sharply for his officious and unnecessary caution. Had we not been hastily treated in the roads of Buenos Aires, when I went there to communicate with the government, and obtain information, I should doubtless have carried with me orders, or a letter, to this commandant, which would have prevented a moment's suspicion: but, as it happened, no real delay was occasioned, and no person was much disturbed except the major, who fancied that our brass guns were disguised field-pieces, our instruments lately invented engines of extraordinary power, our numerous boats intended expressly for disembarking troops; and an assertion of mine, that any number of line-of-battle ships might enter the port, a sure indication that the *Beagle* was sent to find a passage for large ships: which would soon appear, and take possession of the country. Such was the substance of his communication to the government at Buenos Aires, and as he acted as secretary – Rodriguez being a man of action rather than words – he had free scope for his disturbed imagination. I shall not easily forget his countenance, when I first told him – thinking he would be glad to hear

it – that there was a deep channel leading from Blanco Bay to the Guardia near Argentina, and that a line-of-battle ship could approach within gunshot of the place where I first met the commandant. He certainly thought himself almost taken prisoner; and I really believe that if he had been commanding officer, we should have been sent in chains to Buenos Aires, or perhaps still worse treated. Fortunately, Rodriguez the commandant, being a brave man, and a gentleman, contemplated no such measures.

*From Charles Darwin's Diary:*

13, 14 (Sunday) and 15 October 1832: On Sunday the schooners came down from the creek and anchored alongside. Their appearance is much improved by their refit; but they look very small. *La Paz* is the largest, carrying seventeen tons; *La Liebre* only eleven and a half. Between the two they have fifteen souls. Mr Stokes and Mellersh are in *La Paz*; Mr Wickham and King in the other. They sail on Wednesday. I look forward to our separation with much regret; our society on board can ill afford to lose such very essential members. I am afraid the whole party will undergo many privations; the cabin in the smaller one is at present only two and a half feet high! Their immediate business will be to survey South of B. Blanca: and at the end of next month we meet them at Río Negro, in the bay of St Blas.

*From Captain FitzRoy's Narrative:*

18 October 1832: No person who had only seen the *Paz* and *Liebre* in their former wretched condition, would easily have recognised them after being refitted, and having indeed almost a new equipment. Spars altered, and improved rigging, well-cut sails, fresh paint, and thorough cleanliness, had transformed the dirty sealing craft into smart little cock-boats: and as they sailed out of Port Belgrano with the *Beagle*, their appearance and behaviour were by no means discouraging.

At dusk, Lieutenant Wickham and his small party of venturesome associates separated from us, and steered into False Bay. The *Beagle* anchored for the night, and the next day pursued her route towards Monte Video, where she arrived on the 26th.

Desirous of communicating with the government at Buenos Aires, and measuring the difference of meridians between that city and Monte Video, we weighed anchor on the 31st, proceeded up the river, and remained in the outer roadstead, off Buenos Aires, until 10 November. We then employed three days in verifying the positions of some banks,



as laid down in Heywood's and other charts, and returned to Monte Video on the 14th.

27 November: Our arrangements and observations being satisfactorily completed, a sufficient quantity of provision on board to last eight months, at full allowance, and an extra supply of iron and coals for the forge, in case of any serious accident, the *Beagle* sailed from Monte Video; and, after filling water near Cape Jesu María, hastened to look after her little assistants, left near Bahia Blanca.

In this trip we benefitted by the assistance of Mr Robert N. Hamond, an early and much esteemed friend of mine, who was lent to the *Beagle* from H.M.S. *Druid*, of which he was then a mate.

3 December: Soon after daylight we saw the very low islands, just to the northward of San Blas. We stood directly towards the shore, but when eight miles from it found a wide breadth of discoloured water, and the depth shoaled suddenly from ten to three fathoms in a few casts of the lead. Hauling off, we steered southward, with the ebb tide.

While tracing the outer edge of this bank we descried our cock-boats coming out to meet us, and soon afterwards Mr Wickham came on board. He gave us gratifying news with little drawback; but had he been half-roasted his own appearance could hardly have been more changed. Notwithstanding the protection of a huge beard, every part of his face was so scorched and blistered by the sun that he could hardly speak, much less join in the irresistible laugh at his own expense. His companions were similarly sun-burned, though not to such a degree. They had been much occupied in sounding extensive banks and harbours, under a hot sun, and while a fresh wind kept them constantly wet with spray. But this inconvenience was trifling; one of more importance was excessive seasickness, in consequence of the short and violent movements of such small craft under sail among the tide-races and eddies so numerous on that coast.

In other respects all had prospered so well, that I determined to give Mr Wickham fresh orders, enlarging considerably his share of surveying operations. He was desired to continue exploring the coast, even as far as Port Desire, until the *Beagle's* return from her visit to Tierra del Fuego and the Falkland Islands.

As the weather promised well, an anchor was dropped where we were, outside the banks, but the schooners sought shelter in the harbour of San Blas. Next day they came out and anchored close to us, in order to receive stores and various supplies which we had brought for them from Buenos Aires and Monte Video. I was a little uneasy when I



BEAGLE CHANNEL



PORTRAIT COVE



saw that the pilot of the *Liebre*, Mr Roberts, was one of the largest of men, and that his little vessel looked, by comparison, no bigger than a coffin; but Mr Wickham allayed my doubts by assuring me that his moveable weight answered admirably in trimming the craft; and that, when she got a-ground, Mr Roberts stepped overboard, and heaved her afloat. 'Certainly,' said Mr Wickham, 'he did harm on one day, by going up to look-out, and breaking the mast.'

In the afternoon of this day (4th) we weighed anchor and parted company from the *Paz* and *Liebre*. They returned to San Blas, and the *Beagle* steered southward. Secure and capacious as is the port just mentioned, it is one of the most difficult and dangerous to enter on this coast. The best, indeed only approach to it, is called by those sealers and sea-elephant fishers who have hitherto frequented it, 'Hell-gate'.

At about four the weather was very hot, the sky cloudless, and varying flaws of wind drove quantities of gossamer, and numbers of insects off from the land. The horizon was strangely distorted by refraction, and I anticipated some violent change. Suddenly myriads of white butterflies surrounded the ship, in such multitudes, that the men exclaimed, 'it is snowing butterflies.' They were driven before a gust from the north-west, which soon increased to a double-reefed topsail breeze, and were as numerous as flakes of snow in the thickest shower. The space they occupied could not have been less than two hundred yards in height, a mile in width, and several miles in length.



## 4. TIERRA DEL FUEGO

### *Captain FitzRoy's Narrative:*

Our next object was to visit Tierra del Fuego, examine some portions of that country, yet unexplored, and restore the Fuegians to their native places; but in our passage, strong southerly winds, severe squalls, and cold weather, though it was near midsummer in that hemisphere, caused delay and discomfort, as they must always in a small and deeply-laden vessel, where little can be done except in fine weather.

On 15 December we saw the land off Tierra del Fuego, near Cape San Sebastián, and next day closed the shore about Cape Sunday, ran along it past Cape Peñas, and anchored off Santa Inez. A group of Indians was collected near Cape Peñas, who watched our motions attentively. They were too far off for us to make out more than that they were tall men, on foot, nearly naked, and accompanied by several large dogs. To those who had never seen man in his savage state – one of the most painfully interesting sights to his civilized brother – even this distant glimpse of the aborigines was deeply engaging; but York Minster and Jemmy Button asked me to fire at them, saying that they were 'Oens-men – very bad men'.

Our Fuegian companions seemed to be much elated at the certainty of being so near their own country; and the boy was never tired of telling us how excellent his land was, how glad his friends would be to see him, and how well they would treat us in return for our kindness to him.

We remained but a few hours at anchor under Cape Santa Inez, for so heavy a swell set in, directly towards the shore, caused probably by a northerly gale at a distance, that our situation was dangerous as well as disagreeable. Our only chance of saving the anchor and chain was by weighing immediately; yet if we did so, there would be a risk of drifting ashore: however, we did weigh, and drifted some distance, rolling our nettings in; but a breeze sprung up, freshened rapidly, and soon carried us out of danger. This happened at three in the morning, so my hopes of observations and angles were frustrated, and I had no choice but to run for the strait of Le Maire.

At noon, very high breakers were reported by the mast-head man, off Cape San Diego; at that time the flood-tide was setting strongly against a northerly wind and high swell; but when the tide was slack, at one, the breakers disappeared; and when we passed close to the cape, at two, the water was comparatively smooth.

As we sailed into Good Success Bay, a Fuegian yell echoed among the woody heights, and shout after shout succeeded from a party of natives, posted on a projecting woody eminence, at the north head of the bay, who were seen waving skins, and beckoning to us with extreme eagerness. Finding that we did not notice them, they lighted a fire, which instantly sent up a volume of thick white smoke. I have often been astonished at the rapidity with which the Fuegians produce this effect, meant by them as a signal, in their wet climate, where I have been, at times, more than two hours attempting to kindle a fire.

Scarcely was our ship secured, when the wind shifted to south-west, and blew strongly, bringing much rain with it; and we had indeed reason to rejoice at having attained so secure an anchorage. During the night, heavy squalls, williwaws, disturbed our rest very often, but did no injury, the water being quite smooth.

18 December: Mr Darwin, Mr Hamond and others, went with me to the natives who had so vociferously greeted our arrival; and deeply indeed was I interested by witnessing the effect caused in their minds by this first meeting with man in such a totally savage state.

There were five or six stout men, half-clothed in guanaco\* skins, almost like the Patagonians in aspect and stature, being near six feet high, and confident in demeanour. They scarcely bore resemblance to the Fuegians, except in colour and class of features. I can never forget Mr Hamond's earnest expression, 'What a pity such fine fellows should be left in such a barbarous state!' It told me that a desire to benefit these ignorant, though by no means contemptible human beings, was a natural emotion, and not the effect of individual caprice or erroneous enthusiasm; and that his feelings were exactly in unison with those I had experienced on former occasions, which had led to my undertaking the heavy charge of those Fuegians whom I brought to England.

### *From Charles Darwin's Diary:*

18 December 1832: The captain sent a boat with a large party of officers to communicate with the Fuegians. As soon as the boat came within hail, one of the four men who advanced to receive us began to shout

\* Guanaco, a species of llama.



most vehemently, and at the same time pointed out a good landing place. The women and children had all disappeared. When we landed the party looked rather alarmed, but continued talking and making gestures with great rapidity. It was without exception the most curious and interesting spectacle I ever beheld. I would not have believed how entire the difference between savage and civilized man is. It is greater than between a wild and domesticated animal, in as much as in man there is greater power of improvement. The chief spokesman was old and appeared to be head of the family; the three others were young powerful men and about six feet high. From their dress etc. etc. they resembled the representations of devils on the stage. The old man had a white feather cap, from under which, black long hair hung round his face. The skin is dirty copper colour. Reaching from ear to ear and including the upper lip, there was a broad red coloured band of paint; and parallel and above this, there was a white one; so that the eyebrows and eyelids were even thus coloured. The only garment was a large guanaco-skin with the hair outside. This was merely thrown over their shoulders, one arm and leg being bare; for any exercise they must be absolutely naked. Their very attitudes were abject, and the expression distrustful, surprised and startled. Having given them some red cloth, which they immediately placed round their necks, we became good friends. This was shown by the old man patting our breasts and making something like the same noise which people do when feeding chickens. I walked with the old man and this demonstration was repeated between us several times. At last he gave me three hard slaps on the breast and back at the same time, and making most curious noises. He then bared his bosom for me to return the compliment, which being done, he seemed highly pleased. Their language does not deserve to be called articulate. Capt. Cook says it is like a man clearing his throat; to which may be added another very hoarse man trying to shout and a third encouraging a horse with that peculiar noise which is made in one side of the mouth. Imagine these sounds and a few gutturals mingled with them, and there will be as near an approximation to their language as any European may expect to obtain.

Their chief anxiety was [to] obtain knives; this they showed by pretending to have blubber in their mouths and cutting instead of tearing it from the body; they called them in a continued plaintive tone *cuchilla*, – probably a corruption from a Spanish word. They are excellent mimics, if you cough or yawn or make any odd motion they immediately imitate you. Some of the officers began to squint and make

monkey like faces; but one of the young men, whose face was painted black with white band over his eyes, was most successful in making still more hideous grimaces. When a song was struck up, I thought they would have fallen down with astonishment; and with equal delight they viewed our dancing and immediately began themselves to waltz with one of the officers. They knew what guns were and much dreaded them, and nothing would tempt them to take one in their hands. Jemmy Button came in the boat with us; it was interesting to watch their conduct to him. They immediately perceived the difference and held much conversation between themselves on the subject. The old man then began a long harangue to Jemmy, who said it was inviting him to stay with them; but the language is rather different and Jemmy could not talk to them. If their dress and appearance is miserable, their manner of living is still more so. Their food chiefly consists in limpets and mussels, together with seals and a few birds; they must also catch occasionally a guanaco. They seem to have no property excepting bows and arrows and spears. Their present residence is under a few bushes by a ledge of rock: it is no ways sufficient to keep out rain or wind; and now in the middle of summer it daily rains and as yet each day there has been some sleet.

The almost impenetrable wood reaches down to high water mark; so that the habitable land is literally reduced to the large stones on the beach; and here at low water, whether it may be night or day, these wretched looking beings pick up a livelihood. I believe if the world was searched, no lower grade of man could be found. The southsea islanders are civilized compared to them, and the esquimaux, in subterranean huts, may enjoy some of the comforts of life. After dinner the captain paid the Fuegians another visit. They received us with less distrust and brought with them their timid children. They noticed York Minster (who accompanied us) in the same manner as Jemmy, and told him he ought to shave, and yet he has not twenty hairs on his face, whilst we all wear our untrimmed beards. They examined the color of his skin; and having done so, they looked at ours. An arm being bared, they expressed the liveliest surprise and admiration. Their whole conduct was such an odd mixture of astonishment and imitation, that nothing could be more laughable and interesting. The tallest man was pleased with being examined and compared with a tall seaman, in doing this he tried his best to get on rather higher ground and to stand on tiptoes. He opened his mouth to show his teeth and turned his face *en profil*; for the rest of his days doubtless he will be the *beau ideal* of his tribe. Two or three of



the officers, who are both fairer and shorter than the others (although possessed of large beards), were, we think, taken for ladies. I wish they would follow our supposed example and produce their 'squaws'. In the evening we parted very good friends; which I think was fortunate, for the dancing and 'sky-larking' had occasionally bordered on a trial of strength.

*The same meeting described in Captain FitzRoy's Narrative:*

Disagreeable, indeed painful, as is even the mental contemplation of a savage, and unwilling as we may be to consider ourselves even remotely descended from human beings in such a state, the reflection that Cæsar found the Britons painted and clothed in skins, like these Fuegians, cannot fail to augment an interest excited by their childish ignorance of matters familiar to civilized man, and by their healthy, independent state of existence. One of these men was just six feet high, and stout in proportion; the others were rather shorter: their legs were straight and well formed, not cramped and misshapen, like those of the natives who go about in canoes; and their bodies were rounded and smooth. They expressed satisfaction or good-will by rubbing or patting their own, and then our bodies; and were highly pleased by the antics of a man belonging to the boat's crew, who danced well and was a good mimic. One of the Fuegians was so like York Minster, that he might well have passed for his brother. He asked eagerly for 'cuchillo'. About his eyes were circles of white paint, and his upper lip was daubed with red ochre and oil. Another man was rubbed over with black. They were apparently very good-humoured, talked and played with the younger ones of our party, danced, stood up back to back with our tallest men to compare heights, and began to try their strength in wrestling – but this I stopped. It was amusing and interesting to see their meeting with York and Jemmy, who would not acknowledge them as countrymen, but laughed at and mocked them. It was evident that both of our Fuegians understood much of the language in which the others talked; but they would not try to interpret, alleging that they did not know enough. York betrayed this by bursting into an immoderate fit of laughter at something the oldest man told him, which he could not resist telling us was, that the old man said he was dirty, and ought to pull out his beard. Now, if their language differed much from that of York Minster, or was indeed other than a dialect of the same original, it is not probable that York could have understood the old man's meaning so readily when he spoke quietly, without signs.

Richard Matthews was with us, but did not appear to be at all discouraged by a close inspection of these natives. He remarked to me, that 'they were no worse than he had supposed them to be'.

20 December: Soon after daylight this morning, some very large guanacos were seen near the top of Banks Hill. They walked slowly and heavily, and their tails hung down to their hocks. To me their size seemed double that of the guanacos about Port Desire. Mr Darwin and a party set off to ascend the heights, anxious to get a shot at the guanacos and obtain an extended view, besides making observations. They reached the summit, and saw several large animals, whose long woolly coats and tails added to their real bulk, and gave them an appearance quite distinct from that of the Patagonian animal; but they could not succeed in shooting one.

21 December: Sailed from Good Success Bay. On the 22nd we saw Cape Horn, and being favoured with northerly winds, passed close to the southward of it before three o'clock. The wind then shifted to north-west, and began to blow strong. Squalls came over the heights of Hermite Island, and a very violent one, with thick weather, decided my standing out to sea for the night under close-reefed topsails. The weather continued bad and very cold during that night and next day.

On the morning of the 24th, being off Cape Spencer, with threatening weather, a high sea, the barometer low, and great heavy-looking white clouds rising in the south-west, indicative of a gale from that quarter, I determined to seek for an anchorage, and stood into the so-called St Francis Bay. In passing Cape Spencer we were assailed by such a furious hail-squall, that for many minutes it was quite impossible to look to windward, or even to see what was ahead of us. We could not venture to wear round, or even heave to, for fear of getting so far to leeward as to lose our chance of obtaining an anchorage; however, we stood on at hazard, and the squall passed away soon enough to admit of our anchoring in seventeen-fathoms water, quite close to a steep promontory at the south side of St Martin Cove.

After being for some time accustomed to the low barren shores and shallow harbours of the pampa and Patagonian coasts, our position almost under this black precipice was singularly striking. The decided contrast of abrupt, high, and woody mountains, rising from deep water, had been much remarked in Good Success Bay; but here it was so great that I could hardly persuade myself that the ship was in security – sufficiently far from the cliff.

25 December: Notwithstanding violent squalls, and cold damp weather,



we kept our Christmas merrily; certainly, not the less so, in consequence of feeling that we were in a secure position, instead of being exposed to the effects of a high sea and heavy gale.

*From Charles Darwin's Diary:*

The sea is here tenanted by many curious birds, amongst which the steamer is remarkable; this [is] a large sort of goose, which is quite unable to fly, but uses its wings to flapper along the water; from thus beating the water it takes its name. Here also are many penguins, which in their habits are like fish, so much of their time do they spend under water, and when on the surface they show little of their bodies excepting the head; their wings are merely covered with short feathers. So that there are three sorts of birds which use their wings for more purposes than flying; the steamer as paddles, the penguin as fins, and the ostrich spreads its plumes like sails to the breeze.

*From Captain FitzRoy's Narrative:*

At sunset, there was a reddish appearance all over the sky – clouds shot over the summits of the mountains in ragged detached masses – and there was a lurid haze around, which showed a coming storm as surely as a fall of the barometer. The gale increased, and at midnight such furious squalls came down from the heights, that the water was swept up, and clouds of foam were driven along the sea. Although we were close to a weather shore, with our top-gallant masts down and yards braced sharp up, we hardly thought ourselves in security with three anchors down and plenty of chain cable out.

During such sudden, and at times tremendous squalls as these, it is absolutely necessary to have a long scope of cable out, although the vessel may be in smooth water, in order that the first fury of the blast may be over before the cable is strained tight; for otherwise, the chain or anchor might snap. When the violence of the squall is past, the weight of a chain cable sinking down, draws the ship a-head, so far as to admit of her recoiling again at the next williwaw; thus, a kind of elasticity may be given to a chain, in some degree equivalent to that always possessed by a hemp cable.

31 *December*: Tired and impatient at the delay caused by bad weather, we put to sea again the first day there was a hope of not being driven eastward; and during a fortnight we tried hard to work our way towards Christmas Sound. My purpose was to land York Minster and Fuegia Basket among their own people, near March Harbour, and

return eastward through the Beagle Channel, landing Jemmy Button also with his tribe, the Tekeenica. Part of Whale-boat Sound and the western arms of the Beagle Channel were to be surveyed: and by this scheme I proposed to combine both objects.

2 *January 1833*: We were rather too near the Diego Ramirez Islands, during a fresh gale of wind, with much sea; but by carrying a heavy press of sail, our good little ship weathered them cleverly, going from seven and a half to eight knots an hour, under close-reefed topsails and double-reefed courses – the top-gallant masts being on deck.

On 5 January 1833 the same islands were again under our lee – a sufficient evidence that we did not make westing. In fact, no sooner did we get a few reefs out, than we began taking them in again; and although every change of wind was turned to account, as far as possible, but little ground was gained.

On the 11th we saw that wild-looking height, called York Minster, looming among driving clouds, and I flattered myself we should reach an anchorage; but after tearing through heavy seas, under all the sail we could carry, darkness and a succession of violent squalls, accompanied by hail and rain, obliged me to stand to seaward, after being within a mile of our port. All the next day we were lying-to in a heavy gale – wearing occasionally.

At three in the morning of the 13th, the vessel lurched so deeply, and the main-mast bent and quivered so much, that I reluctantly took in the main-topsail (small as it was when close-reefed), leaving set only the storm-trysails (close-reefed) and fore-staysail. At ten, there was so continued and heavy a rush of wind, that even the diminutive trysails oppressed the vessel too much, and they were still farther reduced. Soon after one, the sea had risen to a great height, and I was anxiously watching the successive waves, when three huge rollers approached, whose size and steepness at once told me that our sea-boat, good as she was, would be sorely tried. Having steerage way, the vessel met and rose over the first unharmed, but, of course, her way was checked; the second deadened her way completely, throwing her off the wind; and the third great sea, taking her right a-beam, turned her so far over, that all the lee bulwark, from the cat-head to the stern davit, was two or three feet under water.

For a moment, our position was critical; but, like a cask, she rolled back again, though with some feet of water over the whole deck. Had another sea then struck her, the little ship might have been numbered among the many of her class which have disappeared: but the crisis was



past – she shook the sea off her through the ports, and was none the worse – excepting the loss of a lee-quarter boat, which, although carried three feet higher than in the former voyage (1826–1830), was dipped under water, and torn away.

It was well that all our hatchways were thoroughly secured, and that nothing heavy could break adrift. But little water found its way to the lower deck, though Mr Darwin's collections, in the poop and fore-castle cabins on deck, were much injured. Next to keeping a sharp look-out upon the sky, the water, and the barometer, we were always anxious to batten down our hatches in time – especially at night, during a gale, or in very squally weather.

The roller which hove us almost on our beam ends, was the highest and most hollow that I have seen, excepting one in the Bay of Biscay, and one in the Southern Atlantic; yet so easy was our little vessel that nothing was injured besides the boat, the netting (washed away), and one chronometer.

From that time the wind abated, and the sea became less high. The main-topsail was again set, though with difficulty, and at four o'clock the fore-topsail and double-reefed foresail were helping us towards False Cape Horn, my intention being to anchor in Nassau Bay.

This gale was severely felt on all parts of the coast, south of 48°, as I afterwards ascertained from sealing-vessels: and at the Falkland Islands, a French whaler, called *Le Magellan*, was driven from her anchors and totally wrecked in that land-locked and excellent port, Berkeley Sound.

*This 'great gale', as it came to be called, was nearly the end of the Beagle, and others give a rather more dramatic account:*

*From Charles Darwin's Diary:*

9 January 1833: We doubled Cape Horn on the 21st, since which we have either been waiting for good, or beating against bad weather, and now we actually are about the same distance, viz. a hundred miles, from our destination. There is however the essential difference of being to the south instead of the east. Besides the serious and utter loss of time and the necessary discomforts of the ship heavily pitching and the miseries of constant wet and cold, I have scarcely for an hour been quite free from seasickness. How long the bad weather may last, I know not; but my spirits, temper, and stomach, I am well assured, will not hold out much longer.

10 January: A gale from the SW.

11 January: A very strong breeze, with heavy squalls; by carrying a press of sail, we fetched within a mile of Christmas Sound. This rough precipitous coast is known by a mountain which from its castellated form was called by Captain Cook, York Minster. We saw it only to be disappointed, a violent squall forced us to shorten sail and stand out to sea. To give an idea of the fury of the unbroken ocean, clouds of spray were carried over a precipice which must have been 200 feet high.

12 January: A gale with much rain, at night it freshened into a regular storm. The captain was afraid it would have carried away the close reefed main topsail. We then continued with merely the trysails and storm staysail.

Sunday 13 January: The gale does not abate: if the *Beagle* was not an excellent sea-boat and our tackle in good condition, we should be in distress. A less gale has dismasted and foundered many a good ship. The worst part of the business is our not exactly knowing our position: it has an awkward sound to hear the officers repeatedly telling the look out man to look well to leeward. Our horizon was limited to a small compass by the spray carried by the wind; the sea looked ominous; there was so much foam, that it resembled a dreary plain covered by patches of drifted snow. Whilst we were heavily labouring, it was curious to see how the albatross with its widely expanded wings, glided right up the wind.

At noon the storm was at its height; and we began to suffer; a great sea struck us and came on board; the after-tackle of the quarter boat gave way and an axe being obtained they were instantly obliged to cut away one of the beautiful whale boats; the same sea filled our decks so deep, that if another had followed it is not difficult to guess the result. It is not easy to imagine what a state of confusion the decks were in from the great body of water. At last the ports were knocked open\* and she again rose buoyant to the sea. In the evening it moderated and we made out Cape Spencer (near Wigwam Cove), and running in, anchored behind False Cape Horn. As it was dark there was difficulty in finding a place; but as the men and officers from constant wet were much tired, the anchor was 'let go' in the unusual depth of forty-seven fathoms. The luxury of quiet water after being involved in such a warring of the elements is indeed great. It could have been no ordinary one, since Captain FitzRoy considers it the worst gale he was ever in. It is a disheartening reflection that it is now twenty-four days since doubling Cape Horn, since which there has been constant bad weather, and we are now not much above twenty miles from it.

\* Thus draining off the great weight of water on deck.



14 January: The winds certainly are most remarkable; after such a storm as yesterday's, it blew a heavy gale from the SW. As we are in smooth water it does not so much signify. We stood to the north to find an harbour; but after a wearying search in a large bay did not succeed. I find I have suffered an irreparable loss from yesterday's disaster in my drying paper and plants being wetted with salt water. Nothing resists the force of an heavy sea; it forces open doors and sky lights, and spreads universal damage. None but those who have tried it, know the miseries of a really heavy gale of wind. May providence keep the *Beagle* out of them.

*Second Lieutenant Sullivan gave a different view of the crisis to his son, who re-tells it in the following extract from a letter:*

Captain FitzRoy called the officers together, and said, 'If a man falls overboard, if we lose a spar or ship a sea, I shall blame the officers of the watch.' During the whole voyage, part of the time in one of the most stormy regions of the world, not one of these events happened, except the shipping of one sea just after my father had relinquished the deck to FitzRoy. The captain always had the ports secured, saying that a ship had no business to be in the position to require them for freeing ports. My father never liked this order, and told the carpenter always to have a handspike handy for eventualities. On the occasion in question the vessel was on her beam-ends. On my father reaching the deck from below, he found the carpenter up to his waist in water, standing on the bulwark, driving a handspike against the port, which he eventually burst open. This probably saved the ship, for she righted in time to meet the next heavy sea. No skill could have prevented the accident, for the ship was struck by three heavy breaking seas in succession, and the third came on board.

*From Captain FitzRoy's Narrative:*

Before midnight we anchored under shelter of the land near False Cape Horn; and next morning (14th) crossed Nassau Bay in search of a convenient harbour near the Beagle Channel. Having found so much difficulty in getting to the westward by the open sea, I decided to employ boats in the interior passages, and leave the *Beagle* at a secure anchorage.

Furious squalls prevented our effecting this purpose; and we anchored for the night in Windhond Bay. The following day (15th) we again tried to get to the head or north-west corner of Nassau Bay, but ineffectually, for repeated squalls opposed us, and at last obliged me to

bear up for Goree Road; one of the most spacious, accessible, and safe anchorages in these regions. Here, to my surprise, York Minster told me that he would rather live with Jemmy Button in the Tekeenica country than go to his own people. This was a complete change in his ideas, and I was very glad of it; because it might be far better that the three, York, Jemmy, and Fuegia, should settle together. I little thought how deep a scheme Master York had in contemplation.

18 January: Having moored the *Beagle* in security, and made arrangements for the occupation of those who were to remain on board, I set out with four boats (yawls and three whale-boats), carrying Matthews and the Fuegians, with all the stock of useful things which had been given to them in England. By far the larger part of their property, including Matthews's outfit, was sent by Mr Coates, Secretary of the Church Missionary Society.

*From Charles Darwin's Diary:*

The choice of articles showed the most culpable folly and negligence. Wine glasses, butter-bolts, tea-trays, soup tureens, mahogany dressing-case, fine white linen, beaver hats and an endless variety of similar things, shows how little was thought about the country where they were going to. The means absolutely wasted on such things would have purchased an immense stock of really useful articles.

*From Captain FitzRoy's Narrative:*

A temporary deck having been put upon the yawl, she carried a large cargo, and was towed by the other boats when the wind was adverse. Matthews showed no sign of hesitation or reluctance; on the contrary, he was eager to begin the trial to which he had been so long looking forward. Messrs Darwin, Bynoe, Hamond, Stewart, and Johnson, with twenty-four seamen and marines, completed the party.

My intention was to go round the north-east part of Navarin Island, along the eastern arm of the Beagle Channel, through Murray Narrow, to the spot which Jemmy called his country; there establish the Fuegians, with Matthews; leave them for a time, while I continued my route westward to explore the western arms of the channel, and part of Whale-boat Sound; and at my return thence decide whether Matthews should be left among the natives for a longer period, or return with me to the *Beagle*.

19 January 1883: The yawl, being heavily laden, was towed by the other three boats, and, while her sails were set, went almost as fast as



they did; but after passing Cape Rees, and altering our course to the westward, we were obliged to drag her along by strength of arm against wind and current. The first day no natives were seen, though we passed along thirty miles of coast, and reached Cutfinger Cove. (This name was given because one of our party, Robinson by name, almost deprived himself of two fingers by an axe slipping with which he was cutting wood.) At this place, or rather from a hill above it, the view was striking. Close to us was a mass of very lofty heights, shutting out the cold southerly winds, and collecting a few rays of sunshine which contrived to struggle through the frequent clouds of Tierra del Fuego. Opposite, beyond a deep arm of the sea, five miles wide, appeared an extensive range of mountains, whose extremes the eye could not trace; and to the westward we saw an immense canal, looking like a work of gigantic art, extending between parallel ranges of mountains, of which the summits were capped with snow, though their sides were covered by endless forests. This singular canal-like passage is almost straight and of nearly an uniform width (overlooking minute details) for one hundred and twenty miles.

*20 January:* We passed the clay cliffs, which narrow the channel to less than a mile, but, being low, were beneath the horizon of our eye at Cutfinger Cove: westward of them the channel widens again to its usual breadth of two miles. Several natives were seen in this day's pull; but as Jemmy told us they were not his friends, and often made war upon his people, we held very little intercourse with them. York laughed heartily at the first we saw, calling them large monkeys; and Jemmy assured us they were not at all like his people, who were very good and very clean. Fuegia was shocked and ashamed; she hid herself, and would not look at them a second time. It was interesting to observe the change which three years only had made in their ideas, and to notice how completely they had forgotten the appearance and habits of their former associates; for it turned out that Jemmy's own tribe was as inferior in every way as the worst of those whom he and York called 'monkeys – dirty – fools – not men.'

Of the tribes which scantily people Patagonia and Tierra del Fuego, far less is yet known than might generally be expected. Although frequently seen by white men, and often holding intercourse with them, probably no person even moderately educated has stayed among them long enough to become acquainted with, and describe their peculiarities.

Of the Fuegians, a few notices are to be found in narratives of various voyagers; but the imperfect description here given is principally

derived from the natives who went to England in the *Beagle*; from Mr Low, who has seen more of them in their own country than any other person, and from Mr Bynoe.

Magellan first gave the name of Patagones to the natives whom he saw at Port San Julian in 1520. They were of very large (gigantic) stature, and their feet, being wrapped in rough guanaco skin, by way of shoes, were remarked particularly. Probably their footsteps in the sand were noticed, and excited some such exclamation as 'que patagones!' (what great feet!) patagon meaning a very large foot.

Tierra del Fuego was also named by Magellan because many fires were seen, in the night, upon that land.

The aboriginal natives of Eastern Patagonia are a tall and extremely stout race of men. Their bodies are bulky, their heads and features large, yet their hands and feet are comparatively small. Their limbs are neither so muscular nor so large boned as their height and apparent bulk would induce one to suppose: they are also rounder and smoother than those of white men. Their colour is a rich reddish-brown, between that of rusty iron and clean copper, rather darker than copper, yet not so dark as good old mahogany.\*

But every shade of colour between that just mentioned and the lighter hue of a copper kettle, may be seen among individuals of various ages. Excepting among old or sickly people, I did not notice a tinge of yellow: some of the women are lighter-coloured – about the tint of pale copper – but none are fair, according to our ideas.

The Tekeenica, natives of the south-eastern portion of Tierra del Fuego, are low in stature, ill-looking, and badly proportioned. Their colour is that of very old mahogany, or rather between dark copper, and bronze. The trunk of the body is large, in proportion to their cramped and rather crooked limbs. Their rough, coarse, and extremely dirty black hair half hides yet heightens a villanous expression of the worst description of savage features.

Passing so much time in low wigwams, or cramped in small canoes, injures the shape and size of their legs, and causes them to move about in a stooping manner, with the knees much bent; yet they are very nimble, and rather strong.

They suffer very little hair to grow, excepting on their heads. Even

\* The colour of these aborigines is extremely like that of the Devonshire breed of cattle. From the window of a room in which I am sitting, I see some oxen of that breed passing through the outskirts of a wood, and the partial glimpses caught of them remind me strongly of the South American red men. F.R.



their eyebrows are almost eradicated – two mussel-shells serving for pincers. This aversion to the smaller tufts of hair does not extend to the thatch-like covering of their ugly heads, which is lank, covered with dirt, hanging about their ears, and almost over their faces. Just above their eyes it is jagged away by a broken shell, if they have not a piece of iron hoop for a knife, the pieces cut off being scrupulously burned. In height varying from four feet ten to five feet six, yet in the size of their bodies equalling men of six feet, of course they look clumsy and ill-proportioned; but their hands and feet are rather small with respect to the size of their bodies, though not so in proportion to their limbs and joints, which, excepting the knees, are small. Their knees are all strained, and their legs injured in shape, by the habit of squatting upon their heels. Awkward and difficult as such a posture appears to us, it is to them a position of easy rest.

Sometimes these satires upon mankind wear a part of the skin of a guanaco or a seal-skin upon their backs, and perhaps the skin of a penguin or a bit of hide hangs in front; but often there is nothing, either to hide their nakedness or to preserve warmth, excepting a scrap of hide, which is tied to the side or back of the body, by a string round the waist. Even this is only for a pocket, in which they may carry stones for their slings, and hide what they pick up or pilfer. A man always carries his sling around his neck or waist, wherever he goes.

Women wear rather more clothing, that is, they have nearly a whole skin of a guanaco, or seal, wrapped about them, and usually a diminutive apron. The upper part of the wrapper, above a string which is tied around the waist, serves to carry an infant. Neither men nor women have any substitute for shoes.

No ornaments are worn in the nose, ears, or lips, nor on the fingers; but of necklaces, and bracelets, such as they are, the women are very fond. With small shells, or pieces of the bones of birds, strung upon lines made of sinews, these necklaces and bracelets are made, when nothing preferable is to be found; but beads, buttons, pieces of broken glass, or bits of fractured crockery-ware are most highly esteemed.

The hair of the women is longer, less coarse, and certainly cleaner than that of the men. It is combed with the jaw of a porpoise, but neither platted nor tied; and none is cut away, excepting from over their eyes. They are short, with bodies largely out of proportion to their height; their features, especially those of the old, are scarcely less disagreeable than the repulsive ones of the men. About four feet and some inches is the stature of these she-Fuegians – by courtesy called women. They

never walk upright: a stooping posture, and awkward movement, is their natural gait. They may be fit mates for such uncouth men; but to civilized people their appearance is disgusting. Very few exceptions were noticed.

The colour of the women is similar to that of the men. As they are just as much exposed, and do harder work, this is a natural consequence: besides, while children, they run about quite naked, picking up shell-fish, carrying wood, or bringing water. In the colour of the older people there is a tinge of yellow, which is not noticed in the middle-aged or young.

Both sexes oil themselves, or rub their bodies with grease; and daub their faces and bodies with red, black, or white. A fillet is often worn round the head, which upon ordinary occasions is simply a string, made of sinews; but if going to war, or dressed for show, the fillet is ornamented with white down, white feathers, or pieces of cloth, if they have obtained any from shipping. Small lances headed with wood, others pointed with bone; bows, and arrows headed with obsidian, agate, or jasper, clubs and slings, are the weapons used by the Tekeenica.

The smoke of wood fires, confined in small wigwams, hurts their eyes so much, that they are red and watery; the effects of their oiling, or greasing themselves, and then rubbing ochre, clay, or charcoal, over their bodies; of their often feeding upon the most offensive substances, sometimes in a state of putridity; and of other vile habits, may readily be imagined.

As a Tekeenica is seldom out of sight of his canoe or a wigwam, a slight idea of these – his only constructions – should be given with this sketch.

The canoe is made of several large pieces of bark, sewed together; its shape is nearly that which would be taken by the strong bark of the trunk of a tree (twelve to twenty feet in length, and a foot or two feet in diameter), separated from the solid wood in one piece. If this piece of bark were drawn together at the ends, and kept open by sticks in the middle, it would look rather like a Fuegian canoe.

A Tekeenica wigwam is of a conical form, made of a number of large poles, or young trees, placed touching one another in a circle, with the small ends meeting. Sometimes, bunches of grass or pieces of bark are thrown upon the side which is exposed to the prevailing winds. No Fuegians, except the Tekeenica, make their huts in this manner.

To return to my narrative, we crossed over to the north side of the channel to be free from their importunities; but they followed us



speedily, and obliged us to go on further westward than was at all agreeable, considering the labour required to make way against a breeze and a tide of a mile an hour. When we at last landed to pass the night, we found that the forests on the sides of the mountains had been burned for many leagues; and as we were not far from the place where a volcano was supposed to exist, in consequence of flames having been seen by a ship passing Cape Horn, it occurred to me that some conflagration, like that of which we found the signs, might have caused appearances resembling the eruption of a distant volcano: and I have since been confirmed in this idea, from having witnessed a volcano in eruption; and, not long afterwards, a conflagration, devouring many miles of mountain forest; both of which, at a distance, shewed lines of fire, fitful flashes, and sudden gleams.

22 *January*: Favoured by beautiful weather, we passed along a tract of country where no natives were seen. Jemmy told us it was 'land between bad people and his friends'; This evening we reached a cove near the Murray Narrow; and from a small party of Tekeenica natives, Jemmy's friends, whom we found there, he heard of his mother and brothers, but found that his father was dead. Poor Jemmy looked very grave and mysterious at the news, but showed no other symptom of sorrow. He went for some green branches, which he burned, watching them with a solemn look: after which he talked and laughed as usual, never once, of his own accord, recurring to the subject of his father's decease. The language of this small party, who were the first of Jemmy's own tribe whom we met, seemed softer and less guttural than those of the 'bad men' whom we had passed near the clay cliffs; and the people themselves seemed much better disposed, though as abject and degraded in outward appearance as any Fuegians I had ever seen. There were three men and two women: when first we were seen they all ran away, but upon two of our party landing and advancing quietly, the men returned and were soon at their ease. Jemmy and York then tried to speak to them; but to our surprise, and much to my sorrow, we found that Jemmy had almost forgotten his native language, and that, of the two, York, although belonging to another tribe, was rather the best interpreter.

*From Charles Darwin's Diary:*

We were sorry to find that Jemmy had quite forgotten his language, that is as far as talking. He could however understand a little of what was said. It was pitiable but laughable, to hear him talk to his brother in

English and ask him in Spanish whether he understood it. I do not suppose any person exists with such a small stock of language as poor Jemmy, his own language forgotten, and his English ornamented with a few Spanish words, almost unintelligible.

*From Captain FitzRoy's Narrative:*

In a few minutes the natives comprehended that we should do them no harm; and they then called back their women, who were hiding in the woods, and established themselves, very confidently, in a wigwam within a hundred yards of our tents. During this and the preceding day, we found the weather, by comparison, so mild, even warm, that several of our party bathed; yet the thermometer ranged only to 53° in the shade, and at night fell to 40°. The temperature of the sea was 48°.

Being within a few hours' pull of Jemmy's 'own land', which he called Wooll̄ya, we all felt eager, though anxious, and I was much gratified by seeing that Matthews still looked at his hazardous undertaking as steadily as ever, betraying no symptom of hesitation. The attentions which York paid to his intended wife, Fuegia, afforded much amusement to our party. He had long shewn himself attached to her, and had gradually become excessively jealous of her goodwill. If any one spoke to her, he watched every word; if he was not sitting by her side, he grumbled sulkily; but if he was accidentally separated, and obliged to go in a different boat, his behaviour became sullen and morose. This evening he was quizzed so much about her that he became seriously angry, and I was obliged to interpose to prevent a quarrel between him and one of his steadiest friends.

On this and previous evenings, as we sat round the blazing fires which our men seemed to think could never be large enough, we heard many long stories from Jemmy about the Oens, or Coin men, who live beyond the mountains at the north side of the Beagle Channel, and almost every year make desperate inroads upon the Tekeenica tribe, carrying off women and children, dogs, arrows, spears, and canoes; and killing the men whom they succeed in making prisoners. He told us that these Oens-men made their annual excursions at the time of 'red leaf'; that is in April or May, when the leaves of deciduous trees are changing colour and beginning to fall; just the time of year also when the mountains are least difficult to pass.

At that period these invaders sometimes come down to the shores of the Beagle Channel in parties of from fifty to a hundred; seize upon canoes belonging to the Yapoo division of the Tekeenica tribe, cross



over to Navarin Island, and thence sometimes to others, driving the smaller and much inferior Tekeenica people before them in every direction. By Jemmy's own account, however, there are hard battles sometimes, and the Oens tribe lose men; but as they always contrive to carry away their dead, it seems that the advantage of strength is on their side.

*23 January:* While embarking our tents and cooking utensils, several natives came running over the hills towards us, breathless with haste, perspiring violently, and bleeding at the nose. Startled at their appearance, we thought they had been fighting; but it appeared in a few moments, that having heard of our arrival, they lost not a moment in hurrying across the hills from a place near Wooll̄ya, and that the bloody noses which had surprised and alarmed us were caused by the exertion of running.

Scarcely had we stowed the boats and embarked, before canoes began to appear in every direction, in each of which was a stentor hailing us at the top of his voice. Faint sounds of deep voices were heard in the distance, and around us echoes to the shouts of our nearer friends began to reverberate, and warned me to hasten away before our movements should become impeded by the number of canoes which I knew would soon throng around us. Although now among natives who seemed to be friendly, and to whom Jemmy and York contrived to explain the motives of our visit, it was still highly necessary to be on our guard. Of those men and boys who ran over the hills to us, all were of Jemmy's tribe excepting one man, whom he called an Oens-man; but it was evident, from his own description, that the man belonged to the Yapoo, or eastern Tekeenica tribe, and was living in safety among his usual enemies, as a hostage for the security of a man belonging to Jemmy's tribe who was staying among the eastern people.

As we steered out of the cove in which our boats had been sheltered, a striking scene opened: beyond a lake-like expanse of deep blue water, mountains rose abruptly to a great height, and on their icy summits the sun's early rays glittered as if on a mirror. Immediately round us were mountainous eminences, and dark cliffy precipices which cast a very deep shadow over the still water beneath them. In the distant west, an opening appeared where no land could be seen; and to the south was a cheerful sunny woodland, sloping gradually down to the Murray Narrow, at that moment almost undistinguishable. As our boats became visible to the natives, who were eagerly paddling towards the cove from every direction, hoarse shouts arose, and, echoed about by the cliffs,

seemed to be a continual cheer. In a very short time there were thirty or forty canoes in our train, each full of natives, each with a column of blue smoke rising from the fire amidships, and almost all the men in them shouting at the full power of their deep sonorous voices. As we pursued a winding course around the bases of high rocks or between islets covered with wood, continual additions were made to our attendants; and the day being very fine, without a breeze to ruffle the water, it was a scene which carried one's thoughts to the South Sea Islands, but in Tierra del Fuego almost appeared like a dream. After a few hours (pulling hard to keep ahead of our train) we reached Wooll̄ya, and selected a clear space favourably situated for our encampment, landed, marked a boundary-line, placed sentries, and made the various arrangements necessary for receiving the anticipated visits of some hundred natives. We had time to do all this quietly, as our boats had distanced their pursuers several miles, while running from the Murray Narrow before a favourable breeze which sprung up, and, to our joy, filled every sail.

We were much pleased by the situation of Wooll̄ya, and Jemmy was very proud of the praises bestowed upon his land. Rising gently from the waterside, there are considerable spaces of clear pasture land, well-watered by brooks, and backed by hills of moderate height, where we afterwards found woods of the finest timber trees in the country. Rich grass and some beautiful flowers, which none of us had ever seen, pleased us when we landed, and augured well for the growth of our garden seeds.

At our first approach, only a few natives appeared, who were not of Jemmy's family. The women ran away and hid themselves, but Jemmy and York contrived, with difficulty, to make the men comprehend the reason of our visit; and their awkward explanation, helped by a few presents, gradually put them at ease. They soon understood our meaning when we pointed to the boundary-line which they were not to pass. This line was on the shore between our tents and the grassland; immediately behind the tents was a good landing-place, always sheltered, where our boats were kept in readiness in case of any sudden necessity.

Soon after our arrangements were made, the canoes which had been following us began to arrive; but, much to my satisfaction, the natives landed in coves at some distance from us, where the women remained with the canoes while the men and boys came overland to our little camp. This was very favourable for us, because it divided their numbers and left our boats undisturbed. We had only to guard our front, instead



of being obliged to look out all round, as I had expected; and really it would have been no trifling affair to watch the pilfering hands and feet of some hundred natives, while many of our own party, altogether only thirty in number, were occupied at a distance, cutting wood, digging ground for a garden, or making wigwams for Matthews, York and Jemmy.

As the natives thronged to our boundary-line (a mere mark made with a spade on the ground), it was at first difficult to keep them back without using force; but by good temper on the part of our men, by distributing several presents, and by the broken Fuegian explanations of our dark-coloured shipmates, we succeeded in getting the natives squatted on their hams around the line, and obtaining influence enough over them to prevent their encroaching.

Canoes continued to arrive; their owners hauled them ashore on the beach, sent the women and children to old wigwams at a little distance, and hastened themselves to see the strangers. While I was engaged in watching the proceedings at our encampment, and poor Jemmy was getting out of temper at the quizzing he had to endure on account of his countrymen, whom he had extolled so highly until in sight, a deep voice was heard shouting from a canoe more than a mile distant: up started Jemmy from a bag full of nails and tools which he was distributing, leaving them to be scrambled for by those nearest, and, upon a repetition of the shout, exclaimed, 'My brother!' He then told me that it was his eldest brother's voice, and perched himself on a large stone to watch the canoe, which approached slowly, being small and loaded with several people. When it arrived, instead of an eager meeting, there was a cautious circumspection which astonished us. Jemmy walked slowly to meet the party, consisting of his mother, two sisters, and four brothers. The old woman hardly looked at him before she hastened away to secure her canoe and hide her property, all she possessed: a basket containing tinder, firestone, paint, etc., and a bundle of fish. The girls ran off with her without even looking at Jemmy; and the brothers (a man and three boys) stood still, stared, walked up to Jemmy, and all round him, without uttering a word. Animals when they meet show far more animation and anxiety than was displayed at this meeting. Jemmy was evidently much mortified, and to add to his confusion and disappointment, as well as my own, he was unable to talk to his brothers, except by broken sentences, in which English predominated. After a few minutes had elapsed, his elder brother began to talk to him; but although Jemmy understood what was said, he could not reply. York and Fuegia were

able to understand some words, but could not or did not choose to speak.

This first evening of our stay at Wooll̄ya was rather an anxious one; for although the natives seemed inclined to be quite friendly, and they all left us at sunset, according to their invariable practice, it was hard to say what mischief might not be planned by so numerous a party, fancying, as they probably would, that we were inferior to them in strength, because so few in number. Jemmy passed the evening with his mother and brothers, in their wigwam, but returned to us to sleep. York also and Fuegia were going about among the natives at their wigwams, and the good effect of their intercourse and explanations, such as they were, was visible next day, the 24th, in the confident, familiar manner of the throng which surrounded us while we began to dig ground for gardens, as well as cut wood for large wigwams, in which Matthews and his party were to be established. Canoes still arrived, but their owners seemed as well-disposed as the rest of the natives, many of whom assisted us in carrying wood, and bringing bundles of grass or rushes to thatch the wigwams which they saw we were making, in a pleasant sheltered spot, near a brook of excellent water. One wigwam was for Matthews, another for Jemmy, and a third for York and Fuegia. York told me that Jemmy's brother was 'very much friend', that the country was 'very good land', and that he wished to stay with Jemmy and Matthews.

A small plot of ground was selected near the wigwams, and, during our stay, dug, planted and sowed with potatoes, carrots, turnips, beans, peas, lettuce, onions, leeks, and cabbages. Jemmy soon clothed his mother and brothers, by the assistance of his friends. For a garment which I sent the old woman she returned me a large quantity of fish, all she had to offer; and when she was dressed, Jemmy brought her to see me. His brothers speedily became rich in old clothes, nails and tools, and the eldest were soon known among the seamen as Tommy Button and Harry Button, but the younger ones usually stayed at their wigwams, which were about a quarter of a mile distant. So quietly did affairs proceed, that the following day, the 25th, a few of our people went on the hills in search of guanacos. Many were seen, but they were too wild to approach. An old man arrived, who was said to be Jemmy's uncle, his father's brother; and many strangers came, who seemed to belong to the Yapoo Tekeenica tribe. Jemmy did not like their visit; he said they were bad people, 'no friends'.

26 January: While some of my party were washing in a stream, stripped to the waist, several natives collected round, and were much amused at



the white skins, as well as at the act of washing, so new probably to them. One of them ran to the nearest wigwams, and a troop of curious gazers collected, whose hands, however, were soon so actively employed in abstracting the handkerchiefs, shoes, etc., which had been laid on the bank, that a stop was put to the ablutions.

We discovered that Jemmy's eldest brother was a 'doctor', and though young for his occupation of conjuring and pretending to cure illness, he was held in high estimation among his own tribe. I never could distinctly ascertain whether the eldest man, or the doctor of a tribe had the most influence; but from what little I could learn, it appeared to me that the elder of a family or tribe had a sort of executive authority, while the doctor gave advice, not only in domestic affairs, but with respect to most transactions. In all savage nations, I believe there is a person of this description – a pretended prophet, conjuror, and, to a certain degree, doctor.

This evening our party were employed for a short time in firing at a mark, with the three-fold object of keeping our arms in order, exercising the men and awing, without frightening, the natives. While this was going on, the Fuegians sat about on their hams, watching our proceedings, and often eagerly talking to each other, as successful shots were made at the target, which was intentionally placed so that they could see the effect of the balls. At sunset they went away as usual, but looking very grave and talking earnestly. About an hour after dark, the sentry saw something moving along the ground near our tents, within the boundary line, which he thought was a wild animal, and had just levelled his musket to fire at it, when he discovered it was a man, who instantly darted off, and was lost in the darkness. Some native had doubtless stolen to the tents, to see what we were doing; perhaps with a view to surprise us, if asleep, perhaps only to steal.

*27 January:* While a few of our party were completing the thatch of the last wigwam, and others were digging in the garden which was made, I was much surprised to see that all the natives were preparing to depart: and very soon afterwards every canoe was set in motion; not half a dozen natives remaining. Even Jemmy's own family, his mother and brothers, left us; and as he could give no explanation of this sudden departure, I was in much doubt as to the cause. Whether an attack was meditated, and they were removing the women and children, previous to a general assembly of the men, or whether they had been frightened by our display on the preceding evening, and feared that we intended to attack them, I could not ascertain; but deeming the latter by far the

most probable, I decided to take the opportunity of their departure to give Matthews his first trial of passing a night at the new wigwams.

Some among us thought that the natives intended to make a secret attack, on account of the great temptation our property offered; and in consequence of serious offence which had been taken by two or three old men, who tried to force themselves into our encampment, while I was at a little distance; one of whom, when resisted by the sentry, spit in his face; and went off in a violent passion, muttering to himself, and every now and then turning round to make faces and angry gestures at the man who had very quietly, though firmly, prevented his encroachment.

In consequence of this incident, and other symptoms of a disposition to try their strength, having more than three hundred men, while we were but thirty, I had thought it advisable, as I mentioned, to give them some idea of the weapons we had at command, if obliged to use them, by firing at a mark. Probably two-thirds of the natives around us at that time had never seen a gun fired, being strangers, coming from the Beagle Channel and its neighbourhood, where no vessel had been; and although our exercise might have frightened them more than I wished, so much, indeed, as to have induced them to leave the place, it is not improbable that, without some such demonstration, they might have obliged us to fire at them instead of the target. So many strangers had arrived during the few days we remained, I mean strangers to Jemmy's family – men of the eastern tribe, which he called Yapoo – that his brothers and mother had no longer any influence over the majority, who cared for them as little as they did for us, and were intent only upon plunder. Finding this the case, I conclude that Jemmy's friends thought it wise to retreat to a neighbouring island before any attack commenced; but why they did not tell Jemmy their reasons for going, I know not, neither could he tell me more than that they said they were going to fish, and would return at night. This, however, they did not do.

In the evening, Matthews and his party – Jemmy, York, and Fuegia – went to their abode in the three new wigwams. In that made for Matthews, Jemmy also took up his quarters at first; it was high and roomy for such a construction; the space overhead was divided by a floor of boards, brought from the ship, and there most of Matthews' stores were placed; but the most valuable articles were deposited in a box, which was hid in the ground underneath the wigwam, where fire could not reach.

Matthews was steady, and as willing as ever; neither York nor Jemmy



had the slightest doubt of their being all well-treated; so trusting that Matthews, in his honest intention to do good, would obtain that assistance in which he confided, I decided to leave him for a few days. The absence of the natives, every one of whom had decamped at this time, gave a good opportunity for landing the larger tools belonging to Matthews and our Fuegians, and placing them within or beneath his wigwam, unseen by any one except ourselves; and at dusk, all that we could do for them being completed, we left the place and sailed some miles to the southward.

During the four days in which we had so many natives about us, of course some thefts were committed, but nothing of consequence was stolen. I saw one man talking to Jemmy Button, while another picked his pocket of a knife, and even the wary York lost something, but from Fuegia they did not take a single article; on the contrary, their kindness to her was remarkable, and among the women she was quite a pet.

Our people lost a few trifles, in consequence of their own carelessness. Had they themselves been left among gold and diamonds, would they all have refrained from indulging their acquisitive inclinations?

Notwithstanding the decision into which I had reasoned myself respecting the natives, I could not help being exceedingly anxious about Matthews, and early next morning our boats were again steered towards Wooll̄ya. My own anxiety was increased by hearing the remarks made from time to time by the rest of the party, some of whom thought we should not again see him alive; and it was with no slight joy that I caught sight of him, as my boat rounded a point of land, carrying a kettle to the fire near his wigwam. We landed and ascertained that nothing had occurred to damp his spirits, or in any way check his inclination to make a fair trial. Some natives had returned to the place, among them one of Jemmy's brothers; but so far were they from showing the slightest ill-will, that nothing could be more friendly than their behaviour.

Jemmy told us that these people, who arrived at daylight that morning, were friends, that his own family would come in the course of the day, and that the 'bad men', the strangers, were all gone away to their own country.

A further trial was now determined upon. The yawl, with one whale-boat, was sent back to the *Beagle*, and I set out on a westward excursion, accompanied by Messrs Darwin and Hamond, in the other two boats: my intention being to complete the exploration of Whale-boat Sound, and the north-west arm of the Beagle Channel; then revisit Wooll̄ya, either leave or remove Matthews, as might appear advisable, and repair

to our ship in Goree Road. With a fair and fresh wind my boat and Mr Hamond's passed the Murray Narrow, and sailed far along the channel towards the west, favoured, unusually, by an easterly breeze. Just as we had landed, and set up our tent for the night, some canoes were seen approaching; so rather than be obliged to watch their movements all night, we at once embarked our tent and half-cooked supper, and pulled along the shore some miles further, knowing that they would not willingly follow us in the dark. About midnight we landed and slept undisturbed. Next day we made little progress, the wind having changed, and landed, earlier than usual, on the north side of the channel, at Shingle Point. Some natives soon appeared, and though few in number, were inclined to give trouble. It was evident they did not know the effect of fire-arms; for if a musket were pointed at them, and threatening gestures used, they only made faces at us, and mocked whatever we did. Finding them more and more insolent and troublesome, I preferred leaving them to risking a struggle, in which it might become necessary to fire, at the hazard of destroying life. Twelve armed men, therefore, gave way to six unarmed, naked savages, and went on to another cove, where these annoying, because ignorant natives could not see us.

On the 29th we reached Devil Island, and found the large wigwam still standing, which in 1830 my boat's crew called the 'Parliament House'. Never, in any part of Tierra del Fuego, have I noticed the remains of a wigwam which seemed to have been burned or pulled down; probably there is some feeling on the subject, and in consequence the natives allow them to decay naturally, but never wilfully destroy them. We enjoyed a grand view of the lofty mountain, now called Darwin, with its immense glaciers extending far and wide. Whether this mountain is equal to Sarmiento in height, I am not certain, as the measurements obtained did not rest upon satisfactory data; but the result of those measures gave 6,800 feet for its elevation above the sea. This, as an abstract height, is small, but taking into consideration that it rises abruptly from the sea, which washes its base, and that only a short space intervenes between the salt water and the lofty frozen summit, the effect upon an observer's eye is extremely grand, and equal, probably, to that of far higher mountains which are situated at a distance inland, and generally rise from an elevated district.

We stopped to cook and eat our hasty meal upon a low point of land, immediately in front of a noble precipice of solid ice; the cliffy face of a huge glacier, which seemed to cover the side of a mountain, and completely filled a valley several leagues in extent.



Wherever these enormous glaciers were seen, we remarked the most beautiful light blue or sea green tints in portions of the solid ice, caused by varied transmission, or reflection of light. Blue was the prevailing colour, and the contrast which its extremely delicate hue, with the dazzling white of other ice, afforded to the dark green foliage, the almost black precipices, and the deep, indigo blue water, was very remarkable.

Miniature icebergs surrounded us; fragments of the cliff, which from time to time fall into a deep and gloomy basin beneath the precipice, and are floated out into the channel by a slow tidal stream.

Our boats were hauled up out of the water upon the sandy point, and we were sitting round a fire about two hundred yards from them, when a thundering crash shook us: down came the whole front of the icy cliff, and the sea surged up in a vast heap of foam. Reverberating echoes sounded in every direction, from the lofty mountains which hemmed us in; but our whole attention was immediately called to great rolling waves which came so rapidly that there was scarcely time for the most active of our party to run and seize the boats before they were tossed along the beach like empty calabashes. By the exertions of those who grappled them or seized their ropes, they were hauled up again out of reach of a second and third roller; and indeed we had good reason to rejoice that they were just saved in time; for had not Mr Darwin, and two or three of the men, run to them instantly, they would have been swept away from us irrecoverably. Wind and tide would soon have drifted them beyond the distance a man could swim; and then, what prizes they would have been for the Fuegians, even if we had escaped by possessing ourselves of canoes. At the extremity of the sandy point on which we stood, there were many large blocks of stone, which seemed to have been transported from the adjacent mountains, either upon masses of ice, or by the force of waves such as those which we witnessed. Had our boats struck those blocks, instead of soft sand, our dilemma would not have been much less than if they had been at once swept away.

*From Charles Darwin's Diary:*

29 January: In the morning we arrived at the point where the channel divides and we entered the northern arm. The scenery becomes very grand. The mountains on the right are very lofty and covered with a white mantle of perpetual snow. From the melting of this numbers of cascades poured their waters through the woods into the channel. In many places, magnificent glaciers extended from the mountains to the

water's edge. I cannot imagine anything more beautiful than the beryl blue of these glaciers, especially when contrasted by the snow. The occurrence of glaciers reaching to the water's edge and in summer, in lat. 56° S. is a most curious phenomenon: the same thing does not occur in Norway under lat. 70° N. From the number of small icebergs the channel represented in miniature the Arctic ocean. One of these glaciers placed us for a minute in most imminent peril. Whilst dining in a little bay about half a mile from one and admiring the beautiful colour of its vertical and overhanging face, a large mass fell roaring into the water. Our boats were on the beach; we saw a great wave rushing onwards, and instantly it was evident how great was the chance of their being dashed into pieces. One of the seamen just got hold of the boat as the curling breaker reached it: he was knocked over and over but not hurt and most fortunately our boat received no damage. If they had been washed away, how dangerous would our lot have been, surrounded on all sides by hostile savages and deprived of all provisions.

*From Captain FitzRoy's Narrative:*

Embarking, we proceeded along a narrow passage, more like a river than an arm of the sea, till the setting sun warned us to seek a resting-place for the night; when, selecting a beach very far from any glacier, we again hauled our boats on shore. Long after the sun had disappeared from our view, his setting rays shone so brightly upon the gilded icy sides of the summits above us, that twilight lasted an unusual time, and a fine clear evening enabled us to watch every varying tint till even the highest peak became like a dark shadow, whose outline only could be distinguished. No doubt such scenes are familiar to many, but to us, surrounded even as we so often were by their materials, they were rare; because clouds continually hang over the heights, or obscure the little sunshine which falls to the lot of Tierra del Fuego.

The following day, the 30th, we passed into a large expanse of water, which I named Darwin Sound – after my messmate, who so willingly encountered the discomfort and risk of a long cruise in a small loaded boat.

2 February: Having done what was necessary and attainable for the purposes of the survey, we traversed Whale-boat Sound, and stopped for a time at an old bivouac, used by me twice before, on an islet near the east extremity of the largest Stewart Island. While the boat's crew were occupied in preparing our meal, I went to Stewart Island, and from a small eminence saw Mount Sarmiento quite distinctly. We next steered



eastward, along the north side of the Londonderry Islands, and passed the night in a narrow passage. On the 3rd we got to the open sea at the south side of Darwin Sound, and entered the south-west arm of the Beagle Channel rather too late, for it had become so dark we could distinguish no place fit to receive us; however, after much scrutiny and anxious sounding, to ascertain if our boats could approach without danger of being stove, we were guided by the sound of a cascade to a sheltered cove, where the beach was smooth.

I need hardly say that the survey of such places as were visited in this hasty manner is little more than an eye-sketch, corrected by frequent bearings, occasional latitudes by sun, moon, or stars, and meridian distances, measured by two chronometers, which were always kept in a large box and treated very carefully. To have attempted more, to have hoped for such an accurate delineation of these shores, at present almost useless to civilized man, as is absolutely necessary where shipping may resort, would have been wrong, while so many other objects demanded immediate attention.

*4 February:* We sailed along the passage very rapidly, a fresh wind and strong tide favouring us. The flood-tide stream set two or three knots an hour through this south-west arm of the Beagle Channel, but the ebb was scarcely noticed: certainly its strength did not, even in the narrowest places, exceed one knot an hour. A few Fuegians were seen in a cove on the south shore, ten miles west of Point Divide; the only natives, except a very small party in Darwin Sound, that had been met in the excursion since we left the Tekeenica people.

Near Point Divide we saw a large fire, and approached the spot guardedly, supposing that a number of Fuegians must be there. No one appeared; but still the fire burned brightly, and we began to think there might be an ambush, or that the natives who had been there had fled, but were still in the neighbourhood. Approaching nearer, we found that the fire was in a large tree, whose trunk it had almost consumed. Judging from the slow rate at which the tree burned while we were present, I should say it had been on fire two or three days, and that the frequent heavy rain had prevented the flames from making head. Had the weather been some time dry, the adjoining woodland would have blazed, and, as the mountain side is steep and covered with trees, the conflagration would have been immense. At Point Divide the slate rock seemed to be of excellent quality, fit for roofing; but when will roofing slates be required in Tierra del Fuego? Perhaps though sooner than we suppose; for the accidental discovery of a valuable mine might effect great changes.

On the south shore, nearly opposite to Shingle Point, we met a large party of natives, among whom those who disturbed us at that place as we passed westward were recognized. All of them appeared in full dress, being bedaubed with red and white paint, and ornamented, after their fashion, with feathers and the down of geese. One of their women was noticed by several among us as being far from ill-looking: her features were regular, and, excepting a deficiency of hair on the eyebrow, and rather thick lips, the contour of her face was sufficiently good to have been mistaken for that of a handsome gipsy. What her figure might be, a loose linen garment, evidently one that had belonged to Fuegia Basket, prevented our noticing. The sight of this piece of linen, several bits of ribbon, and some scraps of red cloth, apparently quite recently obtained, made me feel very anxious about Matthews and his party: there was also an air of almost defiance among these people, which looked as if they knew that harm had been done, and that they were ready to stand on the defensive if any such attack as they expected were put into execution. Passing therefore hastily on, we went as far as the light admitted, and at daybreak next morning, the 6th, were again hastening towards Wooll̃ya. As we shot through the Murray Narrow several parties of natives were seen, who were ornamented with strips of tartan cloth or white linen, which we well knew were obtained from our poor friends. No questions were asked; we thought our progress slow, though wind and tide favoured us: but, hurrying on, at noon reached Wooll̃ya. Several canoes were on the beach, and as many natives seemed to be assembled as were there two days before we left the place. All were much painted, and ornamented with rags of English clothing, which we concluded to be the last remnants of our friends' stock. Our boats touched the shore; the natives came hallooing and jumping about us, and then, to my extreme relief, Matthews appeared, dressed and looking as usual. After him came Jemmy and York, also dressed and looking well: Fuegia, they said, was in a wigwam.

Taking Matthews into my boat, we pushed out a short distance to be free from interruption, and remained till I had heard the principal parts of his story: the other boat took Jemmy on board, and York waited on the beach. Nearly all the Fuegians squatted down on their hams to watch our proceedings, reminding me of a pack of hounds waiting for a fox to be unearthed.

Matthews gave a bad account of the prospect which he saw before him, and told me, that he did not think himself safe among such a set of utter savages as he found them to be, notwithstanding Jemmy's



assurances to the contrary. No violence had been committed beyond holding down his head by force, as if in contempt of his strength; but he had been harshly threatened by several men, and from the signs used by them, he felt convinced they would take his life. During the last few days, his time had been altogether occupied in watching his property. At first there were only a few quiet natives about him, who were inoffensive; but three days after our departure several canoes full of strangers to Jemmy's family arrived, and from that time Matthews had had no peace by day, and very little rest at night. Some of them were always on the look-out for an opportunity to snatch up and run off with some tool or article of clothing, and others spent the greater part of each day in his wigwam, asking for every thing they saw, and often threatening him when he refused to comply with their wishes. More than one man went out in a rage, and returned immediately with a large stone in his hand, making signs that he would kill Matthews if he did not give him what was demanded. Sometimes a party of them gathered round Matthews, and, if he had nothing to give them, teased him by pulling the hair of his face, pushing him about, and making mouths at him.

His only partisans were the women; now and then he left Jemmy to guard the hut, and went to the natives' wigwams, where the women always received him kindly, making room for him by their fire, and giving him a share of whatever food they had, without asking for any thing in return. The men never took the trouble of going with him on these visits; which, however, ceased when so many strangers arrived, their attention being engrossed by the tools, clothes, and crockeryware at our shipmate's quarters. Fortunately, the most valuable part of Matthews' own things were underground, in a cave unsuspected by the natives, and other large tools were hidden overhead in the roof of his hut. York and Fuegia fared very well; they lost nothing; but Jemmy was sadly plundered, even by his own family. Our garden, upon which much labour had been bestowed, had been trampled over repeatedly, although Jemmy had done his best to explain its object and prevent people from walking there. When questioned about it, he looked very sorrowful, and, with a slow shake of the head, said, 'My people very bad; great fool; know nothing at all; very great fool.' It was soon decided that Matthews should not remain. I considered that he had already undergone a severe trial, and ought not to be again exposed to such savages, however willing he might be to try them farther if I thought it right. The next difficulty was how to get Matthews' chest and the remainder of his property safely into our boats, in the face of a hundred Fuegians, who would of course





BERKELEY SOUND, FALKLAND ISLANDS

understand our object, and be much more than a match for us on land; but the less hesitation shown, the less time they would have to think of what we were about; so, dividing our party, and spreading about a little to create confidence, at a favourable moment the wigwam was quickly cleared, the cave emptied, and the contents safely placed in our boats. As I stood watching the proceedings, a few anxious moments passed, for any kind of skirmish would have been so detrimental to the three who were still to remain. When the last man was embarked, I distributed several useful articles, such as axes, saws, gimlets, knives and nails, among the natives, then bade Jemmy and York farewell, promising to see them again in a few days, and departed from the wondering throng assembled on the beach.

When fairly out of sight of Wooll̄ya, sailing with a fair wind towards the *Beagle*, Matthews must have felt almost like a man reprieved, excepting that he enjoyed the feelings always sure to reward those who try to do their duty, in addition to those excited by a sudden certainty of his life being out of jeopardy. We slept that night in a cove under Webley Head; sailed early the following morning, the 7th, along the north side of Nassau Bay, and about an hour after dark reached the *Beagle* – found all well, the surveying work about Goree Road done, the ship refitted, and quite ready for her next trip.

A day or two was required for observations and arrangements, after which, on the 10th, we beat to windward across Nassau Bay, and on the 11th anchored in Scotchwell Bay. A rough night was passed under sail between Wollaston and Navarin Islands, in which we pretty well proved the clearness of that passage, as it blew fresh and we made a great many boards.

Next day I set out to examine the western part of Ponsonby Sound and revisit Wooll̄ya. In my absence one party was to go westward, overland, to look at the outer coast between False Cape and Cape Weddell, and another was to examine and make a plan of the bay or harbour in which the *Beagle* lay.

12 February: With one boat I crossed Tekeenica Sound, and explored the western part of Ponsonby Sound. Natives were seen here and there, but we had little intercourse with them. Some curious effects of volcanic action were observed, besides masses of conglomerate, such as I had not noticed in any other part of Tierra del Fuego. On one islet I was placed in an awkward predicament for half an hour; it was a very steep, precipitous hill, which I had ascended by climbing or creeping through ravines and among trees; but, wishing to return to the boat's crew, after taking a



few angles and bearings from its summit, I could find no place by which it appeared possible to descend. The ravine up which I crawled was hidden by wood, and night was at hand. I went to and fro like a dog on a wall, unable to descend, till one of the boat's crew who was wandering about heard me call, and, ascending at the only accessible place, showed me where to plunge into the wood with a prospect of emerging again in a proper direction. This night we had dry beautiful weather, the leaves and sticks on the ground crackling under our feet as we walked, while at the ship, only sixty miles distant, rain poured down incessantly.

The night of the 13th was passed on Button Island. This also was quite fine, without a drop of rain, while at the ship, in Packsaddle Bay, it rained frequently. I mention these instances to show how different the climate may be even in places so near one another as Packsaddle Bay and Wooll̄ya.

*14 February:* With considerable anxiety I crossed over from Button Island to Wooll̄ya. Several canoes were out fishing, women only being in them, who did not cease their occupation as we passed: this augured well; and in a few minutes after we saw Jemmy, York and Fuegia in their usual dress. But few natives were about them, and those few seemed quiet and well disposed. Jemmy complained that the people had stolen many of his things, but York and Fuegia had contrived to take better care of theirs. I went to their wigwams and found very little change. Fuegia looked clean and tidily dressed, and by her wigwam was a canoe, which York was building out of planks left for him by our party. The garden was uninjured, and some of the vegetables already sprouting.

Jemmy told us that strangers had been there, with whom he and his people had 'very much jaw', that they fought, threw 'great many stones', and stole two women (in exchange for whom Jemmy's party stole one), but were obliged to retreat. Jemmy's mother came down to the boat to see us; she was decently clothed, by her son's care. He said that his brothers were all friendly, and that he should get on very well now that the 'strange men' were driven away. I advised Jemmy to take his mother and younger brother to his own wigwam, which he promised to do, and then, finding that they were all quite contented and apparently very happy, I left the place, with rather sanguine hopes of their effecting among their countrymen some change for the better. Jemmy's occupation was hollowing out the trunk of a large tree, in order to make such a canoe as he had seen at Rio de Janeiro.

I hoped that through their means our motives in taking them to England would become understood and appreciated among their associ-

ates, and that a future visit might find them so favourably disposed towards us, that Matthews might then undertake, with a far better prospect of success, that enterprise which circumstances had obliged him to defer, though not to abandon altogether.

Having completed our work in Packsaddle Bay on the 18th, we pushed across to Goree Road, knowing that we should there find secure anchorage, and be unmolested by the furious williwaws which whirled over the high peaks of Wollaston Island.

We weighed from Goree Road on the 21st, and ran under close-reefed topsails to Good Success Bay, where our anchors were dropped in the evening. The night of the 22nd was one of the most stormy I ever witnessed. Although close to a weather shore in a snug cove, upon good holding ground, with masts struck and yards braced as sharp as possible, the wind was so furious that both bowers were brought a-head with a cable on each, and the sheet anchor (having been let go early) had half a cable on it, the depth of water being only ten fathoms. During some of the blasts, our foreyard bent so much that I watched it with anxiety, thinking it would be sprung. The storm being from the westward, threw no sea into the cove, but I several times expected to be driven out of our place of refuge, if not shelter. During part of the time we waited in Good Success Bay for an interval of tolerable weather, in which we might cross to the Falkland Islands without being molested by a gale, there was so much surf on the shore that our boats could not land, even while the wind was moderate in the bay.

While we were prisoners on board, some fish were caught, among which was a skate, four feet in length and three feet wide. Several fine cod-fish, of the same kind as those off Cape Fairweather, were also hooked, and much relished.

On the 26th we sailed, passed through a most disagreeable swell off Cape San Diego, and ran before a fresh gale towards the Falkland Islands. Towards evening we rounded to for soundings, but the sea was so high and short, that Nicholas White at the jib-boom-end was pitched more than a fathom under water. He held on manfully, both to the boom and the lead-line, and as he rose above the wave, blowing and dripping, hove the lead forward as steadily as ever.

Two men in the staysail netting were also dipped under water, at a second plunge, from which White escaped.

My own feelings at seeing him disappear may be imagined: it was some time before we sounded again. This heavy though short sea seemed to be caused by the flood tide, coming from the southward, and



meeting waves raised by strong north-west winds. The stream of tide set us a mile each hour north-eastward.

At eight the wind and sea were too much for us to run with; therefore, watching an opportunity, we rounded to under close-reefed maintopsail, trysails, and fore-staysail. Next morning, the 27th, we bore up, though the sea was still heavy, and steered to pass south of the Falklands.

## 5. *FALKLAND ISLANDS*

*From Captain FitzRoy's Narrative:*

At daylight on 1 March 1833, having passed the preceding night standing off and on under easy sail, we made Cape Pembroke, at the eastern extremity of the Falklands. The weather was very cold and raw, with frequent hail-squalls, although in the month corresponding to September of our hemisphere; and while working to windward into Berkeley Sound, the gusts of wind were sometimes strong enough to oblige us to shorten all sail. I did not then know of Port William – so close to us, and so easy of access.

The aspect of the Falklands rather surprised me: instead of a low, level, barren country, like Patagonia, or a high woody region, like Tierra del Fuego, we saw ridges of rocky hills, about a thousand feet in height, traversing extensive tracts of sombre-looking moorland, unenlivened by a tree. A black, low, and rocky coast on which the surf raged violently, and the strong wind against which we were contending, did not tend to improve our first impressions of those unfortunate islands – scene of feud and assassination, and the cause of angry discussion among nations.

In a cove called Johnson Harbour at the north side of Berkeley Sound, was a wrecked ship, with her masts standing, and in other places were the remains of two more wrecks. We anchored near the beach at the entrance of Berkeley Sound; and from a French boat which came alongside learned that the *Magellan*, French whaler, had been driven from her anchors during the tremendous storm of 12–13 January; that her crew were living on shore under tents, having saved every thing; that there were only a few colonists left at the almost ruined settlement of Port Louis; and that the British flag had been re-hoisted on the islands by H.M.S. *Tyne* and *Clio*.

*From Charles Darwin's Diary:*

1 March: We arrived in the morning at Port Louis, the most eastern point of the Falkland Islands. The first news we received was to our astonishment, that England had taken possession of the Falkland Islands



and that the flag was now flying. These islands have been for some time uninhabited until the Buenos Aires government a few years since claimed them and sent some colonists. Our government remonstrated against this, and last month the *Clio* arrived here with orders to take possession of the place. A Buenos Airean man of war was here at the time with some fresh colonists. Both they and the vessel returned to the Rio Plata. The present inhabitants consist of one Englishman who has resided here for some years and has now the charge of the British flag, twenty Spaniards and three women, two of whom are negresses. The island is abundantly stocked with animals. There are about 5,000 wild oxen, many horses and pigs. Wild fowl, rabbits and fish in the greatest plenty. European vegetables will grow. And as there is an abundance of water and good anchorage, it is most surprising that it has not been long ago colonized, in order to afford provisions for ships going round the Horn. At present it is only frequented by whalers, one of which is here now.

We received all this intelligence from a French boat, belonging to a whaler, which is now lying a wreck on the beach. Between 12 and 13 January, the very time when we suffered from the gale off Cape Horn, this fine ship parted from three anchors and drove on shore. They describe the gale as a perfect hurricane. They were glad to see us, as they were at a loss what to do: all the stores are saved and of course plenty of food. Captain FitzRoy has offered to take them, twenty-two in number, in the *Beagle*, and to purchase on account of the owners any stores which we may want. The rest must be sacrificed.

*From Captain FitzRoy's Narrative:*

The *Beagle* anchored at the south side of Berkeley Sound, and remained there till I had ascertained the state of affairs on shore: for seeing a French flag flying near some tents behind Johnson Cove or harbour, and knowing that, in 1831, the flag of Buenos Aires was hoisted at a settlement in the sound, it was evident a change of some kind had occurred.

One may pause to consider what nation is at this moment the legitimate owner of the Falklands. Do the discovery, prior occupation, and settlement of new and uninhabited countries give a right to possession? If so, Great Britain is the legal owner of those islands. Davis first discovered them; Hawkins first named them; Strong first landed on them; and (excepting the French) Byron first took formal possession of them; and (again excepting the French) Macbride first colonized them. Respecting the French claim, depending only upon first settle-

ment, not discovery, naming, or landing; whatever validity any one may be disposed to allow it, that value must be destroyed, when it is remembered that Spain asserted her superior claim, and that France actually admitted it, resigning for ever her pretensions to those islands. Whatever France might have been induced to do for political reasons, of which the most apparent now is the continuance of the trade she then carried on with Chile and Peru, England never admitted that the Spanish claim was valid: and France having withdrawn, the question is solely between Spain and Great Britain. Spaniards neither discovered, landed upon, nor settled in the Falklands before Englishmen; and their only claim rests upon the unstable foundation of a papal bull, by virtue of which Spain might just as well claim Otaheite, the Sandwich Islands, or New Zealand.

However, in 1828, the government of Buenos Aires granted to Mr Vernet (with certain exceptions) the right of property in the Falkland Islands – and in Staten Land! It also conceded to the colony exemption from taxation for twenty years, and for the same period the exclusive right to the fishery in all the Malvinas, and on the coast of the continent to the southward of the Rio Negro, under the condition that within three years Vernet should have established a colony.

About this time merchant-vessels of all nations visited the Falkland Islands, both in their outward voyage and when returning from the Pacific; but advantageous as their visits were, those of numerous sealers had a very different effect: for, instead of frequenting the settlement, their crews killed the seal indiscriminately at all seasons, and slaughtered great numbers of wild cattle. 'For this reason,' says Vernet, 'I requested the government to furnish me with a vessel of war, to enable me to cause the rights of the colony to be respected. The government was aware of the necessity of the measure; but not being then able to place a vessel at my disposal, it resolved to invest me with a public and official character, and for that purpose issued the two decrees of 10 June: the one re-establishing the governorship of the Malvinas and Tierra del Fuego; and the other nominating me to fulfil that office.'

In 1829 Vernet warned off some North American sealers; and in 1831, upon their repeating the sealing excursion of which he had complained, he detained them by force. This act, and various circumstances arising out of it, drew upon him and his unfortunate colony the hasty indignation of Captain Silas Duncan of the United States corvette *Lexington* who, on his own responsibility, without waiting to communicate with his government, sailed from the Plata to the Falkland



Islands, surprised, assaulted, and made prisoners of many unoffending people, and unwarrantably destroyed both property and buildings. Mr Brisbane and several others were put into confinement, and carried away, on board the *Lexington*, to Buenos Aires, where they were delivered up to the Buenos Airean government, in February 1832. The United States supported their officer, and immediately despatched a *chargé-d'affaires* to Buenos Aires, with instructions to demand compensation for the injury done to North American trade, and full reparation to all North American citizens for personal wrongs.

While the United States and Buenos Aires were discussing the questions at issue, Great Britain, following up the solemn warnings she had given Buenos Aires, issued orders to her commander-in-chief on the South American station, to send a vessel of war to re-hoist the British flag upon the Falkland Islands; to assert her right of sovereignty, and to cause every thing belonging to the Buenos Airean government to be embarked and sent away.

On 2 January 1833, H.M.S. *Clio* anchored in Berkeley Sound, to carry these orders into effect; H.M.S. *Tyne*, about the same time, anchoring in Port Egmont. In each place the British colours were hoisted and saluted: the small Buenos Airean garrison at Port Louis quietly withdrew, and sailed for the Plata in an armed schooner, belonging to Buenos Aires: and from that time those unhappy islands have been more ostensibly British, though but little has yet been done to draw forth the resources, and demonstrate the advantages which they unquestionably possess. When the *Tyne* and *Clio* sailed, after a very short stay at the islands, no authority was left there, but the colours were entrusted to an Irishman, who had been Mr Vernet's storekeeper.

Directly our anchor had dropped, a whale-boat belonging to the wrecked whale-ship, *Le Magellan*, came alongside; and from her chief mate, who was also whaling-master, we learned that his ship had parted from her anchors during a tremendous squall on the night of 12 January, and was totally wrecked. He then informed me that the British colours had been hoisted on these islands by H.M.S. *Clio*; and that H.M.S. *Tyne* had since visited the port and saluted the flag; that the white flag was hoisted at the French tents only as a signal to us; and that he was sent by M. le Dilly, his captain, to entreat us to render them assistance. Two of our boats were forthwith manned; one was sent to the settlement at Port Louis, and in the other I went to the Frenchmen at Johnson Cove. I found them very comfortably established in large tents made from the sails of their lost ship; but they manifested extreme impatience to get

away from the islands, even at the risk of abandoning the vessel and cargo. After due inquiry, I promised to carry as many of them as I could to Monte Video, and to interest myself in procuring a passage for the rest.

Their ship was lying upon a sandy beach, one bilge stove in, and her hold full of sand and water; but as there was no surf, and at high spring-tide the sea rose only to her deck, all the stores and provisions, if not the ship herself, might have been saved by energetic application of proper means soon after she was stranded. When I saw her it was not too late, but I had too many urgent duties to fulfil to admit of my helping those who would not help themselves.

Returning on board, I met Mr Chaffers, who had been to Port Louis and heard that there was no constituted authority whatever resident on the islands, but that the British flag had been left by Captain Onslow in charge of an Irishman, who had been Mr Vernet's storekeeper. This man at first declined answering Mr Chaffers's questions, because his uniform buttons were, as he thought, different from those of the *Tyne*'s officers; however, being a simple character, he soon became more loquacious than was wished. He told Mr Chaffers that he was ordered to 'hoist the flag up and *down*' when vessels arrived, and every Sunday: that there was 'plenty of beef', and as for rabbits and geese, only the 'poor people eat them'.

2 March: Weighed and shifted our berth to Johnson Cove. On the 3rd we got on board all the new rope, bread, salt meat and small stores, which the Frenchmen had saved and wished us to embark for the benefit of their owners. Meanwhile, surveying operations were begun.

*Second Lieutenant Sullivan, in a letter home:*

Berkeley Sound, March 1833

As we went on the sea became very high, and the farther we went the worse it was. In the yawl we got on pretty well. The wind was blowing the water up in sheets of white spray, flying over the boat's mast-head, and the only sail we could carry was a close-reefed foresail. The sea was so high that at two cables' distance from each other it hid the mast-heads of the boats when they were in the hollow of the sea. Just at this place the whaler broached to and shipped a good deal of water, but luckily they got her before it again before the next sea came. We were at this time about two cables' lengths ahead of her, but had she gone we could not have helped her, as it would have been almost impossible to round to with safety, and if we did we could not have got one inch back. It was a very anxious time – I think more so than I ever yet experienced.



As we neared the point the sea got much worse, from the tide forming a race; but the distance through this was very short, and directly we passed the rocks off the point we should be in smooth water. The rocks are about a hundred yards from the shore, and tremendous breakers on them and the shore also, but between these was one small part where it did not break; and as every moment was of consequence, and outside the rocks there was a much heavier sea, we ran for this little opening. Just before coming to it a roller reached us, and carried us on its top right over the ridge without our shipping a drop of water, and the next moment we were round the point in smooth water; but this was by far the most anxious time for me, as we were also out of sight of the whaler, and it was for her safety that I was so anxious. However, just as we went round to stand back under the point we saw her swing round outside the rocks, as they thought it better to run the risk of the sea than to come through the passage inside it. The relief and comfort I felt when she was safe alongside us in smooth water I cannot describe.

We got into a snug little cove, where we pitched the tents, secured the boats, and got dinner under way. The weather cleared up a little, so as to enable us to get a few things dry. While dinner was cooking I walked over to the point we had come round with the instruments; but it blew so hard that I could not put one up, not a stand would remain fixed, and we could not stand on the top of the beach ourselves. As it was warm walking and carrying instruments, and the sky being clear, I left my coat behind me at the tents, and on our return it came on to rain, hail and snow, and I got a complete drenching. The yawlers had now the laugh on their side, as the whalers had had their bags filled with water when the sea came into the boat, and had not a dry stitch of clothes or blankets. However, they got them partly dry before night. We were fortunate to find plenty of wreck-wood on the beach, and we had a glorious fire, round which we sat singing till ten o'clock at night, when a heavy hail-shower drove us into the tents. We all then crowded into one tent, and went on singing till twelve, and I never under any circumstances saw a more merry party. All the comic songs that any one knew were mixed up with yarns of English, Irish, Scotch, and Welsh; and as we had about an equal number of each country, it raised bits of laughter against them all in their turns: neither did the west country escape.

*From Captain FitzRoy's Narrative:*

An officer despatched to the settlement informed me of the arrival of a

merchant schooner, *Rapid*, fourteen days from Buenos Aires, with Mr Brisbane on board, who was delighted to meet our officer, finding in him one of those who helped to save his life when wrecked in the *Saxe Cobourg* in 1827.

No sooner had Mr Brisbane landed than the master and crew of the *Rapid* hastened to make themselves drunk, as an indemnification for the fatigues of their exceedingly long and hazardous voyage: and in that state they were found by the *Beagle's* officer. Next morning Brisbane came on board with his papers, and I was quite satisfied with their tenor, and the explanation which he gave me of his business.

This settled, I went to Port Louis, but was indeed disappointed. Instead of the cheerful little village I once anticipated finding, a few half-ruined stone cottages; some straggling huts built of turf; two or three stove boats; some broken ground where gardens had been, and where a few cabbages or potatoes still grew; some sheep and goats; a few long-legged pigs; some horses and cows; with here and there a miserable-looking human being, were scattered over the fore-ground of a view which had dark clouds, ragged-topped hills, and a wild waste of moorland to fill up the distance.

'How is this?' said I, in astonishment, to Mr Brisbane; 'I thought Mr Vernet's colony was a thriving and happy settlement. Where are the inhabitants? The place seems deserted as well as ruined.' 'Indeed, sir, it was flourishing,' said he, 'but the *Lexington* ruined it: Captain Duncan's men did such harm to the houses and gardens. I was myself treated as a pirate, rowed stern foremost on board the *Lexington*, abused on her quarter-deck most violently by Captain Duncan, treated by him more like a wild beast than a human being, and from that time guarded as a felon, until I was released by order of Commodore Rogers.' 'But,' I said, 'where are the rest of the settlers? I see but half a dozen, of whom two are old black women; where are the gauchos who kill the cattle?' 'Sir, they are all in the country. They have been so much alarmed by what has occurred, and they dread the appearance of a ship of war so much, that they keep out of the way till they know what she is going to do' I afterwards interrogated an old German, while Brisbane was out of sight, and after him a young native of Buenos Aires, who both corroborated Brisbane's account.

At my return on board, I was shocked by the sad information that Mr Hellyer was drowned. He had walked about a mile along the shore of a creek near the ship, with one of the Frenchmen, who then left him, having recollected that he would be wanted for a particular purpose. It



was a positive order on board the *Beagle*, that no one should make any excursion, in such places alone. Mr Hellyer, anxious to shoot some ducks of a kind he had not before seen, walked on with his gun, saying he would return in half an hour.

About an hour after this, the capitaz of the gauchos, Jean Simon by name, riding towards the French tents to learn the news, saw clothes, a gun, and a watch, lying by the water side; but, as no person was in sight, he thought they must have belonged to some one in the boats which were surveying, so rode on quietly; and not until another hour had elapsed, did he even casually mention to the Frenchmen what he had seen. They, of course, were instantly alarmed and hastened to the spot, with those of our party who were within reach. Some rode or ran along the shore, while others pulled in whale-boats to the fatal spot, and there, after much searching, the body was discovered under water, but so entangled by kelp that it could not be extricated without cutting away the weed. Mr Bynoe was one of those who found it, and every means that he and the French surgeon could devise for restoring animation was tried in vain. A duck was found dead in the kelp not far from the body, and his gun was lying on the beach, discharged, with which the bird had been shot.

To me this was as severe a blow as to his own messmates; for Mr Hellyer had been much with me, both as my clerk and because I liked his company, being a gentlemanly, sensible young man. I also felt that the motive which urged him to strip and swim after the bird he had shot, was probably a desire to get it for my collection. Being alone and finding the water cold, he may have become alarmed, then accidentally entangling his legs in the sea-weed, lost his presence of mind, and by struggling hastily was only more confused. The rising tide must have considerably augmented his distress and hastened the fatal result.

5 March: This day we buried the body of our lamented young friend on a rising ground near Johnson Cove, in sight of our ship. All the French party attended the melancholy ceremony, as well as all our own party, excepting the very few who were obliged to stay on board.

*From Charles Darwin's Diary:*

Mr Hellyer was buried on a lonely and dreary headland. The procession was a melancholy one: in front a Union Jack half-mast high was carried, and over the coffin the British ensign was thrown: the funeral, from its simplicity, was the more solemn and suited all the circumstances.

*From Captain FitzRoy's Narrative:*

6 March: An agreement was brought about, and witnessed by me, between M. le Dilly and the master of the *Rapid* schooner, by which the latter bound himself to convey to Monte Video those of the *Magellan's* crew whom the *Beagle* could not carry: and next day another French whaler arrived (the fourth we had lately seen), belonging to the owners of the *Magellan*, so there was no longer any want of help for M. le Dilly.

A few days afterwards a sealing schooner, the *Unicorn*, arrived, Mr William Low being sealing master and part owner; and, although considered to be the most enterprising and intelligent sealer on those shores, perhaps anywhere, the weather had been so much against him that he returned from his six months' cruise a ruined man, with an empty ship. All his means had been employed to forward the purchase and outfit of the fine vessel in which he sailed; but having had, as he assured me, a continued succession of gales during sixty-seven days, and, taking it altogether, the worst season he had known during twenty years' experience, he had been prevented from taking seal, and was ruined. Passengers with him were the master and crew of a North American sealing schooner, the *Transport*, which had been wrecked on the southwest coast of Tierra del Fuego, in Hope Harbour; and he told me of two other wrecks, all occasioned by the gale of 12-13 January.

At this time I had become more fully convinced than ever that the *Beagle* could not execute her allotted task before she, and those in her, would be so much in need of repair and rest, that the most interesting part of her voyage – the carrying a chain of meridian distances around the globe – must eventually be sacrificed to the tedious, although not less useful, details of coast surveying.

Our working ground lay so far from ports at which supplies could be obtained, that we were obliged to occupy whole months in making passages merely to get provisions, and then overload our little vessel to a most inconvenient degree, as may be supposed, when I say that eight months' provisions was our usual stock at starting, and that we sailed twice with ten months' supply on board.

I had often anxiously longed for a consort, adapted for carrying cargoes, rigged so as to be easily worked with few hands, and able to keep company with the *Beagle*; but when I saw the *Unicorn*, and heard how well she had behaved as a sea-boat, my wish to purchase her was unconquerable. A fitter vessel I could hardly have met with, one hundred and seventy tons burthen, oak built, and copper fastened throughout,



very roomy, a good sailer, extremely handy, and a first-rate sea-boat; her only deficiencies were such as I could supply, namely, a few sheets of copper, and an outfit of canvas and rope. A few days elapsed, in which she was surveyed very carefully by Mr May, and my mind fully made up, before I decided to buy her, and I then agreed to give six thousand dollars, nearly £1,300, for immediate possession. Being part owner, and authorized by the other owners to do as he thought best with the vessel in case of failure, Mr Low sold her to me, payment to be made into his partners' hands at Monte Video. Some of his crew being 'upon the lay', that is, having agreed to be paid for their work by a small proportion of the cargo obtained, preferred remaining at the Falklands to seek for employment in other vessels, others procured a passage in the *Rapid*, and a few were engaged by me to serve in their own vessel which, to keep up old associations, I named *Adventure*. Mr Chaffers and others immediately volunteered to go in her temporarily, for I intended to place Mr Wickham in her if he should be willing to undertake the responsibility, and no time was lost in cleaning her out thoroughly, loading her with stores purchased by me from M. le Dilly and from Mr Bray, lately master of the *Transport*, and despatching her to Maldonado, to be prepared for her future employment.

This schooner was built at Rochester as a yacht for Mr Perkins, and, as I have reason to believe, cost at least six thousand pounds in building and first outfit. Soon afterwards, she was armed and used by Lord Cochrane in the Mediterranean; then she was fitted out by a merchant to break the blockade of Buenos Aires; but, taken by a Brazilian man-of-war, and carried into Monte Video, she was condemned as a prize and sold to Mr Hood, the British Consul, who went to England and back again in her with his family; after which, she was fitted out for the sealing expedition I have mentioned.

At the time of my purchase she was in want of a thorough refit, and her internal arrangements required alteration; but it happened that Mr Bray and M. le Dilly had each saved enough from their respective vessels to enable me to load the *Adventure* on the spot with all that she would require; from the former I bought anchors, cables and other stores amounting to £216: and from M. le Dilly rope, canvas and small spars, for which £187 were paid. Those who were conversant in such matters, the master, boatswain, and carpenter of the *Beagle*, as well as others, assured me that these articles were thus obtained for less than a third of their market prices in frequented ports.

While the *Beagle* lay in Johnson Cove, we witnessed a memorable

instance of the strength with which squalls sometimes sweep across the Falklands. Our ship was moored with a cable each way in a land-locked cove, not a mile across, and to the south-westward of her, three cables' length distant, was a point of land which, under ordinary circumstances, would have protected her from sea, if not from wind. Our largest boat, the yawl, was moored near our eastern anchor, with a long scope of small chain. At six in the evening of a stormy day (10 March), the wind increased suddenly from the strength of a fresh gale to that of a hurricane, and in a few minutes the *Beagle* brought both anchors ahead, and was pitching her forecastle into the sea. Topgallant-masts were on deck, and yards braced sharp up all day; but we were obliged to let go a third anchor, and even then had some anxiety for the result. Till this squall came, the water had been smooth, though of course covered with white horses; but it was then changed into a short sea, such as I should have been slow to believe wind could have raised in that confined cove. The yawl, an excellent sea-boat, and quite light, was swamped at her moorings; but I think that the chief cause of her filling was a quantity of kelp which drifted athwart the hawse and hindered her rising easily to the sea.

During the month we remained in Berkeley Sound, I had much trouble with the crews of whaling or small sealing vessels, as well as with the settlers, who all seemed to fancy that because the British flag was re-hoisted on the Falklands, they were at liberty to do what they pleased with Mr Vernet's private property, as well as with the wild cattle and horses. The gauchos wished to leave the place, and return to the Plata, but as they were the only useful labourers on the islands, in fact, the only people on whom any dependence could be placed for a regular supply of fresh beef, I interested myself as much as possible to induce them to remain, and with partial success, for seven stayed out of twelve.

While walking the deck after dark, I sometimes saw flashes of light on the distant hills, which it was difficult to account for as *ignes fatui*, because they were seen only on the heights, and momentarily, long intervals intervening between each faint flash. I once remarked similar instantaneous glimpses of feeble light, like the flashing of a distant pistol, near Pecket Harbour, in Magellan's Strait, during a rainy night, but on the hills, at the south side of Berkeley Sound, I witnessed such lights repeatedly. They were never bright or lasting – merely a faint sudden glimmer – exactly as I have said, like the flash of a pistol, fired at a great distance. It has since occurred to me that those momentary



flashes might have been caused by the occasional fall of stones among ravines, near the summits of hills.

The shattered state of most summits of mountains in these regions has often struck me, many of them being mere heaps of rocks and stones, over which it is extremely difficult to climb. Mount Skyring may be cited as one remarkable instance; there, the stones gave out a very sulphurous smell when struck together, and were strongly magnetic. Lightning, electricity and magnetism being intimately related, one is led to think that, if the above conjecture is incorrect, there may be some connexion between these sudden glimpses of faint light and the transmission of the electric fluid. This much I am certain of, that they were not lights made by man, and that they were different from the will-o'-the-wisp, or *ignis fatuus*.

My own employment obliged me to remain near the ship, but some of the officers made excursions into the interior, and to them and Mr Brisbane I am indebted for most of the following notices of these islands.

Some very large bones were seen a long way from the seashore, and some hundred feet above the level of high water, near St Salvador Bay. How they got there had often puzzled Mr Vernet, and Brisbane also, who had examined them with attention; Brisbane told me they were whale's bones. The rocky summits of all the hills are amazingly broken up, like those of far higher elevations in Tierra del Fuego, and the fragments – some very large – have rolled down the nearest ravines, so that they look like the beds of dried-up torrents. The sand-stone, which is abundant, offers beautifully perfect impressions of shells, many of which were brought to England. In these fossils the minutest portions of delicate shells are preserved, as in a plaster of Paris cast, though the stone is now very hard. There are fine stalactites in some large caverns, but they are known only to a few sealers. The large mussels produce pearls of considerable size, though inferior quality, perhaps; Mr Brisbane had a small bottle full. In one of the cottages I saw a heap of good whalebone, and was informed that some hundred pounds worth had been picked up on the coasts, and sold to whalers for a tenth part of its European value, in exchange for clothes, spirits, ammunition, and biscuit.

In the appearance of the Falkland Islands, there is very little either remarkable or interesting. About the greater part of the archipelago, barren hills, sloping towards low and broken ground, or rocky surf-beat shores, are the only objects which meet the eye. On the West Falkland, and some small islands near it, there are high, precipitous cliffs in a few

parts exposed to the western seas; but other places, and especially the southern portions of East Falkland, are so low that they cannot be seen from the deck of a vessel five miles distant. The average height of the western island is greater than that of the eastern, although the highest hills seem to be in the latter, where they rise to about thirteen hundred feet above the sea level.

Many wrecks have occurred, even on the land-locked shores of harbours themselves, and in 1833-4, some of their remains served as a warning to strangers to moor their ships securely: but with good ground tackle, properly disposed, and the usual precautions, a vessel will lie in absolute safety, as the holding-ground is excellent: indeed, in many places so tenacious, that it is exceedingly difficult to weigh an anchor which has been some time down.

The country is remarkably easy of access to persons on foot; but half-concealed rivulets and numerous bogs, oblige a mounted traveller to be very cautious. There are no trees any where, but a small bush is plentiful in many valleys. Scarcely any view can be more dismal than that from the heights: moorland and black bog extend as far as eye can discern, intersected by innumerable streams, and pools of yellowish-brown water. But this appearance is deceptive; much of what seems to be a barren moor, is solid sandy clay soil, covered by a thin layer of vegetable mould, on which grow shrubby bushes and a coarse grass, affording ample nourishment to cattle; besides which, one does not see into many of the valleys where there is good soil and pasture. Some tracts of land, especially those at the south of East Falkland, differ in character, being low, level, and abundantly productive of excellent herbage.

Mr Darwin's volume will doubtless afford information as to the geological formation of the Eastern Falkland. He did not visit the western island, but obtained many notices of it from those who were there. The more elevated parts of East Falkland are quartz rock; clay-slate prevails in the intermediate districts. Sandstone, in which are beautifully perfect impressions of shells, occurs in beds within the slate formation: and upon the slate is a layer of clay, fit for making bricks. Near the surface, where this clay is of a lighter quality, and mixed with vegetable remains, it is good soil, fit for cultivation. In some places, a great extent of clay is covered by a layer of very solid peat, varying in depth from two to ten feet. The solidity of this peat is surprising; it burns well, and is an excellent substitute for other fuel. To the clay and to the solid peat may be attributed the numerous bogs and pools of



water, rather than to the total amount of rain. Is the peat now growing, or was the whole mass formed ages ago?

The settlement, now consisting only of a few huts, some cottages, and a ruinous house or two, occupies the place originally selected by Bougainville, close to Port Louis, at the head of Berkeley Sound. Standing in an exposed situation, scattered over half a mile of rising ground, without a tree or even a shrub near it, the unfortunate village has a bleak and desolate appearance, ominous of its sad history. Previous, however, to entering upon the affairs of the settlement, I will continue my sketch of the islands and their present produce, independent of the settlers now there.

By the French, and afterwards by the Spanish colonists, a number of black cattle, horses, pigs, and rabbits, were turned loose upon East Falkland; and, by considerate persons, engaged in whale or seal-fishery, both goats and pigs have been left upon smaller islands near West Falkland. These animals have multiplied exceedingly; and, although they have been killed indiscriminately by the crews of vessels, as well as by the settlers, there are still many thousand head of cattle, and some thousand horses, besides droves of pigs, perfectly wild, upon the eastern large island: while upon Carcass Island, Saunders Island, and others, there are numbers of goats and pigs. In 1834, the smallest estimate exceeded twelve thousand cattle, and four thousand horses; but there were no means of ascertaining their number, except by comparing the accounts of the gaucho colonists, who were accustomed to pursue them, not only for ordinary food or for their hides, but even for their tongues alone, not taking the trouble to carry off more of the animal so wantonly slaughtered. The wild cattle are very large and very fat, and the bulls are really formidable animals, perhaps among the largest and most savage of their race. At Buenos Aires, the ordinary weight of a bull's hide is less than fifty pounds, but the weight of such hides in the East Falkland has exceeded eighty pounds. The horses look well while galloping about wild, but the gauchos say they are not of a good breed, and will not bear the fatigue of an ordinary day's work, such as a horse at Buenos Aires will go through without difficulty. Perhaps their 'softness', as it is there called, may be owing to the food they get, as well as to the breed. The wild pigs on East Falkland are of a long-legged, ugly kind; but some of those on Saunders Island and other places about West Falkland are derived from short-legged Chinese pigs. The only quadruped apparently indigenous is a large fox, and as about this animal there has been much discussion among naturalists, and the specimens

now in the British Museum were deposited there by me, I am induced to make a few remarks upon it.

It has been said, that there are two varieties of this 'wolf-fox', as it has been called, one being rather the smaller, and of a redder brown; but the fact is, that no other difference exists between the two apparent varieties, and as the darker-coloured larger animal is found on the East Falkland, while the other is confined to the western island, the darker colour and rather thicker furry coat may be attributed to the influence of a somewhat colder climate. The fox of West Falkland approaches nearer the large fox of Patagonia, both in colour and size, than its companion of East Falkland does; but allowing that there is one shade of difference between the foxes of East and West Falkland, there are but two, or at most three shades between the animal of West Falkland and the large fox of Port Famine.

All who have seen these animals alive have been struck by their eager ferocity and disregard of man's power. Byron says, 'Four creatures of great fierceness, resembling wolves, ran up to their bellies in the water to attack the boat!' also, 'When any of these creatures got sight of our people, though at ever so great a distance, they ran directly at them. . . . They were always called wolves by the ship's company; but except in their size and the shape of the tail, I think they bore a greater resemblance to a fox. They are as big as a middle-sized mastiff, and their fangs are remarkably long and sharp. . . . They burrow in the ground, like a fox.' The *Beagle's* officers, when employed in surveying the Falklands, were often annoyed, as well as amused, by the intrusion of these fearless animals. In size, the larger ones are about twice as bulky as an English fox, and they stand nearly twice as high upon their legs. Their heads are coarser, and their fur is not only thicker as well as longer, but it is of a woolly nature. The Falkland foxes feed upon birds, rabbits, rats and mice, eggs, seals, etc., and to their habits of attacking king-penguins, if not seal, while alive, I presume that a part of their unhesitating approach to man may be traced.

Naturalists say that these foxes are peculiar to this archipelago, and they find difficulty in accounting for their presence in that quarter only. That they are now peculiar cannot be doubted; but how long they have been so is a very different question. As I know that three hairy sheep, brought to England from Sierra Leone in Africa, became woolly in a few years, and that woolly sheep soon become hairy in a hot country (besides that their outward form alters considerably after a few generations); and as I have both seen and heard of wild cats, known to have



been born in a domestic state, whose size surpassed that of their parents so much as to be remarkable; whose coats had become long and rough; and whose physiognomies were quite different from those of their race who were still domestic; I can see nothing extraordinary in foxes carried from Tierra del Fuego to Falkland Island becoming longer-legged, more bulky, and differently coated. But how were they carried there? In this manner. There is a current which always sets from Staten Land towards the southern shores of the Falklands and icebergs or trees drifted by that current and westerly winds afford the means of transport. I appeal to Forster's and Bougainville's works for proof that animals may be so carried.

Because we do not know that there are foxes at this time upon Staten Land, it does not follow that there are none, or that they have never been there; and as guanacos, pumas, and foxes are now found on Eastern Tierra del Fuego, why might not foxes have been carried to Staten Land and thence to the Falklands, or, which is still more probable, drifted from Eastern Tierra del Fuego direct. I have heard somewhere, though I cannot recollect the authority, that a man in North America hauled a large old tree to the bank of a river in which it was floating towards the sea and proceeded to secure it on the bank, when to his astonishment, out of a hole in the tree jumped a fine fox. Clusters of trees are often found floating, which have fallen off a cliff, or have been carried out of a river; and once in the ocean, they are drifted along partly by currents and partly by wind acting upon their branches or exposed surfaces.

*Charles Darwin in The Voyage of the Beagle:*

The only quadruped native to the island is a large wolf-like fox which is common to both East and West Falkland. I have no doubt it is a peculiar species, and confined to this archipelago; because many sealers, gauchos, and Indians, who have visited these islands, all maintain that no such animal is found in any part of South America. These wolves are well known, from Byron's account of their tameness and curiosity, which the sailors, who ran into the water to avoid them, mistook for fierceness. To this day their manners remain the same. They have been observed to enter a tent, and actually pull some meat from beneath the head of a sleeping seaman. The gauchos also have frequently in the evening killed them, by holding out a piece of meat in one hand, and in the other a knife ready to stick them. As far as I am aware, there is no other instance in any part of the world of so small a

mass of broken land, distant from a continent, possessing so large an aboriginal quadruped peculiar to itself. Their numbers have rapidly decreased; they are already banished from that half of the island which lies to the eastward of the neck of land between St Salvador Bay and Berkeley Sound. Within a very few years after these islands shall have become regularly settled in all probability this fox will be classed with the dodo, as an animal which has perished from the face of the earth.

*From Captain FitzRoy's Narrative:*

Rats and mice were probably taken to the Falklands by the earlier navigators who landed there, whose ships were often plagued with their numbers. That they have varied from the original stock in sharpness of nose, length of tail, colour, or size, is to be expected, because we find that every animal varies more or less in outward form and appearance, in consequence of altered climate, food, or habits; and that when a certain change, whatever it may be, is once effected, the race no longer varies while under similar circumstances; but to fancy that every kind of mouse which differs externally from the mouse of another country is a distinct species, is to me as difficult to believe as that every variety of dog and every variety of the human race constitute a distinct species. I think that naturalists who assert the contrary are bound to examine the comparative anatomy of all these varieties more fully, and to tell us how far they differ. My own opinion is, judging from what I have gathered on the subject from various sources, that their anatomical arrangement is as uniformly similar as that of the dogs and of the varieties of man.

On East Falkland there are numbers of rabbits, whose stock is derived from those carried there by Bougainville or the Spaniards. Among them were some black ones (when I was there), which had been pronounced indigenous, or, at all events, not brought from Europe. A specimen of these pseudo-indigenous animals has been carefully examined by those to whom a new species is a treasure, but it turns out to be a common rabbit.

Sea-elephant and seal (both hair and fur-seal) were abundant along the shores of the archipelago in former years, and by management they might soon be encouraged to frequent them again; but now they are annually becoming scarcer, and if means are not taken to prevent indiscriminate slaughter, at any time of year, one of the most profitable sources of revenue of the Falklands will be destroyed.

Whales frequent the surrounding waters at particular seasons, and they are still to be found along the coasts of Patagonia and Tierra del



Fuego (within easy reach from the Falklands), though their numbers are very much diminished by the annual attacks of so many whale-ships, both large and small, which have made the Falklands their headquarters during the last twenty years.

A valuable source of daily supply and, by salting, of foreign export, is the inexhaustible quantity of fish which swarm in every harbour during the summer. The description which most abounds is a kind of bass, from two to three feet long, and six inches in depth: it takes salt well, and has been exported by cargoes to the River Plate and to Rio de Janeiro; and there are delicious small fish in such shoals, that our boats' crews were sometimes obliged to let a large portion escape from the net before they could haul it ashore without tearing.

Of the feathered tribe there are numbers, but not much variety has been found – a natural consequence of the absence of trees. Three or four kinds of geese, two kinds of snipe, several varieties of the duck, occasionally wild swans of two kinds, a sort of quail (like that of *Tierra del Fuego*), carrion-hawks or vultures, albatrosses, gulls, petrel, penguins, seahens,\* shags, rooks, curlew, sandpipers, rock-hoppers, and a very few land-birds, are found about most of the islands.

Although there are no trees, a useful kind of brushwood grows abundantly in valleys, to the height of three or four feet, and thickly set together. Over level plains it is but thinly scattered. The settlers use this brushwood for lighting their peat-fires. There are three kinds of bushes: one grows straight, from two to five feet high, with a stem from half an inch to an inch and half in diameter: this kind is found abundantly in most of the valleys. Another is common about the southern parts of the islands, and has a crooked trunk, as thick as a man's arm, growing to about three feet in height. The third is smaller still, being little better than heather; it grows almost every where, though scantily.

Peat is inexhaustible; and, if properly managed, answers every common purpose of fuel, not only as a substitute, but pleasantly. It will not, however, in its natural state, answer for a forge; but if dried and subjected to heavy pressure for some time before use, a much greater heat might be derived from it.

There is but little difference in the quality of the grass, either on high or low land; but in sheltered valleys it is longer, softer, and greener, than elsewhere. The whole face of the country is covered with it; and in some places, especially over a peaty soil, its growth becomes hard and rank. In the southern half of East Falkland, where, as I mentioned, the soil is

\* *Guillemots*.

good, there is abundance of long, but brownish grass over all the country, and at the roots of it there are sweet tender shoots, sheltered from the wind, much liked by cattle. In that district there are several varieties of grass growing on fine dark-coloured earth, mixed with light white sand; and, although, from never being cut, it has a rugged and brown appearance, its nutritive properties must be considerable, as the finest cattle are found feeding there. Mr Bynoe remarked to me, that wherever the surface of the ground had been broken by cattle, he found a very dark-coloured earth mixed with sand or clay, or else clay mixed with gravel and sand. That the clay is good for bricks has been mentioned; but I have not said that there is stone of two or three kinds suitable for building, and that any quantity of lime may be obtained by burning fossil shells brought from the coast of Patagonia, where the cliffs are full of them, or by collecting the shells scattered upon the Falkland shores. Another natural production, of more value than it has hitherto been considered, is the common sea-weed or kelp.

It is to be remarked, that the soil of East Falkland has been very much improved in the neighbourhood of the settlement, as well as around the estancia, or farm, where the tame cattle are kept, in consequence of the treading and manuring it has received. The grass is there as a short and as sweet as horses could desire; and does not this show that by folding, on a large scale, any extent of pasture land might, by degrees, be brought to a similar condition? Why sheep have not been carried there in greater numbers I am not aware, but judging from the climate, and the fur of the foxes, I should suppose that the long-woolled sheep would do well, and perhaps improve the staple of its wool, as the merino sheep has done in an opposite manner, by transportation to Australia. Pigs have increased in great numbers on the small islands, where their young are safer from the foxes, and where there is abundance of the sedgy grass called tussac, the roots and stalks of which are much liked by them.

The size and fatness of the wild cattle is a clear proof that the country is adapted for grazing. Of twenty wild bulls which were killed during one excursion of the settlers, shortly before the *Beagle's* arrival, the average weight of each hide was about seventy, and a few weighed eighty pounds. Some of these animals are so fat and heavy, that the gauchos say they cannot drive them across the marshy grounds which are passed by the other cattle, as well as by men on horseback. It has been also ascertained that meat takes salt remarkably well in that climate; and as salt of excellent quality, as well as salt-petre, abounds on



the coast of Patagonia, there is no reason why large quantities of salt meat and salt fish should not be prepared there, and exported to the Brazils, to the East, to Chile, and Peru, besides supplying a number of ships which would touch there.

But there are alleged disadvantages to contend with which must not be overlooked for a moment. It is very doubtful whether corn will ripen. Fruit, which requires much sun, certainly will not, and culinary vegetables have been said to run to stalk and become watery. Nevertheless, Mr Brisbane assured me that wheat had been tried in Vernet's garden, and that there it grew well, producing a full ear and large grain. The garden was small, slightly manured and defended from wind by high turf fences. Potatoes, he said, grew large, though watery; but it was easy to see that justice had not been done to them, whole potatoes having been put into holes and left to take their chance, upon a soil by no means so suitable for them as might have been found. Planted even in this rough way, Mr Bynoe collected three pounds weight of potatoes from one root. By proper management, I think that they, as well as turnips, carrots, cabbage, lettuce and other esculent plants, might be brought to great perfection, particularly on sheltered banks sloping towards the north-east. The turnips which I saw and tasted were large and well-flavoured: the largest seen there weighed eight pounds and a half. Flax has been tried in a garden, and succeeded. Mr Bynoe saw some of it. Hemp has never yet been tried. Currant bushes (*Ribes antartica*) have been transported from Tierra del Fuego, and tried near the settlement, but their fruit did not ripen properly. It ought, however, to be remembered that those currants are wild, a bad sort of black currant, and that when ripe in Tierra del Fuego they are scarcely eatable.

Anti-scorbutic plants are plentiful in a wild state, such as celery, scurvy-grass, sorrel, etc., there are also cranberries, and what the settlers call strawberries, a small red fruit, growing like the strawberry, but in appearance and taste more like a half-ripe blackberry. I must not omit the 'tea-plant', made from which I have drank many cups of good tea, and the settlers use it frequently. At my own table I have seen it drunk by the officers without their detecting the difference: yet the only tea I used at other times was the best that could be obtained at Rio de Janeiro. It has a peculiar effect at first upon some people, which is of no consequence, and soon goes off.

This little plant grows like a heath in many parts of the Falklands as well as in Tierra del Fuego, and has long been known and used by

sealers. The large round gum plant (*Hydrocelice gummifera*), common in Patagonia and Tierra del Fuego, is abundantly found, and, when dried, is useful for kindling fires, being extremely combustible. The gum which exudes from its stalks when cut or broken, is called by the settlers 'balsam', and they use it quite fresh for wounds; at the least it answers the purpose of sticking-plaster. In summer it may be collected in considerable quantities, without injuring the plants, as it then oozes out spontaneously; even while green, the whole plant is very inflammable. The gauchos, when in the interior of the islands, tear it asunder, set it on fire, and roast their beef before it. Within the stems of the tall sedgy grass, called tussac, is a white, sweetish substance, something like the kernel of an unripe nut; this is often eaten by the settlers, and is so much relished by cattle, horses and pigs that the plant itself is greatly diminished in quantity, and now can only be found in its former luxuriance upon islands where cattle or hogs have not access. These flags or rushes are more than six feet high; they make good thatch and a soft bed. There is a shrub, or rather creeper, of which the French made a kind of beer, thought to be wholesome and anti-scorbutic; and there are other vegetable productions which are of little consequence, perhaps, except to botanists.

Although the climate is so much colder than that of Buenos Aires, the gauchos sleep in the open air when in the interior, under their saddles, just as they do in the latitude of 35°. While idling at the settlement they gamble, quarrel, and fight with long knives, giving each other severe wounds. With their loose ponchos, slouched hats, long hair, dark complexions, and Indian eyes, they are characters fitter for the pencil of an artist than for the quiet hearth of an industrious settler. Besides these gauchos, we saw five Indians who had been taken by the Buenos Airean troops, or their allies, and allowed to leave prison on condition of going with Mr Vernet to the Falklands. Including the crews of some thirty whale-ships, hovering about or at anchor among the islands; the men of several American vessels, all armed with rifles; the English sealers with their clubs, if not also provided with rifles; these cut-throat looking gauchos; the discontented, downcast Indian prisoners, and the crews of several French whalers – who could not or would not see why they had not as good a right to the islands as Englishmen – there was no lack of the elements of discord; and it was with a heavy heart and gloomy forebodings that I looked forward to the months which might elapse without the presence of a man-of-war, or the semblance of any regular authority.



Our tender, the *Adventure*, sailed on 4 April, under the charge of Mr Chaffers, who was desired to call off the River Negro, and thence go to Maldonado, moor his vessel close to Gorriti Island, land everything, and commence her thorough refit.

About this time one of the officers went to see some wild cattle taken. After riding far beyond the hills seen from Port Louis, a black speck was discerned in the distance: instantly the three gauchos stopped, adjusted their saddle-gear, lassos and balls, and then cantered off in different directions. While stopping, my shipmate saw that the black spot moved and doubled its size. Directly afterwards, he perceived five other black things, and taking it for granted they were cattle, asked no questions of his taciturn, though eager, companions, but watched their movements and galloped on with the capitaz, Jean Simon, the other two making a détour round some hills. Having got down wind of the herd, Simon slackened his pace and, lying along his horse's back, gradually ascended a slight eminence, beyond which the cattle were feeding. For a moment he stopped to look round: there was a monstrous bull within a hundred yards of him; three hundred yards further, were about twenty cows; and in a valley beyond, was a large herd of wild cattle. Just then the heads of the other two men were seen a quarter of a mile on one side, also to leeward of the cattle, which were still feeding unsuspectingly. With a sudden dash onwards, such as those horses are trained to make, Simon was within twenty yards of the overgrown, but far from unwieldy brute, before he could 'get way on'. Whirling the balls around his head, Simon hurled them so truly at the bull's fore-legs, that down he came, with a blow that made the earth tremble, and rolled over and over. Away went Simon at full gallop after a fine cow; and at the same time, each of the other men were in full chase of their animals. The herd galloped off almost as fast as horses: but in a few moments, another bull was bellowing in impotent rage, and two cows were held tightly by lassoes – one being caught by Simon alone, and the other by his two companions. One of the men jumped off, and fastened his cow's legs together so securely, that she could only limp along a few inches at a time; his horse meanwhile keeping the second lasso tight, as effectually as if his master had been on his back. Both lassos were then shaken off, and one thrown over Simon's cow, which had been trying in all kinds of ways to escape from or gore her active enemy, who – go which way she would – always kept the lasso tight; and often, by checking her suddenly, half-overset and thoroughly frightened her. Leaving his horse as soon as the cow was secure, Simon hamstringed the bulls, and

left them where they fell, roaring with pain and rage. He then remounted, and all four cantered back towards the *estancia*, or farm, where the tame cattle are kept. Simon was asked to kill the poor brutes before he left them; but he shook his head, with a sneer, and remarked, that their hides would come off easier next day! At daybreak, the following morning, half-a-dozen tame cattle were driven out to the place of slaughter, and with them the frightened and already half-tamed cows, which had been left tied in a place where they had nothing to eat, were easily driven in to the farm. The two bulls were at last killed, skinned, cut up, and the best parts of their carcasses carried to the settlement. The hides of those two animals weighed seventy-three and eighty-one pounds.

Speaking to Simon myself one day about the indiscriminate slaughter of cattle which I had heard took place occasionally, he told me that the gauchos used sometimes to kill them for their tongues only, and perhaps, a steak or two, for an *asado* (meat roasted on a stick), without taking the trouble to skin them; being too great epicures in their way to feast twice upon the same animal.

In 1834, while surveying the sea-coast of these islands in the *Adventure*, Lieutenant Wickham, Mr Low and Mr Johnson had many a bull hunt; but though there was as much or more risk in their encounters, being on foot, with rifles, assisted only by a good dog, their adventures were individually rather than generally interesting. They used to land in unfrequented harbours, very near herds of wild cattle or horses, creep quietly along behind tussac or bushes, till they got within rifle-shot, take good aim at the fattest and, after firing, do their best to kill the animal, in general only wounded by a first shot. They had an excellent dog who always seized the creatures by the lower lip and diverted their attention from Mr Johnson or Low, who otherwise might have lost their lives on more than two occasions.

The report of a gun usually alarmed the whole herd of cows, and off they went at a gallop; but the lordly bulls were not to be hurried, they would stand and face their enemies, often charge them; when a precipitate retreat behind a rock, or to the boat, or across a boggy place which the bull would not try, was the only resource if their hardy dog was not by to seize the angry animal, and give time for a well-directed shot. In those excursions also, while ashore at night in small tents, the foxes used to plague them continually, poking their unpleasant heads into the opening of the tent, while the man on watch was by the fire, stealing their provisions and breaking their rest after a fatiguing day's work.



What with the foxes, the wild bulls, and the wild horses, it is thoroughly unsafe for a person to walk alone about the unfrequented parts of the Falkland Islands – even with the best weapons for self-defence against either man or beast. Several unfortunate people have been missed there, who wandered away from their parties.

6 April: Having embarked M. le Dilly, with some of his officers and crew, and lumbered our little ship with the spars and stores purchased from him, we sailed from the Falklands. Our passage to within sight of the River Negro was short though stormy, a south-east gale driving us before it, under a close-reefed fore-topsail. As the sea ran high, it might have been more prudent to have hove-to, but time was precious, and our vessel's qualities as a sea-boat, scudding as well as by the wind, were well known.

*Charles Darwin, in a letter home, 30 March 1833:*

A great event has happened here in the history of the *Beagle*: it is the purchase of a large schooner, 170 tons, only 70 less than the *Beagle*. The captain has bought it for himself, but intends writing to the Admiralty for men, etc. etc. Wickham will have the command: it will double our work, perhaps shorten our cruise, will carry water and provisions, and in the remote chance of fire or sticking on a coral reef, may save many of our lives. It is the present intention to take the schooner to the Rio Negro, and there to refit, whilst the *Beagle* goes to Monte Video: if so I shall stay at the former place: as it is a nice wild place, and the Rio Plata I detest. I have been very successful in geology: as I have found a number of fossil shells in the very oldest rocks which ever have organic remains. This has long been a great desideratum in geology, viz the comparison of animals of equally remote epochs at different stations in the globe. As for living creatures, these wretched climates are very unfavourable: yet I have the great satisfaction to find my powers of examining and describing them have increased at a great pace. As for our future plans I know nothing: circumstances alter them daily. I believe we must have one more trip to the south, before finally going round the Horn, or rather passing the Strait of Magellan, for the captain had enough of the great sea at the Cape to last him all his life. I am quite astonished to find I can endure this life: if it was not for the strong and increasing pleasure from Nat. History I never could.

It is a tempting thought to fancy you all round the fire and perhaps plaguing Granny\* for some music. Such recollections are very vivid,

\* His sister, Susan.

when we are pitching bows under and I seasick and cold. Yet if I was to return home now, I should feel as if there had been no interval of time: I suppose it is from having so thoroughly made up my mind for a long absence.

Wickham will be a heavy loss to this vessel: there is not another in the ship worth half of him. Hamond also, who lately joined the *Beagle*, from stammering and disliking the service, intends leaving it altogether. I have seen more of him than any other one, and like him accordingly. I can very plainly see there will not be much pleasure or contentment till we get out of these detestable latitudes, and are carrying on all sail to the land where bananas grow. Oh those realms of peace and joy: I trust by this time next year, we shall be under their blue sky and clear atmosphere. At this instant we are shortening sail, as by the morning we expect to be in sight of the mouth of the Rio Negro.



## 6. RIO NEGRO

*From Captain FitzRoy's Narrative:*

Early on 12 April we were off the Rio Negro; but baffling winds and a heavy swell, raised by the late gale, prevented our anchoring near the bar, or sending in a boat.

Soon after noon on the 14th, while standing off and on waiting for the swell to go down and allow of a boat crossing the bar, a sail seen in the horizon was made out to be the *Adventure*. We steered for and spoke her, found all well, sent her on to Maldonado, and again stood towards the bar. Our tender, as I mentioned, sailed from Berkeley Sound on the 4th; but was obliged to heave-to during the gale in which we were able to scud.

Next day, the 15th, a decked boat, like the *Paz*, with some difficulty crossed the bar and brought me letters from Lieutenant Wickham, by which I learned that he and his party had sailed from the river only a few days before we arrived, having previously examined all the coast, from Port Desire to Valdes Creek. I was sorry to hear that Corporal Williams, a very worthy man, in every sense of the words, had been drowned in the River Negro. Williams had been in two polar voyages, and under Captain King, in H.M.S. *Adventure*, from 1825 to 1830. The rest of the party were well, and making rapid progress with their task. Wind favouring, we made all sail for the Bay of San José, hoping to meet the little vessels under Lieutenant Wickham, but could not find them; so concluding that they had run further south than was intended at their departure from the Negro, we made sail for the Plata.

At daylight on the 26th, land was seen near Maldonado, and at two, we anchored off Monte Video. In a few hours the French passengers were landed; next day our anchor was again weighed, and at noon on the 28th we moored the *Beagle* in Maldonado Bay, close to the little island of Gorriti. Our tender, the *Adventure*, had arrived on the 23rd. My thoughts were at this time occupied by arrangements connected with her, besides the usual routine observations. I was extremely anxious to fit the schooner properly, and to set her to work, but at the

same time to keep all our other operations in active progress. A decked boat was lying in Maldonado, just built, which her owner, Don Francisco Aguilar, offered to lend me for two months if I would rig her for him, and this proposal exactly suited my views, as it would enable me to send for Lieutenant Wickham, and supply his place by Mr Usborne, leaving Mr Stokes to continue the survey about San Blas and the Colorado. Accordingly, the *Constitucion*, as this little craft was named by her owner, was hauled alongside, and Mr Usborne with a party, set to work in preparing her for a trip to the Rio Negro. On 1 May Mr Usborne sailed, having with him Mr Forsyth and five men; he was to go to the Rio Negro, join and assist Mr Stokes, and inform Lieutenant Wickham that he was wanted at Maldonado, to take charge of the *Adventure*. The *Constitucion* was about the size of the *Liebre*, a craft I should hardly have thought fit for such a voyage had I not heard so much from Mr Harris of the capital weather those decked boats make in a gale. With their hatches secured, tiller unshipped, a storm trysail, or no sail at all set, and nobody on deck, they tumble about like hollow casks, without caring for wind or sea.

Next day, 2 May, the *Beagle* returned to Monte Video, to procure carpenters, plank, and copper for the *Adventure*. I found that she was so fine a vessel, and so sound, that it was well worth while to copper her entirely afresh, with a view to her future operations among islands in the Pacific, where worms would soon eat through places on a vessel's bottom from which sheets of copper had been torn away. At this time the *Adventure's* copper was complete, but thin, and as the carpenters said it would not last above two years more with certainty, I determined to copper her forthwith, and make one substantial refit do for all. Here, to my great regret, Mr Hamond decided to return to England, and we consequently lost a valuable member of our small society.

*Captain FitzRoy, in a letter to the Hydrographer:*

10 May 1833

Dear Captain Beaufort

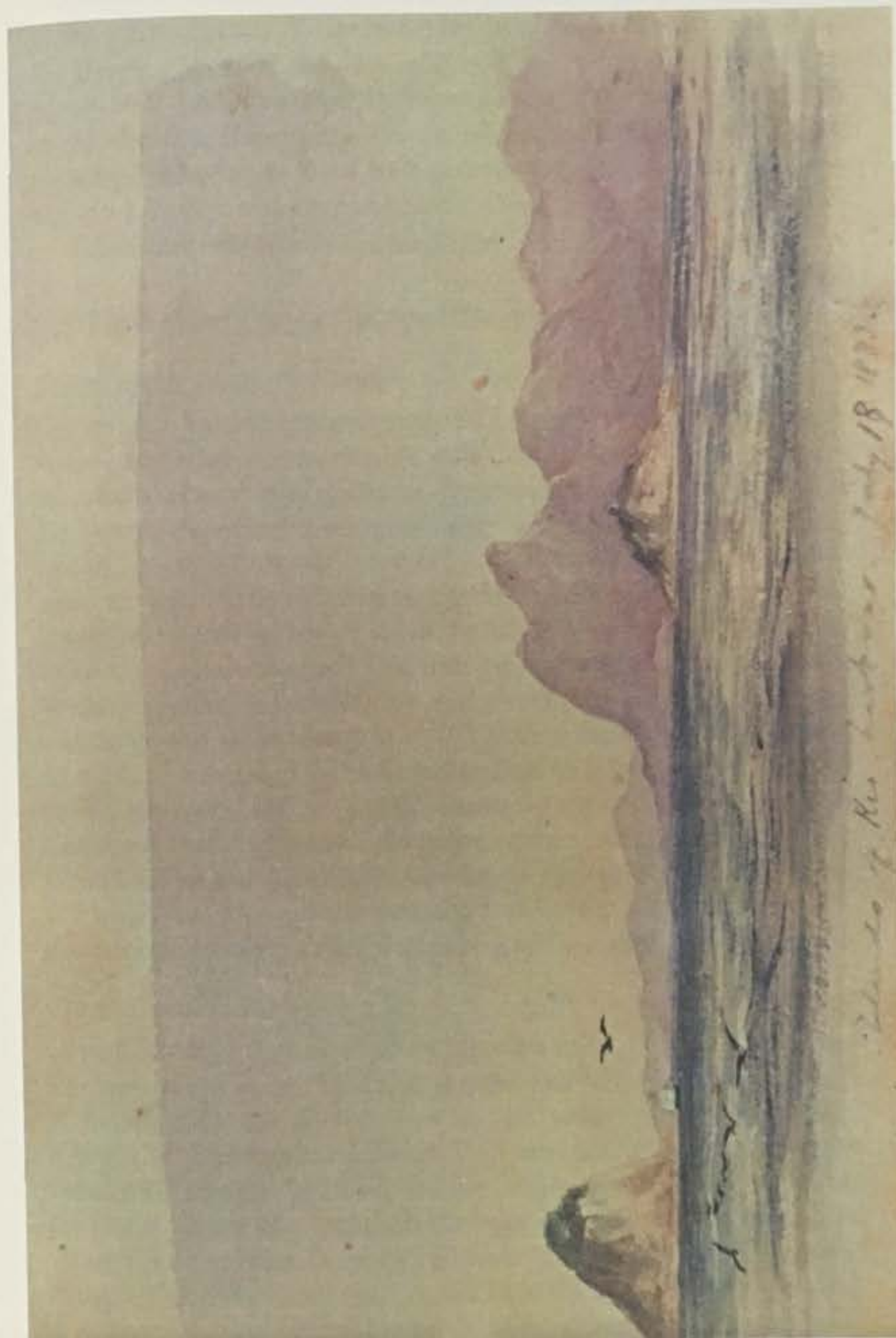
I am most anxious to hear who is to pay for the two little craft *Paz* and *Liebre*, whether His Majesty or His Majesty's humble servant – and what Captain Beaufort thinks of my tricks. I can assure that gentleman that they have done good service and I hope before September to send home such a batch of work as will give him satisfaction.

We have not idled in the *Beagle*, and Wickham and Stokes have been *slaving* – (as I hear).



You will not be surprised at my not *now* sending copies of the rough materials I have collected, when I tell you that I came up from the Falklands with one Lieut, one mate, one mid, the surgeon and the purser – and that at *this moment* there are on board, one mid, ten men and myself. The others who came up in the ship from the Falklands, are on shore for a run, and those who did not come up are scattered about the coast like the crew of a sealer. At this moment (*credat Judaeus*, – don't tell the big wigs) I have got *five* sail at work, – but I must explain.

At the Falkland Islands I bought a fine schooner of 170 tons burthen, coppered, copper fastened, armed with six light guns and built of the very best English oak, as a yacht for Mr Perkins, the brewer. She cost him *six thousand pounds before* she was off the stocks, and another *thousand* in fitting out – I have bought the vessel, – stores sufficient for three years, – of *every description*, new copper for her bottom, with everything wanted for re-coppering and three good boats, for £2,000 and am not displeased with my bargain. Being a very fine vessel and an excellent sea-boat, her owner thought to make a fortune by sealing, – but the season has been so desperately bad that no vessel, however good, could defy the gales, and into Berkeley Sound came this vessel – the *Unicorn* by name. Her master, who was part-owner, ruined by the adventure – not having taken skins enough to pay the vessel's outfit, all hands quarrelling, and going ashore, no one to keep the vessel – I was the best bidder and got her for £1,300, the remaining £700 go for stores, copper and outfit. From two wrecked ships I filled her hold with *excellent* stores, purchased for less than half their value, and packed her off to Maldonado. There she now lies, clearing out for heaving down, and my next letter will tell you, I hope, that she is coppered and fitting out. I have already bought the copper, and *paid* it too, as well as for the vessel, to her *owner* in *THIS* town. Our Master has her now in charge – but I have sent a small schooner (hired) of the same breed as the *Paz* and *Liebre* to bring Lieut. Wickham up to Maldonado – to fit out his new command, while Stokes works away to the southward and I go to the Rio Negro, and with Darwin take a peep at the '*interior*'. Darwin is left at Maldonado. As soon as the men have had their run ashore I go to Maldonado, there heave down and copper my craft (taking eight carpenters who I have hired, with me), work in peace at the charts (*this place is too civilized*) and when Wickham is settled to his new job take Darwin on board and go southwards leaving Wickham to finish and afterwards join company.



ISLANDS OFF RIO HARBOUR



Now *pray fight my battle* and get me *twenty supernumerary seamen* for the *Beagle*, *fifteen AB* and *five first class* ratings – it will save my pocket *so very much*, and have them you know, I must, either for *His Majesty* or *myself*. I feel as if we could now get on as fast again, and much more securely, by having so fine a craft to carry our *luggage*, *providing boats*, etc, etc. I mean to make her a regular '*Lighter*'.

Yours most respectfully and sincerely,

ROBT. FITZROY

P.S. I have already shipped *half* the *Unicorn's* crew.

*From Captain FitzRoy's Narrative:*

On 17 May, having engaged men and purchased plank, copper, provisions and other necessities, we sailed from Monte Video, and next morning anchored in Maldonado. Preparations were then commenced for heaving the schooner down to copper her. We hauled her alongside, and on the 28th hove her 'keel out', for a few hours, and righted her again at dark. While standing on her keel, examining the state of her copper and planking, I saw a sail in the offing, which was soon made out to be the *Constitucion*, and just after we righted the schooner Lieut. Wickham came alongside. He brought good tidings, without drawback, and those who know what it is to feel anxiety for the safety of friends whose lives are risked by their willingness to follow up the plans of their commanding officer will understand my sensations that night. The *Constitucion* had anchored off the Negro on the 11th, entered it next day, found the *Paz* and *Liebre* there, and on the 17th sailed again. Six knots and a half an hour was the most she could accomplish under any circumstances, yet her passages were very good, considering the distance.

*Charles Darwin's Diary:*

*28 and 29 May:* Captain FitzRoy hired a small schooner to go to the Rio Negro to bring Mr Wickham in order that he might take command of our schooner. She arrived yesterday; and today Mr King, who came with Mr Wickham, paid me a visit. They are heartily tired of their little vessel, and are again as glad to see the *Beagle*, as every one in her is to see them. The weather has generally been very fine; but the gale of 12 January reached them. It appears however to have been miserable work, and more than sufficiently dangerous: from the smallness of the vessels it was scarcely possible to keep anything dry. To possess a dry shirt or bed was an unusual luxury. In addition to these discomforts, Mr Wickham and some of the others constantly suffered from seasickness. Mr



Stokes and Mr Osborne (who has taken Mr Wickham's place) will continue to work in the neighbourhood of the Rio Negro.

*Captain FitzRoy, in a letter to the Hydrographer :*

7 June 1833

Dear Captain Beaufort

I cannot omit an opportunity of telling you how we are going on, though I have no 'documents' ready for you yet. Lieut. Wickham arrived here on 28 May having left Mr Stokes in charge of the hired schooners, at the Rio Negro.

Two days after our arrival in the River Plate, at the beginning of May – I sent Mr Osborne (Mast. Asst.) in a small schooner of thirteen tons burthen, to look for and bring Lieut. Wickham to take command of the *Unicorn*, and to give Mr Stokes charge of the other two craft. In my letter from Monte Video I said that our little detachment was doing well, but I can now say that it has succeeded extremely well, and far beyond my expectations. On 18 May Lieut. W. sailed from the Rio Negro, to join the *Beagle*, and Mr Stokes, to continue the survey northward of that river. In those *cockle shells* (for now that they have succeeded I will tell you their size – one of fifteen and the other of only *nine* tons), the coast between Port Desire and Bahia Blanca has been explored *satisfactorily*, and when you see the new charts, you will say, 'I had no idea there remained so much to be done on that Coast'. Their work has been confined to the immediate vicinity of the land, there is still work for the *Beagle* near tide races, and outlying shoals.

The labyrinth between San Blas and Bahia Blanca is partly finished. Mr Stokes is now working at that part – off the *Islas de la Confusion*, the aforesaid labyrinth, there are shoals out of sight of land, and extremely dangerous. In the *Beagle* although so small, we *could* not have overhauled these places so well, nor half so quickly, as the *cockle shells*. They are but decked boats – one draws six and the other four feet water, which enables them to play with the land and withstand the races which would swamp an open boat. As sea-boats these little craft are surprising, they are just like casks, but wet and miserable in bad weather as you may suppose. I cannot say enough in praise of their good management and great exertions, but their work will speak for them. Mr Osborne is now helping Mr Stokes. In July I am to meet them at the Rio Negro. In August I hope to dispatch a cargo to you, and in September we shall be going southwards, *Unicorn* in company, little craft paid off and discharged. In the *B.* we have the southern parts of

Terra del and part of the Falklands to add to the summer's gleanings – but with *such* a summer, I may think it fortunate we were not ourselves gleaned by Old Davy.

Yours most respectfully and sincerely,

ROBT. FITZROY

*From Captain FitzRoy's Narrative:*

During June we remained in Maldonado, employed about the *Adventure*, and refitting as well as painting our own ship. Meanwhile Mr Darwin was living on shore, sometimes at the village of Maldonado, sometimes making excursions into the country to a considerable distance; and my own time was fully occupied by calculations and chart-work, while the officers attended to heaving down the *Adventure*. This process, in a place partly exposed to south-west winds, was extremely tedious, and had it not been for the great advantages Maldonado and Gorriti offered in other respects, the situation might have been deemed exceedingly ill-chosen for such a purpose. Only when there was no swell could we haul her alongside and heave her down (an operation under any circumstances difficult, as she was one hundred and seventy tons in burthen, and we were but two hundred and thirty-five) and many days sometimes intervened on which no progress could be made. Every morning, at dawn of day, Lieut. Sullivan and I used to watch the sky most anxiously, in order to know whether it would be worth while unmooring, and warping the vessels together.

*Captain FitzRoy, in a letter to the Hydrographer :*

16 July 1833

Dear Captain Beaufort

Your unvarying goodness is deserving of every acknowledgement and every exertion that I and those with me can make.

Had I foreseen that my outstepping would have caused any uneasiness to yourself, I need not now assure you that the strict and steady jog-trot should have been preserved. Injury to *myself alone* was all I anticipated, and I should ill deserve your regard if I preferred my own interest to the Public Service. The work is done, the vessels *are paid for*, and if an imprest had been laid on account of the stores, my conscience would have been entirely at ease.

As it is, if you will entirely pardon the vexation I have unintentionally caused to yourself, I shall remain tolerably satisfied. Had either of your letters (of 9 March and 3 April) reached me prior to my purchase of the



*Adventure* (late *Unicorn*) I should hardly have risked involving you in another fracas. I am now upon thorns to know the result – and what additional plague I may have caused to you by that transaction. The men for her I do not expect.

What *désagrément* will be developed – *quien sabe*?

You are kind enough to compliment a certain quantum of zeal and temper which I assure you merit no such encomium. I have been shown very forcibly that my composition there is not *quantum sufficit* of either ingredient.

I cannot help feeling rather strongly that the *Adventure* and *Beagle* have been several years about this survey, and that Foreigners as well as Englishmen are anxiously expecting the results of the 'English Survey'. Officers acquainted with these countries are now employed who may be elsewhere in a short time. Chronometers will not continue to go well for *many* years, without cleaning – The *Beagle* has many measurements to make and much work to do in the Pacific. And a certain troubled spirit and conscience is always goading me to do all I can, for the sake of doing what is *right*; without seeking for credit, or being cast down because everyone does not see things in the same light. These are some of the reasons which occasion my outgoings.

What is *now* left undone, will long be neglected. Not only the character of those actually engaged in the survey will suffer, but the credit of the English as surveyors will be injured.

My soaring ideas about the River Negro have received a sad check from Lieut. Wickham who tells me that the current is always so rapid as to render navigation extremely difficult above the settlement (20 miles from the mouth), and that there are many bank shoals, rapids, and sunken trees.

I hear also that the *Journal* of a *Spanish* expedition up that river is extant at Buenos Aires, and I have procured a map on which the track of Villarino, the officer who commanded that expedition, is laid down. The old Spaniard (mentioned by me formerly) who was one of that party, says that they were more than eight months in going and returning, that the banks of the river were then inhabited by vast numbers of Indians, and that *all* those Indians were then *friendly* and *assisted* their progress.

At this moment the army of the United Province of Rio de la Plata occupies the northern bank, while the unfortunate and now harassed Indians are endeavouring to keep possession of the southern side. A war of extermination appears to be the object of the *liberal* and *independent*

Creoles. Every Indian is their inveterate enemy – and if our boats were to attempt now to ascend the river they would undoubtedly be attacked and probably be destroyed.

It is a curious fact that while the Spanish held the country, these *southern* Indians were extremely well disposed towards the white intruders, and received them with the utmost hospitality. Since the *Revolution* (what a *glorious sound*) the most determined hostility has been increasing. Did not the kind cautions contained in your letter of 9 March almost amount to a prohibition? You set too much value on us.

Thanks for the map – it will prove useful.

In future will you consider Valparaiso the depot for letters etc. for the *Beagle*. The care of the British Consul is also preferable to that of a senior officer, who is generally a bird of passage, and now and then carries the letter-bags to sea, for a cruise.

If anyone who honours me by an *original* thought, should cross your path, will you say that I am MOST conscious of my deficiencies as a *correspondent* and humbly beg their forgiveness. In time I will pay all – I cannot go very fast being but a *Beagle* but at the end I trust that the animal will have maintained its other characteristics.

If other trades fail, when I return to old England (if that day ever arrives) I am thinking of raising a crusade against the slavers! Think of *Monte Video* having sent out *four* *slavers*!!! Liberal and enlightened Republican and their Prime Minister Vasquez has been bribed by 30,000 dollars to wink at the violation of their *adored Constitution*!!

The *Adventure* will make a good privateer!!

Yours most faithfully and respectfully,

ROBT. FITZROY

#### *From Captain FitzRoy's Narrative:*

On the 24th my survey work being finished, and our help no longer required at Gorriti, we sailed to Cape San Antonio, and thence along the coast, till we anchored off the Rio Negro. There we found the *Paz* and *Liebre* just returned from their examination of those intricacies which surround the ports between Blanco Bay and San Blas. The *Liebre* came out to meet us with a satisfactory report of progress, as well as health; and, at her return, Mr Darwin took the opportunity of going into the river, with the view of crossing overland to Buenos Aires, by way of Argentina: after which, he proposed to make a long excursion from Buenos Aires into the interior, while the *Beagle* would be employed in surveying operations along sea-coasts uninteresting to him.



Captain FitzRoy, in a letter to Darwin ashore:

24 August 1833

My dear Philos,

Trusting that you are not entirely expended – though half starved, occasionally frozen and at times half-drowned – I wish you joy from your campaign with General Rosas, and I do assure you that whenever the ship pitches (which is *very* often as you *well* know), I am extremely vexed to think how much *sea practice* you are losing; – and how unhappy you must feel upon the firm ground.

Your home (upon the waters) will remain at anchor near the Monte Megatherii until you return to assist in the parturition of a Megalonyx measuring seventy-two feet from the end of his snout to the tip of his tail, and an Ichthyosaurus somewhat larger than the *Beagle*!

Our wise ones say that you are not enough of an Archimedes to accomplish the removal of this latter animal.

I have sent by Chaffers to the commandant, on *your* account, and on behalf of *our* intestines – which have a strange inclination to be interested by beef.

If you have already departed for the Sierra Ventana – *tanto mefore*. – I shall stay here, at the old trade – ‘quarter-er-less four’ –

Sancho goes with Chaffers in case you should require his right trusty service.

Send word when *you* want a boat. *We* shall send *once* in *four* days. Take your own *time*; there is abundant occupation here for *all the sounders*, so we shall not growl at you when you return.

Yours very truly,

ROBT. FITZROY

P.S. I do not rejoice at your extraordinary and outrageous peregrinations, because I am envious, jealous and extremely full of all uncharitableness. What will they think at home of ‘Master Charles’ – ‘I do think he be gone mad’ – Prithee be *careful* – while there’s *care* there’s no *fear* – says the sav!

P.S. 2nd (*Irish* fash.) Have you yet heard from Henslow – or about your collections sent to England?

From Captain FitzRoy’s Narrative:

We then got under sail and began our next employment, which was sounding about the outer banks off San Blas and Union Bays, and examining those parts of Ports San Antonio and San José which the *Paz*

and *Liebre* had been prevented doing by wind and sea; besides which, I wished to see them myself, for many reasons, more closely than hitherto.

On 19 August we anchored near the bar of the Negro to meet the *Paz* and *Liebre*, take our officers and men on board, and pay Mr Harris the money to which he was entitled, not only by contract, but by the uniform attention, activity and thorough kindness which he and his partner had shown to their temporary companions; by their knowledge as pilots, and by the useful information which they had readily given, to the full extent of their abilities. The complete success of that enterprise was greatly owing to the conduct of those two worthy men. Before dark all was settled, our party was safely on board; we quitted Harris and Roberts, with their useful little craft, mutually satisfied; and made sail for Blanco Bay, where there was still work to be done; intending to add to our already numerous soundings, while following the seaward edges of the banks.

On the 24th, we moored off the Wells, in Port Belgrano.

Next day, Lieutenant Sullivan went with a party to explore the furthest extreme of the inlet, while others were occupied, as usual, in the various duties always necessary on board a ship, in addition to those of a survey.

Mr Darwin was at Argentina, and hearing of our arrival, rode to the Wells. He had met General Rosas on the Colorado, who treated him very kindly; and he was enjoying his shore-roving without any annoyance, the old major being no longer afraid of a ‘naturalista’.

Second Lieutenant Sullivan, in a letter home:

Rio Negro, 5 September 1833

On 29 August I left in the yawl with a mate and ten men. We started from the ship at 1 p.m. with a strong breeze but a favourable tide, and we beat up to Punta Alta in time to have everything landed, the tents rigged, and the pot under way before sunset. Tea is a great luxury in cruises of this kind. We always boiled a large boiler holding four gallons full every morning for breakfast, and the same for supper, and we never had any left, and, as there were only twelve of us, we must have drunk one-eighth of a gallon each meal, or five and a half pints a day. The same pot full of a mess made of salt pork, fresh beef, venison, and biscuit was also emptied for dinner, and meat also of some kind both for breakfast and supper. Such hardships are hard to put up with, the idea of being among mud-banks in a boat with nothing but a waterproof awning to cover her with, and thick blankets to sleep in, with only two



pounds of meat, two-thirds of a gallon of tea, one pound of bread, and a quarter of a pint of rum each man per day is dreadful!!!

In the evening we got all ready for beginning work at daylight, and then part went on board the boat to sleep. On the 30th we began at 6 a.m., and had finished our work by breakfast-time, but waited for Darwin to examine the beach at low water for fossil remains of animals, which are very plentiful. Besides getting some he had seen before, he this morning found the teeth of animals six times as large as those of any animal now known in this country, also the head of one about the size of a horse, with the teeth quite perfect and totally different from any now known, and just at low-water mark he found the remains of another about six feet long, nearly perfect, all embedded in solid rock. We started at low water for the settlement, leaving two hands digging out the bones.

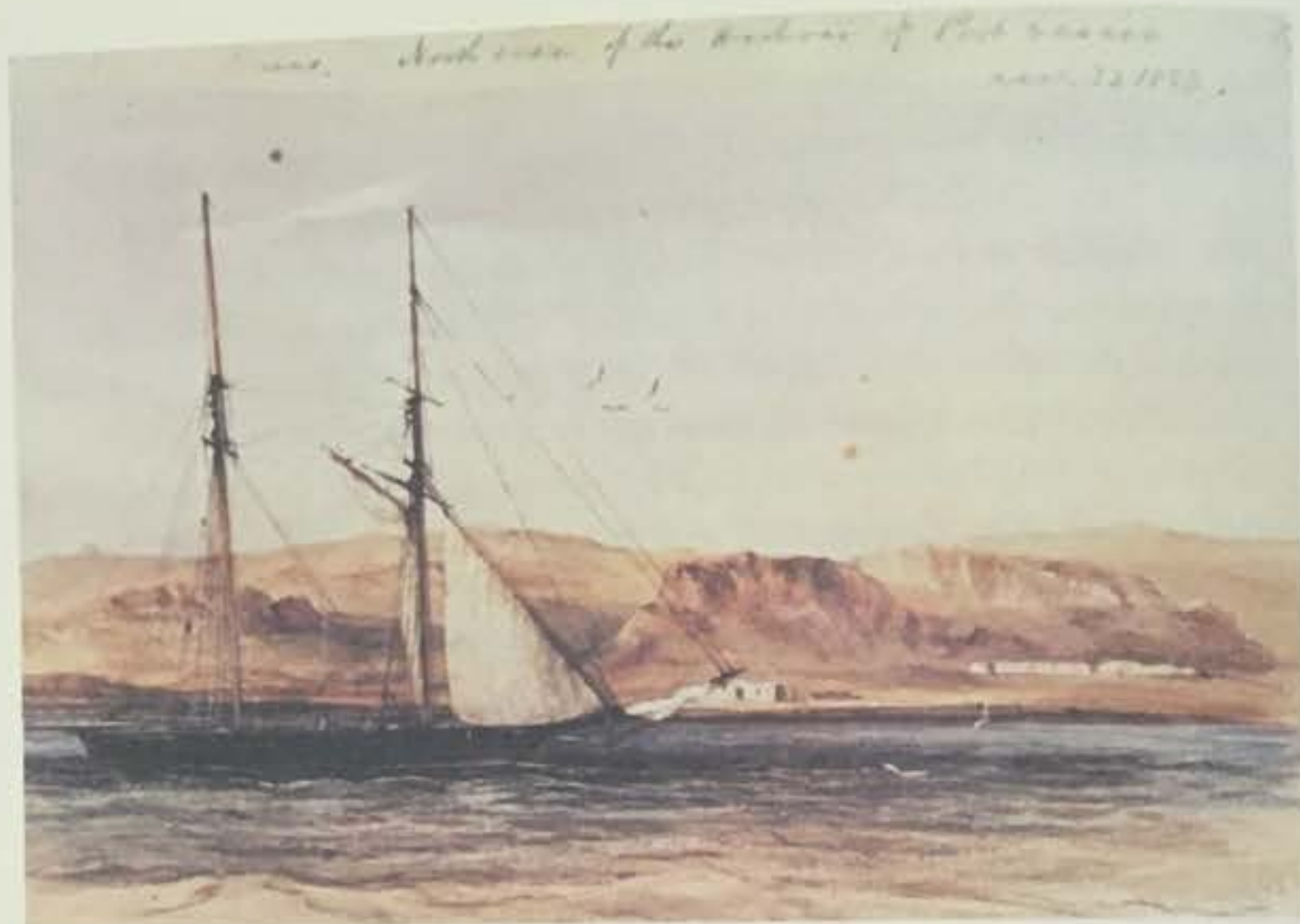
After supper we all went on board, and moored the boat head and stern about four yards from the bushes, to ensure her grounding in the centre where the mud was quite soft. The evening looked very gloomy, with heavy thunder and lightning; but we were quite snug under an awning, which we filled as much as possible with tobacco smoke, to drive away the mosquitoes and sand-flies, which were very troublesome. By filling the upper part of the awning with smoke we kept them all out. I never in my life, I think, laughed in the way I did for about three hours at the stories they were all telling in turns. We had among the men two or three excellent hands for keeping every one alive, and tonight they performed their part to perfection. Such hands are invaluable in a cruise of that kind, particularly if the work is very hard, as they keep men's spirits up in a most surprising manner. I think I never in my life saw people more happy than all our party were; they were in roars of laughter from morning till night, and up to all kinds of amusements when on shore, except when I brought them to an anchor occasionally to prevent their shaking the ground (near my instruments), and then they would find something amusing in that; and when men in those spirits are happy and comfortable, it is astonishing how they make work fly.

*From Captain FitzRoy's Narrative:*

On 7 September, we finally left Blanco Bay; but again sounded along the dangerous banks of Anegada Bay. Mr Darwin had previously departed on his road to Buenos Aires.

In these surveying trips along-shore we always anchored when we





PORT DESIRE



'SLINGING THE MONKEY'

could, in order to preserve our station and connect triangles; but, of course, we were often obliged to weigh again at short notice, during the night; therefore every preparation was made for any change of wind or weather, and a careful look-out always kept upon the deep-sea lead (invariably attended throughout the night), as well as upon the sympiesometer, the sky, and the water. I mention the deep-sea lead particularly, because however shallow the water may be, mistakes are often made with the hand-lead, especially at night, when a tide or current is running, in consequence of the lead being drifted by the action of the water upon it and the line, and deceiving even a moderate leads-man; who sometimes thinks the water much deeper than it really is – sometimes the reverse; and never can tell exactly, under such circumstances, how a ship is moving over the ground, or whether she is dragging her anchors.

Off Starve Island we were obliged to weigh in a hurry, one night, owing to a gale coming on from the south-east, and during the 10th and 11th, we carried a press of sail, to get off the land; the wind then drew round by the south, and a succession of baffling weather ensued, which prevented our doing any thing on the coast, and also hindered our reaching the Plata until the 16th, on which day we ran up to Monte Video, and anchored.

On the 18th we weighed, hearing that H.M.S. *Snake* had brought stores and letters for us, and was at Maldonado, but had hardly lost sight of the town, when the *Snake* hove in sight. Knowing her to be one of the new build, I altered course, to sail a few miles with her, and see how much she would beat us: but, to my surprise, she gained on us but little while running free with a fresh breeze, just carrying top-mast studding-sails; and I was afterwards told by her officers, that though she sailed uncommonly well on a wind, and worked to windward wonderfully, she did nothing remarkable with a flowing sheet. I did not like her upper works; they 'tumbled home' too much (like some old French corvettes), narrowing her upper deck, giving less spread to the rigging, and offering a bad form to the stroke of a heavy sea, whether when plunging her bow into it, or receiving it abeam. However good such a form may be for large ships, which carry two or three tier of guns, I cannot think it advantageous for flush-decked vessels or small frigates, and am quite certain that it is bad for boats.

After running a few miles with the *Snake*, and finding that she steered towards Buenos Aires, we altered our course to resume our easterly route, and early next morning were anchored alongside the *Adventure*.



As it was evident that another month must elapse before the schooner would be ready for her work, notwithstanding the zealous exertions of Lieut. Wickham and his crew, I decided to finish myself the survey, which I had intended he should begin with, namely, of the south shore of the Plata and a reported bank off Cape Corrientes – and defer the second visit to Tierra del Fuego until December or January. Accordingly, the *Beagle* sailed on the 23rd.

Captain FitzRoy, in a letter to Darwin ashore:

4 October 1833

My dear Darwin,

Two hours since I received your epistle dated 26 September and most punctually and immediately am I about to answer your queries. (Mirabilo!!) But firstly of the first – My good Philos, why have you told me nothing of your hairbreadth escapes and moving accidents? How many times did you flee from the Indians? How many precipices did you fall over? How many bogs did you fall into? How often were you carried away by the floods? and how many times were you kilt? That you were not kilt *dead* I have visible evidence in your handwriting as well as in a columnar paragraph in Mr Love's unamiable paper. You did not tell me whether you received the blank papers safely – you informal homo – how am I to feel certain that I have not signed what may blast my *immaculate* reputation! Harris carried the packet which contained them and promised to deliver them faithfully. How Sancho by Mr Hood's (Consul General, Monte Video) assistance contrived so to mismanage as to reach Buenos Aires some days after Harris – *Quien sabe!* In it were 5 'skimpy' lines as Capt. Beaufort would call them and a promise of better behaviour. Since the date of that note the *Beagle* has been two days at Maldonado, one day here and about a week between this and Cape Corrientes. Not having any stone pounders on board or any qualified person, (the *Mate* being absent) – I could not think of landing – so *you* have yet a *chance* – *de osrus* (It *blew* strong and prevented landing).

If Mr Parry has written as he intended, you have heard of Mr Martens – Earle's successor, – a *stone-pounding artist* – who exclaims *in his sleep* 'Think of me standing on a pinnacle of the Andes – or sketching a Fuegian glacier!!!' By my faith in bumpology, I am sure you will like him, and like him *much*, he is – or I am woefully mistaken – a *rara avis in navibus* – *Carlo-que simillima Darwin* – don't be jealous now for I only put in the last bit to make the line scan – you know very well that your

degree is *rarissima* and that *your* line runs thus *Est avis in navibus Carlos rarissima Darwin* but you will think I am cracked, so *seriatim* he is a gentlemanlike well-informed man – his landscapes are *really* good (compared with London men) though perhaps in *figures* he cannot equal Earle. He is very industrious and gentlemanlike in his *habits*, (not a *small* recommendation).

Wickham gets on famously – really the 'lighter' will not merit *trifling* considerations. Mr Kent of the *Pylades* is at Corviti belonging to our squad. We have plenty of men – and *good* ones and all is prospering – 'Well, but the *confunions*, – the *confunions*!' I hear you are saying – 'You have got to the end of a sheet of paper without telling me one thing that I want to know.'

This is 4 October, 'so the date of your letter tells me' – well – hum – if – hum – but – we must consider – then – hum – tomorrow will be the sixth – 'Prodigious!!!' Do you know that I mean – 'to be sure' so – and so – and so – and hum, hum, hum, and off goes the head!!!

I never will write another letter after tea – that green beverage makes one tipsy – besides it is such a luxury feeling that your epistle is not to go across the wide Atlantic and has only to cross the muddy Plata. It is so awful writing to a person thousands of miles off when your conscience reproaches you with having been extremely negligent and tells you that six or eight or (oh how awful) twelve months '*history*' is due to your expectant and irate correspondent. *Still you get no answer* – 'What is the *Beagle going to do?* – *Will you tell me, or not?*'

Philos, be not irate, have patience and I will tell thee all.

Tomorrow we shall sail for Maldonado – there we shall remain until the middle of this month – thence we shall return to Monte Video – to remain quietly, *if possible*, until the end of the month. – I will try all I can to get away from the River Plate the first week in November but there is much to do and I shall not be surprised if we are detained even until the middle of November – However – weather is of such consequence, that every long day gained will tell heavily, and I hope and will try hard to be off *early* in November. Therefore do not delay your arrival *here* later than the *first few* days of November at the *farthest*.

You say nothing about the 'Journal of the expedition up the River Negro' – nor have you sent me the map of the province of Buenos Aires. I pray you to *do the latter* – right speedily – and enquire about the *former* – from Mr Gore as well as the other man whose name I forget – but in writing to Mr Gore I mentioned it – so he will know it (Senor – Don – or Colonel Something, or somebody) – I wish to compare the



map with our charts previous to sending them away – in order to ‘connive’ a little; as your friend Mr Bathurst says.

Roberts (of the *Liebre*) passed our bows *this morning* on board the *Paz* bound to Rio Negro with a cargo of *tobacco*, he did not honour us with a visit – nor did he ask for Chico – respecting the former, he was somewhat rude, and as to the latter rather wise I think.

Adios Philos – Ever very faithfully yours,

ROBT. FITZROY

*From Captain FitzRoy's Narrative:*

On 6 October we returned to Maldonado; to prepare for a long excursion southward, and to hasten the equipment of the *Adventure*. By the 19th she was almost ready, so we weighed in company, ran up the river to water, and on the 21st moored off Monte Video, to take in our final supplies previous to quitting the Rio Plata for the last time. Here, to my surprise, I found people talking about the English having taken possession of the island of Gorriti, and built houses upon it. This, I knew, must in some way have arisen out of the temporary encampment of the *Adventure's* crew; and enquiring further, I found that columns of the Monte Video newspapers had been filled with discussions on the subject. The local authorities at Maldonado having been told, incorrectly, that the English had hoisted British colours upon the island, had repaired several old buildings, and had erected a house with glass windows, for the commanding officer's residence, became alarmed; and as stories seldom lose by repetition, the good people of Monte Video were soon in commotion. However, the affair was easily explained; but not without many a laugh at the absurdity of my little observatory, made of ninety small pieces of wood, so as to be stowed in a boat, having ‘loomed’ so large. Had our colours ever been displayed on shore, there might have been some foundation for their alarm; but it so happened that the only flag that was on the island, at any time while our party was there, was an old Monte Video ensign, which belonged to the schooner when I bought her from Mr Low. This incident, trifling as it is, may be worth notice, as showing how necessary it is to be more circumspect and explanatory in every dealing with a small state, than in similar transactions with the authorities of old established governments.

*FitzRoy, in a letter to the Hydrographer:*

16 November 1833

My dear Captain Beaufort,

The immediate departure of the packet has upset all my plans,

prevented my sending the charts, etc. by her – and added not a little to the unpleasant feelings which private as well as official letters have lately excited in my mind which used to be contented.

A few days more slavery will complete the documents which are to be sent to England before the *Beagle* leaves the River Plata.

I will leave them in the care of the British Consul to be forwarded by the first packet or man-of-war after our departure.

When I reply to your letter of 4 Sept. I will enter rather more upon a subject which is made more galling by reflexion.

A vessel (considered too small for a commander – therefore generally given a lieutenant) has more arduous duties to perform than any other surveying vessel (larger though they be) on foreign Stations.

She obtained neither the help of dockyards nor of men of war: she is obliged to be crowded with provisions and stores in a manner previously unknown in a vessel of her class.

Her employment is in the stormy southern latitudes, she has a long voyage in prospect.

Perhaps other surveying vessels have dockyards within reach – perhaps they have tenders, or a tender, perhaps their voyages are not long.

I am *sorry* that, because *I* have offended, the *Service* should suffer. Captain King with far less extensive orders – had *three* vessels upon this station – The *Adventure*, the *Beagle*, and the *Adelaide* tender – which was purchased at *this* place by the government for *two thousand pounds sterling* before *any* expense was incurred in an *entirely new outfit*.

A good spring should bend and be elastic. I hope it will not break.

Yours most faithfully,

ROBT. FITZROY

PS. I never interfered at the Falklands! It was all a mistake!!

*From Captain FitzRoy's Narrative:*

The month of November was passed at Monte Video: laying down chart-work, computing observations, and writing; procuring and stowing provisions; painting the vessels outside and blacking their rigging and occasionally giving the crews leave to go ashore.

*From Charles Darwin's Diary:*

The *Beagle* and *Adventure* are both ready for sea; with a fine stock of provisions and excellent crews. The other day, there was an instance of the unaccountable manner in which seamen sometimes run away from a ship. Two men, petty officers, in good favour and with two or three



years pay owing them, ran away, and the design must have been made sometime previously. These men were allowed repeatedly to go on shore and held the first station on board. There is a degree of infatuation and childish want of steadiness in seamen, which to a landsman is quite incomprehensible and hardly to be credited.

*From Captain FitzRoy's Narrative:*

Mr Darwin returned at the end of the month; and the first week in December both vessels sailed from the river: to Tierra del Fuego and the Falklands.

## 7. *THE SOUTH REVISITED*

*From Captain FitzRoy's Narrative:*

6 December 1833: With a supply of provisions and coals, sufficient for at least nine months, the *Beagle* and her tender sailed together from Monte Video.

*From Charles Darwin's Diary:*

7 December: With a fair wind stood out of the river and by the evening were in clear water; never I trust again to enter the muddy water of the Plata. The *Adventure* kept ahead of us, which rejoiced us all, as there were strong fears about her sailing. It is a great amusement having a companion to gaze at. The following changes have taken place amongst the officers. Mr Wickham commands the *Adventure*; he has with him Messrs Johnstone and Forsyth and Mr Usborne as under-surveyor. Mr Kent from the *Pylades* has joined us as surgeon. Mr Martens is on board the *Beagle* filling the place which Mr Earle is obliged to vacate from ill health.

*From Captain FitzRoy's Narrative:*

We first touched at Port Desire on 23 December and after passing a very cheerful Christmas Day, and exploring the inlet to its extremity, the *Adventure* was left to complete some alterations in her masts and rigging, while the *Beagle* would survey the coast between Sea Bear Bay and Port San Julian. After noon on the 25th, both crews amused themselves on shore in wrestling, racing, jumping and various games.

*From Charles Darwin's Diary:*

Christmas, 25 December: After dining in the gun-room, the officers and almost every man in the ship went on shore. The captain distributed prizes to the best runners, leapers, wrestlers. These Olympic games were very amusing; it was quite delightful to see with what schoolboy eagerness the seamen enjoyed them: old men with long beards and young men without any were playing like so many children. Certainly a much



better way of passing Christmas Day than the usual one, of every seaman getting as drunk as he possibly can.

*From Captain FitzRoy's Narrative:*

The party who went up the inlet were much struck by the wildness and height of the rocky cliffs which they saw on each side of what appeared to have been the bed of a former river; but could go no further with the yawl than I had been in 1829. This I had foreseen, and therefore Mr Chaffers, who was in charge of the party, took with him a small dinghy, in which he went on after the yawl was stopped by the mud. Having proceeded two miles further, the prospect changed suddenly; instead of wild glens and precipitous heights of porphyritic rock, low flat banks were seen, covered with rushes near the water and, further from the stream, with luxuriant pasture. It was almost high water when the dinghy reached this spot and entered a fresh water river about a hundred yards wide, but so shallow that there was only three feet water in the middle. The river narrowed considerably as they ascended, till at the spot where Mr Chaffers stopped to take sights of the sun, the stream was but forty yards across. In that place the deepest water was three feet at the top of high tide over a gravelly bottom; but from the level space between the stream and the foot of the nearest hills, about three quarters of a mile, there was reason for supposing that during floods all the valley might be inundated. From a neighbouring hill, four hundred feet in height, the river could be traced several miles further, making a distance of about eight miles seen by the party, in which the water was quite fresh. It was lost to the westward, winding along an irregular break, or cliff-bounded valley, in the distant hills. The only living creature seen, of any size, was a lame horse, feeding near the river. There were no traces whatever of Indians. Having hastened back with the little boat before the river dried, Mr Chaffers ascended another hill; but saw little more excepting an appearance of water to the southward, about which he could not clearly distinguish whether it was a lake, part of a river, or a salt-pond. I have no doubt, that during particular seasons a large body of fresh water is brought down this valley, but I do not think the river rises near the Andes, because there is no drift-wood on its banks, and the Indians say nothing of it when enumerating the rivers which cross the continent.

4 January 1834: In working out of Port Desire, the *Beagle* struck her forefoot heavily against a rock, so as to shake her fore and aft: but on she went with the tide, and as she made no water, I did not think it

worth while returning into port. I was instantly convinced that we had hit the very rock on which the *Beagle* struck in 1829, in the night – a danger we never again could find by daylight till this day, when I was, rather imprudently, going out with the last quarter-ebb.

*Lieutenant Sullivan, in a letter home:*

It being desired to find out the condition of the *Beagle's* bottom after she had struck a rock, I dived down under the keel, and, having ascertained things were not so bad, came up the other side, bleeding from several scratches received from the jagged copper. Captain FitzRoy, wishing to make doubly sure, then performed the same action himself.

*From Captain FitzRoy's Narrative:*

7 January 1834: Mr Stokes and I landed some leagues northward of Port San Julian, near Cape Look-out, and ascended a level-topped range of hills about 300 feet above the sea. The view we obtained was similar to those so tiresomely common in eastern Patagonia. Level, arid, desert-like plains extended to the horizon: a few irregular hills were seen in the distance; some guanacos and a few ostriches were here and there discerned; a fox crossed our path, and a condor wheeled overhead; nothing more was noticed.

We returned to the low ground near the sea, and there we found plenty of small wood, stunted shrubby trees, fit for fuel; as well as several ponds of fresh-water. The rise of tide on the shore was considerably more than twenty feet, but we had not time to ascertain it accurately.

9 January: Mount Wood, that excellent land-mark for Port San Julian, was seen at daylight: and about noon the *Beagle* anchored off the bar of the harbour. Mr Stokes went with me to examine the passage, and before evening our ship was safely moored in the port. This was one, among numerous instances I could mention, where the good qualities of the *Beagle*, as to sailing and working, saved us days of delay, trouble, and anxiety. All hands immediately set-to about the plan of the port, and such efficient officers as were with me made short work of it. One day Mr Darwin and I undertook an excursion in search of fresh water, to the head of the inlet, and towards a place marked in an old Spanish plan, *pozos de agua dulce*; but after a very fatiguing walk not a drop of water could be found. I lay down on the top of a hill, too tired and thirsty to move farther, seeing two lakes of water, as we thought, about two miles off, but unable to reach them. Mr Darwin, more accustomed



than the men, or myself, to long excursions on shore, thought he could get to the lakes, and went to try. We watched him anxiously from the top of the hill, saw him stoop down at the lake, but immediately leave it and go on to another, that also he quitted without delay, and we knew by his slow returning pace that the apparent lakes were *salinas*. We then had no alternative but to return, if we could, so descending to meet him at one side of the height, we all turned eastward and trudged along heavily enough. The day had been so hot that our little stock of water was soon exhausted, and we were all more or less laden with instruments, ammunition, or weapons. About dusk I could move no farther, having foolishly carried a heavy double-barrelled gun all day besides instruments, so, choosing a place which could be found again, I sent the party on and lay down to sleep; one man, the most tired next to myself, staying with me. A glass of water would have made me quite fresh, but it was not to be had. After some hours, two of my boat's crew returned with water, and we were very soon revived. Towards morning we all got on board, and no one suffered afterwards from the over-fatigue, except Mr Darwin, who had had no rest during the whole of that thirsty day – now a matter of amusement, but at the time a very serious affair.

*From Charles Darwin's Diary:*

11 January: Again I started with the captain to the head of the harbour. It suddenly came on to blow hard, so the captain ran the boat on shore and we and four of the boat's crew all armed proceeded on foot. It turned out to [be] a very long walk; in the evening two of the party could not walk any further and we were all excessively tired. It was caused by a most painful degree of thirst; and as we were only eleven hours without water, I am convinced it must be from the extreme dryness of the atmosphere. Earlier in the day we experienced a great mortification; a fine lake was seen from a hill; I and one of the men volunteered to walk there, and not till quite close did we discover that it was a field of solid snow-white salt. The whole party left their arms with the two who were knocked up and returned to the boat. Fresh men were then sent off with some water and we made a signal fire, so that by 11 o'clock we were all collected and returned to the ship. I was not much tired although I reached the boat in the first division; but the two next days (12th and 13th) was very feverish in bed.

*From Captain FitzRoy's Narrative:*

On 20 January we anchored again in Port Desire, and our first employ-

ment was to look for the rock whose top (Mr May assured me with a grave face) we had knocked off with our keel.

22 January: Both vessels sailed, and at sunset the *Adventure* parted company, steering for New Island in the Falklands. Lieutenant Wickham was to make a connected survey of the coast of that archipelago, while the *Beagle* was in other places. After giving some time to sounding and examining portions of ground in the neighbourhood of Cape Virgins and the eastern entrance of Magellan's Strait, we passed the First Narrows and anchored in Gregory Bay. There, of course, we had an interview with old Maria and her party. They received us kindly, but with some form, being assembled and seated on the ground near our landing place, with two men standing up in the midst of them, who looked immovably grave and stupidly dignified. These men were acting as caciques, Maria said, the real chiefs being absent. They were stripped to the waist, and the upper parts of their bodies spotted with white paint, much as a piece of new knotty wood is spotted with white lead before it receives a coat of paint. The rest of the people were dressed as usual. An active barter commenced, but the portly actors in the middle did not take part in it, they remained in their solemnity till we left them.

*From Charles Darwin's Diary:*

29 January: Went on shore with the captain and met with a very kind reception. These Indians have such constant communication with the sealers, that they are half-civilized; they talk a good deal of Spanish and some English. Their appearance is however rather wild. They are all clothed in large mantles of the guanaco, and their long hair streams about their faces. They resemble in their countenance the Indians with Rosas, but are much more painted; many with their whole faces red and brought to a point on the chin, others black. One man was ringed and dotted with white like a Fuegian. The average height appeared to be more than six feet; the horses who carried these large men were small and ill-fitted for their work. When we returned to the boat, a great number of Indians got in; it was a very tedious and difficult operation to clear the boat. The captain promised to take three on board, and every one seemed determined to be one of them. At last we reached the ship with our three guests. At tea they behaved quite like gentlemen, used a knife and fork and helped themselves with a spoon. Nothing was so much relished as sugar. They felt the motion and were therefore landed.

30 January: A large party went on shore to barter for mantles etc. The whole population of the Toldos were arranged on a bank, having brought



with them guanaco skins, ostrich feathers etc. etc. The first demand was for fire-arms and of course not giving them these, tobacco was the next; indeed knives, axes etc. were of no esteem in comparison to tobacco. It was an amusing scene and it was impossible not to like these mis-named giants, they were so thoroughly good-humoured and unsuspecting. An old woman, well known by the name of Santa Maria, recognized Mr Rowlett as belonging formerly to the *Adventure* and as having seen him a year and a half ago at the R. Negro, to which place a part of this tribe had then gone to barter their goods. Our semi-civilized friends expressed great anxiety for the ship to return and one old man wanted to accompany us.

*From Captain FitzRoy's Narrative:*

On 2 February we anchored in Port Famine, and on the 10th, having obtained chronometric observations for which I went there, we sailed for the neighbourhood of the First Narrows and Lomas Bay.

The following week was occupied in surveying the north-eastern shore of Tierra del Fuego, which, except San Sebastian Bay, does not contain a port.

On the 25th, we anchored at the Hermite Islands, on the north-east side of Wollaston Island. Thence, on the 27th, we crossed Nassau Bay to Goree Road, and the following day entered the Beagle Channel.

1 March passed in replenishing our wood and water at a cove, where we had an opportunity of making acquaintance with some Yapoo Tekeenica natives, who seemed not to have met white men before.

*From Charles Darwin's Diary:*

Whilst going on shore, we pulled alongside a canoe with six Fuegians. I never saw more miserable creatures; stunted in their growth, their hideous faces bedaubed with white paint and quite naked. One full-aged woman absolutely so, the rain and spray were dripping from her body. Their red skins filthy and greasy, their hair entangled, their voices discordant, their gesticulation violent and without any dignity. Viewing such men, one can hardly make oneself believe that they are fellow creatures placed in the same world. I can scarcely imagine that there is any spectacle more interesting and worthy of reflection, than one of those unbroken savages. It is a common subject of conjecture, what pleasure in life some of the less gifted animals can enjoy? How much more seasonably it may be asked with respect to these men. To look at the wigwam; any little depression in the soil is chosen, over this a few

rotten trunks of trees are placed, and to windward some tufts of grass. Here five or six human beings, naked and uncovered from the wind, rain and snow in this tempestuous climate, sleep on the wet ground, coiled up like animals. In the morning they rise to pick shell fish at low water; and the women, winter and summer, dive to collect sea-eggs; such miserable food is eked out by tasteless berries and fungi. They are surrounded by hostile tribes speaking different dialects; and the cause of their warfare would appear to be the means of subsistence. Their country is a broken mass of wild rocks, lofty hills and useless forests, and these are viewed through mists and endless storms. In search of food they move from spot to spot, and so steep is the coast, this must be done in wretched canoes. They cannot know the feeling of having a home, and still less that of domestic affection; without, indeed, that of a master to an abject, laborious slave can be called so. How little can the higher powers of the mind come into play; what is there for imagination to paint, for reason to compare, for judgement to decide upon? To knock a limpet from the rock does not even require cunning, that lowest power of the mind. Their skill, like the instinct of animals, is not improved by experience; the canoe, their most ingenious work, poor as it may be, we know has remained the same for the last 300 years. Although essentially the same creature, how little must the mind of one of these beings resemble that of an educated man. What a scale of improvement is comprehended between the faculties of a Fuegian savage and a Sir Isaac Newton! Whence have these people come? Have they remained in the same state since the creation of the world? What could have tempted a tribe of men leaving the fine regions of the north to travel down the Cordilleras, the backbone of America, to invent and build canoes, and then to enter upon one of the most inhospitable countries in the world? Such and many other reflections must occupy the mind of every one who views one of these poor savages. At the same time, however, he may be aware that some of them are erroneous. There can be no reason for supposing the race of Fuegians are decreasing, we may therefore be sure that he enjoys a sufficient share of happiness (whatever its kind may be) to render life worth having. Nature, by making habit omnipotent, has fitted the Fuegian to the climate and productions of his country.

*From Captain FitzRoy's Narrative:*

Till the 5th the *Beagle* was actively occupied by day in working to windward, westward, through the channel, and then she anchored at



Wooll̄ya. But few natives were seen as we sailed along: probably they were alarmed at the ship, and did not show themselves. The wigwams in which I had left York, Jemmy, and Fuegia, were found empty, though uninjured: the garden had been trampled over, but some turnips and potatoes of moderate size were pulled up by us, and eaten at my table, a proof that they may be grown in that region. Not a living soul was visible any where; the wigwams seemed to have been deserted many months; and an anxious hour or two passed, after the ship was moored, before three canoes were seen in the offing, paddling hastily towards us, from the place now called Button Island. Looking through a glass I saw that two of the natives in them were washing their faces, while the rest were paddling with might and main: I was then sure that some of our acquaintances were there, and in a few minutes recognized Tommy Button, Jemmy's brother. In the other canoe was a face which I knew yet could not name. 'It must be some one I have seen before', said I, when his sharp eye detected me, and a sudden movement of the hand to his head (as a sailor touches his hat) at once told me it was indeed Jemmy Button – but how altered! I could hardly restrain my feelings, and I was not, by any means, the only one so touched by his squalid, miserable appearance. He was naked, like his companions, except a bit of skin about his loins; his hair was long and matted, just like theirs; he was wretchedly thin, and his eyes were affected by smoke. We hurried him below, clothed him immediately, and in half an hour he was sitting with me at dinner in my cabin, using his knife and fork properly, and in every way behaving as correctly as if he had never left us. He spoke as much English as ever, and, to our astonishment, his companions, his wife, his brothers and their wives, mixed broken English words in their talking with him. Jemmy recollected every one well, and was very glad to see them all, especially Mr Bynoe and James Bennett. I thought he was ill, but he surprised me by saying that he was 'hearty, sir, never better', that he had not been ill, even for a day, was happy and contented, and had no wish whatever to change his way of life. He said that he got 'plenty fruits,' 'plenty birdies,' 'ten guanaco in snow time,' and 'too much fish.' Besides, though he said nothing about her, I soon heard that there was a good-looking young woman in his canoe, who was said to be his wife. Directly this became known, shawls, handkerchiefs, and a gold-laced cap appeared, with which she was speedily decorated; but fears had been excited for her husband's safe return to her, and no finery could stop her crying until Jemmy again showed himself on deck. While he was below, his brother Tommy called out in a loud tone 'Jemmy

Burton, canoe, come!' After some time the three canoes went ashore, laden with presents, and their owners promised to come again early next morning. Jemmy gave a fine otter skin to me, which he had dressed and kept purposely; another he gave to Bennett.

Next morning Jemmy shared my breakfast, and then we had a long conversation by ourselves; the result of which was, that I felt quite decided not to make a second attempt to place Matthews among the natives of Tierra del Fuego. Jemmy told me that he knew very little of his own language; that he spoke some words of English, and some Tekeenica, when he talked to his family; and that they all understood the English words he used. York and Fuegia left him some months before our arrival, and went in a large canoe to their own country; the last act of that cunning fellow was to rob poor Jemmy of all his clothes; nearly all the tools his Tekeenica 'friends' had left him; and various other necessities. Fuegia was dressed as usual, and looking well, when they decamped: her helpmate was also well clothed, and had hardly lost anything I left with him. Jemmy said 'York very much jaw,' 'pick up big stones,' 'all men afraid.' Fuegia seemed to be very happy, and quite contented with her lot. Jemmy asserted that she helped to 'catch (steal) his clothes', while he was asleep, the night before York left him naked.

Not long after my departure in February 1833, the much-dreaded Oens-men came in numbers, overland, to Wooll̄ya; obliged Jemmy's tribe to escape to the small islands, and carried off every valuable which his party had not time to remove. They had doubtless heard of the houses and property left there, and hastened to seize upon it – like other 'borderers.' Until this time York had appeared to be settled, and quite at ease, but he had been employed about a suspiciously large canoe, just finished when the inroad was made. He saved this canoe, indeed escaped in it, and afterwards induced Jemmy and his family to accompany him 'to look at his land'. They went together in four canoes (York's large one and three others) as far west as Devil Island, at the junction of the north-west and south-west arms of the Beagle Channel: there they met York's brother and some others of the Alikhoolip tribe; and, while Jemmy was asleep, all the Alikhoolip party stole off, taking nearly all Jemmy's things, and leaving him in his original condition. York's fine canoe was evidently not built for transporting himself alone; neither was the meeting with his brother accidental. I am now quite sure that from the time of his changing his mind, and desiring to be placed at Wooll̄ya, with Matthews and Jemmy, he meditated taking a good opportunity of possessing himself of every thing; and that he



thought, if he were left in his own country without Matthews, he would not have many things given to him, neither would he know where he might afterwards look for and plunder poor Jemmy.

While Mr Bynoe was walking about on shore, Jemmy and his brother pointed out to him the places where our tents were pitched in 1833, where the boundary line was, and where any particular occurrence happened. He told Mr Bynoe that he had watched day after day for the sprouting of the peas, beans, and other vegetables, but that his countrymen walked over them without heeding any thing he said. The large wigwams which we had erected with some labour, proved to be cold in the winter, because they were too high; therefore they had been deserted after the first frosts. Since the last depredations of the Oens-men, he had not ventured to live any longer at Woollŷa; his own island, as he called it, affording safer refuge and sufficient food.

Jemmy told us that these Oens-men crossed over the Beagle Channel, from eastern Tierra del Fuego, in canoes which they seized from the Yapoo Tekeenica. To avoid being separated they fastened several canoes together, crossed over in a body, and when once landed, travelled overland and came upon his people by surprise, from the heights behind Woollŷa. Jemmy asserted that he had himself killed one of his antagonists. It was generally remarked that his family were become considerably more humanized than any savages we had seen in Tierra del Fuego: that they put confidence in us; were pleased by our return; that they were ready to do what we could explain to be for their interest; and, in short, that the first step towards civilization – that of obtaining their confidence – was undoubtedly made: but an individual, with limited means, could not then go farther. The whole scheme, with respect to establishing a missionary with the Fuegians who were in England, among their countrymen, was on too small a scale, although so earnestly assisted by Mr Wilson, Mr Coates, and other kind friends.

I cannot help still hoping that some benefit, however slight, may result from the intercourse of these people, Jemmy, York, and Fuegia, with other natives of Tierra del Fuego. Perhaps a shipwrecked seaman may hereafter receive help and kind treatment from Jemmy Button's children; prompted, as they can hardly fail to be, by the traditions they will have heard of men of other lands; and by an idea, however faint, of their duty to God as well as their neighbour.

That Jemmy felt sincere gratitude is, I think, proved by his having so carefully preserved two fine otter skins, as I mentioned; by his asking me to carry a bow and a quiverful of arrows to the schoolmaster of



PORT FAMINE



HUNTING ON THE SANTA CRUZ



Walthamstow, with whom he had lived; by his having made two spear-heads expressly for Mr Darwin; and by the pleasure he showed at seeing us all again.

As nothing more could be done, we took leave of our young friend and his family, every one of whom was loaded with presents, and sailed away from Wooll̃ya.

We then sailed to the Falkland Islands and found a state of affairs somewhat different from that of March 1833; but though more settled, in consequence of the presence of an established authority, resident at Port Louis (a lieutenant in the navy), my worst forebodings had not equalled the sad reality.

I previously alluded to the murder of the Buenos Airean commanding officer; and to that of Mr Brisbane. A few weeks before the *Clio* arrived in 1833, there was a small garrison at Port Louis, consisting of a sergeant's guard of soldiers, a subaltern, and a field officer. The men mutinied because their superior was thought to be unnecessarily severe, and occupied them unceasingly in drill and parade, to the prejudice of their obtaining food sufficient for health. They were obliged, in consequence of his system, to live upon worse fare than the settlers, because they could not go about to forage for themselves; and the result was that, after many threats, they murdered him. A small armed schooner arrived a few days afterwards from Buenos Aires, by whose officers and crew, assisted by some French sailors, the principal mutineers, nine in number, were taken and put into confinement on board. They were afterwards carried to Buenos Aires.

On 26 August 1833 three gauchos and five Indians (the prisoners before mentioned) set upon and murdered Mr Brisbane; Dickson, the man in charge of Vernet's store; Simon, the capitaz; the poor German, and another settler; after which atrocious acts they plundered the settlement and drove all the cattle and horses into the interior. Only that morning Mr Low, who was then living with Mr Brisbane, left Port Louis on a sealing excursion, with four men. Hardly was his boat out of sight, when the deceitful villains attacked Brisbane in Vernet's house: suspecting no treachery, he fell at once by the knife of Antonio Rivero. Simon defended himself desperately, but was overpowered; the others, overcome by fear, fell easy victims. The rest of the settlers, consisting of thirteen men, three women, and two children, remained with the murderers two days, and then escaped to a small island in the Sound, where they lived on birds' eggs and fish, till the arrival of the English sealer *Hopeful*, on board which was an officer of the navy, who in some



measure relieved their immediate distress, but could not delay to protect them from the assaults which they anticipated. About a month after the *Hopeful* sailed, H.M.S. *Challenger*, Captain M. Seymour, arrived, having a lieutenant of the navy and four seamen on board, who had volunteered from H.M.S. *Tyne*, and were duly authorized to remain at the Falklands. The following extract from a letter will show what took place on Captain Seymour's arrival.

'Captain Seymour, and the consuls, being anxious to visit the settlement of Port Louis, landed some distance from it, intending to walk there. About a mile from the houses they were met by an Englishman named Channon, sent by the gauchos to see who they were, and whether the ship was a whaler in want of beef, or a man-of-war. He informed them that the gauchos and Indians had murdered Mr Brisbane, Dickson (who had been left in charge of the flag by Captain Onslow), Simon and two others; and had pillaged the houses, destroying every thing in their search for money. He then pointed them out, sitting under a wall, with their horses behind the remains of the government house, ready saddled for a start on our nearer approach. They had two gauchos, prisoners, who had not been concerned in the murders, and whom they threatened to kill if he, Channon, did not return. He also stated that one of them was willing to turn king's evidence, and would bring back all the horses, if possible, provided Captain Seymour would ensure his pardon. The whole of them, nine in number, retreated into the interior as soon as they found out it was a ship of war, taking all the tame horses, between fifty and sixty. As his party were not armed, Captain Seymour thought it right to return on board; but after dark, Lieutenant Smith was sent with a party of marines, and two boats, to try and take them, if they should be still about the houses, and to leave with Channon a bottle containing a crucifix, as a signal for Luna, the gaucho who offered to become king's evidence.

'On their landing, Lieutenant Smith took all necessary precautions, left six men in charge of the boats, and proceeded cautiously with the rest. He carefully searched every building in the place, without seeing even a trace of them. All was desolation; yet he learned afterwards from the two innocent gauchos, that Antonio Rivero and another, suspecting who the party were, had watched them closely: that at one time Lieut. Smith was near treading on them; which seemed hardly credible, until the arrangements made on landing, the marching in indian file to hide his men, etc. were mentioned. Mr Smith left with Channon Luna's pardon, who, on the fourth day, brought in two horses – not having

been able to obtain more, as the murderers were very watchful and fearful of each other, so much so that one of them had fallen a sacrifice to suspicion, and Luna's desertion reduced their number to six. With Luna for their guide, on the sixth day Lieut. Smith, four midshipmen and twelve marines were despatched into the interior. They were absent four days, and marched more than a hundred miles, enduring much fatigue, which was increased by the boisterous state of the weather and by continual rain for three out of the four days. Water in ravines, which on going out hardly rose above their ankles, on their return had increased to torrents: in crossing them some nearly lost their lives, and on the bleak moors they sunk at every step knee-deep in bog. Without sleep or shelter, they lived for the last two days on beef just warmed through, by fires that it took hours to kindle. They were not successful in capturing any of the murderers, but at one time were so near that they had the mortification to see them drive their horses away at a gallop, and having all the tame ones but two, they were quickly out of reach of musket-shot. So hasty however was their retreat, that they left their provisions behind them. Captain Seymour, finding that capturing the Indians would be a tedious and uncertain task, made one of the ruined houses habitable, and leaving his marines as an additional protection to Lieut. Smith and his boat's crew, proceeded as ordered. The lieutenant endeavoured to make his abode comfortable, by clearing away rubbish and bones and putting a garden into some order. With the two horses he succeeded in catching and taming two cows which gave about two gallons of milk daily, besides fourteen others, five or six of which were in calf. By one means or other all but one of the murderers were taken, and a cutter was hired to remove them to the flag-ship at Rio de Janeiro.'

Before the *Beagle's* arrival Lieut. Smith had succeeded in capturing the principal murderer, and transporting him to an islet in the Sound, where he was watched, and furnished with provisions by the boat's crew. The lieutenant applied to me for assistance, and knowing that he was not safe while such a desperate character as Rivero was at large, though on an islet, and that the life of Luna (the king's evidence) was still more risked, I took those men, and one named Channon who was said to have been an accomplice in the plot, though not an active agent, on board the *Beagle*. Rivero was put in irons, Channon confined to the ship, and Luna left at liberty, though watched.

When Mr Low returned from his sealing expedition he found that his life was sought, as a friend of Mr Brisbane; and as he could do



nothing on foot against the mounted gauchos, he retired to Kidney Islet, at the entrance of Berkeley Sound, to await the arrival of some ship. Tired, however, of inaction, he set out to go westward in search of some whaler, and on 6 February, when in great distress, he fell in with our tender, the *Adventure*, and immediately offered his services as a pilot. They were accepted, provisionally, by Lieut. Wickham, and afterwards by me, trusting that the Admiralty would approve of my so engaging a person who, in pilotage and general information about the Falklands, Tierra del Fuego, Patagonia and the Galapagos Islands, could afford us more information than any other individual, without exception.

Mr William Low is the son of a respectable land-agent in Scotland; he was brought up as a sailor, and possesses strong common sense, quick apprehension, a readiness at description, and an extraordinary local memory.

On 13 March the *Adventure* arrived: she had almost completed her examination of the west, south, and south-east outer coasts, in a very satisfactory manner, having been greatly forwarded and helped by Mr Low's minute acquaintance with every port, and almost every danger. Our tender sailed to continue her coasting examination on the 21st. She returned on the 26th, and sailed again on the 30th. Meanwhile our own boats were constantly occupied in and near Berkeley Sound and Port William.

When I visited the settlement it looked more melancholy than ever; and at two hundred yards' distance from the house in which he had lived, I found, to my horror, the feet of poor Brisbane protruding above the ground. So shallow was his grave that dogs had disturbed his mortal remains, and had fed upon the corpse. This was the fate of an honest, industrious and most faithful man: of a man who feared no danger, and despised hardships. He was murdered by villains, because he defended the property of his friend; he was mangled by them to satisfy their hellish spite; dragged by a lasso, at a horse's heels, away from the houses, and left to be eaten by dogs.

6 April: While the *Beagle* was preparing for sea the body of Lieut. Clive, late of H.M.S. *Challenger*, drowned accidentally by the upsetting of a small boat, was found lying at high-water mark, in an unfrequented part of Berkeley Sound; and the following morning I buried it in a grave on shore, not far from the tomb of our regretted shipmate Hellyer. After noon, on the same day, we sailed from the Falklands, depressed more than ever by the numerous sad associations connected with their name.

## 8. SANTA CRUZ RIVER

*From Captain FitzRoy's Narrative:*

On 13 April 1834 we anchored in the Santa Cruz, and immediately prepared to lay our vessel ashore for a tide, to ascertain how much injury had been caused by the rock at Port Desire and to examine the copper previous to her employment in the Pacific Ocean, where worms soon eat their way through unprotected planks.

16 April: When on the beach, at a place we afterwards called 'Keel Point', it was found that a piece of the false keel under the 'fore-foot' had been knocked off, and that a few sheets of copper were a good deal rubbed. By Mr May's exertions all was repaired in one tide; and the following day we were making preparations for an excursion up the river.

*Charles Darwin, in a letter home, 6 April 1834:*

The captain will proceed many miles up the river, and I trust I shall be of the party. I cannot imagine anything more interesting: the only thing unpropitious is the ferocity of the Indians. But I would sooner go with the captain with ten men, than with anybody else with twenty. He is so very prudent and watchful as long as possible, and so resolutely brave when pushed to it.

*Captain FitzRoy's diary of the expedition:*

17 April 1834: An examination, or rather the partial exploring, of the great river Santa Cruz, had long been meditated. During the former voyage of the *Beagle*, Captain Stokes had ascended the rapid current as far as his heavy boat could be taken. His account increased our curiosity, and decided my following his example. Three light boats were prepared (whale-boats strengthened); as much provisions as they could stow with safety were put into them; and a party of officers and men selected. Mr Darwin, Mr Chaffers, Mr Stokes, Mr Bynoe, Mr Mellersh, Mr Martens, and eighteen seamen and marines prepared to accompany me.

18 April: Early this morning we left the *Beagle*, and sailed up the estuary, into which the river flows, with a favouring wind and flood-tide.



A wide, turbid, and very rapid river rushes through a confined opening into the ocean, during about seven hours, and is opposed and driven back by the flood-tide during other five hours of the twelve. On each side of the river are extensive – to the eye, boundless – plains of arid, desert land. But these plains are not on the same level. On the northern bank the land is but little higher than the level of high spring-tides: while on the southern side of the river, high perpendicular cliffs are strikingly contrasted. After ascending these heights by any of the ravines which intersect them, one finds a dead level expanse, similar in every respect to that on the northern shore. In the horizon, another ‘steppe’, or parallel plain, at a higher elevation is seen.

Brownish-yellow is the prevailing colour, lighter or darker, as the sun shines or is obscured. Here and there, in hollow places or ravines, a few dark-looking shrubby bushes are seen: but over the wide desolation of the stony, barren plain, not a tree can be discerned. Scattered herds of ever-wary guanacos, startled at your approach, neighing, stamping, and tossing their elegant heads; a few ostriches, striding along in the distant horizon; and here and there a solitary condor, soaring in the sky, are the only objects which attract the eye. Certainly, if one looks *closely*, some withered shrubs, and a yellow kind of herbage, may be discerned; and, in walking, thorns and prickles assure one, painfully, that the plain is *not*, in truth, a *desert*; but I am quite sure that the general impression upon the mind is that of utter, hopeless sterility.

Is it not extraordinary, that sea-worn, *rolled*, shingle-stones, and alluvial accumulations, compose the greater portion of these plains? How vast, and of what immense *duration*, must have been the action of those waters which smoothed the shingle-stones now buried in the deserts of Patagonia!

Much of my own uneasiness was caused by reading works written by geologists who contradict, by implication, if not in plain terms, the authenticity of the Scriptures; before I had any acquaintance with the volume which they so incautiously impugn. For geology, as a useful branch of science, I have as high a respect as for any other young branch of the tree of knowledge, which has yet to undergo the trial of experience; and no doubt exists in my own breast that every such additional branch, if proved by time to be sound and healthy, will contribute its share of nourishment and vigour to the tree which sprung from an immortal root. For men who, like myself formerly, are willingly ignorant of the Bible, and doubt its divine inspiration, I can only have one feeling – sincere sorrow.

Few have time, as well as inclination, to go far into both sides of any question; but truth can hardly be drawn out of the well unless some exertion be made, in examining each argument, or in selecting a well-tryed and experienced guide. It is idle to say, as I have heard asserted, that such works as those above-mentioned do little harm; experience proves the contrary; of which I am made painfully aware, not only by my own conscience, but by conversation with friends.

While led away by sceptical ideas, and knowing extremely little of the Bible, one of my remarks to a friend, on crossing vast plains composed of rolled stones bedded in diluvial detritus some hundred feet in depth, was ‘this could never have been effected by a forty days’ flood,’ – an expression plainly indicative of the turn of mind, and ignorance of Scripture. I was quite willing to disbelieve what I thought to be the Mosaic account, upon the evidence of a hasty glance, though knowing next to nothing of the record I doubted: and I mention this particularly, because I have conversed with persons fond of geology, yet knowing no more of the Bible than I knew at that time.

The only animals which abound are guanacos, and *they* have *often* been seen drinking salt water. The puma quenches its thirst in *their* blood. Of other animals supposed to require much liquid sustenance, there are none in these regions.

Generally, a bright sunny day is succeeded by a cloudless and extremely clear night. In summer the heat is scorching, not sultry. In winter the weather is sometimes searchingly cold, especially during southerly winds. Changes of wind are sudden, and cause extreme variations of temperature. Sometimes the sky is slightly or partially overcast, occasionally clouded heavily, but on most days a bright sunshine, and a fresh, or strong westerly wind, may be expected.

The confluence of a large and continual torrent of fresh water and the great tides of the ocean, which here rise forty feet perpendicularly, has embarrassed the mouth of the Santa Cruz with a number of banks. They are all composed of shingle and mud, and alter their forms and positions as affected by river floods, or by the heavy seas caused by south-east gales.

Into the entrance of the Santa Cruz the flood-tide sets about four knots an hour, or, it may be said, from two to five knots, according to the time of tide, and the narrower or broader part of the opening. Outwards, the water rushes, at least, six knots, on an average in the mid-channel. In places and at times, when acted upon by wind or unusual floods, it does not run with a velocity less than seven or eight knots an



hour, perhaps even more. Near either shore, and in the bights between projecting points, of course the strength of the outward as well as inward current is very inferior.

In such a bight, close to the high cliffs on the southern shore, the *Beagle* was moored. One may readily conceive the different views presented in this situation, with forty feet change in the level of the water. At high-water, a noble river, unimpeded, moves quietly, or is scarcely in motion. At the other time, a rushing torrent struggles between numerous banks, whose dark colour and dismal appearance adds to the effect of the turbidly yellow water, and naked-looking black and muddy shores.

The boats sailed up the river between some of these banks, with a fresh southerly wind, disturbing immense flights of seabirds. Here and there a monstrous sea-lion lifted his unwieldy bulk a few inches from the stony bank, lazily looked around, and then, with a snort and a growl, threw his huge shapelessness, in a tumbling waddle, towards the nearest water.

As far as Weddell's Bluff (named after the enterprising southern navigator) we sailed merrily. There the river makes a sudden turn; and we took to the oars. A little above the Bluff, the water was fresh on the surface: *sometimes* it is *entirely* fresh, even into the estuary. But in filling casks, or dipping anything into the stream for fresh water, it is advisable not to dip deep, or to let the hose, if used, go many inches below the surface, since it often happens that the upper water is quite fresh, while that underneath is salt. But this occurs, more or less, in all rivers which empty themselves into the sea.

Wind failing, we pulled to the south-west. On our left, high cliffs still continued. At their base, a wide shingle beach offered tempting landing-places, and many spots extremely well adapted for laying a vessel ashore to be repaired or cleaned. On the right, a low shore extended, rising, however, in the north-west (on the *south* side of the north-west arm of the Santa Cruz), to cliffs.

The flowing tide favoured us until about five, when we landed on the north shore, at a spot where the rise and fall of the tide had diminished to four feet. Here the river was 640 yards in breadth, and running (*always*) down at the rate of about six knots during a part of the ebb, and from two to four knots an hour during the greater part of the flood-tide. It was *perfectly* fresh to the bottom, and in mid-channel about three fathoms deep. But this depth extended very little way across: the deep channel being extremely narrow – not more than twenty yards in





CORDILLERA OF THE ANDES

width. The distinct difference between the opposite banks of the river had diminished, until, at this spot, the two sides were much alike. We had left the cliffs and the salt water, and had fairly entered the fresh-water river. Instead of having a wide extent of dismal-looking banks and dark-coloured, muddy shores, we were at the side of a rapid stream, unvarying in width, on whose banks shrubs and grass agreeably relieved our eyes from muddy shingle covered with hosts of crabs.

Our first night passed well. Early next morning some of the party went upon the nearest hills to look for guanacos.

I ought to have mentioned that we had entered a tract of country whose surface appeared to the eye irregular and hilly; but upon ascending the heights it was seen that though the river ran in a large valley, the general character of the country was similar to that which I previously described. Those which appeared to be hills, we found to be the terminating sides of extensive plains, whose level was about 300 feet above the river. Near the fresh water, shrubs, bushes, and grass were not scarce; but everywhere else, a sterile, stony waste met the eye.

From the heights, for a considerable distance, we could trace the windings of the river, and were sorry to see a great number of small islands, thickly covered with brushwood, which seemed likely to impede our progress, if obliged to pull the boats. The southerly wind blew keenly over the high land. The surface of the ground was frozen hard; but the air was healthy, fresh, and bracing. Where could it be purer than on these dry hills?

*18 April:* At first setting out this morning we tried the oars, but soon found that they were unable to contend with the strength of the stream. Landing all our party, except two in each boat, we made the boats fast to one another, at a few yards apart, in a line a-head. Then taking the end of a coil of whale-line ashore, half our party fixed themselves to it by the lanyards of broad canvas straps, which passed across their breasts, and over one shoulder, and walked along the river's bank. The bight of the line was passed round a stout mast, stepped in the headmost boat, and attended by the two men in the boat, who veered away, or shortened in the line, as the varying width of the stream or impediments rendered necessary.

In this manner, one half of the party relieving the other half about once an hour, we made steady progress against the stream of the river, which increased in rapidity as we ascended, until its usual velocity was between six and seven knots an hour. Every one took his turn at the track-rope, or tow-line. While among the islands which I mentioned,



tracking was difficult and tedious. Many were the thorny bushes through which one-half of the party dragged the other half – once in motion, no mercy was shown. If the leading man could pass, all the rest were bound to follow. Many were the duckings, and serious the wear-and-tear of clothes, shoes and skin.

At intervals stoppages were made for refreshment and observations. Three chronometers were carried, with other necessary instruments, among which were two mountain barometers, with which Mr Darwin wished to measure the height of the river above the level of the sea, and the heights of neighbouring ranges of hills above the level of the river.

*From Charles Darwin's Diary:*

18 April 1834: The officers of each boat lived with, ate the same food, and slept in the same tent with their crew; so that each boat was quite independent of the others. After sunset the first level place where there were any bushes was chosen for our night's lodging. The boat's crew took it in turns to be cook. Immediately the boat was hauled up, the cook made his fire, two others of the men pitched the tent; the coxswain handed the things out of the boat, and the rest carried them up to the tents and collected fire wood. By this means in half an hour everything was ready for the night. A watch of two men and an officer was always kept, whose duty it was to look after the boats, keep up the fires and look out for Indians; each in the party had his one hour every night.

Beyond the place where we slept was completely terra incognita, for there Captain Stokes turned back. In the course of the day an old boat-hook was picked up (with the king's mark). One of the boat's crew who had been up the river on the former voyage, remembered that it was then lost. So that the boat-hook after lying six or seven years in Patagonia, returned to its proper home, the *Beagle*. Both this and the last night was a severe frost and some of the party felt the cold.

*Captain FitzRoy's diary of the expedition:*

19 April: It was very cold at our bivouac this night. A sharp frost. While observing the moon's meridian altitude, at about nine in the evening, the dew fell so fast upon the roof of the artificial horizon, and froze so quickly as it fell, that I could hardly make the observation. The sextant was injured by the frost – not having been used before in very cold weather; the brass contracted so sensibly as to injure the silvering at the back of the index-glass, and change the index-error. The thermometer in the open air was at 22°. Probably *warm* weather to polar

voyagers: but to us, accustomed to temperate climates, it was a considerable degree of cold.

20 April: As we were going along the bank of the river, which to our great benefit was become more accessible and clearer of bushes, we saw some dark-coloured animals crossing the stream at a distance, but no one could guess what they were, until the foremost of them reached the shore, and rising upon his stilt-like legs, showed himself an ostrich. Several of those birds were swimming across. I had no idea that so long-legged a bird, not web-footed, would, of its own accord, take to the water and cross a rapid stream. There were six or seven following one another.

We saw smoke at a distance, and anticipated meeting Indians. The country around was similar to that already described. Islands no longer impeded our progress; but some high cliffy banks gave trouble. At the next place where we passed a night Mr Darwin tried to catch fish with a casting net, but without success; so strong a stream being much against fishing.

21 April: A very sharp frost again this night. We proceeded as usual, dragging the boats up the stream (or rather torrent, for it never ran less than six knots, and in many places more), at the rate of about two miles an hour. Having approached near the smoke, we chose our position for the night, rather cautiously, upon a little peninsula.

22 April: We had not advanced a mile this morning when fresh tracks of Indians, on horseback, carrying their long *chuzos*, or lances, aroused our vigilance. We thought they had been reconnoitring our party at daylight, and perhaps it was the case. The smoke of their fires was seen behind the nearest range of low hills on our side of the river. We were *then* on the north bank, but *had* been tracking the boats on *either* side, as better ground for walking was found.

Cautiously proceeding, we at last arrived at the spot whence the smoke had issued, but saw no human beings. Marks of very recent fire, and numerous tracks of feet upon a soft muddy place at the side of the river, showed that a party of Indians had lately crossed over. A smoke rising on the southern shore, told where they were gone. At this spot there was about an acre of good pasture land by the waterside; and the breadth of the river itself was something less than usual: reasons which had induced the natives to select it as a crossing place.

To cross a river, running at the rate of six or seven miles an hour, and about two hundred yards in width, can be no easy task to women and children. But as we saw many prints of very small feet on the muddy



bank, both women and children must have crossed at this place with the men. How did they get over? There is no wood, neither are there rushes, with which they might make balsas. Perhaps some of the women and children were put into rough, coracle-like boats, made of hides sewed together, and towed across by the horses, holding by whose tails the men swam, and perhaps some of the women. This method of holding by the tail, while swimming, is said to be better than resting a hand upon the horse's neck and holding by the mane. None of the Indians sit upon their horses while swimming.

This afternoon we passed two places where the stream of the river ran so violently that we considered them rapids, and had much difficulty in passing, even with all hands upon the rope. The night was not so cold as the preceding; but we always found the nights wintry, though the days were warm, and generally we were annoyed by the heat of the sun. Besides the strength of the stream, we had to contend with high cliffs, over whose upper edges it was difficult to convey the tow-line: but we made some progress – about twelve miles.

So winding was the course of the river that we certainly walked double the distance advanced in a direct line. *Very* little of interest as a picturesque subject had yet been seen. No country except a desert could wear a more *triste* unvarying appearance.

Immense accumulations of shingle, imbedded, as before mentioned, in alluvial deposition, formed the banks and the level plain, or valley, through which the river pursues its very winding course. The width of this valley varies from one mile to five miles; and the level of the shingle plain is from three hundred to one thousand feet below that of the adjacent higher, but still horizontal ranges, whose broken down ends, or sides, form the boundaries of the valley through which the river flows.

The sides, or ends, of those higher ranges look like hills when one is in the valley: it is not until after ascending to their summits that their real nature is seen. Instead of inclining to consider those heights as hills, one is then disposed to think the valley of the river a vast excavation, formed below the level of the neighbouring country. But, above or below, all is an unprofitable waste. Scarcely could we find bushes enough, even near the river, to make our fires. Even the wiry, half-withered grass, upon which the guanacos feed, is so scanty that they are obliged to wander over much ground in search of their food. The few stunted bushy trees, which are found here and there near the river, are thorn trees of the country, whose wood is extremely hard and durable.

The night of the 22nd we passed by the side of a little cove, which

sheltered the boats from the strength of the stream; and, as all hands were tired, we rested during the morning of the 23rd.

23 *April*: After noon we continued, and at dark stopped on the south shore. Scarcity of wood and a cold night made it necessary to take good care of the wood when cut. There may be honour among thieves, but there was little to be found during a cold night among our own party. The fire of those who happened to be on watch was sure to blaze cheerly, at the expense of the sleepers.

24 *April*: I noticed more than usual the curious effect of the water of the river being so much warmer than the air over it. The water at daybreak, and until after sunrise, was smoking as if it were boiling: the temperature of the air being 30°, that of the water 46°.

This day we passed some high cliffs, between two and three hundred feet in height. It was extremely difficult to manage the boats and tow-lines, where they came in our way; but by veering out a great length of rope, our object was accomplished without disaster. Near these cliffs the valley of the river began to contract and become more irregular: the breaking down of the higher ranges was more abrupt and closer to the river. In most places a cliffy side was opposite to a low projecting point of shingle; but in some we passed to-day both sides were high, and we had no choice. The difference also between the level of the higher ranges, and that of the river, was much increased.

25 *April*: Difficult places, delays caused by embarking and disembarking frequently to change banks or avoid impediments, necessary observations, rest, and meals, occupied so much time that we did not average more than twelve miles in one day; and even that small distance was not accomplished without making both shoulders and feet sore.

26 *April*: In the distance some very level-topped, dark-looking cliffs were seen at the summits of the higher ranges, which Mr Darwin thought were a capping or coating of lava. Of course we were very anxious to verify a fact so curious, and at noon were quite satisfied, having approached to the foot of a height so capped, whose fragments had in falling not only scattered themselves over the adjacent plain, but into the bed of the river, in such a manner as to make the passage of the boats exceedingly dangerous. Large angular masses, in some places showing above the stream, in others hidden beneath, but so near the surface that the water eddied and swelled over them, menaced destruction to the boats as they were with difficulty dragged through the eddying rapid. Sometimes the rope caught under, or around, one of those masses, and caused *much* trouble.



Near the spot where we stopped at noon was a glen, quite different in character from any place we had yet passed. Indeed, upon entering the lava district, or that of the country over which lava formerly flowed, there was no longer a Patagonian aspect around. Steep precipices, narrow winding valleys, abundance of huge angular fragments of lava, a more rapid and narrower river, and plains of solid lava overlaying the whole surface of the country, make this even worse than Patagonia. Excepting in an occasional ravine, nothing grows. Horses could not travel far, the ground being like rough iron. Water, away from the river, is very scarce.

The glen I mentioned above is a wild-looking ravine bounded by black lava cliffs. A stream of excellent water winds through amongst the long grass, and a kind of jungle at the bottom. Lions (pumas) shelter in it, as the recently torn remains of guanacos showed us. Condors inhabit the cliffs. Imperfect columns of a basaltic nature give to a rocky height the semblance of an old castle. It is a scene of wild loneliness, fit to be the breeding-place of lions. No signs of human visitors were discovered. The nature of the country must prevent horsemen from traversing those regions. Food for man is abundant, but there is very little for horses. Only in glens or ravines such as this can any grass or bushes be found. Guanacos swarm upon the heights; owing probably, to their being undisturbed: they spread over the country like large flocks of sheep.

During a long walk this evening, Mr Stokes and I were repeatedly disappointed by the *mirage* over an extensive stony plain, between two bends of the river. We were very thirsty, and walked from one apparent piece of water to another, in eager haste, only to be tantalized.

27 April: Similar country. On the bank of the river some drift-wood was found – the trunks of trees of considerable size. The trunks of small trees had been found by the side of the river, from time to time, but none so large as these – from one foot to two feet in diameter, and about thirty feet in length. The wood appeared to be willow of the red kind. That these trees had been drifted from a great distance was evident, because they were much water-worn.

28 April: In passing a rapid, whose difficulties were much increased by rugged blocks of lava, lying in the bed of the river, one of the boats was badly stove, and barely rescued from sinking in the middle of the stream. We got her on shore and patched her up.

No change in the scenery. No signs of inhabitants. Dull heavy work.

29 April: While upon a high range of lava-capped land, Mr Darwin and Mr Stokes descried distant mountains, covered with snow. At last then

the Andes were in sight! This was inspiring intelligence to the whole party, for small had been our daily progress, though great the labour.

The river had increased in rapidity, though but little diminution had taken place in the quantity of water brought down. The breadth was rather less, certainly, but the depth in most places greater. No fish had yet been caught; indeed, only two had been seen. They seemed to be like trout.

30 April: The snowy summits of the distant Cordillera were more distinctly seen from the heights. These heights rise about 1000 feet above the level of the river, which here is about 300 feet above the level of the sea.

Two guanacos were shot by Mr Darwin and Mr Stokes. They covered them up with bushes, and hastened to the boats to ask for assistance. Some of our party went with them to bring in the animals, but the condors had eaten every morsel of the flesh of one animal. The other they found untouched, and brought to the boats. Four hours had sufficed to the condors for cleaning every bone. When our party reached the spot, several of those great birds were so heavily laden that they could hardly hop away from the place. Some of our party had much amusement with the guanacos upon the heights, being tamer there, and more numerous; whole flocks were driven into narrow defiles, where dozens might have been killed had there been more people with guns, lassos, or balls.

Though the bed of the river is here so much below the level of the stratum of lava (from 1,000 to 1,200 feet), it still bears the appearance of having worn away its channel by the continual action of running water. The surface of the lava must be considered as the natural level of the country, since, when upon it, a plain extends in every direction.

How wonderful must that immense volcanic action have been which spread liquid lava over the surface of such an immense tract of country! Did the lava flow from the Cordillera of the Andes, or was it thrown out from craters in the low country?

The valley, or channel of the river, varies here from one mile, or less, to about three miles; but it *looks* narrower, owing to the deception caused by high land on each side.

Some of the views hereabouts are striking, and, from their locality, interesting; but I could not have believed that the banks of any large freshwater river could have been so devoid of wood, or so unfrequented by man, beast, bird, or fish.

1 May: The weather was invariably fine during the earlier part of our



journey, but here it began to change. Two or three gloomy, clouded days, were succeeded by a few hours' small rain, and by strong wind.

This night we slept at the foot of heights whose summits were covered with snow, but the temperature was many degrees warmer than that of the first night, when it froze sharply. We had no particular frost after the 21st.

On 2 May we had great difficulty with the boats, the river being contracted in width, without diminution of the body of water pouring down.

On the 3rd, we found a more open country; the lava-capped heights spread away on each side, leaving a vale of flat and apparently good land, many (probably from five to fifteen) miles in extent. The width of the river increased. On its banks were swampy spaces, covered with herbage. Low, earthy cliffs, without either shingle or lava, in some places bounded the river. A little further, however, the usual arid and stony plains of Patagonia were seen, extending from the banks of the river to ranges of hills about 1,400 feet above its level, on which the horizontal lava-capping could distinctly be seen.

In the distant west, the snow-covered summits of the Andes stretched along the horizon. During three days we had advanced towards those far-distant mountains, seeing them at times very distinctly, yet this morning our distance seemed nearly as great as on the day we first saw them.

A long day's work carried us beyond the flat, and into the rising country, whose barrenness I have just now mentioned. All hands very tired.

4 May: Provisions being almost used, and the river as large as it was beyond the lava country – our time being out, and everyone tired – I decided upon walking overland as far to the westward as we could go in one day, and setting out on our return to the *Beagle* on the following day.

I was the more inclined to this step, because the river made a turn to the southward, to follow which would have expended a day, without making any westing; and because I thought that some of our party might walk in a westerly direction, at least twice as far as they could track the boat. To have followed the course of the river two days longer would have required all the small remainder of our provisions, without enabling us to see further than we should be enabled to see by one day's walk *directly* westward.

Leaving those who were the most tired to take care of the boats, a party set out in light marching order. A large plain lay before us, over which shrubs, very small trees, and bushes, were sparingly scattered.

At noon we halted on a rising ground, made observations for time, latitude and bearing, on a spot which we afterwards found to be only about sixty miles from the nearest water of the Pacific. The Cordillera of the Andes extended along the western side of our view. The weather was very clear, enabling us to discern the snow-covered mountains in the north, and almost in the south, so much of the great range was visible. But of the river we could see nothing. Only from the form of the land could we conclude that at the end of the southerly reach I have mentioned, the direction of the river is east and west for a few miles, and that then it turns to the northward, or rather comes from the northward, along the base of the Cordillera.

There are many reasons inducing one to suppose that it comes not only *from* the northward, but from a considerable distance to the northward. At the place where we ceased to ascend the stream the Santa Cruz river was almost as large as at the places where we passed the first and second nights, near the entrance. The velocity of the current was at least six knots an hour. The temperature of the water was forty-five degrees (of Fahrenheit), while that of the air was seldom so high in the daytime, and at night was usually below the freezing point. Trees, or rather the trunks of trees, were found lying on the banks, whose water-worn appearance indicated that they had travelled far in running water. The water was very free from sediment, though of a whitish blue colour, which induces me to suppose that it has been produced by melting snow, or that it has passed through lakes in which the sediment it might have brought was deposited.

Two days before we reached our westernmost point, many traces of an old Indian encampment were seen; but, excepting at that place, and at the spot which we passed on the 22nd, no signs of inhabitants were anywhere found. Scarcity of pasture, and the badness of the ground for their horses' feet, must deter Indians from remaining in this vicinity. That they *frequently* cross the river in travelling northward, or towards the south, is well known.

The quantities of bones heaped together, or scattered near the river, in so *many* places which we passed, excited doubts as to what had collected them. Whether do the guanacos approach the river to drink, when they are dying? – or are the bones the remains of animals eaten by pumas, or by Indians? – or are they washed together by floods? Certainly they are *very* numerous *near* the banks of the river. I do not think that the guanaco is often allowed to die a natural death. Pumas are always on the alert to seize invalid stragglers from the herd. At night the



guanacos choose the clearest places for sleeping, and lie down together like sheep. In the day they avoid thickets and all such places as might shelter their ever-watchful enemy. Condors also, and fierce little wild cats, help to prevent too great an increase of this beautiful, inoffensive, and useful animal.

Late on the 4th we returned to our tents, thoroughly tired by a daily succession of hard work and long walks.

Early on the 5th we began the rapid descent. Sometimes the wind favoured, and we passed the land at the rate of ten knots an hour. Sometimes dangerous places obliged us to turn the boat's head to the stream, pull against it, and so drop down between the rocks. Though easy, the return was dangerous.

5 May: Our first day's work, in returning, was eighty-five miles, a distance which had cost six days' hard labour in ascending.

6 May: Next day we made good about eighty-two miles; and on the 7th we reached the salt water.

Only one fish was taken, which had been left on the bank. It was similar to a trout. Not more than half a dozen live fish were seen, and none could be caught, either with hooks or nets.

We were twenty days absent on this little expedition, yet saw perhaps as little that was generally interesting as could be seen in a land and water journey of 500 miles in any part of the world. Barren shingly plains, extensive fields, or districts of lava, a distant view of the Andes, numerous herds of guanacos, a few ostriches and foxes, and a very rapid river, were the principal things seen by us which deserve remembrance.

*From Captain FitzRoy's Narrative:*

Leaving a very small party near Weddell Bluff to look for guanacos, I hastened on board with the boats; and with the ebb tide reached the *Beagle* before noon on 8 May. The ship being ready for sea, excepting a ton or two of fresh water, the yawl and cutter were dispatched to get it and bring on board the shooting party. During my absence satisfactory observations on the tides had been made which showed that the neap tides rise about eighteen feet, and the springs from thirty-eight to forty-two feet. One day when walking through a woody ravine, not far from the anchorage, Mr Stewart saw a puma lying under a bush, glaring at him: taking a steady aim, he fired, and laid the animal dead. It was a very large one; and the skin is now in the British Museum. The moment of thus looking a lion in the face, while taking aim, at only a few yards distance, must be somewhat trying to the nerves I should

imagine. A beautiful wild cat was also added to our collections, besides condors and foxes.

9 May: The boats, and shooting party, arrived with water and two guanacos. As the sportsmen were returning with their burthens on the preceding evening, darkness overtook them while yet distant from their tent; and they were soon made uncomfortably conscious that an enemy was at hand, for the strong and peculiar smell of a lion warned them that one was near. They trudged on with their cargoes, talking to one another; but the scent was still strong until they approached the fire, which had been kept up by their companion, when it ceased entirely. Such a weight as a lion's, added suddenly to that of a guanaco, would have been rather distressing.

We were detained for a day or two by an overcast sky, but on the 12th the *Beagle* left the Santa Cruz, and stood towards the alleged place of the shoal, or rock, called 'Aigle', not far from the westernmost of the Falkland Islands. No such danger, nor any sign of shallow water being found, but, on the contrary, no bottom with one hundred fathoms of line, we steered towards Magellan's Strait, and on the 18th anchored off Cape Virgins. Next morning I landed on the Cape, taking Mr Darwin and Mr Stokes with me, and remained till after the noon observation, when, returning on board, the *Beagle* weighed and sailed to another station.

On the 23rd, at daylight, we saw the *Adventure* coming from the Falklands. After communicating with us, she went on to survey the portion of coast extending from Sweepstakes Foreland to Cape Monmouth; and we remained to complete our own task of sounding the banks about the First Narrow, and examining the south shore of St Philip Bay. On 3 June both vessels were moored in Port Famine, preparing for their passage to San Carlos in Chiloé.

*From Charles Darwin's Diary:*

1 June: Arrived at Port Famine. I never saw a more cheerless prospect; the dusky woods, piebald with snow, were only indistinctly to be seen through an atmosphere composed of two-thirds rain and one of fog; the rest, as an Irishman would say, was very cold unpleasant air. Yesterday, when passing to the S. of Cape Negro, two men hailed us and ran after the ship; a boat was lowered and picked them up. They turned out to be two seamen who had run away from a sealer and had joined the Patagonians. They had been treated by these Indians with their usual disinterested noble hospitality. They parted company from them by



accident and were walking down the coast to this place to look out for some vessel. I dare say they were worthless vagabonds, but I never saw more miserable ones; they had for some days been living on mussels etc. and berries and had been exposed night and day to all the late constant rain and snow. What will not man endure!

The Fuegians twice came and plagued us. As there were many instruments, clothes, etc. and men on shore, the captain thought it necessary to frighten them away. The one time we fired a great gun, when they were a long way off; it was very amusing to see through a glass their bold defiance, for as the shot splashed up the water, they picked up stones in return and threw them towards the ship which was then about a mile and a half off. This not being sufficient, a boat was sent with orders to fire musket balls wide of them. The Fuegians hid themselves behind the trees, but for every discharge of a musket they fired an arrow. These fell short of the boat; and the officer pointing to them and laughing made the Fuegians frantic with rage (as they well might be at so unprovoked an attack); they shook their very mantles with passion. At last seeing the balls strike and cut the trees, they ran away; their final decampment was effected by the boat pretending to go in chase of their canoes and women. Another party having entered the bay, were easily driven to a little creek to the north of it: the next day two boats were sent to drive them still further; it was admirable to see the determination with which four or five men came forward to defend themselves against three times that number. As soon as they saw the boats they advanced a hundred yards towards us, prepared a barricade of rotten trees and busily picked up piles of stones for their slings. Every time a musket was pointed towards them, they in return pointed an arrow. I feel sure they would not have moved till more than one had been wounded. This being the case we retreated. We filled up our wood and water; the latter is here excellent. The water we have lately been drinking contained so much salt that brackish is almost too mild a term to call it. Amongst trifling discomforts there is none so bad as water with salts in it: when you drink a glass of water like physic, and then it does not satisfy the thirst. Mere impure, stinking water is of little consequence: especially as boiling it and making tea generally renders it scarcely perceptible.

## 9. CHONOS AND CHILOÉ

*From Captain FitzRoy's Narrative:*

9 June 1834: After an interval of time sufficient for rating our chronometers, we sailed from Port Famine, went down the Magdalen Channel, enjoying some fine scenery, among which Sarmiento was pre-eminent, and anchored in a cove under Cape Turn. The following day we beat to windward through the Cockburn Channel, and would have anchored at night had a safe place offered in time, but as the only cove near us at dusk was a very small one, I preferred leaving that unoccupied for the *Adventure*, and remaining under way in the *Beagle*. The night was long and very dark, small rain fell nearly all the time, and squalls from the westward were frequent. There were but four square miles in which it was safe to sail to and fro after dark, and for fourteen hours we traversed that area in every direction. It was necessary to keep under a reasonable press of sail part of the time, to hold our ground against the lee tide; but with the ebb we had often to bear up and run to leeward, when we got too near the islets westward of us. In a case of this kind a ship is so much more manageable while going through the water than she is while hove-to, and those on board are in general so much more on the alert than when the vessel herself seems half asleep, that I have always been an advocate for short tacks under manageable sail, so as to keep as much as possible near the same place, in preference to heaving-to and drifting.

When the day at last broke on the 11th, we saw the *Adventure* coming out to us from the cove where she had passed the night, and then both vessels sailed out of the Channel, past Mount Skyring and all the Furies, as fast as sails could urge them. At sunset we were near the Tower Rocks, and with a fresh north-west wind stood out into the Pacific, with every inch of canvas set which we could carry.

On the 26th we were still together, in latitude 43° and longitude 75°, although gales had occasionally separated us for a few hours. After passing the latitude of 45° we had a succession of bad weather, and adverse winds. Trusting too much to our usual good fortune I had



steered in too direct a line towards Chiloé, and in consequence all these north-west winds were against us.

On the 27th we witnessed the last moments of Mr Rowlett's existence in this world. He had long been sinking under an internal complaint of which it was impossible to cure him except by a vigorous and uniform mode of treatment to which he was not willing to conform until too late: but his illness had no relation whatever to the service in which he had been employed. He was much regretted by all of us, having been a kind, honourable friend. The following day we committed the body of our deceased companion to the seaman's grave, that 'ever-changing and mysterious main'.

*From Charles Darwin's Diary:*

Mr Rowlett was in his 38th year; the oldest officer on board; he had been on the former voyage in the *Adventure*; and was in consequence an old friend to many in this ship; by whom and everyone else he was warmly respected. On the following day the funeral service was read on the quarter deck, and his body lowered into the sea; it is an awful and solemn sound, that splash of the waters over the body of an old shipmate.

*From Captain FitzRoy's Narrative:*

In the evening we were near the north-west end of Chiloé, and at midnight our anchor was let go in our former berth, off Point Arena. The *Adventure* arrived two days afterwards, her main-boom having broken in a heavy squall on the 27th, in consequence of which she got to leeward, and was prevented from sooner weathering the north end of the island. A supply of fresh provisions and good rates for the chronometers were obtained, after which we sailed, on 14 July, for Valparaiso, and arrived there together on the 22nd.

My first object would have been, after seeing the vessels securely moored, to go to Santiago, present my instructions in the proper quarter, and ask for the sanction of the Chilian government, in prosecuting the survey of the coasts of Chile; but I was so much in arrear with respect to computations and charts, that I could not venture to give even a week to an excursion to that agreeable place, where a thousand attractive novelties would inevitably have diverted my attention in some measure from the dull routine of calculation, and attention to the data accumulated by many months' exertion of those on board the *Adventure*, as well as in the *Beagle*; therefore I sent Lieutenant Wickham, who spoke Spanish, and had been to Santiago before, to show my instruc-

tions to the authorities, and request their approval of our examination of the shores under their jurisdiction. Nothing could be more satisfactory than the reply, and from that time until the *Beagle* left Chile she received every attention and assistance which the Chilian officers could afford.

As I proposed to remain at Valparaiso during the winter months, Messrs Stokes, King, Osborne, and myself, whose occupation would be sedentary and would require room, as well as more light and quiet than we could always have on board, took up our quarters on shore; while those on board attended to the refit and provisioning of our vessels.

*Charles Darwin, in a letter to FitzRoy:*

St Jago, 28 August 1834

My dear FitzRoy,

I arrived at this gay city late last night, and am now most comfortably established at an English Hotel. My little circuit by Quellopa and Aconcagua was exceedingly pleasant. The difficulty in ascending the Campana is most absurdly exaggerated. We rode up 5/6ths of the height to a spring called the Aqua del Guanaco and there bivouacked for two nights in a beautiful little arbor of bamboos. I spent one whole day on the very summit, the view is not so picturesque as interesting from giving so excellent a plan of the whole country from the Andes to the sea – I do not think I ever more thoroughly enjoyed a day's rambling. From Quellopa I went to some copper mines beyond Aconcagua situated in a ravine in the Cordilleras. The major domo is a good simple hearted Cornish miner – It would do Sullivan good to hear his constant exclamation 'As for London – what is London? they can do anything in my country.' I enjoyed climbing about the mountains to my hearts content – the snow however at present quite prevents the reaching any elevation. On Monday my Cornish friend and myself narrowly escaped being snowed in. We were involved in a multitude of snow banks, and a few hours afterwards there was a heavy snow-storm which would have completely puzzled us. The next morning I started for this place – I never saw anything so gloriously beautiful as the view of the mountains with their fresh and brilliant clothing of snow – Altogether I am delighted with the country of Chile. The country Chileños themselves appear to me a very uninteresting race of people – they have lost much individual character in an *essay towards an approximation* to civilization.

My ride has enabled me to understand a little of the geology – there is nothing of particular interest – all the rocks have been frizzled, melted and bedevilled in every possible fashion – but here also the



'confounded Frenchmen' have been at work. A M. Gay has given me today a copy of a paper with some interesting details about this province published by himself in the *Annales des Sciences*. I have been very busy all day and have seen a host of people. I called on Col. Walpole but he was in bed – or said so. Corfield took me to dine with a Mr Kennedy, who talks much about the *Adventure* and *Beagle*; he says he saw you at Chiloé – I have seen a strange genius, a Major Sutcliffe, he tells me as soon as he heard there were two English surveying vessels at Valparaiso, he sent a book of Old Voyages in the Straits of Magellan to Mr Caldecleugh to be forwarded to the commanding officer as they might have a service. He has not heard whether Mr Caldecleugh has sent them to you. I told him I would mention the circumstance when I wrote. The Major is inclined to be very civil – I do not know what to make of him. He is full of marvellous stories; and to the surprise of every one every now and then some of them are proved to be true. My head is full of schemes; I shall not remain long here, although from the little I have yet seen I feel much inclined to like it. How very striking and beautiful the situation of the city is – I sat for an hour gazing all round me, from the little hill of St Lucia. I wish you could come here to re-admire the glorious prospect. I can by no means procure any sort of map. You could most exceedingly oblige me if you would get King to trace from Miers a little piece of the country from Valparaiso to a degree south of Rio Rapel – without any mountains. I do not think it will be more than half an hour's work. I have some intention of returning to Valparaiso by the Rapel. If you would send me this *soon* and half a dozen lines, mentioning, if you should know anything about the *Samarang's* movements, it would assist me in my schemes very much.

Adios – dear FitzRoy,

Yr faithful Philos,

C. D.

*From Captain FitzRoy's Narrative:*

At this time I was made to feel and endure a bitter disappointment; the mortification it caused preyed deeply, and the regret is still vivid. I found that it would be impossible for me to maintain the *Adventure* much longer: my own means had been taxed, even to involving myself in difficulties, and as the Lords Commissioners of the Admiralty did not think it proper to give me any assistance, I saw that all my cherished hopes of examining many groups of islands in the Pacific, besides making a complete survey of the Chilian and Peruvian shores, must

utterly fail. I had asked to be allowed to bear twenty additional seamen on the *Beagle's* books, whose pay and provisions would then be provided by government, being willing to defray every other expense myself; but even this was refused. As soon as my mind was made up, after a most painful struggle, I discharged the *Adventure's* crew, took the officers back to the *Beagle*, and sold the vessel; though her sale was very ill-managed, partly owing to my being dispirited and careless, she brought 7,500 dollars, nearly £1,400, and in 1838 was still trading on that coast, in sound condition.

*Charles Darwin, in his autobiography:*

At Concepción in Chile, poor FitzRoy was sadly overworked and in very low spirits; he complained bitterly to me that he must give a great party to all the inhabitants of the place. I remonstrated and said I could see no such necessity on his part under the circumstances. He then burst out into a fury, declaring that I was the sort of man who would receive any favours and make no return. I got up and left the cabin without saying a word, and returned to Concepción where I was then lodging. After a few days I came back to the ship, and was received by the captain as cordially as ever, for the storm had by this time quite blown over. The first lieutenant, however, said to me, 'Confound you, philosopher, I wish you would not quarrel with the skipper; the day you left the ship I was dead-tired (the ship was refitting) and he kept me walking the deck till midnight abusing you all the time.'

*Captain FitzRoy, in a letter to the Hydrographer.*

26 September 1834

Dear Captain Beaufort

My schooner is *sold*. Our painting man Mr Martens is *gone*. The charts etc are progressing slowly – They are not ready to send away yet – I am in the dumps – It is heavy work – all work and no play – like *your* office – something though not half so bad probably.

Troubles and difficulties harass and oppress me so much that I find it impossible either to say or do what I wish. Excuse me then I beg of you if my letters are at present short and unsatisfactory – My mind will soon be more at ease. Letters from my friends – Having been obliged to sell my schooner and crowd everything again on board the *Beagle* – Disappointment with respect to Mr Stokes – also the acting surgeon – and the acting boatswain – Continual hard work – and heavy expense – These and many other things have made me ill and very unhappy.



The *Beagle* has been refitting while the paperwork has been going on steadily – When I look back at the time we have been in Valparaiso – I am annoyed at its length and yet I cannot see any way by which it could have been made shorter. Much material has been collected and must have been put together somewhere. I see no hope of finishing before the middle or latter part of October – I have affronted and half-quarrelled with most people by shutting myself up and refusing to visit or be visited. As captain of a ship in a bustling seaport it is a difficult matter to keep sufficiently quiet to make such progress as one would wish, yet to this port a vessel *must* come for supplies. Besides after a long cruise, upon salt meat, it is absolutely necessary that the crew should have fresh meat and vegetables for sufficient time to do away with all scorbutic inclinations.

I sold my schooner a fortnight ago for more than I first gave for her – but not near enough to cover what had been laid out upon her or what her crew and provisions have cost.

Now, my dear Captain Beaufort, I will say no more until I have completed my cargo – for the H. Office. Then indeed I shall feel lighter in spirits and able to write to you freely on many subjects which I have not now mentioned.

ROBT. FITZROY

*From Captain FitzRoy's Narrative:*

Early in November our charts of the eastern coasts of Patagonia and Tierra del Fuego, as well as those of the Falkland Islands (the work of the *Adventure*) were finished, and shipped off for England; and on the 10th we sailed, alone, to resume our more active occupations on the southern coasts. My former intention was to have filled up all blanks in the charts of the outer west coast of Patagonia, between the parallels of fifty-three and forty-eight, and then carried a connected survey along the coast to the equator; after which the Galapagos Islands, Dangerous Archipelago; Marquesas, Society, Friendly, and Fiji Islands; besides New Zealand; were to have had as earnest an examination as could be effected by both vessels during 1836 and part of 1837. That this plan might have been carried out by the divisions of labour and exertions of the *Beagle* and her tender may, I think, be inferred from what has actually been executed with inferior means and in much less time. But my reduced arrangements were on a much smaller scale: I could only look to the most useful objects that might be effected within the limited time to which I dared to look forward.

All on board partook, more or less, of the mortification caused by parting with our consort, just as she was most wanted, and most able to take an effective part; and I confess that my own feelings and health were so much altered in consequence, so deprived of their former elasticity and soundness, that I could myself no longer bear the thoughts of such a prolonged separation from my country, as I had encouraged others to think lightly of, while I could hold out to them the prospect of seeing as well as doing a great deal among the islands of the Pacific, besides completing the surveys of Chile and Peru.

*Charles Darwin, in a letter home, October 1834:*

You will be sorry to hear the schooner, the *Adventure*, is sold. The captain received no sort of encouragement from the Admiralty, and he found the expense of so large a vessel so immense, he determined at once to give her up. We are now in the same state as when we left England, with Wickham for first lieut., which part of the business anyhow is a good job. We shall all be very badly off for room; and I shall have trouble enough with stowing my collections. It is in every point of view a grievous affair in our little world; a sad tumbling down for some of the officers, from first lieut. of the schooner, to the miserable midshipman's berth, and many similar degradations. It is necessary also to leave our little painter, Martens, to wander about the world. Thank heavens, however, the captain positively asserts that this change shall not prolong the voyage, that in less than two years we shall be at New South Wales. I find being sick at stomach inclines one also to be homesick. In about a fortnight the *Beagle* proceeds down the coast, touches at Concepción and Valdivia, and sets to work behind Chiloé. I suspect we shall pay Tierra del Fuego another visit; but of this Good Lord deliver us: it is kept very secret, lest the men should desert; everyone so hates the confounded country. Our voyage sounded much more delightful in the instructions than it really is; in fact it is a survey of S. America, and return by Cape of Good Hope instead of Cape Horn. We shall see nothing of any country excepting S. America. But I ought not to grumble, for the voyage is for this very reason, I believe, much better for my pursuits, although not nearly so agreeable as a tour. I will write again before sailing.

*Charles Darwin, in a letter home, November 1834:*

My last letter was rather a gloomy one, for I was not very well when I



wrote it. Now everything is as bright as sunshine. I am quite well again, after being a second time in bed for a fortnight. Captain Fitzroy very generously has delayed the ship ten days on my account and without at the time telling me for what reason. We have had some strange proceedings on board the *Beagle*, but which have ended most capitally for all hands. Capt. Fitzroy has for the last two months been working *extremely* hard, and at [the] same time constantly annoyed by interruptions from officers of other ships: the selling the schooner and its consequences were very vexatious: the cold manner the Admiralty (solely I believe because he is a Tory) have treated him, and a thousand other etc. etc., has made him very thin and unwell. This was accompanied by a morbid depression of spirits, and a loss of all decision and resolution. The captain was afraid that his mind was becoming deranged (being aware of his hereditary predisposition) and all that Bynoe could say, that it was merely the effect of bodily health and exhaustion after such application, would not do; he invalided and Wickham was appointed to the command. By the instructions Wickham could only finish the survey of the southern part, and would then have been obliged to return direct to England. The grief on board the *Beagle* about the captain's decision was universal and deeply felt. One great source of his annoyance was the feeling it impossible to fulfill the whole instructions; from his state of mind it never occurred to him that the very instructions order him to do as much of west coast as *he has time* for, and then proceed across the Pacific. Wickham (very disinterestedly giving up his own promotion) urged this most strongly, stating that when he took the command nothing should induce him to go to Tierra del Fuego again; and then asked the captain what would be gained by his resignation? Why not do the more useful part and return as commanded by the Pacific? The captain at last to everyone's joy, consented, and the resignation was withdrawn. Hurra! Hurra! it is fixed the *Beagle* shall not go one mile south of Cape Tres Montes (about 200 miles south of Chiloé) and from that point to Valparaiso will be finished in about five months. We shall examine the Chonos archipelago, entirely unknown, and the curious inland sea behind Chiloé. For me it is glorious; Cape Tres Montes is the most southern point where there is much geological interest, as there the modern beds end. The captain then talks of crossing the Pacific; but I think we shall persuade him to finish the coast of Peru, where the climate is delightful, the country hideously sterile, but abounding with the highest interest to a geologist. For the first time since leaving England, I now see a clear and not so distant prospect of

returning to you all; crossing the Pacific and from Sydney home will not take much time.

As soon as the captain invalided, I at once determined to leave the *Beagle*; but it was quite absurd what a revolution in five minutes was effected in all my feelings. I have long been grieved and most sorry at the interminable length of the voyage (although I never would have quitted it). But the minute it was all over, I could not make up my mind to return – I could not give up all the geological castles in the air which I had been building for the last two years. One whole night I tried to think over the pleasure of seeing Shrewsbury again, but the barren plains of Peru gained the day. I made the following scheme (I know you will abuse me, and perhaps if I had put it in execution, my father would have sent a Mandamus after me); it was to examine the Cordilleras of Chile during this summer, and in the winter go from port to port on the coast of Peru to Lima, returning this time next year to Valparaiso, cross the Cordilleras to Buenos Aires, and take ship to England. Would this not have been a fine excursion, and in sixteen months I should have been with you all. To have endured Tierra del Fuego and not seen the Pacific would have been miserable; as things are at present they are perfect. The intended completion of *small* parts of the survey of SW. coast would have possessed no interest, and the coast is in fact frightfully dangerous and the climate worse than about Cape Horn. When we are once at sea, I am sure the captain will be all right again. He has already regained his cool inflexible manner, which he had quite lost.

*From Captain FitzRoy's Narrative:*

I now proposed, first, to go to San Carlos, there set two of our boats at work among the islands eastward of the large island, while the *Beagle* would survey the more exposed coasts, those to the west and south; then the ship was to examine the seaward shores of the Chonos archipelago, while another of her boats was employed among those islands; and, the Chonos explored, she would return to San Carlos, collect her scattered parties, and proceed along the coast, northwards, taking all the ports and islands in her way.

On 21 November we arrived at San Carlos, and were pleased to find that Mr Low had returned safe from his difficult undertaking; and that Mr Douglas whom I had engaged to make an excursion to Calbuco and into the forests of 'Alerse', on the Cordillera of the Andes, had also come back with the required information, and was ready to engage himself to act as a pilot and interpreter.



When last at San Carlos I proposed to Mr Low, then serving as pilot on board the *Adventure*, to pass the time of our absence at Valparaiso, in exploring part of the Chonos Archipelago with a whale-boat belonging to me. Low, ever restless and enterprising, entered eagerly into my views; so furnishing him with money, a chart, and a few instruments, I explained where I wished him to go, and when he should be again at San Carlos, all further arrangement being left to him.

Mr Low hired a crew of six men: a Welshman, two Chilotes, a Chilian and two Sandwich Islanders who had been left at San Carlos by a whaler; and set out.

After he had quitted the southernmost place at which provisions could be procured, called Caylin, one of his men persuaded some of the others to eat up the stock of provisions in the boat as soon as possible, in order that they might be obliged to return without going far. But Low was too much inured to hardship to be so easily diverted from his plan; he went on, directly south, even after his provisions were consumed; obliging them to live for fourteen days upon shellfish and seaweed. After exploring much of the Chonos Archipelago, sufficiently to facilitate our survey materially, he returned with his hungry crew to Caylin.

*Lieutenant Sullivan, in a letter home:*

*Beagle*, at sea, 15 November 1834

It [Chiloé] will be a pleasant cruise, and all the officers want to go with me. I am to have Usborne, Johnson, and King, the assistant surgeon, and five men, besides the pilot, making a party of ten. We shall have the dinghy with us, so the yawl will be turned into a complete man-of-war. We expect to finish the work as far as Valparaiso by the end of April, when we shall no more return to the south.

19 November: It was declared yesterday by the doctors that if they were to pick out the most robust and healthy person in the *Beagle* it would be me. However, the cruise in the yawl will, I have no doubt, take me down a little, though I never enjoyed better bodily health than I do in these cruises. Still, the work, fag, and anxiety all tend to keep a person from getting too stout. I am to have six men and one boy; and as the best singers and most diverting characters in the ship are among them – and they are all of that kind, and are up to anything – we shall have, I hope, a very pleasant party. We shall have a large bag full of flour and raisins on purpose for a good plum-dough on Christmas Day.

You cannot think how I have enjoyed the society of Mrs Miller's

and Mrs Patterson's little children at Valparaiso. I was their chief friend, and they came to me for everything they wanted. One day I had a large party of ten children on board, the eldest six and the youngest two and a half years old, and for four hours all the big children amused themselves seeing the little ones playing hide-and-seek and other games about the deck.

*From Captain FitzRoy's Narrative:*

24 November: Lieutenant Sullivan set out with the yawl and a whale-boat, to survey the east side of Chiloé and the islets in the Gulf of Ancud. With him were Messrs Darwin, Usborne, Stewart and Kent; Douglas as a pilot, and ten men. Two days afterwards, the *Beagle* sailed, to examine the western coast of Chiloé and the Chonos Archipelago.

2 December: While standing towards distant mountainous land, about the latitude of 45°, we saw a comparatively low and level island; considerably detached from those which seemed like Tierra del Fuego, being a range of irregular mountains and hills, forming apparently a continuous coast. This level island I have since ascertained to be that formerly called Nuestra Señora del Socorro, where Narborough anchored and landed, in 1670. It was selected in 1740, by Anson, as a rendezvous for his squadron; but no one seemed to know where to look for it.

3 December: Having passed the night quietly at single anchor, near the north-east point of Socorro, we weighed and continued our route to and fro along the coast, taking angles, soundings, and observations. On the 5th, we were near Huafo, which, to our surprise, we found to be twenty-five miles farther north than the Spanish charts showed its position, yet the longitude was almost correct. In a small cove, near the south-east point of Huafo, we anchored, but broke a bower-anchor in doing so; for the cove is small – an unexpected puff of wind gave us too much way – and dropping the bower in haste, it fell upon a rock, and broke. Only two days before another anchor was broken, near Socorro, by the ship pitching while a short scope of cable was out, and the anchor hooking to a rock. I found, on landing, that the formation of the island, like that of Socorro and Narborough Island, is a soft sandstone, which can be cut with a knife as easily as a cake of chocolate.

These three outlying islands are thickly wooded, rather level, compared with their neighbours, and not exceeding eight hundred feet in height. There are few, if any others, like them in the Chonos Archipelago; almost all the rest, being mountainous, and very like those of Tierra del Fuego and the west coast of Patagonia.



We remained a few days in San Pedro harbour; and on the 9th Mr Sullivan and his party joined us. Next day Mr Stokes and I endeavoured to get to the top of the mountain named Huampelen, but after climbing, creeping, struggling, and tumbling about, among old decayed trees, strongly interwoven canes, steep, slippery places, and treacherous bog, we failed, and gave up the attempt. Mr Darwin, Douglas and others were with me, but we were all foiled.

*From Charles Darwin's Diary:*

A party, with Capt. FitzRoy, tried to reach the summit of San Pedro, the highest part of the islands. The woods here have a different aspect from those in the north, there is a much larger proportion of trees with deciduous leaves. The rock also being primitive Micaceous slate, there is no beach, but the steep sides of the hills dip directly down into the sea; the whole appearance is in consequence much more that of T. del Fuego than of Chiloé. In vain we tried to gain the summit; the wood is so intricate that a person who has never seen it will not be able to imagine such a confused mass of dead and dying trunks. I am sure oftentimes for quarter of an hour our feet never touched the ground, being generally from ten to twenty feet above it; other times, like foxes, one after the other we crept on our hands and knees under the rotten trunks. In the lower parts of the hills, noble trees of winter's bark, with fragrant leaves, and others the names of which I do not know, were matted together by bamboos or canes. Here our party were more like fish struggling in a net than any other animal. On the higher parts brushwood took the place of larger trees, with here and there a red cypress or an alerce. I was also much interested by finding our old friend the T. del F. beech. They were poor stunted little trees, and at an elevation of little less than 1,000 feet. This must be, I should apprehend from their appearance, nearly their northern limit. We ultimately gave up the ascent in despair.

*From Captain FitzRoy's Narrative:*

11 December: Having despatched Mr Sullivan, with the same party excepting Mr Darwin, we got under weigh, and hastened towards the middle of the Chonos group, in order to find a port whence Mr Stokes might set out to explore northwards, while I should examine the southern half of the archipelago.

13 December: We succeeded in finding a sheltered, and apparently safe anchorage in a road named by me Vallenar, because it corresponded in

situation to an island so called in an old chart, said to be of the Chonos, but which bore no resemblance whatever to them. However, being anxious to remove no 'neighbour's landmark', and retain original names, when they could be ascertained, I kept them wherever I was able to do so.

16 December: Mr Stokes set out, in a whale-boat, to work northwards, as near the sea-coast as possible, and meet me at a harbour in the Huaytecas group of islands, now called Port Low. He was accompanied by Mr Low, Mr May, and four men.

18 December: The *Beagle* weighed and sailed out of Vallenar Road, after experiencing the shelter afforded by that anchorage, during a heavy gale from the south-west and southward.

At daylight on the 20th we were off Cape Tres Montes: having a fine day and smooth water, we surveyed the coast between that promontory and San Andres Bay, but it became dark before an anchorage could be gained. Next morning we anchored in a narrow creek, close by a singular cone (1,300 feet high), an unfailing landmark. Finding it a place difficult to get out of, and not to be recommended, unless in distress, we did not stay there long, but moved to a cove at the southwest part of the bay. While under sail for this purpose, advantage was taken of an interval of moderate weather to run several miles along the coast northward, and back again. Strong gales set in afterwards and kept us prisoners several days. This Christmas was unlike the last: it was a sombre period. The wind blew heavily (though we did not feel it much, being well sheltered); all looked dismal around us; our prospects for the future were sadly altered; and our immediate task was the survey of another Tierra del Fuego, a place swampy with rain, tormented by storms, without the interest even of population: for hitherto we had neither found traces, nor heard the voices of natives.

28 December: Directly the weather would admit, we weighed and coasted along till the sun was getting low, when we ran under shelter from sea and wind, and anchored in the corner of a bay which I afterwards concluded must be the bay or port called Stephens, and more properly, San Estevan. While we were furling sails, some men were seen on a point of land near the ship, making signals to us in a very earnest manner. Being dressed as sailors, it was natural for us to conclude that they were some boat's crew left there to collect seal-skins. A boat was sent to them, and directly she touched the land they rushed into her, without saying a word, as men would if pursued by a dreaded enemy; and not till they were afloat could they compose themselves



enough to tell their story. They were North American sailors, who had deserted from the *Frances Henrietta* (a whaler of New Bedford), in October 1833. When off Cape Tres Montes, but out of sight of land, and in the middle of the night, these six men lowered a boat and left their ship, intending to coast along until they should arrive at Chiloé. Their first landing was effected on the 18th, but owing to negligence the boat was so badly stove that they could not repair her, and all their hopes of effecting a coasting voyage were thus crushed in the very outset.

Finding it impossible to penetrate far into the country, on account of its ruggedness, and thick forests, which, though only trifling in height, were almost impervious, they began a pilgrimage along-shore; but it was soon evident, to their dismay, that there were so many arms of the sea to pass round, and it was so difficult to walk, or rather climb, along the rocky shores, that they must abandon that idea also, and remain stationary. To this decision they were perhaps more inclined after the death of one of their number; who, in trying to cross a chasm between two cliffs, failed in his leap, fell, and was dashed to pieces. Their permanent abode was then taken up at the point which shelters Port San Estevan, now called Rescue Point; where they passed a year in anxious hope. Of course the few provisions which their boat had carried ashore were soon exhausted, and for thirteen months they had lived only upon seals' flesh, shellfish, and wild celery: yet those five men, when received on board the *Beagle*, were in better condition, as to healthy fleshiness, colour, and actual health, than any five individuals belonging to our ship. Few remarks worth noticing had been made by them, as the only experienced man (whose name was John Lawson) lost his life as above-mentioned. There was an almost continual succession of rain and wind for several months after their first landing, except from 20 to 29 December, which passed without rain: in July 1834 they had an extraordinary storm from southwest, which began early one morning, after a rainy night with northerly wind: and in November 1834 there were twenty-one days successively without rain. One day, in May, they saw eight vessels sailing northwards together; excepting which, not a sail was ever seen by their aching eyes till the *Beagle* hove in sight. Between San Andres, near which they first landed, and San Estevan, the hull of a small vessel was found, quite bedded in sand; she seemed to be about thirty-five tons burthen, from thirty to thirty-five feet in the keel, and about sixteen broad. She was full-built; neither coppered nor sheathed. In a cave, which had been used as a dwelling, near San Andres, the skull of a man was found, and some burned wood. A

bracelet of beads was lying in the cave, but they noticed nothing else. The skull seemed to them to have been that of a black man. No animals were seen at any time except deer and nutria, seal and otter; the former were of a reddish colour, with short straight horns, and very rough coats: no traces of other quadrupeds were observed, nor during the whole fourteen months did they ever meet a native human being. They told me that the night tides seemed always to be a foot or more higher than those of the day, which, as they said, rose from four to seven or eight feet perpendicularly. I had intended to explore the interior of Port San Estevan; but as they had already done so, and found it terminate in a fresh water river, or rather mountain stream, I gave up that plan, and sailed next day.

29 December: While examining the coast towards Cape Taitao we found a very dangerous patch of rocks, five miles from the nearest land; there are soundings near them. In the evening we dropped our anchor under Inchemo Island; an interesting locality, because there in 1741 the *Anna Pink* anchored before she was drifted across the adjacent bay into Port Refuge.

30 December: On landing an old wooden hut was discovered in a sheltered corner, and we found that the island was over-run with goats, which I suppose to have been left by the *Santa Barbara's* crew, if not by Machado's people. While Mr Stokes and I were engaged with the instruments, and two boats sounding, a couple of guns were sent against the goats, and in consequence of their effectual employment in the hands of Mr Bynoe and H. Fuller, all on board had a good fresh meal the next two days. After noon we sailed across the bay, and found a snug, though very small cove, where we moored in security, and remained till 4 January, exploring the neighbourhood – an unprofitable wilderness of rocky mountains, woody and swampy valleys, islands and rocks in profusion, and inlets or arms of the sea penetrating in every direction.

On the 4th we moved to Port Refuge, a safe, but out of the way place. In the 'narrative of what befel the *Anna Pink*', given in Anson's *Voyage*, this harbour is described in very glowing colours; but we may remember that those who discovered it, were there saved from destruction; and naturally looked upon all things around them with excited feelings. How the officers of the *Santa Barbara* made their survey of this port and its neighbourhood I am at a loss to know; a mere eye-sketch, drawn upon the spot, might have been much better than that which they gave to the world as a mathematical plan.



*From Charles Darwin's Diary:*

4 January 1835: A boat with the captain went up to the head of the bay. The number of the seals was quite astonishing; every bit of flat rock or beach was covered with them. They appear to be of a loving disposition and lie huddled together, fast asleep, like pigs: but even pigs would be ashamed of the dirt and foul smell which surrounded them. Oftentimes in the midst of the herd, a flock of gulls were peaceably standing: and they were watched by the patient but inauspicious eyes of the turkey buzzard. This disgusting bird, with its bald scarlet head, formed to wallow in putridity, is very common on the west coast. Their attendance on the seals, shows on the mortality of what animal they depend.

We found the water (probably only that of the surface) nearly fresh; this is caused by the number of the mountain torrents which in the form of cascades come tumbling over the bold granite rocks into the very sea. The fresh water attracts the fish and this brings many terns, gulls and two kinds of cormorant. We saw also a pair of the beautiful black-necked swans and several small sea-otters, the fur of which is held in such high estimation. In returning we were again amused by the impetuous manner in which the heap of seals, old and young, tumbled into the water as the boat passed by. They would not remain long under, but rising, followed us with outstretched necks, expressing great wonder and curiosity.

The entire absence of all Indians amongst these islands is a complete puzzle. That they formerly lived here is certain, and some even within a hundred years; I do not think they could migrate anywhere, and indeed, what could their temptation be? For we here see the great abundance of the Indians' highest luxury – seal's flesh. I should suppose the tribe has become extinct; one step to the final extermination of the Indian race in S. America.

5 January: The barometer says we shall have fine weather; and although we have at present a foul wind and plenty of rain, we stand out to sea.

6 January: The captain's faith is rewarded by a beautiful day and southerly wind. After noon, the ship was hove to, and the captain ran in his boat to reconnoitre some harbours. We passed a dead whale; it was not very putrid; the barnacles and great parasitical crabs being alive; the skin of this great mass of flesh and blubber was quite pink; I suppose owing to partial decomposition. In one of the harbours in

P. Tres Montes, we found another cast up on the beach and of the same color. A sight of a whale always puts me in mind of the great fossil animals; he appears altogether too big for the present pigmy race of inhabitants. He ought to have coexisted with his equals, the great reptiles of the Lias epoch.

During our absence, a French whaler bore down on the *Beagle* and here we found her captain on board. He had lately been at anchor with two other great ships; one of which was commanded by our old friend Le Dilly, who was wrecked in the Falklands; so that the French government are not tired of their expensive school to make sailors.

7 January: We ran on during the night. The French ship most pertinaciously followed us; she supposed we were making for some harbour; and a harbour on this lee-shore is a prize which a whaler dare not herself look for.

*From Captain FitzRoy's Narrative:*

On 7 January we anchored in Port Low, and found Mr Stokes just arrived, after a fagging cruise among the Chonos islands.

10 January: While lying at Port Low we caught plenty of fish with the seine; we obtained oysters from neighbouring creeks, and shot ducks and geese, so there was no want of fresh provision.

On an outlying islet, near Port Low, I first saw the wild potato. Next to seeing a wild man, I recollect few objects which struck me much more than that group of wild potatoes – but I have neither inclination nor space here to speak of my own sensations. The stems, leaves, and flowers of these vegetables were as large, and appeared to be as healthy, as those in an English garden, but the potatoes at their roots were small, watery, and insipid. It ought to be recollected, however, that we saw them early in January – corresponding to July – many weeks, at least, before one could expect to find eatable potatoes in an English field.

It was remarked in the Chonos Islands, as well as in Tierra del Fuego, that the trees which grow in thin soil, lying upon slaty rocks, extend their roots so horizontally that it is not surprising to find, running through woodland, broad tracts whence the shallow-rooted trees have been swept away, partly by wind, partly by the action of mountain-torrents. As wood grows even at the water's edge in those countries, where not exposed to the first attack of wind from seaward, and as there are so many loose overhanging masses of rock, one cannot be surprised at the vast quantities of drift-wood found in some places; or think it improbable for a quadruped to be occasionally precipitated



into the sea, with a falling mass of rocks and trees, and afterwards drifted by wind and current to some other locality.

*15 January:* We sailed from Port Low and went to Guafo once more, wishing to give Mr Darwin an opportunity of examining it geologically. There are now no inhabitants on that island, though there are a good many sheep belonging to Chilotes, who live at Quilán. Formerly there were Indians called Huy-huen-che, upon Guafo; but the Spaniards obliged them to quit it, for fear they should give information or supplies to English ships. Near the *Beagle*, when at anchor, there was a square place, like an entrance to some cave, seemingly cut by man in the soft sand-stone rock; and I have since often reproached myself for having left the place without ascertaining its real nature.

On the 17th we sailed, and next day anchored off Punta Arena, in San Carlos Harbour. Lieutenant Sullivan, with his party, had arrived a few days previously, after a very satisfactory cruise. We found his boats hauled up and refitted, his people lodged under their tents, and himself with Mr Osborne busily occupied in my little observatory, laying down the work for which they had collected materials. Thus we were again assembled in safety, after being considerably divided, and, in consequence, exposed to numerous dangers which human prudence can neither foresee nor prevent.

*Lieutenant Sullivan, in a letter home:*

H.M. *Beagle's* Yawl, San Carlos, 9 January 1835  
It rained every day but one for six weeks, and most of the days never ceased raining, but by great good luck we have not had one person unwell.

I shall amuse you with a few stories. For instance, our foraging on a small island inhabited by Indians, on Christmas morning, from nine to twelve, in a heavy gale of wind and tremendous rain, before we could get eggs enough to make our plum-pudding or a sheep to eat. However, we got into the padre's house attached to the church, as our tents, clothes, and blankets were wet through, and by 4 p.m. had one side of a sheep roasted, another side boiled, twelve pounds of English fresh roast beef heated, and two immense plum-puddings made. No bad quantum for twelve men! It would have amused you if you could have seen us in a dirty room with a tremendous fire in the middle, and all our blankets and clothes hung round the top on lines, getting smoked as well as dry, while all hands were busily employed for four hours killing a sheep, picking raisins, beating eggs, mixing puddings which were so large that,

in spite of two-thirds of the party being west-country men, we had enough for supper also. However, we passed a pleasant day in spite of wind and weather, and it was a holiday to us, as we could only afford to knock off work when it rained too hard constantly to be able to move, which happened on Christmas Day and New Year's Day. Every other day for eight weeks we were hard at work. It is very curious that I am always in better health in a boat, for I never have enjoyed such perfect good health for two months since leaving England.

*From Captain FitzRoy's Narrative:*

In the night, or rather from two to three the following morning, Osorno was observed in eruption, throwing up brilliant jets of flame or ignited matter, high into the darkness, while lava flowed down its steep sides in torrents, which from our distance (seventy-three miles) looked merely like red lines. Daybreak diminished the effect, and as the light increased only a dark column of smoke could be discerned. This mountain is one of the most striking in form which I ever saw. It is not only quite conical from the base to the summit, but it is so sharply pointed that its appearance is very artificial. When seen from the sea, at a distance of ninety or a hundred miles, the whole of the cone, 6,000 feet in height at least, and covered with snow, stands out in the boldest relief from among ranges of inferior mountains. The apex of this cone being very acute, and the cone itself regularly formed, it bears a resemblance to a gigantic glass-house; which similitude is increased not a little by the column of smoke so frequently seen ascending.

We remained till 4 February in the port of San Carlos. Mr Darwin profited by the opportunity afforded to make an excursion into the interior of the island, while the surveying party were occupied in arranging data, in laying down chart-work, and in taking and calculating observations.

It is now high time to quit Chiloé, and proceed along the coast northward: but before I do so, let me take advantage of this opportunity to express the gratitude of those with me, as well as of myself, for a succession of private assistance and sincere kindness experienced from many persons at San Carlos, whose names I refrain from mentioning, because I have a great dislike even to the idea of publishing any thing that occurs in the unreserved intercourse of friends.



## 10. THE EARTHQUAKE

*From Captain FitzRoy's Narrative:*

At daylight on 5 February the *Beagle* sailed from Chiloé, and passed along the coast of southern Chile, towards the port of Valdivia. This is a bold and high tract of land, without a danger for shipping to avoid; but, at the same time, without a safe anchorage between the ports above-mentioned.

8 February: We anchored in the deceiving port of Valdivia. I say deceiving, because it offers to the eye ample space and the utmost security, while, in fact, the safe anchorage is very limited; so much mud and sand being brought down by the river that extensive banks are formed, and increase yearly. We were struck by the apparent strength of the fortresses, built originally by the Dutch in 1643, but improved and increased by the Spaniards. Now, however, their strength is but apparent; for a closer inspection shows that they are almost in ruins and the guns out of order; indeed so nearly disabled, that they could hardly fire a salute without danger.

*From Charles Darwin's Diary:*

I crossed over to the fort called Niebla, which is on the opposite side of the bay to the corral where we are at anchor. The fort is in a most ruinous state; the carriages of guns are so rotten that Mr Wickham remarked to the commanding officer, that with one discharge they would all fall. The poor man trying to put a good face on it, gravely replied, 'No, I am sure, sir, they would stand two!' The Spaniards must have intended to have made this place impregnable. There is now lying in the middle of the courtyard a little mountain of mortar, which rivals in hardness the rock on which it lies. It was brought from Chile and cost seven thousand dollars. The revolution breaking out, prevented its being applied to any purpose; but now it remains a monument to the fallen greatness of Spain.

*From Captain FitzRoy's Narrative:*

I was much struck by the peculiar physiognomy of those aboriginal



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natives whom I saw during my stay: and there must have been some ground for Mr Darwin and myself remarking at different times, unknown at first to one another, that their countenances reminded us of portraits of Charles I. This was my impression at the first glance; but after closer examination it wore off, and I thought less of that likeness than I did of their resemblance to the Hindu race. There was neither the open honesty of a Patagonian, nor the brutal look of most Fuegians; but there was a sombre cast of depressed intelligence that at once said, 'we are restrained, but not subdued'. Their countenances were less wide, and more swarthy, than those to which our eyes had been accustomed; and they eyed us with a sinister although resolute glance, which seemed to ask whether we were also come to try for a share of their country. These men were of a middle stature; and formed more slightly than those of the south. They were all tolerably clothed in blue cloth of their own manufacture; and the men of different tribes were distinguished by slight differences in dress.

I was told by the *intendente* that some Englishmen had arrived in his district a few months before we came, whose character and business he did not understand. Rumours had reached his ears of their having escaped from one of our convict settlements, at the other side of the Pacific, and he was inclined to believe the report. Three of these men had married since their arrival, and all but one were industrious members of his community: indeed I saw two of them hard at work on a boat belonging to the *intendente*. Having however no proof of their delinquency, I did not deem myself authorized to ask him to have them arrested and delivered up to me, in order that I might convey them to the senior British officer at Valparaiso. Afterwards I learned that these men, seven or eight in number, had escaped from Van Diemen's land in a very small vessel, and sailing always eastward, had at last arrived on the coast near Valdivia, whence they were conducted by a fisherman into the port. Eventually they were made prisoners by the Chilian authorities, delivered up to our commodore, and by him sent to England.

The town of Valdivia, formerly dignified by the appellation of city, disappointed our party extremely. It proved to be no more than a straggling village of wooden houses, surrounded with apple-trees; and the only building, even partially constructed of stone, was a church. Many of us were in the town on 20 February at the time of that great earthquake which ruined so many places besides the city of Concepción: an awful event, which will be related in the following pages.



*From Charles Darwin's Diary:*

20 February: This day has been remarkable in the annals of Valdivia for the most severe earthquake which the oldest inhabitants remember. Some who were at Valparaíso during the dreadful one of 1822, say this was as powerful. I can hardly credit this, and must think that in earthquakes as in gales of wind, the last is always the worst. I was on shore and lying down in the wood to rest myself. It came on suddenly and lasted two minutes (but appeared much longer). The rocking was most sensible; the undulation appeared both to me and my servant to travel from due east. There was no difficulty in standing upright; but the motion made me giddy. I can compare it to skating on very thin ice or to the motion of a ship in a little cross ripple.

An earthquake like this at once destroys the oldest associations; the world, the very emblem of all that is solid, moves beneath our feet like a crust over a fluid; one second of time conveys to the mind a strange idea of insecurity, which hours of reflection would never create. In the forest, a breeze moved the trees, I felt the earth tremble, but saw no consequence from it. At the town where nearly all the officers were, the scene was more awful; all the houses being built of wood, none actually fell and but few were injured. Every one expected to see the church a heap of ruins. The houses were shaken violently and creaked much, the nails being partially drawn. I feel sure it is these accompaniments and the horror pictured in the faces of all the inhabitants, which communicates the dread that every one feels who has thus *seen* as well as felt an earthquake. In the forest it was a highly interesting but by no means awe-exciting phenomenon. The effect on the tides was very curious; the great shock took place at the time of low water; an old woman who was on the beach told me that the water flowed quickly but not in big waves to the high-water mark, and as quickly returned to its proper level; this was also evident by the wet sand. She said it flowed like an ordinary tide, only a good deal quicker. This very kind of irregularity in the tide happened two or three years since during an earthquake at Chiloé and caused a great deal of groundless alarm. In the course of the evening there were other weaker shocks; all of which seemed to produce the most complicated currents, and some of great strength in the bay. I am afraid we shall hear of damage done at Concepción. I forgot to mention that on board the motion was very perceptible; some below cried out that the ship must have tailed on the shore and was touching the bottom.

21 February: We moved our anchorage to one nearer the mouth of the

harbour. During the last week there has been an unusual degree of gaiety on board. The *intendente* paid us a visit one day and brought a whole boat full of ladies: bad weather compelled them to stay all night, a sore plague both to us and them. They in return gave a ball, which was attended by nearly all on board. Those who went returned exceedingly well pleased with the people of Valdivia. The signoritas are pronounced very charming; and what is still more surprising, they have not forgotten how to blush, an art which is at present quite unknown in Chiloé.

*From Captain FitzRoy's Narrative:*

We sailed on 22 February after receiving, on all occasions, the kindest treatment from the residents.

Late on the 24th we anchored at Mocha, and the following week was occupied in surveying its shores and the space between them and the mainland. Shocks of earthquakes were frequently felt, more or less severely; sometimes I thought that the anchor had been accidentally let go, and the chain was running out; and while at anchor, I often fancied the ship was driving, till I saw that there was neither swell, current, nor wind sufficient to move her from the anchorage. We naturally concluded that some strange convulsion was working, and anxious for the fate of Concepción, hastened to Talcahuano Bay as soon as our duty would allow: arriving there on 4 March, to our dismay, we saw ruins in every direction.

*From Charles Darwin's Diary:*

5 March: I went on shore to Talcahuano and afterwards rode with the captain to Concepción. The two towns presented the most awful yet interesting spectacle I ever beheld. To any person who had formerly known them it must be still more so; for the ruins are so confused and mingled, and the scene has so little the air of an habitable place, that it is difficult to understand how great the damage has been. Many compared the ruins to those of Ephesus or the drawings of Palmyra and other eastern towns; certainly there is the same impossibility of imagining their former appearance and condition. In Concepción each house or row of houses stood by itself a heap or line of ruins: in Talcahuano, owing to the great wave, little more was left than one layer of bricks, tiles and timber, with here and there part of a wall yet standing up. From this circumstance Concepción, although not so completely desolated, was the more terrible, and if I may so call it, picturesque sight. The earthquake took place, as we have seen at Valdivia, at half past



eleven. It is generally thought if it had happened in the night, at least three-quarters of the inhabitants would have perished. It is probable that not more than a hundred have met their deaths; yet many must still lie buried in the ruins. The earthquake came on with tremendous violence and gave no notice; the *constant* habit of these people of running out of their houses *instantly* on perceiving the *first* trembling, only saved them. The inhabitants scarcely passed their thresholds before the houses fell in. This is thought to be the *worst* earthquake ever known in Chile; it is however hard to tell, for the worst sorts happen only after long intervals [of] from sixty to a hundred years. Indeed several degrees worse would not signify, for the desolation is now complete. After viewing the ruins of Concepción, I cannot understand how the greater part [of the inhabitants] escaped unhurt; the houses in many places have fallen outwards on each side into the street, so that it is frequently necessary to pass over little hillocks several feet high. In other places the houses fell in; in a large boarding school, the beds were buried eight feet beneath bricks, yet all the young ladies escaped. How dreadful would the slaughter have been, if, as I have said, it had happened at night. Mr Rouse, the English Consul, told us he was at breakfast; at the first motion he ran out, but only reached the middle of his little courtyard when one side of his house came thundering down; he retained presence of mind to remember, that if he once got on the top of that part which had already fallen, he should be safe; not being able, from the motion of the ground, to stand on his legs he crawled up on his hands and knees; no sooner had he ascended this little eminence, than the other side of the house fell in; the great beams sweeping close in front of his head. The sky became dark from the dense cloud of dust; with his eyes blinded and mouth choked he at last reached the street. Shock succeeded shock at the interval of a few minutes; no one dared approach the shattered ruins; no one knew whether his dearest friends or relations were perishing from the want of help. The thatched roofs fell over the fires, and flames burst forth in all parts; hundreds knew themselves ruined and few had the means of procuring food for the day. Can a more miserable and fearful scene be imagined? I shall never again laugh when I see people running out of their houses at a trifling shock; nor will any on board who now has seen what an earthquake is. The earthquake alone is sufficient to destroy the prosperity of a country; if beneath England a volcanic focus should reassume its power; how completely the whole country would be altered. What would become of the lofty houses, thickly-packed cities, the great manufactories, the

beautiful private and public buildings? If such a volcanic focus should announce its presence by a great earthquake, what a horrible destruction there would be of human life. England would become bankrupt; all papers, accounts, records, as here, would be lost: and government could not collect the taxes. Who can say, how soon such will happen?

*From Captain FitzRoy's Narrative:*

The following account of this catastrophe was subsequently obtained:

At ten in the morning of 20 February, very large flights of sea-fowl were noticed, passing over the city of Concepción, from the sea-coast, towards the interior: and some surprise was excited by so unusual and simultaneous a change in the habits of those birds, no signs of an approaching storm being visible. About eleven, the southerly breeze freshened up as usual – the sky was clear, and almost cloudless. At forty minutes after eleven, a shock of an earthquake was felt, slightly at first, but increasing rapidly. During the first half minute, many persons remained in their houses; but then the convulsive movements were so strong, that the alarm became general, and they all rushed into open spaces for safety. The horrid motion increased; people could hardly stand; buildings waved and tottered – suddenly an awful overpowering shock caused universal destruction – and in less than six seconds the city was in ruins. The stunning noise of falling houses; the horrible cracking of the earth, which opened and shut rapidly and repeatedly in numerous places; the desperate heart-rending outcries of the people; the stifling heat; the blinding, smothering clouds of dust; the utter helplessness and confusion; and the extreme horror and alarm, can neither be described nor fully imagined.

This fatal convulsion took place about a minute and a half after the first shock; and it lasted for nearly two minutes, with equal violence. During this time no one could stand unsupported; people clung to each other, to trees, or to posts. Some threw themselves on the ground; but there the motion was so violent that they were obliged to stretch out their arms on each side, to prevent being tossed over and over. The poultry flew about screaming wildly. Horses and other animals were greatly frightened, standing with their legs spread out, and their heads down, trembling excessively.

After the most violent shock ceased, the clouds of dust which had been raised by falling buildings, began to disperse; people breathed more freely, and dared to look around them. Ghastly and sepulchral was the sight. Pale and trembling, covered with dust and perspiration,



they ran from place to place, calling for relations and friends; and many seemed to be quite bereft of reason.

Considerable shocks continued to harass and alarm at short intervals. The earth was never long quiet during that or the next day, nor indeed for the three days following the great shock; and during many hours after the ruin, it was tremulous, and the shocks were very frequent, though not severe. Many of these, but not all, were preceded by a rumbling, subterranean noise, like distant thunder. These noises came from the south-west quarter and preceded the shock by one or two seconds; sometimes, but not often, the sound was unaccompanied by any shock.

It was the general opinion that the motion was from south-west to north-east. Some whole walls, whose direction was south-east and north-west, were laid flat, the bricks still maintaining their relative position, though end-wise, without being scattered upon the ground. These walls fell, without exception, to the north-east. Walls standing in the opposite direction, north-east and south-west, suffered far less: none fell bodily or in masses; fragments were shaken or torn off; and some of the walls were very much cracked, but others suffered little. Houses built of mud bricks became confused heaps, and roofs fell in every where. The cathedral, whose walls were four feet in thickness, supported by great buttresses, and built of good brick and mortar, suffered more than other buildings. Adhering to the remains of the walls were left the lower parts of some buttresses – the upper parts of others – while in one place a buttress stood on its own foundation, separated entirely from the wall.

Women washing in the river near Concepción were startled by the sudden rise of the water – from their ankles to their knees – and at the same moment felt the beginning of the convulsion. It was said that the dogs avoided the ruin, by running away before it occurred. A mother, escaping with her children, saw one fall into a hole; a wall close to her was tottering; she pushed a piece of wood across the hole, and ran on; the wall fell, covering the hole with masses of brick-work; but, next day, the child was taken out unhurt. Another woman missed a child; saw that a high wall was tottering, but ran for her son, and brought him out. As she crossed the street, the wall fell, but they were safe; when the tremendous crash came, the whole street, which she had just crossed, was filled up with part of the ruins of the cathedral. Besides a waving or undulatory movement, vertical, horizontal, and circular or twisting motions were felt. An angular stone pinnacle was particularly noticed,

which had been turned half round, without being thrown down, or leaving its base.

Persons riding at the time of the great shock, were stopped short; some, with their horses, were thrown to the ground; others dismounted, but could not stand. So little was the ground at rest after the great destruction, that between 20 February and 4 March, more than three hundred shocks were counted.

Much misery was alleviated by the good conduct and extreme hospitality of the inhabitants of Concepción. Mutual assistance was every where rendered, and theft was almost unknown. The higher classes immediately set people to work, to build straw-covered huts and temporary houses of board, living meanwhile in the open air under trees. Those who soonest obtained or contrived shelter, collected as many about them as they could assist, and in a very few days all had a temporary shelter, under which they tried to laugh at their misfortunes and the shifts to which they were reduced.

At Talcahuano the great earthquake was felt as severely on 20 February as in the city of Concepción. It took place at the same time, and in a precisely similar manner: three houses only, upon a rocky foundation, escaped the fate of all those standing upon the loose sandy soil, which lies between the sea-beach and the hills. Nearly all the inhabitants escaped uninjured; but they had scarcely recovered from the sensations of the ruinous shocks, when an alarm was given that the sea was retiring!

About half an hour after the shock, when the greater part of the population had reached the heights – the sea having retired so much, that all the vessels at anchor, even those which had been lying in seven fathoms water, were aground, and every rock and shoal in the bay was visible – an enormous wave was seen forcing its way through the western passage which separates Quiriquina Island from the mainland. This terrific swell passed rapidly along the western side of the Bay of Concepción, sweeping the steep shores of every thing moveable within thirty feet (vertically) from high water-mark. It broke over, dashed along, and whirled about the shipping as if they had been light boats; overflowed the greater part of the town, and then rushed back with such a torrent that every movable which the earthquake had not buried under heaps of ruins was carried out to sea. In a few minutes, the vessels were again aground, and a second great wave was seen approaching, with more noise and impetuosity than the first; but though this was more powerful, its effects were not so considerable – simply because there



was less to destroy. Again the sea fell, dragging away quantities of woodwork and the lighter materials of houses, and leaving the shipping aground.

After some minutes of awful suspense, a third enormous swell was seen between Quiriquina Island and the mainland, apparently larger than either of the two former. Roaring as it dashed against every obstacle with irresistible force, it rushed – destroying and overwhelming – along the shore. Quickly retiring, the retreating wave dragged away such quantities of household effects, fences, furniture, and other movables, that after the tumultuous rush was over, the sea appeared to be covered with wreck.

Numbers of the inhabitants then hastened to the ruins, anxious to ascertain the extent of their losses, and to save some money, or a few valuable articles, which, having escaped the sweep of the sea, were exposed to depredators. Thieves were numerous. Directly after the ruin these scoundrels set to work – though crying ‘*Misericordia*,’ and with one hand beating their breast – with the other they stole most industriously.

During the remainder of the day, and the following night, the earth was not quiet many minutes at a time. Frequent, almost incessant tremors, occasional shocks more or less severe, and distant subterranean noises, kept every one in anxious suspense. Those who were searching among the ruins, started at every shock, however slight, and almost doubted that the sea was not actually rushing in again to overwhelm them. Nearly all the inhabitants, excepting a few who went on board vessels in the harbour, passed the night upon the hills, without shelter: and next day they began to raise sheds and huts upon the high grounds, still dreading the sea. It was said that every dog at Talcahuano had left the town before the shock was felt.

Without explanation it appears astonishing how the shipping escaped destruction. There were three large whale-ships, a bark, two brigs, and a schooner, very near the town, in from four to seven fathoms water. These vessels lay to seaward of their anchors, having their sterns towards the sea; and were left aground in this position. Some of the vessels were thrown violently against others; and whirled around as if they had been in the vortex of a whirlpool. Previous to the rush of waters two merchantmen were lying a full cable’s length apart; and after it had passed they were side by side, with three round turns in their cables. Each vessel had therefore gone round the other with each wave: the bow of one was stove in: to the other little damage was done.

A small vessel was on the stocks, almost ready for launching; she was carried by the sea two hundred yards in-shore, and left there unhurt. A little schooner, at anchor before the town, slipped her cable, and ran out in the offing as the water fell. She met the wave, unbroken, and rose over it as an ordinary swell.

Many boats put off from the shore before the sea retired: some met the advancing waves before they broke, and rose safely over them; others, half swamped, struggled through the breakers. The fate of one little boy was extraordinary. A servant woman had taken refuge with him in a boat; the boat was dashed against an anchor, lying on the shore, and divided. The woman was drowned, but the half of the boat containing the 4-year-old child was carried out into the bay. It floated, and the boy held firmly. He was picked up afterwards, sitting upright, holding steadily with both hands, wet and cold, but unhurt. The boy’s name is Hodges: his father is an Englishman, well known at Talcahuano, and was an officer in the British navy.

At the time of the ruin, and until after the great waves, the water in the bay appeared to be every where boiling; bubbles of air, or gas, were rapidly escaping; the water also became black, and exhaled a most disagreeable sulphurous smell. Dead fish were afterwards thrown ashore in quantities; they seemed to have been poisoned, or suffocated; and for days together the shores of the bay were covered with numerous small fish. Black stinking water burst up from the earth, in several places; and in Mr Evans’s yard, at Talcahuano, the ground swelled like a large bubble, then, bursting, poured forth black, fetid, sulphurous water.

By a marked part of the wall of Captain Delano’s house, it was ascertained that the body of water reached twenty-five feet above the usual level of high water. It penetrated into the first floor rooms and left seaweed hanging to the remains of roofs, or to the tops of broken walls. But this must not be taken as the general height of the wave. A body of water, rushing upon a sloping beach with such force, would naturally preserve its impetus for some time, and run up the inclined plane, to a great height.

Strange extremes of injury and harmlessness were among the effects of these overwhelming waves. Buildings were levelled, heavy twenty-four pound guns were moved some yards, and upset; yet a child was carried to sea uninjured; and window-frames, with the glass in them, were thrown ashore upon the island of Quiriquina without a pane being broken! According to a register, kept by Captain Delano, it appears that his barometer fell four or five tenths of an inch between the seventeenth



and eighteenth of February, and was still falling on the morning of the eighteenth, after which it rose again. So great and sudden a fall, not followed by bad weather, may have been connected with the cause of the earthquake; but some doubt hangs over these observations. The barometers on board the *Beagle*, at that time in Valdivia, did not indicate any change.

Large masses of earth and stone, many thousand tons in weight, were detached from the cliffs, and precipitous sides of the hills. It was dangerous to go near the edge of a cliff, for numerous chasms, and cracks in every direction, showed how doubtful was the support.

Besides suffering from the effects of the earthquake and three invading waves, which, coming from the west round both points of the island, united to overflow the low ground near the village, Santa Maria was upheaved nine feet. It appeared that the southern extreme of the island was raised eight feet, the middle nine, and the northern end upwards of ten feet. The *Beagle* visited this island twice – at the end of March and in the beginning of April: at her first visit it was concluded, from the visible evidence of dead shellfish, water-marks, and soundings, and from the verbal testimony of the inhabitants, that the land had been raised about eight feet. However, on returning to Concepción, doubts were raised; and to settle the matter beyond dispute, one of the owners of the island, Don S. Palma, accompanied us the second time together with an intelligent Hanoverian, whose occupation upon this island was sealing, and who had lived two years there and knew its shores thoroughly.

When we landed the Hanoverian, whose name was Anthony Vogelborg, showed me a spot from which he used formerly to gather *choros* – mussels – by diving for them at low tide. At dead low water, standing upon the bed of *choros*, and holding his hands up above his head, he could not reach the surface of the water: his height is six feet. On that spot, when I was there, the *choros* were barely covered at high spring-tide.

Riding round the island afterwards, with Don Salvador and Vogelborg, I took many measures in places where no mistake could be made. On large steep-sided rocks, where vertical measures could be correctly taken, beds of dead mussels were found ten feet above the recent high-water mark. A few inches only above what was then the spring-tide high-water mark, were putrid shellfish and seaweed, which evidently had not been wetted since the upheaval of the land.

At Valdivia the shock began gently, increased gradually during two

minutes, was at its strongest about one minute, and then diminished. The motion was undulating and regular, like waves rolling from west to east, but strong; and it lasted nearly ten minutes. There was no difficulty in standing or walking, but the houses waved and cracked. The stone church tottered, but was not injured; its roof was very light. All the dwelling-houses being strongly built of wood, withstood the shock. Most people thought the motion was from south-west to north-east, but Mr Darwin and a person with him at the time, thought the reverse.

The river increased, or rose, at the same time, and rapidly fell again to its former height. In the port the sea swelled suddenly upon the shore to high-water mark, though it was then nearly the time of low-water, and quickly fell again. Both sea and river rose and fell frequently during the remainder of the day. In the afternoon, at about five, a smart shock was felt, which made the people run out of their houses.

This great earthquake extended to the island of Chiloé, and probably still farther to the southward. The shock was there slight, but lasted during six or eight minutes. The swell of the sea was felt there. A man was going to leave the shore in his boat; he went a short distance to fetch something, and returning found the boat aground and immovable: puzzled and vexed he went away, but had not gone many yards before his son called to him that it was afloat.

When the *Beagle* entered Concepción Bay, she had only one heavy anchor left, having broken or lost the others; and as there were none fit for her at Talcahuano, it became absolutely necessary to go to Valparaíso: accordingly, on 7 March we left the melancholy ruins and their disconsolate tenants, and on the 11th dropped our only anchor at Valparaíso. There our wants were soon supplied, and we sailed on the 17th to revisit Concepción.

*From Charles Darwin's Diary:*

7 March: After the last three active days we made sail for Valparaíso. Mr Stokes and Osborne are left on shore with tents to work at the charts. It is a great convenience to many of the inhabitants our proceeding and returning directly from Valparaíso; there is a great dearth of money, and we shall be able to bring a supply. The captain took on board a padre, whom we found houseless; we had known him at Chiloé. The wind being northerly, we only reached the mouth of the harbour after it was dark; a heavy fog coming on and being very near the land we dropped the anchor. Presently a large American whaler appeared close along side of us: we heard the yankee swearing at his men to keep quiet whilst he



listened where the breakers were. The captain hailed him in a loud clear voice to anchor where he then was. The poor man must have thought the voice came from the shore, such a babel of cries at once issued from the ship; every one hollowing out, 'Let go the anchor, veer cable, shorten sail'; it was the most laughable thing I ever heard; if the ship had been full of captains and no men to work, there could not have been such an uproar of orders. We afterward found the mate stuttered: I suppose all hands were assisting him in giving his orders.

*From Captain FitzRoy's Narrative:*

From the 27th the time was occupied in surveying the neighbourhood of Concepción, Arauco Bay, the island of Santa Maria and Mocha, until 17 April.

Mocha is a prominent landmark for navigators, but dangerous rocks lie about its south-west quarter, and as the current usually sets northward, a ship ought to beware of them. Previous to the eighteenth century it was inhabited by Araucanian Indians, but they were driven away by the Spaniards; and since that time a few stray animals have been the only permanent tenants. Most of the early voyagers speak of it. We found the anchorage indifferent, the landing bad, and no supplies to be obtained except wood, and, with much difficulty, water.

Our duties were greatly forwarded while about Concepción, by the earnest and very kind assistance of the intendente, Don José Alemparte; and the active friendliness of Mr Rouse, the British consul. Though their houses were levelled, and they themselves without any of what most Englishmen would call comfort, we were received and attended to by them as cordially as if their nerves and minds had endured no strain.

Although it was indisputably proved to the satisfaction of every person in the neighbourhood that elevations of land had occurred, I strongly suspect that a sinking down has taken place since that period, to a very considerable amount, if not quite enough to counterbalance former elevation. This idea is suggested by the fact that when I was last at Talcahuano, in July 1835, only four months after the great convulsion, the shores of Concepción Bay had regained their former position with respect to the level of the sea.

Whether this conjecture be well founded a short time may show: if it should be, an explanation might thus arise of the differences of opinion respecting the permanent elevation of land near Valparaíso, where some say it has been raised several feet during the last twenty years, while others deny that it has been raised at all. It may have been elevated, or

upheaved as geologists say, for a time, but since then it may have settled or sunk down again gradually to its old position.

In a ride along the beach of Concepción Bay, with Mr Rouse, we examined the solid wall of old Penco Castle, and found on one side the date 1686 and on another 1687.

This castle and the adjoining foundations of houses, are so near the level of the sea, that I am surprised the inhabitants should not have feared being frequently inundated, even by tides only a few feet higher than usual.

If all this coast has been more or less upheaved during comparatively modern times, how is it that the foundations of Penco still stand at the water's edge, very little above the level of a high spring tide?

Not far from Old Penco is the stratum of coal about which there has lately been much discussion.

Many other authorities might be cited to prove that coal exists abundantly near Concepción, and that it has often been used. There are objections to it, by no means insuperable, which have alarmed people, and checked the working of those mines. It is said to be very bituminous – that it burns too quickly to ashes to answer well for smith's work, because it does not give heat enough – and that it is liable to spontaneous combustion. The last objection might be removed by keeping the coal under water, and coking would render it available for the forge. Some geologists say that it is 'mere lignite', and think very lightly of its quantity or value; but practical men will doubtless attach some value to what has been proved by experience.

*From Charles Darwin's Diary:*

6 March: I crossed the bay to Linguen to see the best coal-mine of Concepción: as all the rest which I have seen, it is rather lignite than coal and occurs in a very modern formation. The mine is not worked, for the coal when placed in a heap has the singular property of spontaneously igniting. It is certain that several vessels have been set on fire.

*From Captain FitzRoy's Narrative:*

On 17 April, the *Beagle* sailed from Concepción Bay, examined Coliumo, and, coasting along, anchored off the Maule River on the 20th. In a very thick fog, during the night of the 19th, while carrying sail to get an offing, we were within a fathom of being run down by a vessel crossing us on the opposite tack. As both ships were under all sail, and it was dark, our momentary sensations were far from agreeable.



To land here was perplexing enough, for a heavy surf broke on the bar of the river, and nearly as much along the shore; but with some risk and difficulty we effected our purpose in two light whale-boats, which could be hauled up directly they touched the beach. Nearly all the population of a thriving village, called Constitución, came down to meet us (on the 21st), and assist in hauling our boats up the steep though yielding sand, where, for our comfort, they told us a whole boat's crew had been drowned, not long previously, in attempting to land. From a height overlooking the river, village, and neighbourhood, we enjoyed a very pleasing view, so long as we turned away from the bar of the river and the surf. A rich country and a fine river are pleasing things at all times, but the difficult approach to Constitución mars half its beauty. Only the smallest craft can cross the bar; it is dangerous for boats to land on the outer beach; and difficult for them to profit by the few opportunities which occur of passing the bar without risk.

Notwithstanding these local disadvantages, Constitución may thrive wonderfully hereafter, by the help of small steamers, for she has a most productive country around her, abounding in internal as well as external wealth, and a navigable river at command. Besides this, in 1805, a very practicable passage was discovered through the Andes, about seventy leagues south of Mendoza, not far from the latitude of the River Maule, almost entirely level, and fit for waggons – the only pass of such a description between the isthmus of Darien and Patagonia.

From the Maule we sailed along the coast northward; limited time, and work in prospect urging us to hasten more than could have been wished.

At noon, on 23 April we hove to off Valparaíso, and sent boats ashore. Mr Darwin came on board, and among other pieces of good news, told me of my promotion. I asked about Mr Stokes and Lieut. Wickham, especially the former; but nothing had been heard of their exertions having obtained any satisfactory notice at head-quarters, which much diminished the gratification I might otherwise have felt on my own account. Mr Darwin returned to the shore, intending to travel overland, to meet us at Coquimbo, his very successful excursion across the Andes having encouraged him to make another long journey northward.

*Commodore Mason, in a letter to the Hydrographer:*

Blonde, 30 April 1835

My dear Beaufort

I conclude that Capt. FitzRoy has given you an account of the awful

earthquake that has occurred in the southern part of Chile, and I enclose you a copy of a letter from the governor of Juan Fernandez giving an account of one that happened there the same day.

I am very glad to hear that Capt. FitzRoy is posted. He is a very active, zealous officer and a very gentlemanly man. I hope he will be reimbursed the expense he has been at in the survey. I wish he may be allowed to survey the coasts of Costa Rica and Nicaragua as the increasing trade there makes a good chart necessary.

This unfortunate revolution has kept me here so long that I am quite tired of the place. The fogs are very constant and thick and the damp spoils everything. Lima is at present very unhealthy; but I never go there. The merchants are serious losers by this revolution.

FRANCIS MASON

*From Captain FitzRoy's Narrative:*

On 25 April, we anchored in Horcon Bay, a place entirely left out of all former charts, although there is good anchorage and a fishing village. From this station we sailed to Papudo, a small port rising into repute on account of copper-mines in its neighbourhood. Farther north, or 'down the coast', as they say in Chile and Peru, is Pichidangué, an excellent cove, rather than port, now much used for shipping copper, and formerly a smuggling place; rendered more notorious by the murder of Burcher, the master of an English smuggling vessel called the *Scorpion*, who was enticed ashore and assassinated, after which his ship was seized and plundered.

I landed at Conchali after dark on the 30th, leaving the *Beagle* under sail in the offing. My reception was very hospitable; but the people made sure I was a smuggler; and some of the principal inhabitants rode with me several miles next morning to the place where my boat was hauled ashore, thinking all the time that I was only waiting for a favourable opportunity to tell them my secret and make advantageous terms. All this coast, except a few corners, is bold and high, barren and uninteresting; though picturesque in outline.

2 May: Another smuggling cove, called Quilimari, was examined by me. There is but doubtful landing, and no shelter for a vessel; balsas, however, might do a good deal of work for such a character as I was taken for at Conchali.

On the 4th, having hastily reconnoitred the coast nearly as far as Coquimbo, we ran into Herradura Cove, and moored ship securely. It was my intention to refit there thoroughly, and prepare the *Beagle* for



receiving a large supply of stores and provisions at Valparaíso, which would enable her to run down the coast to the Galapagos, and thence cross the Pacific to Sydney in Australia. In Herradura she lay quietly close to the land until 6 June: and all her crew were encamped on shore near the ship, while she was thoroughly cleared out, re-stowed, and painted. At Coquimbo we always met with a hearty welcome whenever duty required that we should go there, or when we went for our own amusement. The intendente, the kind-hearted Mr Edwards and his family and others, will not easily be forgotten by the *Beagle's* officers.

As another real benefactor to the public service, I may be allowed to mention Don Francisco Vascuñan, who lent me a vessel of thirty-five tons, called the *Constitución*, to be employed in forwarding the survey. This craft was built in the River Maule, and bore a very high character as a sea boat. Lieutenant Sullivan, Mr King, Mr Stewart, and Mr Forsyth volunteered to go in her; so giving them a boat's crew, a small boat, a native pilot with his balsa, and as good an outfit as my means would allow, I despatched this new tender to examine a portion of coast near Coquimbo, which the *Beagle* had not seen sufficiently, and directed Lieut. Sullivan, if he found the vessel efficient, to continue afterwards surveying along the coast of Chile, as far as Paposo, whence he was to repair to Callao.

On 6 June, the *Beagle* left Herradura, and sailed towards Valparaíso. Arrived at Valparaíso on 14 June, and immediately began the arrangements necessary for our preparations to quit Chile.

## 11. THE SHIPWRECK

*From Captain FitzRoy's Narrative:*

16 June 1835: By the post which arrived from Santiago this morning, an English merchant received a laconic account of the total loss of His Majesty's Ship *Challenger*. This report spread as quickly as bad tidings are wont to do: but no official information arrived during that day, or the ensuing night. Recollecting that a Swedish ship had come lately into Valparaíso, whose officers had seen what they described as 'an American brig' cast away near Mocha, I found out the ship and questioned the master and mates. They had arrived at Valparaíso on 25 May, and all agreed in stating that on the 20th of that month, they saw a large vessel ashore on the coast of the mainland, to the northward and eastward of Mocha. They saw her at daylight, but as they had light airs of wind and a very heavy swell until three in the afternoon, to save themselves from danger they were obliged to make all sail away from the land, and lost sight of the wreck.

The vessel looked large, with fore and main masts standing, and top-gallant masts on end until eight o'clock, when the fore-topmast went over the side, or was struck: her fore-topsail yard remained across; no main-top-gallant yard was seen; the main-top-gallant mast was standing all day, and there was a large ensign at the mast-head: white and red were seen, therefore it was thought to be American. Her bow was to seaward, as if she had anchored; her sails were loose all day; people were seen on the after part of what appeared to be a roundhouse painted green. Bulwarks very high – ports very large – no boats on deck or at the quarters – no guns on upper deck. Looking at her end on, with the masts nearly in a line, all her upper deck could be seen, though very indistinctly, owing to hazy weather, the additional haze caused by spray thrown up from a furious surf, and their own distance from the wreck, which was never less than four miles.

The log of the Swedish ship was produced, which exactly corroborated their statement. The master said he could not lower a boat, so great was the swell; and during five hours of almost calm, he was



drifting helplessly towards the wreck, and expecting to share her fate. The two masts and red and white ensign caused them to consider her an American brig, and as such she was reported to the consul for the United States.

A few of the preceding data convinced me they had seen the poor *Challenger*, but I was more strongly assured of the fact by pointing to the *Conway*, then at anchor near us, and asking whether she was like that ship – and near her size? ‘Yes, sir,’ they replied. The green roundhouse abaft, seemed to have been a deception caused by looking at the curved green taffrail of the *Challenger*. I concluded that the mizen-mast had been cut or carried away; perhaps used as a raft: that the boats had been lowered, and that the ensign was St George’s but did not fly out. Such were my thoughts, but other persons were of a totally different opinion. I was astonished that the commodore did not hear officially from Santiago – particularly as the merchant’s private notice was received through our consul-general.

17 June: At the post-office I obtained a large packet directed to our vice-consul the moment the post-master opened the mail bag, and, hastening to the consul’s office, I was surprised to find it shut, and to hear that no one would be there for an hour or two. Such apathy – upon such an occasion! Not choosing to break the seals, though I saw by the direction what were the contents (Despatches by *Challenger*), I went in search of the proper person to open the packet: took the commodore’s letters, and hastened with them to the *Blonde*. Every doubt was then ended. The *Challenger* was lost on the night of 19 May, at the spot described by the Swede: but all her crew were saved except two; and on the 26th of that month, Captain Seymour, the officers and men were encamped near the wreck, at a place called Molguilla. The *Blonde* prepared for sea: an offer of such assistance as I could render was accepted by the commodore; and, having arranged the *Beagle*’s affairs as far as then necessary, I went on board the *Blonde*, taking with me Mr Osborne, J. Bennett, and a whale-boat. Lieut. Wickham was to forward the *Beagle*’s duty during my absence, and take her to Copiapo, Iquique, and Callao, before I should rejoin her.

18 June: Weighed at three in the morning and cleared the port before daybreak. A northerly, freshening wind favoured us much when in the offing.

21 June: Anchored in the bay of Concepción, off Talcahuano, at noon. As soon as I could get a boat I landed, and hastened to obtain information, horses and a guide, as the commodore wished me to go overland

to Captain Seymour, and concert measures for removing the crew and the remaining stores.

The captain of the port told Commodore Mason that the part of the coast on which the *Challenger* went ashore, is quite inaccessible in any weather, but that boats had entered the mouth of the river Leibu, near Molguilla.

Lieutenant Collins of the *Challenger* had been at Talcahuano, trying to procure a vessel in which the shipwrecked crew might embark, by means of boats, at the Leibu, but, not succeeding, he had returned to his shipmates, whom he expected to find at the mouth of the river. It was said that a large body of Indians was in motion towards them, that the crew were short of provisions, and that they were becoming sickly. Assisted by the governor of Talcahuano, horses and a native guide were soon obtained; but I wanted a more energetic assistant, and engaged a Hanoverian who was used to the half-Indian natives of the frontier, and well known among them. This man was Vogelborg, already mentioned. With orders and letters from Commodore Mason, accompanied by Vogelborg and my servant H. Fuller; and provided with five horses, I left Talcahuano the same evening.

Being personally acquainted with the intendente, and his second in command, I hastened immediately to their houses at Concepción, wishing to get an order to pass the Bio Bio River that night, and to procure a circular letter to the local authorities. Not a minute was lost by either of those zealous officers in attending to and complying with my requests. Alemparte left his dinner to write a circular letter, in his own hand; and neither he nor Colonel Boza would return to their respective parties, until they had ascertained that I was properly provided with horses and a guide, and that I required no further assistance.

Although orders were issued and the ferry-boat at her station, no crew were to be found, and only those men who belonged to the boat knew how to cross over safely. Vexatious as the delay seemed, I was afterwards glad of it; for judging by the work in daylight, I doubt our having ever reached the opposite bank with our horses, in a dark night.

22 June: Before the dawn of day we were looking for the watermen; and, as the sun rose, succeeded in getting their boat, or rather flat-bottomed barge, into motion. We rode into the river, about two hundred yards, until we reached the barge, then lying close to an overflowed bank. By some persuasion of voice, whip and spur, the horses were made to leap out of the water, over the gunwale and into the boat. They certainly showed more sense than horses usually have, in understanding



so readily how to behave; but whether their owners showed more than asses, in having so clumsy a ferry-boat, may be doubted. In leaping in the horses nearly knocked down, or trod upon, those who were dismounted; and when leaping out again, they made such a splashing of the water in the leaky ferry-barge as effectually washed our faces. The river is wide, deep and rapid; and there are many sand-banks. The boatmen use oars as well as long poles; but are slow and awkward to a degree I could scarcely have believed, had I not witnessed their progress. The breadth at the ferry is about a quarter of a mile, when the river is low, but upwards of half a mile when flooded, as at this time. The south bank is steep; and from San Pedro, a little village at the ferry, the land rises in a south-east direction, towards a lofty range of hills; but towards the south-west, it is low, level, and firm. Across this excellent galloping ground we tried our horses, and made the miles seem short, till we reached a low range of hills. There, dismounting, we used our own legs until the hills were passed, and before us lay two long sandy beaches.

Leaving the sea-shore, and some slippery rocky places over which we were obliged to lead our horses, we ascended the heights of Colcura. For our reward, after a muddy scramble up to the top of a steep hill, we looked down upon a fine though but partially wooded country, forming an agreeable succession of valleys and high grounds; while to seaward there was an extensive view of the coast.

Perched on a height overlooking the sea, and directly above a very snug little anchorage, is the hamlet called Colcura; and thither we hastened, inattentive to the complaints of our guide (who was likewise guardian of the horses), and trusting to Vogelborg's recollection of the road. Riding into a sort of field entrenchment at the top of Colcura hill, we were accosted by a sly-looking, sharp-visaged character, whose parti-coloured jacket appeared to show that its owner held some office of a military nature, but what I could not determine until I heard him say he could give us a good meal, and that he had three fine horses near the house; when at once styling him 'gobernador' I rebuked myself for having thought ill of his physiognomy, and proceeded to unsaddle. Disappointed, however, by a scanty bad meal, we thought to regain our tempers upon the backs of our host's horses; but not an animal had he sent for; nor, to our further vexation, could any inducement tempt him to lend one of those fine horses, which, he still said, were close by. The Indians, he declared, were expected daily; he knew not the moment he might have to fly for his life; on no condition would he lend a horse:

no, not if a fleet of ships were wrecked, and I were to offer him an ounce of gold for each mile that his horse should carry me.

Every Chilian residing on the frontier endeavours to keep by him a good horse, on which to escape, in case of a sudden attack of the Indians; for, as they never give quarter, and approach at a gallop, it is highly necessary to be always prepared.

Saddling our own steeds, and quitting the thin-faced dispenser of tough hens and sour apples, we set off at a gallop, leaving the lazy guide whom we brought from Talcahuano, to return there with the two worst animals, and in two hours we reached the foot of Villagran.

We ascended the heights by winding narrow paths, up which our horses were led in order to spare them as much as possible, and met a small party of Chilians, on their way from the wreck of the *Challenger* towards Concepción, from whom we heard that the wreck had been abandoned, and that the officers and crew were entrenched in a secure position, on the height close to the mouth of the River Leibu. We were also told that the Indians increased in number daily, and that great fears of their hostility were entertained.

From the summit of Villagran we had an extensive view, but time allowed no delay, though with a hasty glance, as we mounted our horses and cantered along the summit, I saw a schooner in the distance, off the Paps of Bio Bio, working her way to the southward.

Descending the hill, we reached a village near a small river which runs through a hacienda belonging to the 'Santa Maria' family. We called at the door of their large, barn-like dwelling, to ask if horses could be spared. The mistress of the house happened to be at home, and directly she heard my story she ordered every horse to be put in requisition; but, unfortunately, two only were within reach, one of which was lame. All the others had been sent to grass at a distance. After acknowledging her kindness, and paying her *mayor domo* for the hire of the horse, we pushed on with that one and two of the least jaded of our own animals.

Between this village and the rivulet called Laraquete is a hill, unimportant at present, though it may hereafter become of consequence, as it contains coal. Some that I carried away with me was thought to be almost equal to cannel coal, which it very much resembled. Very glad I was then to see nothing like a hill between us and Arauco. We urged our horses along the dead level, and reached a pass of the Carampangue river as the sun was sinking below the horizon. From the black gathering clouds I thought we should not be long without heavy rain, and that the sooner we could house ourselves the better. The Carampangue is



shallow, except in the middle, but wide. Men and animals are carried over it on a 'balsa', made of several logs of light wood fastened together, and pushed or poled across with their burdens by one man. These contrivances are very convenient where the water is shallow near the bank, and where the bank itself is low: for a horse can walk upon them from the shore without difficulty, or any scrambling; and as soon as they ground on the opposite side, it is equally easy to disembark.

The last few miles had been slowly accomplished by dint of whip and spur; but from the river to Arauco was a long league over unknown ground, in the dark, and while rain fell fast. Heavily, we toiled along, uncertain of our way, and expecting each minute to be bogged; our horses, however, improved as we neared their anticipated resting place, and almost tried to canter as lights appeared twinkling within an open gateway in the low wall of Arauco. We asked for the house of the *comandante*, and were directed to a rancho rather higher and larger than the rest. Without a question we were received, and told to make the house our own. That we were wet and tired, was a sufficient introduction to the hospitable Chilean.

Before thinking of present comfort, it was necessary to secure horses for the next day's journey, and dispose of our own tired animals; but money and the willing assistance of the *comandante* (Colonel Geronimo J. Valenzuela), soon ensured us both horses and a guide. In the colonel's house, a barn-like building, entirely of wood, and divided into three parts by low partitions, I was surprised to see an arm-chair of European make, which in no way corresponded to the rest of the furniture. Some large shells, not found in these seas, also caught my eye, and tempted me to ask their history. They had been brought only the previous day from the wreck of the *Challenger*, and were given by Captain Seymour to Don Geronimo, who had himself but just returned from assisting the shipwrecked party. His account and the chances of an attack being made by the Indians, increased our anxiety to proceed; it would, however, have been worse than useless to attempt finding our way in a dark night, while it was raining fast and blowing very hard; but at daybreak in the morning we saddled, and soon afterwards were splashing along the low flat tract of land extending from Arauco westward towards Tubul. Heavy rain during the night had almost inundated the low country, and to our discomfort appeared likely to continue during the day. In half an hour after starting we were soaked with mud and water; but being well warmed by galloping, we felt indifferent to the rain, and to a heavy gale of wind that was blowing.

Arauco, famous in Spanish song and history, is simply a small collection of huts, covering a space of about two acres, and scarcely defended from an enemy by a low wall or mound of earth. It stands upon a flat piece of ground, at the foot of the Colocolo Heights, a range of steep, though low hills, rising about six hundred feet above the sea.

Leaving the low land near the sea, we ascended sloping hills, and found ourselves in a beautiful country. The outer range of hills, near the sea, is a succession of downs, free from wood, except here and there in the valleys, and everywhere covered with short sweet grass. Numbers of fine cattle were seen grazing in the neighbourhood, but very few sheep. Inshore of the downs is a very luxuriant country; gradually rising hills, everywhere accessible; extensive valleys, woods of fine timber trees, very little encumbered with underwood; spaces of clear grassland, like fields; beautiful lakes, and numerous streams of excellent water, together with a rich soil clothed with sweet grass, disposed me to think this the finest country I had ever seen.

Here and there a stray cottage, or rather hut, was seen, with a high thatched roof, like those of Chiloé. But for these cottages, and a field or two near them, this excellent country would have appeared to be quite deserted by the human race, though possessing every desirable quality. We passed over no hills of any consequence as to height, though generally we were ascending or descending. An inshore circuit was taken, to avoid crossing three rivers, which, near the sea, are difficult to pass; and having lost our way (notwithstanding the alleged excellence of our guide), a native, almost Indian, was easily prevailed upon to run by the side of our horses until he put us into the right track. Before running through the bushes, he carefully tucked up his loose trousers as high as possible; thinking, I suppose, that his skin was less likely to be torn than the trousers; and thus bare-footed and bare-legged he ran before us for several miles with the greatest ease. At the cottage from which he came, a very good horse, in excellent condition, and well cleaned, was standing in a yard. I asked the owner to let me hire or buy him, but he would consent to neither; alleging that, in the Indian country, his life depended upon having a good horse close at hand. Three thousand Indians had assembled, he told me, and were expected to make an attack upon the Chilean frontier; but on what particular part was quite uncertain. They had heard of the wreck, and were actually going to the place to plunder the crew, when accidentally met and driven back by a friendly tribe. Dogs seem to be kept at these cottages for the same purpose as those at the *ranchos*, in the Pampas, namely, to give warning of the approach



of enemies. Small parties of Indians seldom or ever attack a house without reconnoitring carefully; and this they cannot effect if there are many dogs about.

After our running guide had left us, though put into the right track, we were soon at a loss again; so numerous were the tracks of horses and cattle in this rich pasture land. The professed guide whom we had brought from Arauco, was more useful in recovering half-tired horses, than from knowing the way: no sooner did he get upon a horse, which one of my party could not persuade to go out of a walk, than he started off at full gallop, exulting in his skill. Perhaps his secret lay in a sharp pair of iron spurs: for the thick skin and coarse hair of horses, so roughly kept as these, is proof against ordinary spurs, used with humanity.

Going very much by chance, often losing our way, and often taking a cast round to look for the most frequented track, we at last arrived at Quiapo, a hamlet consisting of five huts only, just in sight of one another on neighbouring hills.

Riding up to the nearest hut, we tempted a young man who occupied it, to sally forth in the rain in search of fresh horses. This exertion was caused by the sure stimulant – money. We might have talked of the wreck, and the Indians, until that day month, without exciting our acquaintance to move; but the touch of dollars at once overcame the apathy with which he listened to our first request for food and horses. His wife told us to kill a fowl, if we could, for there was nothing else to be had; so forth we sallied, and as each understood that the permission applied to himself, great was the confusion among the poultry. To the dismay of our hostess, we soon reappeared, each with a fowl; but a certain silver talisman quickly hushed her scolding, and set her cooking. Meanwhile the *rancho* was ornamented with our wet clothes hanging about it to be dried; but rain came through the roof in so many places that our trouble was useless. Dripping wet, having been soaked since the morning, and of course cold, we could not go near the fire, because of the smoke; so with a long pole we poked a hole through the thatch, which let the smoke out, and then closing round the fire, we surprised the good woman by our attack upon her half-roasted fowls.

All these huts are much alike. Under one thatched roof, there is a place where all the family (including the dogs, and pigs) eat, while sitting or lying round the fire, which is on the ground in the middle; and there is a kind of 'dais', where the same party afterwards seek that sound sleep from which none of the insect tribe appear to awake them, however much they may plague others. Sometimes there is a sort of bed-

stead, and a slight partition for the older people; but the others take their rest upon the raised part of the floor, wrapped in sheepskins, or goatskins, and rough woollen clothes. A large heap of potatoes occupies one corner of the hut, and another is filled by a granary, curiously contrived with stakes about six feet in length, driven into the ground in a circle of perhaps six feet diameter. Rough wicker-work unites the stakes, and forms a bottom about half a foot from the ground. Straw is then inserted into the wattled-work, until there is enough to prevent any corn from falling through. This large fixed basket is filled at harvest time, and supplies the family during the whole year: neither rat or mouse can get at it without making a rustling noise, which instantly alarms each cat and dog.

Before our host returned with horses it was evening. He would have detained us until the next morning, could his arguments have availed, but finding that with or without him, on we were resolved to go, he set out at a good pace towards Leübu. Less rain and wind encouraged hopes of a fine night, so we trotted or galloped along while daylight lasted, but as the night grew dark rain again poured down: and, obliged then to go slowly, we followed one another as close as possible, placing the guide in front with a white poncho. While in the open country we got on pretty well, but, after two hours easy work, we found that the track was taking us through thick woods. My first intimation of the change was being nearly knocked off my horse by the bough of a tree, so pitchy dark was the night; and after this I kept my head on the horse's neck, trusting to his eyes entirely, for I could see nothing. That our guide could find the way has been matter of astonishment to me ever since: he never failed once. Some of the defiles through which he led were knee-deep in clayey mud, so stiff that the horses could hardly move. Often we were set fast in such places, obliged to get off, and feel for the track, knee-deep, and up to our elbows in mud, for it was upon hands and knees that we went, oftener than upon our legs. Our guide knew we were in the right track, but each of us was obliged to seek safe footing for himself and his horse, in the defiles among steep ravines and streams, swelled by heavy rains. Passing these streams was dangerous and there only did the guide hang back. At one brook which seemed by the noise to be deep and large he refused to cross, saying his horse would not go on, and that we could not get over in the dark. However, Vogelborg was not to be so stopped. Leaving his own horse stuck fast in a slough, he scrambled through, hauling my horse after him by the bridle. Holding by my horse's long tail, and driving him on, I scrambled



after: Vogelborg then went back, and with the guide brought the others over. In several places, while in the ravines, I had recourse to the tail of the guide's horse for my support and dragged my own animal after me, for it was hopeless to remain on his back, so often was he stuck fast or down in the mud. The last man, Fuller, fared the worst, as he had no one behind him to drive his horse on; and frequently we were obliged to stop and holla to one another, to avoid parting company. At last we emerged from the wood and from those horrible ravines. Before us we could then see that there was space, nothing interfering between our eyes and the clouds; but while under the trees and in the water courses, utter blackness surrounded us to a degree I never witnessed in any other place. Our eyes were not of the least use, for I could not even see the white poncho of our guide, though close before me. Feeling and hearing alone availed. Heavy rain during the whole time prevented the mud from forming too thick a coat upon us. Another hour brought our small party to an Indian settlement, near the river Leübu; and as we rode by the huts, our guide talked to those within at the utmost pitch of his voice, as if determined no one should be ignorant of his adventure. Hearing their conversation carried on in the Indian language, was rather an impressive novelty. We continued our route, and at last reached the Leübu.

The north side of this river (on which we were), is low and sandy near the sea, but the south side rises to a high, remarkable headland, called the 'Heights of old Tucapel.' The breadth of the river is about one hundred yards.

We were approaching as fast as our tired horses could drag their hoofs through deep, loose sand, when a solitary light moving on the dark side of the opposite high land, showed the place where our countrymen were anxiously waiting for assistance: we had heard that their encampment was under Tucapel Heights, and close to the river's mouth.

As soon as we arrived at the water side, I hailed as loudly as I could call, but no answer was returned. Again I hailed 'Challengers ahoy,' and a faint 'hallo' repaid us for every difficulty. 'Send a boat!' I called. 'Aye, aye!' echoed from the hills. Lights appeared directly coming down the hill: a little boat came across the river, and very soon we were embarked in the *Challenger's* dinghy, the only boat saved. The master and one man were in her, from whom we heard that all the party were well, and that they had not yet been molested by natives.

Captain Seymour was at the landing place. Old friends, meeting under such circumstances, can say but little. Hastening to the encamp-

ment, where all had turned out to hear the welcome news of assistance being at hand, we made their hearts rejoice by saying that the *Blonde* was at Talcahuano, and coming to their relief. With the officers, I found our excellent consul, Mr Rouse. At the first intimation of the *Challenger's* loss, he had hastened to the spot without an hour's delay; well aware how useful his influence and information would prove, and supposing that the officers would not be conversant in Araucanian habits and language. His assistance proved to be of the utmost consequence, for not only did his explanations intimidate and discourage open or disguised enemies, who were not wanting, but his credit and influence procured daily supplies of provisions: while to his address and good sense every one of the shipwrecked crew was much indebted in many transactions.

Daylight found Seymour and myself still talking, though he had given me his bed. Partly at that time, and partly in subsequent conversations, he gave me the following account of the loss of the *Challenger*; but without mentioning his own exertions or conduct, which I heard of from his officers.

#### *Account of H.M.S. Challenger's shore party:*

Our tents felt the gale very much, and the rain penetrated on all sides. The bay was also rough and unquiet, with a good deal of surf breaking on the beach. The evening was cloudy, with rain. At 11.30 pm we were joyfully surprised by a hail from the opposite bank of the river in our own language, which elated all with a hope that the time had now arrived when we might look for the means of at length abandoning our tedious and comfortless encampment. The dinghy was immediately launched, and passed over to the north side, and returned with Captain FitzRoy, of His Majesty's sloop *Beagle*, a German pilot, a servant, and their guide.

We now heard that the commodore had arrived at Concepción on the 20th, from Valparaíso, where our disaster had only been known on the 17th, a month after the event: that he had hired, to despatch to our relief, an American schooner (the *Carmen*) from Concepción, and that we might expect to see her off the Leübu in the course of a few days. We did our best to find supper, a sleeping place, and dry clothes for Captain Fitzroy and his companions. It is not to be sufficiently expressed how much joy and cheerfulness was at once diffused throughout the camp.

Captain Fitzroy, to whom we owe a debt of great gratitude for his zealous exertions in our behalf, had arrived at Concepción in His Majesty's Ship *Blonde*, Commodore Mason, C.B., and had volunteered to come overland, and take back to the commodore a report of our



situation. The state of weather, and season of the year, had rendered his journey difficult and perilous, from the unusually flooded state of several rivers which he had to pass on his route. He had experienced many falls, from the difficulty of preserving the path through the woods in the dark, during the latter part of his journey.

Our relief we now looked forward to as near at hand.

21 June: It rained hard during the night, but towards morning it cleared off. After examining the state of our situation, and consulting with Captain Seymour as to the expediency of the *Blonde's* immediately proceeding to our assistance, Captain Fitzroy set off without delay on his journey, to return to Concepción, and was fortunately favoured by an interval of fine weather.

*From Captain FitzRoy's Narrative:*

The *Challenger* sailed from Rio de Janeiro on 3 April 1835: she had much bad weather off Cape Horn, which lengthened her passage considerably.

On 18 and 19 May, strong north-west winds, with thick weather and heavy rain, prevented observations being taken; except a few for time only. The ship was approaching the land, and her position estimated by dead reckoning from the last observations.

At five p.m. on the 19th, the *Challenger* hove-to, bent cables, unstowed the anchors, and sounded, but no bottom was found with two hundred and ten fathoms of line. This sounding was taken as a matter of form rather than utility, for no one supposed that the ship could be less than fifty miles from a steep coast, off which soundings extend a very little way. At this time, she was really about twelve miles from Mocha, which bore from S.E. to S. The weather was clear overhead, but too hazy near the horizon to see land, or any object distant more than four or five miles.

A course was shaped for approaching the entrance of Concepción Bay; and with a strong wind, the ship ran eight or nine knots an hour, under treble-reefed topsails, courses, and jib, steering N. by E. until eight o'clock, when it was thought prudent to haul to the wind until daylight. Captain Seymour proposed putting her head to the south-west till daylight; but the master felt so confident of the ship's place, and so much disliked the idea of losing both time and ground, that his opinion was preferred, and her head was kept to the northward.

Captain Seymour had been walking the deck for some time, and had only just gone to his cabin, when a change in the appearance of the water

alongside, and an unusual motion of the ship, startled the officer of the watch, and induced him to order the 'helm' down and 'about ship', while a midshipman was sent to tell the captain there was a suspicious alteration in the water. Just then breakers were seen by the look-out men and by the officer of the watch at the same moment; and as the captain flew up the ladder, the ship coming round, he saw her position, and gave the order, 'mainsail haul', as she was rising to a heavy rolling breaker. The after-yards swung round, but while bracing them up, she struck heavily. A high breaking sea struck her bows – and astern upon the rocks, a helpless wreck, the proud *Challenger* was dashed. When the ship was thus hove violently astern, her rudder, stern-post, dead-wood abaft, gun-room beams, cabin-deck, and many timbers, besides planking, crashed awfully as they broke at once before the resistless power of an ocean swell. Again, a great roller approached, threatening to overwhelm her; but it broke short, and only drenched her fore and aft with force sufficient to wash men overboard. While bracing-up, the topmen had been ordered aloft to shake the reefs out, and readily they went, without a moment's hesitation. They were, however, quickly recalled – a few moments sufficing to show that saving lives was all that could be attempted. Each succeeding sea drove the ship's stern higher than the bow upon the shore, inside some rocks which partly deadened the fury of the great south-west swell, that rolls in directly against this part of the coast.

Heavily the ship continued to beat upon the shore, reeling from side to side as seas struck her, yet her masts, though tottering at every shock, did not fall; nor did her strong hull yield to the continual striking, until hours had passed. Then, indeed, the rising of the tanks and contents of the hold showed that her frame had given way, and that the well-built *Challenger* would never float again. There was scarcely any wind; but the roar of the breakers and the clouds of spray would have almost stupified the crew, had not life been at stake. No land could be discerned till after the moon had risen – no one could even conjecture where the ship had struck, excepting only the master, who thought they must be on the Dormido shoal, off the island of Santa Maria. The purser collected the ship's papers, and saw them headed up in a watertight cask: each person endeavoured to secure some valuables.

The captain was asked to cut away the masts; but he refused to let more than the mizen-mast be touched, because their weight, after the first few seas, steadied the ship, as she lay over, and prevented her rolling to seaward with the recoiling waves. When she first struck, he was asked to let go the anchors; another request which he wisely refused, rightly



judging that having struck, anchoring could not improve their condition, but might prevent their drifting past the rocks and nearer to the shore; both anchors, however, were kept in readiness, in case the water astern should deepen.

Soon after the moon rose, at about two in the morning, land was seen astern of the ship, not far distant. It seemed to be rather extensive, though not high; and as there was no longer any doubt of their having struck upon the mainland, better hopes of saving life relieved the torturing, anxious suspense they had hitherto endured. Daylight shewed them the shore on which they were. Near the ship lay an extensive sandy beach, and beyond it, gradually rising in the interior, a thickly wooded country appeared to reach to distant mountains. The mizen-mast was then used to form part of a raft; the jolly-boat was lowered over the stern; and in her Mr A. Booth (mate), after a long struggle, reached the shore, with the end of the deep-sea lead-line. Mr Gordon (midshipman) next tried to land in another boat, to assist in hauling a rope ashore, but the boat was upset, rolled over and over, and Mr Gordon and one of the men were drowned. The other man was saved.

The men who reached the land safely, hauled stouter ropes ashore with a line; rafts were then made; the large boats got overboard; the sick landed, and a party was sent ashore to protect them. A few Indians appeared at a distance, whose approach, with numbers of their countrymen, was a serious evil in prospect.

Before much had been done in landing stores, a great many Indians had assembled. Nearly all came on horseback, and many assisted in hauling the rafts ashore, or helping the people to land. Even the Indian women rode into the furious surf, some took the boys up behind their saddles, and carried them ashore; others fixed their lassoes to the rafts. Thus instead of molesting the sufferers, these 'uncivilized barbarians' exerted themselves much for them. What a lesson to the 'wreckers' of some other coasts, whose inhabitants are called civilized!

But notwithstanding these friendly acts, Captain Seymour was too prudent to put confidence in the natives, and, forming a small encampment upon the beach, he barricaded it with spars, boats, casks, and other movables. There everything was carried when landed and put under care of the guard. All this day was anxiously occupied in landing stores and provisions. A small party remained on board; but the rest were on shore, during the night of 20 May. Throughout the following days, all the men who were not on guard ashore were constantly occupied in bringing provisions, ammunition, and stores from the wreck. Heavy

and laborious as this duty proved, it was persevered in until every transportable article of value was removed.

On 21 May, Lieutenant Collins and Mr Lane (assistant-surgeon) set out to go to Concepción: whence, directly after they arrived, Mr Rouse set out, with horses and mules, taking such few useful things as he could carry, among which were two small tents, that had belonged to the *Beagle*, and were lent to Mr Rouse, when his own house was shaken down by the destructive earthquake of February.

From Concepción Lieutenant Collins went to Talcahuano, to hire a vessel. Only one fit for such a purpose was in the port, the *Carmen*, an American schooner, but her owner asked a price so utterly unreasonable, that the lieutenant refused to engage with him, and returned to the wreck.

After Lieutenant Collins was despatched to Concepción, Captain Seymour and the master went to examine the mouth of the river Leübu, about eighteen miles to the NNW. where the ship struck. They found that boats might enter and leave the river with most winds; that there was no bar at the entrance; and that under Tucapel Heights there was a spot very suitable for their encampment, until some means of embarkation should offer. Travelling overland so great a distance as to Concepción, in such a country, would have been almost impracticable, except as a last resource; for it must have involved the total loss of every thing which they could not carry on their backs, and rendered useless the many days hard labour, in a raging surf, by which so much had been landed. It was therefore resolved, that measures should be taken for shifting their camp to the Leübu.

While Captain Seymour was away at the Leübu, the officers availed themselves of the opportunity to get the greater part of his stores and private property, books, etc. landed; for he would not allow any of his own things to be moved, or a man to be employed about them, while an article of the ship's stores could be saved, though his private property was very valuable.

By Mr Rouse's exertions and assistance, as interpreter and adviser, several yoke of oxen were procured, as well as many horses, mules, and donkeys; but even with such unhoped-for help, the removal of the heavy stores which had been saved was a tedious and difficult undertaking. Once established, however, at Leübu, they felt comparatively secure: tents were made out of sails; a palisade was fixed and a ditch dug: but the guns, spars, anchors, cables and large boats were left on the beach, as they were too heavy for removal overland; and to transport them by sea, from such an exposed coast, was out of the question.



By 8 June the wreck was abandoned: and the whole party were encamped at Leübu. Time passed away but no tidings of assistance arrived. Sickness began its insidious attacks: for cold wet weather had succeeded to a duration of fine dry days unusual at that time of year. Some of their essential articles of provision were exhausted: inactivity and uncertainty were depressing the minds of all, and Captain Seymour had begun to concert measures for abandoning the ships' stores, which had been so painfully saved, and travelling overland to Concepción, when the letters from Commodore Mason were given to him.

Among evils of magnitude trifling vexations are little noticed; an absolute plague of mice caused amusing occupation, rather than annoyance. The ground, the tents, their beds, everything and every place was infested by mice: nothing was safe from their teeth; provisions were hung up, and people were obliged to watch them. Hundreds were killed every hour, for they literally swarmed over all that part of the country, and curiously enough the old people attributed their appearance to the earthquake!

Early the next morning (the 24th) I went up with Captain Seymour to the heights of Tucapel, which overlook the river and command an extensive view of the sea. Flagstaffs had been erected there, and large piles of wood collected, in order that flags might be kept flying by day and fires burning at night. The little camp below presented a regular and very respectable appearance: fourteen or fifteen tents, pitched in regular order, and surrounded by a palisade with a ditch, would have caused even a large body of Indians to hesitate before they attacked it.

Though bread and other things were deficient, the shipwrecked party never knew the want of water, and they had always an abundant supply of a very fine kind of potato. Not one of the officers of the *Challenger* had seen its equal, and I never recollect eating any that were so good, and at the same time so large. Neither beef nor mutton were scarce, in consequence of the 'credit' obtained by Mr Rouse. Money was soon exhausted, but the high character of the consul was known all over the country, and the natives trusted implicitly to his word.

The report of a 'wreck' had quickly drawn numerous plunderers, even from Concepción and Talcahuano: but those pilferers satisfied themselves secretly, I believe, without attempting any daring robbery.

But it must not be supposed that Captain Seymour and his officers had no internal troubles, and that strangers were their only foes. Shameful acts of robbery were committed by some of the *Challenger's* own party: a very few of her marines scrupling not to rifle chests and



JEMMY BUTTON ISLAND, TIERRA DEL FUEGO



boxes belonging to officers. This conduct, in connexion with a spirit of insubordination which began to show itself, among some of those who knew Captain Seymour the least, occasioned his calling the crew together on the beach, and causing one man to be corporally punished.

Anxious to return as soon as possible to tell the commodore how easily the *Blonde* might take off both people and stores, at the mouth of the Leübu, that he might lose no time in effecting the embarkation, I recrossed the river, hoping to reach Arauco ere midnight; and, certain of fresh horses, I and my two companions spared neither whip nor spur. Our guide dropped behind, but as we could find the path by our tracks of the previous day, we did not wait for him. Such ravines we passed: how we got through them during the black darkness of the preceding night astonished me, for we could hardly scramble along in broad daylight: and had I known the nature of those passes, I certainly should not have tried to get through, excepting by day.

At the village of Quiapo we had a mixture of corn and water which I thought tolerably good. It is a common mess among the lower class of natives in many countries besides Chile. A few handfuls of roasted corn, roughly pounded between two stones, were put into a cow's horn, half full of cold water, and well stirred about with a stick until changed into a substantial mess of cold porridge. Our haste shortened the journey, and we should have reached Arauco in good time had not a second guide (the man who waited at Quiapo with the Arauco horses) mistaken the road, and taken us along a track which was crossed by two rivers, not then fordable. His error was not discovered until too late, and to pass the rivers we were obliged to make a delay of several hours. The tract of country we traversed this day, was as fine as any that I have attempted to describe. In many places our road lay through an open forest, where fine trees stood at considerable distances apart, and not being surrounded by underwood allowed us to gallop between them as we pleased. I thought of England's forests in the 'olden time'.

The first river we had to cross was not more than fifty feet wide, but the banks were hollow and rotten. Our guide looked along the stream till he found a tree which had fallen across, so as to form a bridge over two-thirds of the width; and with a pole in his hand, he climbed as far as the boughs would bear him: then, finding that the water beneath was not above his middle, he waded through the remainder. Unsaddling, we sent all the gear across by help of the tree and lassos, and turned the horses over, much against their will, for they had to plunge in and scramble out.



Again using our spurs, we hoped to pass the second river also before dark, but in vain; there was only just daylight enough left to see that it had overflowed its banks and seemed to be wide and rapid. Even Vogelborg thought it impossible to cross before the next morning, so we turned back to look for some hut in which we might obtain shelter from heavy rain, which was beginning to pour down. The night was very dark and our prospect rather comfortless, when we were fortunate enough to find a rancho, and there we gladly took refuge. Its owners were absent at a merry-making in the 'neighbourhood' (about twenty miles off!); their daughters, however, and an Indian captive were not deficient in hospitality. Poor girls! they were rather frightened at first, at their house being so suddenly occupied, but our guide quieted their alarm. As soon as the horses were provided for, we looked about for food for ourselves, and could find nothing but potatoes, till, hearing Vogelborg call for help in his broken English, I ran to him thinking he was hurt or attacked. He was struggling with a sheep which he had caught, and was dragging to the hut. Greatly were the poor girls alarmed when they saw that the sheep was to be sacrificed; they exclaimed that their father would beat them terribly, that the sheep was worth eight rials! or a dollar. A dollar for the sheep, and another for each of themselves, altered their tone; and before long we had such a fire and supper as the old rancho had not witnessed since the wedding-day of its owners.

But what a night of penance we passed – the place swarmed with fleas, not one moment could I rest, though very tired; and it was raining too hard, and was too cold to sleep outside in the open air. The natives appear either not to feel, or not to be attacked by them, but an unlucky stranger who ventures to sleep within the walls of an inferior kind of house, is sure to be their victim. When I stripped to bathe the next day, I found myself so covered from head to foot with flea-bites, that I seemed to have a violent rash, or the scarlet fever.

As the day broke (on 25 May) we mounted our horses, eager to get away from such unceasing tormentors: and the Indian girl undertook to show us a place where we might pass the river, even flooded as it was. By the help of fallen trees, lassos, and poles, we conveyed ourselves and the saddles across; but to get the horses over was very difficult. The stream being rather wide and rapid, and the banks steep and rotten, occasioned so much difficulty, that two whole hours were spent in getting the animals across and out of the river. Our united strength applied to good lassos, was barely sufficient to help the struggling and frightened creatures up the muddy broken banks. When one had

passed, the others followed in their turns more readily; but I thought we should have lost one of them. From this river to Arauco was not above an hour's ride, at the pace we went, though it is called seven leagues.

At Arauco the worthy colonel welcomed me to breakfast, but regretted that I had been prevented from proceeding to the wreck: he thought some accident had happened, and hardly could believe that we had actually passed a night at the Leübu. D. Geronimo told me he had received intelligence of a large body of Indians, about three thousand strong, who were marching northward. He thought it probable that they would molest the *Challenger's* people for the sake of plunder.

Leaving the hospitable colonel assembling a remarkably awkward squad, whom he was anxiously preparing for the threatened attack, we rode away upon the good horses which, three days previously, had brought us from Concepción.

At the Carampangue there was no balsa. What was to be done? To wait until some one brought a boat from the opposite shore might expend the day; but the river was wide and deep, and the weather too cold for so long a swim: nevertheless, five dollars excited our guide, or rather horse-keeper, to make the trial, and during several minutes I thought he must have been drowned: for, instead of slipping off the horse, and holding by the mane or tail when he began to swim, the man sat bolt upright, so that the poor horse's head was scarcely visible; and both horse and man appeared to get confused, turning round in the stream two or three times, while the current was carrying them down the river. At last they struggled out, to my infinite joy, and galloped off in search of the men whose business it was to attend at the ferry with a balsa. While we were anxiously waiting, a large party appeared on the opposite bank, with whom were the balsa-men. They had been merry-making, the previous day having been the feast of St John, and as they had hardly recovered from its effects, to carry so large a number across upon a small raft was a difficult undertaking. Talking at the pitch of their voices, laughing and tumbling about, their reaching the opposite shore without a cold-bath was attributed by Vogelborg to the protection of the saint whose anniversary they had so dutifully celebrated.

Our road over the heights of Villagran was much worse than at our former passage. Heavy rain and constant traffic had worn it into a curious succession of steps: and each animal endeavouring to place his feet in the holes made by those which had previously passed – the rain having filled up the hollows with mud and water – had worked the



clayey track into a continuation of transverse ridges and trenches. A man might step from ridge to ridge without wetting his feet; but the horses always planted their legs, up to the knees and hocks, in the mud and water of the trenches. Their motion was just as if they were stepping over logs of timber: unpleasant enough for the rider and extremely tiring to themselves. We helped them however as much as possible, to the surprise of our lazy guide, by dismounting and leading them up the hills as well as down.

We reached Playa Blanca as it got dusk, without worse disaster than a roll in the mud from my girths breaking while struggling in a slough. Along the level lands we galloped briskly, until we were completely bewildered in the darkness. At last we found ourselves among enclosures, and by pulling up rails and breaking fences, made our way to a farm-house, where such information was obtained as enabled us to reach San Pedro, on the south bank of the Bio Bio, soon after midnight. No inducement could prevail upon the owner of the ferry-boat to let her take us across before daylight, so we sat down by a fire, after feeding our excellent horses, and dozed till daybreak.

With the first dawn we drove the lazy boatmen to their barge, urging them alternately with money, entreaties, reproaches, and threats. The river was exceedingly swollen by late heavy rains, so that it was almost twice as wide and quite as rapid as usual. Our heavy ferry-boat was 'tracked' up it until it seemed possible for us to reach the other bank before the current swept us out to sea; but the appearance of the boat and men, and the utter uncertainty caused by a very thick fog, gave me no great hopes of reaching Concepción in any reasonable time, though a vivid expectation of passing a few hours upon a sandbank at the mouth of the river, if we escaped being hurried into the open sea. In this clumsily-built, flat-bottomed boat (a sort of large punt) were five horses, a troublesome young bull, six men, and three nominal boatmen, one of whom merely attempted to steer. With very long poles our unwieldy craft was pushed into the stream, and while the shore could be distinguished through the fog, made progress in a proper direction, though most crab-like was the movement. When fairly out of sight of land, the boatmen became alarmed and puzzled; but just then a large bell was heard tolling at Concepción, which served to animate them, and to ensure our trying to go in the right direction. After an hour's unpleasant work, in a very cold morning, we landed about a mile below Concepción, having started about as much above it on the opposite side. No time was then lost in galloping to Talcahuano, and going on board the *Blonde*, so

that Captain Seymour's letter was delivered to Commodore Mason soon after ten.

I found that the commodore had engaged an American schooner, the *Carmen*, for which such exorbitant demands had been made in answer to Lieutenant Collins, to go in search of the crew of the *Challenger*; and that Mr Osborne had been sent in her, with the second master of the *Blonde*, three seamen of that ship, my coxswain, and the whale-boat which I took from the *Beagle*. She was a poor craft, and wretchedly found, though reputed to have sailed well, and to have been a fine vessel in her time.

The *Blonde* sailed from Concepción Bay on 27 June the morning after I arrived; but unfortunately, during all that day, thick weather and half a gale of wind from the northward prevented our having even one glimpse of the land, as we were running towards the entrance of the Leübu.

On the 29th, at daylight, the schooner *Carmen* was seen, and soon afterwards, through the haze, we made out Tucapel Head. At this time, neither Vogelborg (who was on board as local pilot) nor I, knew that the Heights of Tucapel Viejo were identical with the headland we recognized by the name of Tucapel Head. This error appears almost unaccountable to me now; though both he and I were then drawn into it by a variety of reasons and we therefore advised the commodore to run alongshore towards the supposed place of the Leübu which he did; but the weather was so unfavourable, so thick and hazy, that nothing could be seen distinctly. Scarcely indeed could we discern the line of the surf, heavily as it was beating upon the shore; and at noon we were obliged to haul off, on account of wind and rain.

In the haze we quickly lost sight of the schooner; but thinking that we should soon meet again in clearer weather, little notice was taken of this circumstance, which was afterwards so much regretted. Continual thick weather prevented any observations being taken, as well as the land from being seen, until 2 July, when Tucapel Head was indistinctly made out in the distance. But strong wind and a high swell were reasons sufficient to keep the *Blonde* far in the offing, while thick hazy weather lasted; and after making the land we actually stood to sea again, without even attempting to show the ship to the poor fellows on shore. In the course of this night a few stars were seen; and their altitudes were the only observations that could have been obtained at any moment since we left Concepción Bay, during six days of constantly clouded and hazy weather, in which neither sun, moon, nor stars, nor even the horizon could be seen!



On the 4th, the weather had improved enough to allow of a partial view of the coast but no signal-fire nor any thing like a flag could be perceived on any of the heights.

Land appears so different when viewed from an offing at sea and when seen closely, especially from the land side, that it is less surprising that Vogelborg, who had visited the Leübu dozens of times by land, and also by sea in a boat, should be as much at a loss as myself to recognise the height which we had both ascended with Captain Seymour.

How it happened that I, who had surveyed this coast, should be ignorant of the real place of the Leübu, as I then certainly was, is another affair entirely, and one which I feel bound to explain. The *Beagle* was only expected to 'correct the outline, and to fix the positions of all the salient points' of the coast between Chiloé and Valparaíso; and the *Beagle's* charts of that coast prove that a great deal more was accomplished than was thought practicable when those instructions were framed.

Considering the multiplicity of places the *Beagle* had to visit subsequently, I often found it necessary to sacrifice such details as seemed to me of least consequence. Every seaman knows how very difficult it is to make out the openings of some small rivers, while he is sailing along a coast little known, and all marine surveyors know that there is seldom any way of making sure of such openings without landing; or entering them in a boat. I do not say this to excuse neglect – not feeling culpable – but simply to explain how the case stood.

On each day, when near the land, guns were fired at intervals, and sometimes three or four were fired at once; blue lights also were occasionally burned during the night.

On 5 July, the day broke clearly for the first time during the longest week I ever passed, and we saw the land distinctly. Now that the tops of the hills were quite free from fog or cloud, I recognized the Heights of Tucapel at the first glance; and after looking for some minutes at their summits, through a good glass, I distinctly saw smoke rising. Standing towards them, in half an hour flags were discerned on the heights, and there was no longer any doubt; yet no steps were taken until near one o'clock, though it was a beautiful and almost calm day. From nine in the morning until one, the *Blonde* lay almost becalmed, about five miles from the land. At once, three boats were sent to the mouth of the Leübu, with some money and a small supply of bread; but a current setting along the shore from the northward delayed their reaching the entrance of the river until evening.

*Account of H.M.S. Challenger's shore party:*

Towards noon four boats were seen to leave the *Blonde*, but the distance they had to row prevented their reaching our little landing place inside the entrance of the river until it was too late to risk any embarkation. The first boat that arrived brought our tried friend Captain Fitzroy, who, agreeing with Captain Seymour on the propriety of deferring our operations until daylight next morning, immediately returned to the *Blonde* to communicate to Commodore Mason the arrangement that had been made, fortunately getting to the ship soon after dark, taking with him a second boat's crew of the *Challenger's* men, to supply the place of those who were to remain on shore with the three boats, which we had hauled up on the banks of the Leübu, and secured for the night. Captain Seymour had also sent an officer with Captain Fitzroy, to give to the commodore every information he might require as to our condition and readiness for embarkation.

*From Captain FitzRoy's Narrative:*

We found the greater part of the *Challenger's* crew still in health; but delay and bad weather had increased the sick-list, and two of her party (the assistant-surgeon and a young midshipman) were in danger: waiting so long in uncertainty, and without employment, in a wet, dirty place, had tried all their constitutions severely. It was too late to attempt going out into the offing after the *Blonde*, which was standing to sea with the gig and cutter, two indifferent boats; so manning the barge with a double crew, one crew being men of the *Challenger*, and taking one of her officers, Lieutenant Collins, with me, I hastened out of the river as the sun was setting. A light breeze from the land favoured us, and though the *Blonde* was hull down in the south-west when we started, we were happy enough to get on board at about eight o'clock.

In going off to the ship after it became dark, we kept the end of a piece of old gun-breeching burning, held up in the bow of the boat. The light, as strong almost as that of a false fire, was seen plainly on board the ship, and then she was hove-to. As soon as the barge was hoisted in, the frigate again made sail off shore; but a fortunate mistake caused the main-yard to be squared about midnight, and at daybreak next morning we were in a good position off the entrance of the river. The *Blonde* then steered towards the land, and at nine anchored near the River Leübu, about a mile from Tucapel Head. Every boat was hoisted out, and the work of embarkation proceeded rapidly. Though a swell made the ship



roll heavily, and delayed the boats alongside, the weather was so fine and a south-east wind so favourable, that the quickness of going and returning made amends for some delay in discharging each cargo. At six in the evening, Captain Seymour came on board with the last party of his crew, and at eight the *Blonde* weighed and made sail before a fresh and favourable breeze.

Mr Rouse sent his servants back by land, with his horses and mules, and accompanied his esteemed friend, Captain Seymour, in the *Blonde*. The numerous Indians and others whom we left gathering round the encampment reminded me of the vultures which in those countries gather round the places where men are slaughtering cattle.

The *Blonde* passed rapidly northward, running before a fresh southerly breeze; and at eleven in the morning of 7 July she was off Point Tumbes, when, seeing a dismasted vessel with an English blue ensign hoisted, about five miles to the northward of us, the frigate stood towards her, and, finding that she was the schooner *Carmen*, closed and took her in tow. But for the *Blonde*'s opportune arrival, she would have been drifted to the northward, and obliged to run into any port she could reach. Mr Usborne came on board, and as soon as he had refreshed himself by a few hours' sleep, gave me an account of his proceedings and accidents.

After leaving Talcahuano, wind and weather favoured the *Carmen* until she had run along the coast from Tucapel Head to Cape Tirua, at about a mile from the surf, without seeing either smoke, flags, people, or wreck; but, during one night, a fire was seen on Tucapel Head. When Mr Usborne spoke the *Blonde*, on the morning of the 29th, the schooner was on her way to the place where she had seen the fire; and he would have said so when the *Blonde* hailed him had he had time, but as she passed on without stopping, and he felt sure that the *Challenger*'s people were not in the direction which she was taking, he kept a different course. At about two in the afternoon of that day, while four seamen were aloft on the topsail yard, furling the topsail, the schooner gave a sudden plunge into a high swell, and away went the foremast head, fore-topmast, and topsail-yard. The four men were carried overboard, but saved; though James Bennett was severely bruised. The mainmast followed, being dragged downwards and broken by the rigging attached to the head of the foremast; and in this state, a mere wreck, the *Carmen* drifted towards Mocha. So wretchedly was the vessel provided in every way, that the only tools which they had to cut the lanyards of the rigging with were knives and a cooper's old adze.

After clearing the wreck, they got up a small spar abaft, on which was set the *Beagle*'s boat's sail; and by means of cleats, Bennett and J. Nutter (boatswain's mate of the *Blonde*), got to the head of the stump of the foremast, although, being loose in the step, it swayed to and fro as if it would go overboard, and fixed temporary rigging. To secure cleats to the mast, they were obliged to draw nails out of the vessel's beams, having no others. A staysail and trysail were then set, and just saved her from going ashore, as in all probability not one person would have been saved had she struck. If Mr Usborne had not known this land well, from his late survey, it is not likely that they would have escaped, because when they found themselves about half a mile from the breakers, the tack which appeared to the others to be by far the best, was in truth the worst: had they gone on that tack, nothing could have saved them. Mr Usborne saw their position exactly, and knowing how the current would affect them, determined upon what they thought the wrong tack, and rescued them.

After this narrow escape, the schooner was drifted to the southward, as far as the latitude of Valdivia, before the southerly wind, which took the *Blonde* to the mouth of the Leübu, drove the *Carmen* back slowly to the northward. Mr Usborne and his companions had almost entered the opening of the bay of Concepción early in the morning of the day on which the *Blonde* took them in tow, but had been drifted away again by a fresh wind, and were falling to leeward fast, for want of sail, when the *Blonde* arrived. Mr Usborne recovered from his fatigue in two or three days, but Bennett was ill for a fortnight.

During the few days they were away they suffered much. As for the ten men belonging to the vessel, they were utterly useless, being frightened or sick during the whole time; so that but for the exertion of the *Blonde*'s seamen, of Bennett, and above all Mr Usborne, the *Carmen* might have left her remains on the shore, when perhaps few, if any, would have survived to tell the fatal tale.

The *Blonde* worked to windward, with the schooner in tow, during the remainder of the day and early part of the night, and at midnight they both anchored off Talcahuano.

Until the 10th, it was necessary to remain at anchor, as there were accounts to settle between the commodore, the consul, the pursers, the officers, and the owner of the schooner; there were visits to the authorities, to thank them for their assistance, and, as usual on board men-of-war, there was much to do in very little time. Mr Rouse took his leave of us on the 10th, and we then sailed.



While the *Blonde* was lying off Talcahuano, I had a few opportunities of looking about, and seeing that both Concepción and Talcahuano were rising out of their ruins, and that their unfortunate inhabitants had, at least, roofs over their heads. Concepción was, and is still nominally, a city: but it will be long before it again appears as such to the eye of a stranger.

We sailed from Talcahuano with a fair wind, which carried us quickly and pleasantly along-shore; but crowded, and anxious as we were, the ship could not go fast enough for us. The sick people, excepting Mr Lane, were improving when we reached Valparaíso on the 13th. Much attention and kindness were shown to Captain Seymour by his acquaintance at Valparaíso; but it could not be expected that he should be cheerful, or inclined to see people, excepting intimate friends, at that time; particularly as the death of Mr Lane was an additional blow much felt by him. I was very glad when we weighed anchor, on the 17th, for every hour caused an increase of painful feeling.

A fresh fair wind drove us in twenty-four hours to Coquimbo, where the *Conway* was at anchor ready for sea. It was then arranged, that all the officers and two-thirds of the crew should go home in the *Conway*; and, of course, no small bustle of preparation for so many passengers was caused; but, as both Captain Eden and the senior lieutenant, Johnstone, were bent upon accommodating the ship-wrecked party to the utmost of their power, stowage-room was cleverly contrived.

On 22 July both ships sailed from Coquimbo, and soon afterwards parted company. The *Conway* stood to the westward, 'close-hauled'; while the *Blonde* steered towards the north with a fresh southerly wind.

What caused the loss of the *Challenger* is a question not easy to answer with certainty. The error in her reckoning amounted to more than forty miles; and the only way in which I can account for it to my own satisfaction is, that while the north-west wind was blowing, a current set to the southward and eastward, for which no allowance was made, as those on board could not be aware that such a current might be found, its existence not being known.

Scarcely four months had elapsed since that tremendous earthquake, which destroyed so many towns in Chile, had altered the movements of the Pacific Ocean upon all the extent of coast which reaches from latitude forty-five to the parallel of twenty-five. Can it then be considered improbable that the currents of that sea should have taken unusual directions, and betrayed even cautious seamen, such as Captain

Seymour and Mr Macdonald (the master) were well known to be. So much care and judgment had always been shown in conducting the *Challenger*, and she had visited so many places in the Atlantic, in the Pacific, and among the South Sea Islands, that of all the king's ships at that time in commission, those who sailed in her (unconnected even with her management) thought her one of the last that would end a voyage disastrously. The surprising manner in which the hull of the *Challenger* held together, and so long resisted heavy shocks, reflects infinite credit upon her architect (Hayes), and upon the dockyard where she was built.

*Charles Darwin, in a letter home, 4 July 1835:*

When I reached the port of Copiapó, I found the *Beagle* there, but with Wickham as temporary captain. Shortly after the *Beagle* got into Valparaíso, news arrived that H.M.S. *Challenger* was lost at Arauco, and that Captain Seymour (a great friend of Fitzroy), and crew, were badly off amongst the Indians. The old commodore in the *Blonde* was very slack in his motions – in short, afraid of getting on that lee-shore in the winter; so that Captain FitzRoy had to bully him and at last offered to go as pilot. We hear that they have succeeded in saving nearly all hands, but that the captain and commodore have had a tremendous quarrel; the former having hinted something about a court martial to the old commodore for his slowness. We suspect that such a taut hand as the captain is, has opened the eyes of everyone fore and aft in the *Blonde*, to a most surprising degree. We expect the *Blonde* will arrive here in a very few days and all are very anxious to hear the news; no change in state politics ever caused in its circle more conversation than this wonderful quarrel between the captain and the commodore has with us.



## 12. GALAPAGOS ISLANDS

*From Captain FitzRoy's Narrative:*

On 9 August 1835, the *Blonde* anchored in Callao Bay, and I enjoyed the satisfaction of finding all well on board the *Beagle*. She had touched at Copiapó and Iquique, for Mr Darwin, in her way to Callao, where she arrived on 19 July. Lieutenant Sullivan brought his little vessel safely to an anchor near the *Beagle* on the 30th, having accomplished his survey in a very satisfactory manner. So well did he speak of the *Constitucion*, as a handy craft and good sea-boat, and so correctly did his own work in her appear to have been executed, that after some days' consideration I decided to buy her, and at once set on foot an examination of the coast of Peru, similar to that which Mr Sullivan had completed of the coast of Chile. Don Francisco Vascuñan had authorized the sale of his vessel at Callao: she was purchased by me for £400, and immediately fitted out afresh.

I could not spare Lieutenant Sullivan to remain on the coast of Peru, while the *Beagle* would be crossing the Pacific, on her return to England by way of the Cape of Good Hope; but there was Mr Usborne, able and willing to undertake the task, who, from his station, could be spared without prejudice to the duties yet remaining to be executed on board the *Beagle*, and a better man for the purpose I could not have desired. With him Mr Forsyth volunteered to go, and Commodore Mason was prevailed upon to allow Mr E. Davis, a master's assistant of the *Blonde*, to join the little expedition; who, with seven good seamen, and a boy, volunteers from the *Beagle*, completed Mr Usborne's party.

A stranger might well smile at the idea of such a boat affair being started to survey, in eight or at most ten months, the whole coast of Peru, from Paposo, near Atacama, to the River Guayaquil; but the task was completed; the charts are now engraved; and very soon seamen will be able to test their accuracy.

On 4 September the *Beagle* left Callao, and steered direct towards the Galapagos Islands, of which, as they are novel ground, I shall be rather minute in my description.

15 September: Uncertain of the strength, and even of the direction of the currents, though aware that at times the former is very considerable, we were anxiously looking out for land, when what appeared to be an islet was seen from the mast-head. This seeming islet turned out to be the summit of Mount Pitt, a remarkable hill at the north-east end of Chatham Island. As the breeze and current carried us onwards, the tops of other hills successively appeared, and for a short time looked very like a cluster of islets.

Gradually rising above the horizon, the greater part of Chatham Island became distinctly visible: in this neighbourhood it is not often that the air near the water is clear enough to allow of very distant high land being thus gradually raised above the horizon of an eye at the mast-head; for, in general, clouds hang about these islands, and the atmosphere itself is hazy. Towards evening the higher parts of the land were clouded over, but we were near enough to see that the island was very rugged, in some places quite barren, in others covered with a stunted and sun-dried brushwood, and that the heights, on which the clouds hung, were thickly clothed with green wood. The shores seemed to be bold, and easy to approach, though not to land upon, because of a continual high surf.

A number of little craters and huge irregular-shaped masses of lava rock, gave a strangely misleading appearance to the lower parts of the island; and when first seen through that indistinct glimmer which is usually noticed over land on which a hot sun is shining, were supposed to be large trees and thick wood. Hood Island, small and rather low, was seen before dusk, when we tacked and stretched to seaward for a few hours.

16 September: Assisted by a current running to the westward, we worked up to Hood Island during the night, and at daylight lowered a boat down and prepared her for Mr Chaffers, who, with Mr Mellersh, was to examine this island and the anchorages about it. Under the land we saw two whalers at anchor which showed North American colours. The island is small, neither high nor low, rugged, covered with small sun-burnt brushwood, and bounded by a bold, rocky shore. Some small beaches of white sand are visible here and there.

As soon as Mr Chaffers had set out, the *Beagle* steered towards Chatham Island, with a moderate breeze, which allowed us to prepare the yawl for another party, under Lieutenant Sullivan. At noon, Barrington Island was visible from the deck, and appeared to be distant about twenty miles; when with Messrs Stewart and Johnson,



and ten chosen seamen in the yawl, Mr Sullivan left us to examine the central islands of the archipelago.

In continuing our course, we passed through several rippings, apparently caused by the meeting of streams of current which set along the shores of Chatham Island, from the east towards the west.

Favoured by smooth water and fine weather, we passed close to the low south-west extreme, and anchored directly that point was found to defend us from the swell.

This part of the island is low, and very rugged. We landed upon black, dismal-looking heaps of broken lava, forming a shore fit for pandemonium. Innumerable crabs and hideous iguanas started in every direction as we scrambled from rock to rock. Few animals are uglier than these iguanas; they are lizard-shaped, about three feet in length; of a dirty black colour; with a great mouth, and a pouch hanging under it; a kind of horny mane upon the neck and back; and long claws and tail. These reptiles swim with ease and swiftness – but use their tails only at that time. At a few yards from the water we found vegetation abundant, though the only soil seen was a little loose dusty earth, scattered upon and between the broken lava. Walking is extremely difficult. A hand-barrow was lying at the landing-place, which showed that terrapin were to be got near us, though we did not then see any. The men from whalers and sealing vessels carry the large terrapin, or land-tortoises, on these barrows.

Ascending a little hill, we were surprised to find much brush or underwood, and trees of considerable size, as large in the trunk as one man could clasp. These were prickly pears, and a kind of gum-tree: how their roots are able to penetrate or derive nourishment from the hard lava, it is hard to say; for earth there is scarcely any. Wild cotton shrubs are numerous. This first excursion had no tendency to raise our ideas of the Galapagos Islands.

*17 September:* Weighed and stood alongshore, sounding. There was good anchorage, until near the south-west point of Stephens Bay, off which the water is shoal, and the bottom uneven. We anchored in Stephens Bay, and found an American whaler lying there. This bay is large, and the anchoring ground generally good; but the landing is bad at low water. There is no fresh water: and it is frequently difficult to enter, as well as to leave, because usually becalmed by high land, it seldom feels the true wind. Enderby Cove is only fit for a boat; at low water it is full of rocks. The Kicker Rock is a curious mass of stone, rising almost perpendicularly from the bottom of the sea, where it is

thirty fathoms deep; and in the offing is another, called the *Dalrymple*, which looks exactly like a ship becalmed, with all sail set. Seeing a remarkable hill at the north-east side of the bay, which had not an appearance like other parts of the island, I went to it in a boat, hoping to find water near the foot, and to have a good view from the summit. Disappointed in both ways, the hill being composed of a crumbling sand-stone, and almost inaccessible, I returned to the ship early next morning. Several new birds were seen by those who were on shore, and many fish were caught on board, of which the best and most numerous were a kind of rock cod, of large size.

*From Charles Darwin's Diary:*

*17 September:* The *Beagle* was moved into St Stephen's harbour. We found there an American whaler and we previously had seen two at Hoods Island. The bay swarmed with animals; fish, shark and turtles were popping their heads up in all parts. Fishing lines were soon put overboard and great numbers of fine fish two and even three feet long were caught. This sport makes all hands very merry; loud laughter and the heavy flapping of the fish are heard on every side. After dinner a party went on shore to try to catch tortoises, but were unsuccessful. These islands appear paradises for the whole family of reptiles. Besides three kinds of turtles, the tortoise is so abundant that [a] single ship's company here caught 500–800 in a short time. The black lava rocks on the beach are frequented by large (two to three ft.) most disgusting, clumsy lizards. They are as black as the porous rocks over which they crawl and seek their prey from the sea. Somebody calls them 'imps of darkness'. They assuredly well become the land they inhabit. When on shore I proceeded to botanize and obtained ten different flowers; but such insignificant, ugly little flowers, as would better become an arctic than a tropical country. The birds are strangers to man and think him as innocent as their countrymen the huge tortoises. Little birds, within three or four feet, quietly hopped about the bushes and were not frightened by stones being thrown at them. Mr King killed one with his hat and I pushed off a branch with the end of my gun a large hawk.

*From Captain FitzRoy's Narrative:*

*18 September:* Weighed and stood alongshore until noon, when we anchored close to a low rugged point, near the north-east end of the island: employed two boats in examining the shore, and landed a party to look for terrapin: Mr Darwin and Mr Stokes went to the top of a



neighbouring hill. Throughout this day it blew so fresh a breeze, that double-reefed topsails were as much as could be carried: but I think this strength of wind only prevailed under the lee of the island, where the wind rushed down in squalls, after having been intercepted and checked by the high land. All the hills appear to have been the craters of volcanoes: some are of sandy mud, others are lava. There is plenty of wood hereabouts, though stunted and dry. On no part of this shore is there a chance of finding water; all is stony, without any soil which could either collect or carry it off.

Our party brought eighteen terrapin on board. In size they were not remarkable, none exceeding eighty pounds. This animal appears to be well defended by nature; but, in truth, it is rather helpless, and easily injured. The shell is slight, and becomes weaker, in proportion to the animal's size, as the tortoise grows older.

*19 September:* Sailed round the north-east extremity of the island, and worked to the southward against a current, setting strongly to the north-west.

*20 September:* At daylight we were off the south-east part of the island; and continued working to the south-west, during the forenoon. At noon, seeing a small cove, I went in a boat to examine it, and look for water. We found no signs of any in that place; but a little farther west, a fine stream was seen falling from a lava cliff, about thirty feet high. Mr Low had described this waterfall correctly; and his account of the watering place near it was soon verified, by our discovering a cove half a mile to the westward of the cascade. We landed on a stony beach in the cove, and found a fine stream of excellent water: two others were likewise seen, but they were inaccessible. This water runs from the highest parts of the island, which are almost always enveloped in clouds down a large valley. All this southern side of the island is well wooded; and on the higher ground the wood is very green.

Continuing our course along shore, we arrived at our former anchorage in Stephens Bay soon after dark, when Mr Chaffers returned on board, having reached the anchorage in the morning.

*From Charles Darwin's Diary:*

*21 September:* My servant and self were landed a few miles to the NE. in order that I might examine the district mentioned above as resembling chimney[s]. The comparison would have been more exact if I had said the iron furnaces near Wolverhampton. From one point of view I counted sixty of these truncated hillocks, which are only from fifty to a

hundred ft. above the plain of lava. The age of the various streams is distinctly marked by the presence and absence of vegetation; in the latter and more modern nothing can be imagined more rough or horrid. Such a surface has been aptly compared to a sea petrified in its most boisterous moments. No sea, however, presents such irregular undulations, nor such deep and long chasms. The craters are all entirely inert; consisting indeed of nothing more than a ring of cinders. There are large circular pits, from thirty to eighty ft. deep, which might be mistaken for craters, but are in reality formed by the subsidence of the roofs of great caverns, which probably were produced by a volume of gaz at the time when the lava was liquid. The scene was to me novel and full of interest; it is always delightful to behold anything which has been long familiar, but only by description. In my walk I met two very large tortoises (circumference of shell about seven ft.). One was eating a cactus and then quietly walked away. The other gave a deep and loud hiss and then drew back his head. They were so heavy, I could scarcely lift them off the ground. Surrounded by the black lava, the leafless shrubs and large cacti, they appeared most old-fashioned antediluvian animals or rather inhabitants of some other planet. We slept on the sandbeach, and in the morning (22 September) after having collected many new plants, birds and shells and insects, we returned in the evening on board. This day was glowing hot, and was the first when our closeness to the equator was very sensible.

*From Captain FitzRoy's Narrative:*

*22 September:* So generally cloudy is the weather here, that a day such as this proved to be, of hot, vertical sunshine, was much felt by everybody; and to show how objectionable our anchorage was in this respect, I may mention that a fresh breeze was blowing all day in the offing; yet in the bay only light variable airs were felt.

Some fine turtle were brought on board, the first we had seen here; they are rather like the green turtle of the West Indies, but not exactly. Among the shells found about the islands one is common, which reminded me of the purple murex, as the fish emits a strongly dyeing liquid of a similar colour. A kind of mangrove grows near the water, on the sandy beaches of this island; and the shape and colour of that curious tree are some relief to an eye tired of looking at rugged lava or withered bushes.

*23 September:* While becalmed we tried the clamms, an indifferent contrivance of mine, made and put together by our own armourer in fifty



fathoms water, and brought up as much sand as would fill a bucket, but nothing curious. Afterwards we had a breeze, and passed Barrington Island pretty closely. It is not high, yet the shores are bold and fronted by cliffs; the more elevated parts appear to be level, and rather woody. This night was spent under sail between Charles and Hood Islands.

24 September: While we were endeavouring to reach the anchorage in Post Office Bay, Charles Island, Mr Chaffers and Mr Mellersh went away in a boat to visit the islets that lie near the eastern side of that island: and it was found that they had all been the summits of volcanoes. Charles Island is peculiar in its outline: for a succession of round-topped hills, precisely similar in shape, though differing in size, shews on every point of view. This exact similarity is very remarkable. Must not all these volcanoes have been thrown up under the same circumstances, such as similar action of the ocean, or even a strong wind – perhaps at the very same time?

The highest and largest of these hills rises 1,800 feet, the next about 1,700; the rest are of various smaller heights. The northern sides of the island are wooded, but the wood looks as brown as that on the lower parts of Chatham Island. Post Office Bay is sheltered, easy of access, has excellent anchorage, and only wants fresh water to make it a most desirable harbour for shipping. Its name is the result of a custom established by the whalers: a box was placed on a post, to receive letters, and homeward-bound ships examined the directions, taking with them all which they might have means of forwarding; but since the island has been peopled the box has been empty, for letters are now left at the settlement.

25 September: Mr Nicholas O. Lawson, acting for the governor of this archipelago, came on board. With him and me a party went to another anchorage called Black Beach Road, landed, and walked up towards the settlement. In 1832 the republic of Ecuador decided to use these islands as a place of banishment, and sent a small colony to Charles Island. The governor, at the time of our visit, was Don José Villamil. There were then about eighty small houses, or huts, and nearly two hundred souls upon the island, most of whom were convicts.

After walking rather more than a mile along a good path, through the underwood, which as the ground rises becomes very thick, we reached a small spring of water, near which are a few huts, but no cultivated ground. The water from this spring might be conveyed to shipping by means of leaden pipes, without much difficulty, but it is not of very good quality. Having ascended gradually during another half-hour's walk,

we reached the ridge of that height which limited our view from the sea; when surprisingly sudden and agreeable was the change. Heated and tired by a dusty uphill walk, through sun-dried trees and over rugged lava stones, our bodies were here refreshed by a cool breeze, while our eyes enjoyed the view of an extensive, fertile and cultivated plain. Surrounded by tropical vegetation, by bananas, sugar canes, Indian corn, and sweet potatoes, all luxuriantly flourishing, it was hard to believe that any extent of sterile and apparently useless country could be close to land so fertile, and yet wear the most opposite appearance. Our eyes having been accustomed to the desert shores of Peru and northern Chile, during many months, were completely dazzled by a sight so new and unforeseen.

It appears that rain falls very frequently on these higher grounds, and is absorbed by rich black mould of a nature sufficiently clayey to enable it to retain moisture. During the wet season this plain becomes quite muddy, while the little rain that falls on the lower ground is so quickly absorbed, or finds its way so soon through the loose lava stones that its effects are not there visible.

Most of the houses are in this fertile space, but it appears that a house on the dry ground, and plantations in the moist valley, would answer better: for at Mr Lawson's house salt cannot be kept dry, books and paper become mouldy, and iron rusts very quickly. At his table we found the welcome of a countryman, and a variety of food quite unexpected in the Galapagos Islands, but fully proving their productiveness. At the foot of a hill we saw water dropping plentifully, and from this spring, called the 'Governor's Dripstone', the inhabitants obtain a certain supply throughout the year.

Although most of the settlers were sent here against their wish, there are many who do not desire to return to the continent. Some are married and have children on the island.

There are goats and hogs upon this island, but they are scarce and wild, not having yet had time to increase much; they are hunted with dogs, though it would be wiser to let them alone for a few years. The settlers have abundance of vegetables, and depend chiefly upon terrapin for their meat. Many of these animals being large and heavy, the people who go in search of them kill and open them on the spot, then take out the fleshy pieces and put them in a bag. Thus one man can carry away the useful parts of more terrapins than several men could lift.

The quantity of tortoise shells lying about the ground, shows what havock has been made among these helpless animals. On the lower



ground, near the spring, I saw an apology for a garden, in which the large terrapin shells were used to cover young plants, instead of flower pots.

*From Charles Darwin's Diary:*

The main article, however, of animal food is the terrapin or tortoise: such numbers yet remain, that it is calculated two days' hunting will find food for the other five in the week. Of course the numbers have been much reduced; not many years since, the ship's company of a frigate brought down to the beach in one day more than 200. Where the settlement now is, around the springs, they formerly swarmed. Mr Lawson thinks there is yet left sufficient for twenty years: he has however sent a party to James Island to salt (there is a salt mine there) the meat. Some of the animals are there so very large, that upwards of 200 lbs of meat have been procured from one. Mr Lawson recollects having seen a terrapin, which six men could scarcely lift and two could not turn over on its back. These immense creatures must be very old; in the year 1830 one was caught (which required six men to lift it into the boat) which had various dates carved on its shells; one was 1786. The only reason why it was not at that time carried away must have been that it was too big for two men to manage. The whalers always send away their men in pairs to hunt. I industriously collected all the animals, plants, insects and reptiles from this island. It will be very interesting to find from future comparison to what district or 'centre of creation' the organized beings of this archipelago must be attached.

*From Captain FitzRoy's Narrative:*

Small birds are numerous on this island, and so remarkably tame that they may be knocked down with a stick. Lizards are also numerous; and there are a few small snakes, but those we caught were not venomous. Among the useful vegetables we noticed the plantain, pumpkin, yuca, Quito orange, castor-oil plant and melon, besides those before mentioned.

Returning on board we met Mr Stokes on his way from the southern parts of the island: he described the lava thereabouts as having such a form and rugged surface as the sea would present if suddenly congealed, while ruffled by a very strong wind.

*26 September:* After completing the necessary observations in Post Office Bay, we weighed and worked round to an anchorage off Black Beach: and at nine in the evening Mr Chaffers returned, having been round the south side of this island after visiting the small eastern islets. He found

much difficulty in landing on them, but succeeded, and from the top of Gardner Islet saw a dangerous breaker about a mile to the south eastward.

*27 September:* Being Sunday, many of the officers and ship's company were on shore in the afternoon, and some of the officers went to the top of the highest hill, which has a crater, as have all the hills we examined about these islands; and these craters are all similarly broken down on the side towards the south.

*28 September:* Having taken on board live pigs and a quantity of vegetables, we weighed and stood towards Albemarle Island. Four small islets, the remains of volcanoes, lie near the low south-east extreme of this island, and together with Brattle Islet, are extremely useful in warning vessels of their approach to a very dangerous piece of coast. So low are the south-eastern extremities of Albemarle Island that they are not discernable until you see the surf on the shore. A heavy swell setting towards the land, and generally light winds, add to the danger of getting near this coast; but there is anchorage in case of necessity.

Albemarle Island is a singular mass of volcanic ejections. Six volcanoes have there raised their summits from two to four thousand feet above the ocean, and from them immense quantities of lava have from time to time flowed towards the sea; so that this island, large as it is, may be literally described by saying that it consists of six huge craters, whose bases are united by their own overflowed lava. The southern side, which is exposed to the trade wind, and completely intercepts it, with all the clouds it brings, is thickly wooded, very green, and doubtless has fresh water; but how is that water to be obtained where such a swell rolls upon the shore?

We passed this night under easy sail, off the south-west extreme of Albemarle Island; and on the 29th we found a small cove, in which we anchored; but such a wild-looking place, with such quantities of hideous iguanas as were quite startling! Hence I despatched Mr Mellersh and Mr King, to examine the depth of Elizabeth Bay, and rejoin us beyond Narborough Island; we then weighed, and continued our examination of this unearthly shore. Passing a low projecting point, our eyes and imagination were engrossed by the strange wildness of the view; for in such a place Vulcan might have worked. Amidst the most confusedly heaped masses of lava, black and barren, as if hardly yet cooled, innumerable craters, or fumeroles, showed their very regular, even artificial looking heaps. It was like immense iron works, on a Cyclopiian scale!



When this lava flowed from the heights it must have been stopped rather suddenly, cooled, by the water; for the lava cliffs are in some places twenty, and in others forty feet high, while close to them there is water so deep that a ship could not anchor there, even in a calm while the sea is quite smooth. Until we rounded this point the wind was very strong, eddying round the high south-west cape; but here we were becalmed, and passed some anxious hours, till at length light variable airs carried us off-shore.

*30 September:* This morning we passed a remarkably fine American whaler, the *Science*, carrying nine whale-boats! On the south-eastern height of Albemarle, smoke was seen issuing from several places near the summit, but no flame. Profiting by every breeze, we hastened towards Tagus Cove.

Narborough Island is exactly like a part of Albemarle – a great volcano, whose base is surrounded by an extensive field of lava: it is utterly barren and desolate. A few mangroves, on the sandy beaches near Albemarle Island, are not seen in the distance; neither are there enough of them even to diminish the dismal appearance of the island.

We entered the passage in the afternoon, and anchored in the little cove first described by Capt. Pipon, who then commanded H.M.S. *Tagus*. This cove is the crater of an extinct volcano, and its sides are so steep as to be almost inaccessible.

*From Charles Darwin's Diary:*

Since leaving the last island, owing to the small quantity of water on board, only half allowance of water has been served out (i.e. half a gallon for cooking and all purposes). This under the line with a vertical sun is a sad drawback to the few comforts which a ship possesses. From different accounts, we had hoped to have found water here. To our disappointment the little pits in the sandstone contained scarcely a gallon and that not good. It was however sufficient to draw together all the little birds in the country; doves and finches swarmed round its margin. I was reminded of the manner in which I saw at Charles Is. a boy procuring dinner for his family. Sitting by the side of a well, with a long stick in his hand, as the doves came to drink he killed as many as he wanted and in half an hour collected them together and carried them to the house.

*From Captain FitzRoy's Narrative:*

*1 October:* Our first object was to find water: none could be got in the cove, but at a short distance from it a few holes were found, out of which

a bottle might be filled in an hour. Around this scanty spring draining continually through the rock, all the little birds of the island appeared to be collected, a pretty clear indication of there being then no other fresh-water within their reach: yet during the rainy season there must be considerable streams, judging by gullies which are worn in the rock. All the heights hereabouts, and the sides of the craters, are composed of sandstone that looks like fine sandy mud half baked; but the low grounds are lava. The crater in which we anchored gave me the idea of its having been a mud volcano.

The heat is here far greater than in other parts of the archipelago, and the land is more sterile. Numbers of another sort of iguana were seen for the first time, and many were killed and eaten. In size and shape they resemble the black kind, but their colour is a dirty orange red, inclining to reddish brown above and yellow beneath. These reptiles burrow in the earth like rabbits, and are not bad eating.

*From Charles Darwin's Diary:*

We here have another large reptile in great numbers; it is a great lizard, from 10–15 lb in weight and 2–4 feet in length; is in structure closely allied to those 'imps of darkness' which frequent the sea-shore. This one inhabits burrows to which it hurries when frightened, with quick and clumsy gait. They have a ridge and spines along the back; are colored an orange yellow, with the hinder part of back brick red. They are hideous animals; but are considered good food: this day forty were collected.

*From Captain FitzRoy's Narrative:*

Of the black kind a vast number run about the rocks near the sea, living either upon fish or sea-weed. As we went afterwards in a boat along the ragged irregular shore, we saw numbers of turtle. There are small sandy beaches here and there, to which these animals approach in the evenings: when, as it gets dark, they land and usually lie on the beach during the night, even if it is not the season in which they seek a place for their eggs.

From a height near Tagus Cove dismal indeed was the view, yet deeply interesting. To see such an extent of country overwhelmed by lava, to think of the possible effects of the seven dormant volcanoes then in sight, and to reflect that at some one period all was activity and dreadful combustion where we then witnessed only silent desolation, was very impressive.

*2 October:* We passed this day and the following night in Banks Bay.



On the 3rd, Mr Mellersh returned, having examined Elizabeth Bay and the western shore of Narborough Island. We then went round the north-west end of Albemarle Island, and passed the night under sail off the north extreme. At daybreak, on the 4th, we made all sail towards Abingdon Island, which is small, rather high, and tolerably covered with stunted wood; we did not maintain a position even near where I wished to pass the night, but were carried about forty miles away, dead to leeward, during only a few hours of light wind. The current hereabouts runs between one and four knots an hour to the north-westward, yet the depth of the water is unfathomable by ordinary means; excepting for which it is like a vast river in the sea.

5 October: While working to windward, endeavouring to regain our lost ground, we saw Bindloes Island: and passed through many rippings, some of them dangerous for a boat. During the 6th, other indications of a strong current were noticed, besides rippings such as these, which, in very deep water, and in the open sea, are difficult to explain: sometimes at night, while all around was smooth and tranquil, a short, deep plunge suddenly startled every one: but in a minute afterwards the ship was again quiet. We continued to work to the southward in order to reach James Island, and meet Lieutenant Sullivan.

7 October: While working to windward we saw Towers Island, which is different in appearance from all the other islands of this archipelago, being low and flat. We passed it about noon, and Bindloes at sunset. The latter has an irregular hilly surface, partially wooded, but like the rest is a mass of lava, and indurated sandy mud.

8 October: The *Beagle* was close to James Island, a high, large, and well-wooded tract of ground, or rather lava. We anchored at the northern end, and a boat came alongside loaded with fish, for there was a party of settlers here, detached from Charles Island, whose employment was salting fish and extracting oil from terrapin. This oil is of a light colour, and exceedingly good quality, being very like pure olive oil. Lieutenant Sullivan returned with his party, and I then detached Mr Chaffers in the yawl, accompanied by Mr Johnson and six men, to examine Bindloes, Abingdon, and Towers Islands. As Mr Darwin anxiously desired to see as much as possible of the productions of this central and large island, he was landed, accompanied by Mr Bynoe, his servant and H. Fuller, to remain until the *Beagle's* return.

*From Darwin's The Voyage of the Beagle:*

8 October: We arrived at James Island: this island, as well as Charles

Island, were long since thus named after our kings of the Stuart line. Mr Bynoe, myself, and our servants were left here for a week, with provisions and a tent, whilst the *Beagle* went for water. We found here a party of Spaniards who had been sent from Charles Island to dry fish, and to salt tortoise-meat. About six miles inland, and at the height of nearly 2,000 feet, a hovel had been built in which two men lived, who were employed in catching tortoises, whilst the others were fishing on the coast. I paid this party two visits, and slept there one night. As in the other islands, the lower region was covered by nearly leafless bushes, but the trees were here of a larger growth than elsewhere, several being two feet and some even two feet nine inches in diameter. The upper region being kept damp by the clouds, supports a green and flourishing vegetation. So damp was the ground, that there were large beds of a coarse cyperus in which great numbers of a very small water-rail lived and bred.

*From Charles Darwin's Diary:*

The tortoise when it can procure it, drinks great quantities of water. Hence these animals swarm in the neighbourhood of the springs. The average size of the full-grown ones is nearly a yard long in its back shell: they are so strong as easily to carry me, and too heavy to lift from the ground. In the pathway many are travelling to the water and others returning, having drunk their fill. The effect is very comical in seeing these huge creatures with outstretched neck so deliberately pacing on-wards. I think they march at the rate of 360 yards in an hour; perhaps four miles in the twenty-four. When they arrive at the spring, they bury their heads above the eyes in the muddy water and greedily suck in great mouthfuls, *quite regardless* of lookers on. Wherever there is water, broad and well beaten roads lead from all sides to it, these extend for distances of miles. It is by this means that these watering places have been discovered by the fishermen. In the low dry region there are but few tortoises: they are replaced by infinite numbers of large yellow herbivorous lizard, mentioned at Albemarle Is. The burrows of this animal are so very numerous that we had difficulty in finding a spot to pitch the tents. These lizards live entirely on vegetable productions; berries, leaves, for which latter they frequently crawl up the trees, especially a mimosa; never drinking water, they like much the succulent cactus, and for a piece of it they will, like dogs, struggle [and] seize it from another. Their congeners the 'imps of darkness' in like manner live entirely on sea weed. I suspect such habits are nearly unique in the saurian race.



During our residence of two days at the hovels, we lived on the meat of the tortoise fried in the transparent oil, which is procured from the fat. The breast-plate with the meat attached to it, is roasted as the gauchos do the 'carne con cuero'. It is then very good. Young tortoises make capital soup; otherwise the meat is but – to my taste – indifferent food.

*From Darwin's The Voyage of the Beagle:*

One day we accompanied a party of the Spaniards in their whale-boat to a salina, or lake from which salt is procured. After landing, we had a very rough walk over a rugged field of recent lava, which has almost surrounded a tuff-crater, at the bottom of which the salt-lake lies. The water is only three or four inches deep, and rests on a layer of beautifully crystallized white salt. The lake is quite circular, and is fringed with a border of bright green succulent plants; the almost precipitous walls of the crater are clothed with wood, so that the scene was altogether both picturesque and curious. A few years since, the sailors belonging to a sealing vessel murdered their captain in this quiet spot; and we saw his skull lying among the bushes.

During the greater part of our stay of a week, the sky was cloudless, and if the trade wind failed for an hour, the heat became very oppressive. On two days, the thermometer within the tent stood for some hours at 93°; but in the open air, in the wind and sun, at only 85°. The sand was extremely hot; the thermometer placed in some of a brown colour immediately rose to 137°, and how much above that it would have risen, I do not know, for it was not graduated any higher. The black sand felt much hotter, so that even in thick boots it was quite disagreeable to walk over it.

*From Captain FitzRoy's Narrative:*

Although there is abundance of water on the higher parts of this island, so broken and dry are the lower grounds that it does not arrive at the shore: at two places only can enough water for even a boat's crew be procured, in the dry season; and for a ship there is scarcely hope of a sufficiency. The poor fellows who brought us the fish had been living so long upon terrapin, and the produce of their lines, without any thing else, that half a bag of biscuit (50 lb) which we gave them, appeared to be an inestimable treasure, for which they could not sufficiently thank us. We sailed in the evening, but made very little progress towards our

destination, Chatham Island, this day, the 9th. We got pretty close to Chatham Island at dusk, worked to windward during the night, and on the following morning stood along the weather shore towards the watering place.

*11 October:* How remarkably different is the climate of the windward and leeward islands of this group! Here we were enveloped by clouds and drizzling fog, and wore cloth clothes. At Tagus Cove and James Island, a hot sun, nearly vertical, overpowered us; while the south side of Albemarle, Charles, and Chatham Islands, were almost always overshadowed by clouds, and had frequent showers of rain. We anchored close to the watering place: but it appeared strange to remain at anchor in such a spot, only three cables' lengths from a surf breaking high upon a steep cliffy shore, with nothing but the ocean between us and the antarctic; and such was our position; yet it was a safe one, because the great south-west swell of the Pacific is interrupted by Hood Island, and the southerly trade, or perennial wind is so moderate, that it has neither power to raise a sea nor to harm a vessel lying at anchor, if her ground tackle is not defective.

The 12th was spent in filling water, washing, cutting some wood, and bringing thirty large terrapin on board. These animals abound hereabouts; and some are very large, deserving the name of elephant-tortoises. Two of our party tried to reach the higher and thickly wooded part of the island, but found their task impracticable, in so short a time as they could spare, for the wood grows impenetrably thick, though none is straight or of a large size. The upper grounds have a rich loamy soil, lying upon rock, in which the terrapin wallow like hogs, and may be found by dozens. This was a very hard day's work for so few men as were then on board our small vessel.

*13 October:* We had some difficulty in 'casting', so as to clear the land, but got out of the scrape and were working towards Hood Island when the man looking out aloft reported a breaker, which proved to be on a rock at the west end of MacGowen shoal. When first seen it was on the horizon, and hardly differed from the topping of a sea – once only in about ten minutes it showed distinctly. We steered for it, lowered two boats, and employed the rest of the day in examining this very dangerous shoal, and fixing its position. One rock at the west end is just awash, but there is another under water, except in the hollow of a swell, about half a mile to the eastward, which is exceedingly treacherous. We had two narrow escapes this day; while weighing from Chatham Island, baffling winds sent us a great deal too close to the cliffs before our



anchor was up, or the ship under command; and while sounding along the edge of MacGowen shoal we were drifted so close to the second rock, mentioned above, that I was not sure on which side of us it lay.

*14 October:* Anchored and examined Hood Harbour, having heard there was a sunken rock in it which our boat had not discovered, but we found nothing dangerous for a ship. Shoal water and large blocks of lava lie near the shore in the harbour; but a vessel must have stood too close in if she touches thereabouts. Left Hood Island at noon, steered for the southern part of Charles Island, and anchored at nine off Black Beach.

*15 October:* I went to Post Office Bay, and near the best landing place, found some excellent salt, which though but small in quantity gives a hint that more may be got elsewhere.

*16 October:* Weighed in the afternoon, having obtained the necessary observations, and went to Black Beach Road to take in wood, potatoes, and pigs. We there found a small schooner at anchor, just arrived from Guayaquil, and having, among other things, a bag of letters from England, for the *Beagle*. That very evening we were to leave Charles Island; not to return! In the schooner were some emigrants; who brought cattle, and information that the governor, Villamil, might be expected to arrive in a few days, with a vessel laden with animals, and supplies for the settlement. We stood across, during the night, to the four islands near Point Woodford; and at daylight next morning (*17th*) resumed our usual occupations, while sailing along the east side of Albemarle Island. At noon we steered for Albany Islet, to embark Mr Darwin and Mr Bynoe; and after our party were on board, we returned towards the shore of Albemarle Island, and there passed the night under sail, in order to start early from a particular position. Our landsmen had enjoyed their stay and profited by it, though the heat was oppressive, and the sky nearly cloudless by night and by day; how different was this from the weather we had had on board!

When at some height upon the island, among the thick wood, it is extremely difficult to find the way: men have been lost thereabouts, and it is said that some of the bodies never were found. The day we re-embarked Mr Darwin there was a man missing, belonging to an American whale ship, and his shipmates were seeking for him. The master of this whaler was very obliging to our party, supplying them with water, and offering his hearty assistance in any way which lay in his power. The earnest wishes to be of use, and the attentions of North Americans to us on all occasions, have been often and gratefully remarked by many on board the *Beagle*.

*From Charles Darwin's Diary:*

We should have been distressed if an American whaler had not very kindly given us three casks of water (and made us a present of a bucket of onions). Several times during the voyage Americans have showed themselves at least as obliging, if not more so, than any of our countrymen would have been. Their liberality moreover has always been offered in the most hearty manner. If their prejudices against the English are as strong as ours against the Americans, they forget and smother them in an admirable manner.

*From Captain FitzRoy's Narrative:*

*18 October:* Continued our examination of Albemarle Island. When off the northern volcano, the black streams of lava, which have flowed in every direction down the sides of the mountain, looked like immense streams of ink. Thence we steered for Abingdon Island to meet Mr Chaffers.

On 19 October we were close to Abingdon Island, where there is a fine bold-looking cliff at the west side, considerably higher than any I had seen in the Galapagos. Mr Chaffers soon came alongside after we closed the land; when, his orders being all executed, the boat was hoisted in, and we made sail to the north-west in search of Wenman and Culpepper Islets.

Next day (*20th*) we saw and steered for Wenman Islet, another crater of an extinct volcano. It is high, small, and quite barren: correctly speaking, there are three islets and a large rock, near each other, which, at a distance, appear as one island, but they are fragments of the same crater. We afterwards passed Culpepper Islet, which is a similar rocky, high and barren little island. At sunset we made all sail and steered to get well into the south-east trade wind, so as to expedite our passage towards the dangerous archipelago of the Low Islands, and thence to Otaheite (or Tahiti). While sailing away from the Galapagos, impelled westward over a smooth sea, not only by favouring easterly breezes but by a current that set more than sixty miles to the west during the first twenty-four hours after our losing sight of Culpepper Islet, and from forty to ten miles each subsequent day until 1 November, I will look back at those strange islands, and make a few more remarks on them.

Mr Stokes made some notes about the tortoises while with me, and as he and I are satisfied as to the facts, I will add them. Fresh water was first discovered on Charles and on James Islands, by following the



terrapin paths. These animals visit the low, warm ground to seek for food and deposit their eggs; but it must be a toilsome journey indeed for them to ascend and descend the rugged heights. Some that Mr Stokes saw in wet, muddy places, on high ground, seemed to enjoy themselves very much, snuffling and waddling about in the soft clayey soil near a spring. Their manner of drinking is not unlike that of a fowl: and so fond do they appear to be of water, that it is strange they can exist for a length of time without it; yet people living at the Galapagos say that these animals can go more than six months without drinking. A very small one lived upwards of two months on board the *Beagle* without either eating or drinking: and whale-ships have often had them on board alive for a much longer period. Some few of the terrapin are so large as to weigh between two and three hundred weight; and, when standing up on their four elephantine legs, are able to reach the breast of a middle-sized man with their snake-like head. The settlers at Charles Island do not know any way of ascertaining the age of a terrapin, all they say is, that the male has a longer neck than the female. Their eggs were found in great numbers in cracks of a hard kind of clayey sand; but so small were the cracks that many of the eggs could not be got out without being broken. The egg is nearly round, of a whitish colour, and measures two inches and a half in diameter – which is about the size of a young one when first hatched.

On board the *Beagle* a small one grew three-eighths of an inch, in length, in three months; and another grew two inches in length in one year. Several were brought alive to England. The largest we killed was three feet in length from one end of the shell to the other: but the large ones are not so good to eat as those of about fifty pounds weight – which are excellent, and extremely wholesome food. From a large one upwards of a gallon of very fine oil may be extracted. It is rather curious, and a striking instance of the short-sightedness of some men, who think themselves keener in discrimination than most others, that these tortoises should have excited such remarks as ‘well, these reptiles never could have migrated far, that is quite clear,’ when, in simple truth, there is no other animal in the whole creation so easily caught, so portable, requiring so little food for a long period, and at the same time so likely to have been carried, for food, by the aborigines who probably visited the Galapagos Islands on their balsas, or in large double canoes.

All the small birds that live on these lava-covered islands have short beaks, very thick at the base, like that of a bullfinch. This appears to be one of those admirable provisions of Infinite Wisdom by which each

created thing is adapted to the place for which it was intended. In picking up insects, or seeds which lie on hard iron-like lava, the superiority of such beaks over delicate ones, cannot, I think, be doubted; but there is, perhaps, another object in their being so strong and wide. Colnett says ‘they observed an old bird in the act of supplying three young ones with drink, by squeezing the berry of a tree into their mouths. It was about the size of a pea, and contained a watery juice, of an acid, but not unpleasant taste . . . The leaves of these trees absorb the copious dews which fall during the night; the birds then pierce them with their bills for the moisture they retain, and which, I believe, they also procure from the various plants and evergreens. . . . The torch thistle contains a liquid in its heart, which the birds drank, when it was cut down. They sometimes even extracted it from the young trees by piercing the trunks with their bills.’ For thus squeezing berries, and piercing woody fibre, or even only stout leaves, a slight thin beak would be scarcely available.

*Charles Darwin, in The Voyage of the Beagle, describing what are now known as ‘Darwin’s finches’ and making his first real statement about the origin of the species:*

The remaining land-birds form a most singular group of finches, related to each other in the structure of their beaks, short tails, form of body, and plumage: there are thirteen species, which Mr Gould has divided into four sub-groups. All these species are peculiar to this archipelago; and so is the whole group. Of *Cactornis*, the two species may be often seen climbing about the flowers of the great cactus-tree; but all the other species of this group of finches, mingled together in flocks, feed on the dry and sterile ground of the lower districts. The males of all, or certainly of the greater number, are jet black; and the females (with perhaps one or two exceptions) are brown. The most curious fact is the perfect gradation in the size of the beaks in the different species of *Geospiza*, from one as large as that of a hawkfinch to that of a chaffinch, and (if Mr Gould is right in including his sub-group, *Certhidea*, in the main group), even to that of a warbler. The beak of *Cactornis* is somewhat like that of a starling; and that of the fourth sub-group, *Camarhynchus*, is slightly parrot-shaped. Seeing this gradation and diversity of structure in one small, intimately related group of birds, one might really fancy that from an original paucity of birds in this archipelago, one species had been taken and modified for different ends.

The natural history of these islands is eminently curious, and well



deserves attention. Most of the organic productions are aboriginal creations, found nowhere else; there is even a difference between the inhabitants of the different islands; yet all show a marked relationship with those of America, though separated from that continent by an open space of ocean, between 500 and 600 miles in width. The archipelago is a little world within itself, or rather a satellite attached to America, whence it has derived a few stray colonists, and has received the general character of its indigenous productions. Considering the small size of these islands, we feel the more astonished at the number of their aboriginal beings, and at their confined range. Seeing every height crowned with its crater, and the boundaries of most of the lava-streams still distinct, we are led to believe that within a period, geologically recent, the unbroken ocean was here spread out. Hence, both in space and time, we seem to be brought somewhat near to that great fact – that mystery of mysteries – the first appearance of new beings on this earth.

## 13. TAHITI

*From Captain FitzRoy's Narrative:*

After sailing before the wind twelve days, our approach to land was indicated by a black tern which flew past the ship. Tropic birds were seen on the previous day, 2 November, but they roam farther than tern. On the 9th we saw Honden Island, one of the low coral formations, only a few feet above water, yet thickly covered with coconut trees. This archipelago is indeed extremely deserving of its appellation, 'Dangerous'; for numerous coral islets, all low, and some extensive, obstruct the navigation, while unknown currents and strong squalls, and a total want of soundings, add to the risk of sailing there at night.

On 13 November, after having passed some anxious nights in very squally weather, we were gratified by seeing an islet whose existence we had not suspected. Tairo is the name by which it is known to the islanders of the archipelago. A few hours afterwards we ranged along the shore of another and much larger island, or rather group of islets, till then not laid down in any chart, the native name of which is Cavahi. We saw a number of islets covered with coconut trees, surrounding a lagoon; but could not delay to examine the south side, because we had been so unexpectedly detained by contrary winds, and I was very anxious about the chronometer measurement, the interval being already considerable.

Hastening on, therefore, we carried a press of sail to reach the Society Islands. It was singular that directly we were clear of the Low Islands, we got into a steady trade-wind, such as we had enjoyed before seeing Honden Island; and were no more troubled by westerly wind, or squalls, till long after we had left Otaheite and were approaching near New Zealand.

15 November: Early this morning we saw Otaheite. No person now doubts that Tahiti is the native word, and therefore the most correct to be used; but as our immortal countryman, Cook, wrote Otaheite, and it is difficult to hear or see the word without thinking of him, I shall beg to be allowed the same privilege.

Clouds hanging over the high land and a haziness about the horizon,



at first disappointed our expectations. As the sun rose higher, the clouds shrunk away, vanishing as they rolled along the grandly formed mountains: high, sharp, irregular peaks, and huge masses of rock appeared between the mists, and again were hidden, deep valleys or glens showed darkly, and while the shadows passed, seemed to be denied the light of day. Strikingly different in appearance were the lower hills and dales, and the richly wooded land at the seaside. There the bright sunshine heightened the vivid and ever-varying tints of a rich verdure. The beautiful alternation of light and shade, each moment changing as the flitting shadows passed over every kind of green; the groves of graceful palm-trees; the dazzling white foam of the breakers on the coral reefs, contrasted by the deep blue of the sea, combined to form a most enchanting view. At a distance in the west, Moorea showed a picturesque outline, and added to the beauty of a scene which surpassed our ideas, even heightened as they had been by the descriptions of former voyagers.

Passing Point Venus, and avoiding the Dolphin Shoal, we worked up to an anchorage in Matavai Bay. No pilot appeared, but had we waited in the offing, a very good one called James Mitchell, though a native, would have offered his services. With a fresh breeze, we gained the anchorage so quickly that few natives had time to hasten on board, as is their usual custom: only one long canoe came alongside while we sailed in: it was made of half a tree, hollowed out, with a narrow rough plank laced to each side, and an outrigger, consisting of two crooked branches, secured to the canoe and to a long piece of light wood which floated in the water parallel to it. This outrigger extended eight or ten feet from the ticklish conveyance, and enabled four men to sit at their ease in the narrow trunk of a tree that had never exceeded a foot in diameter.

The personal appearance of these men was to me most remarkable: tall and athletic, with very well-formed heads and a good expression of countenance, they at once made a favourable impression, which their quiet good-humour and tractable disposition afterwards heightened very much.

*From Charles Darwin's Diary:*

In my opinion they are the finest men I have ever beheld; very tall, broad-shouldered, athletic, with their limbs well-proportioned. To see a white man bathing alongside a Tahitian was like comparing a plant bleached by the gardener's art, to the same growing in open fields. Most of the men are tattooed; the ornaments so gracefully follow the curvature of the body that they really have a very elegant and pleasing effect. One

common figure varying only in its detail, branches somewhat like palm leaves (the similarity is not closer than between the capital of a Corinthian column and a tuft of acanthus) from the line of the backbone and embraces each side. The simile is a fanciful one, but I thought the body of a man was thus ornamented like the trunk of a noble tree by a delicate creeper. Many of the older people have their feet covered with small figures, placed in order so as to resemble a sock. This fashion is however partly gone by and has been succeeded by others. Here, although each man must for ever abide by the whim which reigned in his early days, yet fashion is far from immutable. An old man has his age for ever stamped on his body and he cannot assume the air of a young dandy. The women are also tattooed much in the same manner as the men and very commonly on their fingers. An unbecoming fashion in another respect is now almost universal; it is cutting the hair, or rather shaving it from the upper part of the head in a circular manner so as only to leave an outer ring of hair. The missionaries have tried to persuade the people to change this habit, but it is the fashion and that is answer enough at Tahiti as well as Paris. I was much disappointed in the personal appearance of the women; they are far inferior in every respect to the men. The custom of wearing a flower in the back of the head or through a small hole in each ear is pretty. The flower is generally either white or scarlet and like the camelia. The women also wear a sort of crown of woven coconut leaves, as a shade to their eyes. They are in greater want of some becoming costume even than the men.

*From Captain FitzRoy's Narrative:*

Perhaps my eyes were prejudiced in favour of features and complexion; for the shambling gait and flat noses of the native women had no charm for me. I saw no beauty among them; and either they are not as handsome as they were said to be, or my ideas are fastidious. The men, on the other hand, exceed every idea formed from the old descriptions.

By the time the vessel was secured, a number of canoes had assembled, each containing from two to ten persons. A few, indeed, were so small that they could only hold one man each. The outriggers hindered their approach, as much as hoops impeded the motions of our maternal ancestors; but those who could not get near looked equally happy at a distance. All were cheerful, tractable, and patient, though eager to see the 'manuâ' (their corruption of man-of-war), and dispose of their merchandise, shells and fruit, to the newcomers.

The work necessary for securing the ship being completed, permission



was given to admit the natives; and on board they swarmed like bees. In a minute, our deck became a crowded and noisy bazaar. 'One dālā' (dollar), and 'my ty' ('maitai,' meaning 'good, fine, agreed', etc.) sounded in all tones, except those of women, none of whom appeared afloat. The current price of every article was 'one dala': a pig, a shell, a whole basket of shells, a roll of cloth, a heap of fruit, or a single fishhook, of the worst description, were offered as equivalents for the coveted dollar. Old clothes, if of cloth, they would not take, unless as a gift; but linen was acceptable. Every man had a light linen or cotton garment, or the remains of one, of some kind; the more respectable wore shirts, and loose wrappers for trousers; a few had jackets and trousers. Many had straw hats; some had a wreath of leaves, some flowers in their hair: only a few of the youngest boys were nearly naked.

Mr Darwin and I went to Point Venus, and landed among a mob of inquisitive, laughing, and chattering natives, most of whom were women and children. Mr Wilson, the respected missionary, so long resident at Matavai, met us on the beach; and with him we went, attended by the younger part of the mob, to his house. Ten minutes' walk along level land, every where, except at the seaside, covered or shaded by thick underwood, tall palms, and the rich foliage of the bread-fruit tree, brought us to the quiet dwelling. The free, cheerful manners of the natives who gathered about the door, and unceremoniously took possession of vacant seats, on chairs, or the floor, showed that they were at home with their benefactors; and that any seclusion or offensive intimation of superiority had not existed in the conduct of Mr or Mrs Wilson. Two chiefs, of inferior rank, made acquaintance with us; they walked into the room, shook hands, sat down at their ease, and conversed with Mr Wilson in exactly the manner of respectable English farmers. They were large, but inactive-looking men, and round-shouldered; suitably clothed, above the knees, in clean white jackets, shirts, and wrapper trousers, with their closely-cut hair hidden by a large straw-hat, their appearance was very respectable. 'Ia-orana', pronounced 'yoronha', was a salutation we soon learned; but one of my younger shipmates was a little perplexed during his first excursion, 'Why does every one call me "Your honour",', said he. Most of our officers and many of the men passed the evening on shore, and Mr Darwin and myself rambled about until darkness summoned all on board.

*From Charles Darwin's Diary:*

In going afterwards to the boat we were interrupted by a very pretty

scene, numbers of children were playing on the beach, and had lighted bonfires which illuminated the placid sea and surrounding trees: others in circles were singing Tahitian verses; we seated ourselves on the sand and joined the circle. The songs were impromptu and I believe relating to our arrival; one little girl sang a line, which the rest took up in parts, forming a very pretty chorus; the air was singular and their voices melodious. The whole scene made us unequivocally aware that we were seated on the shores of an island in the South Sea.

*From Captain FitzRoy's Narrative:*

On this day, with us, 16 November, but to agree with the reckoning of Otaheite and those who came from the west, changed to the 17th, I was fully occupied in making observations upon the spot where once stood Cook's observatory, a classical, and to us, important place. Upon the situation of this celebrated point, Venus, depend most of the geographical positions of islands in the South Sea; and its locality upon our globe has been deemed well known.

While we were engaged with the instruments on shore, a crowd of natives were eagerly displaying their merchandise along side or on board the ship. From the dawn of day, until they were admitted at breakfast time, canoes had been approaching from every direction. Their occupants had heard of the dollars, and every canoe within reach had been loaded. This sort of competition could not last; so I thought it better to give them as much opportunity to dispose of their wares as our small deck allowed; and desired Lieut. Wickham to let the market be held till trade grew dull. Some wanted to build us a house; many asked to be allowed to wash our clothes. There appeared to be no want of will to work, if dollars were to be gained.

On shore it was difficult to make the required observations, among a crowd of curious observers of ourselves and our instruments; for though they readily drew back as far as we wished, it was quite impossible to keep them from running about and shaking the ground. While employed with the dipping needle under a tent, I thought myself fortified: but they besieged the small opening so closely, in their eagerness to see the sight, that the heat caused by a vertical sun was soon increased to that of an oven, from their thus blocking up the only air-hole.

At my return to the ship in the evening, I found that the fair had not lasted above an hour after breakfast. All the natives had behaved well excepting two; one of whom absconded with the top of a brass stanchion. The other tried to carry off an axe; but was detected, and pointed out to



the more respectable of his countrymen, who said he should be tried, and that his sentence would probably be a fine of ten hogs. He was in fact fined eight hogs and a large piece of cloth. Five of the pigs went to the queen and three were sent on board the *Beagle*. The cloth was given to the man who caught the thief.

This evening some of our party were much pleased by hearing the pretty plaintive songs of the children, as they sat in groups upon the shore. Their voices accord in the most perfect manner; and, although the tunes are rather monotonous, they detained us, sitting upon the sandy beach, till we could stop no longer.

18 November: Mr Wilson went with me in a boat to Papeete, the most frequented harbour of Otaheite. We passed inside the reefs, by narrow twisting passages among the coral rocks. Seeing two marks set up on an extensive rocky flat, partially covered by the water, I concluded they were placed as beacons; but was told they were taboo marks to keep people from fishing or picking up shells upon the queen's 'preserve'. We passed the royal burying-ground, which is adorned by that peculiar tree, the *aito*, whose wood is so hard that it is called iron-wood. This tree looks like the English yew. It is purposely planted by the natives near their burying-grounds, and used to be considered sacred. Another remarkable tree, resembling the *ilex*, also casts a solemn shade over the tomb of Pomare, the late king.

The point of land on which the tombs and one of the royal houses stand, is one of the most agreeable places on the island, in point of position; and was a favourite residence of old Pomare. A portion of their superstition hangs about the natives yet: I could not persuade them to approach the tomb of their king, although they told me to go and look at it. The tomb is a plain mass of masonry, sheltered by a roof of wood.

Papeete is a pretty and secure little bay. Around it is low land, ornamented with trees and European as well as native houses: but immediately behind the level part, hills rise to a height of two or three thousand feet. Lying to leeward of the island it enjoys less sea-breeze, and is therefore hotter than other harbours. In the middle of the bay is a little island belonging to the queen, where the colours of Otaheite (red, white, red, horizontal) are displayed.

Several neat-looking white cottages showed that European ideas had extended their influence hither: but I was sorry to see the new church, a large wooden structure capable of holding six hundred people, covered by a partly Otaheitan roof, in lieu of one formed completely in their own

style. Instead of the circular end, an ugly gable terminates a high box-shaped house, resembling a factory.

I will now make a few general remarks. It did not appear to me that the men of Otaheite are separated visibly into two classes, as some accounts had led us to expect. All are well-proportioned and muscular; though their muscles are not hard and knotty, like those of a hard-working white man; they are rounded and smooth. They stride along in an imposing manner, occasionally recalling ideas of the giants of history. Although, generally speaking, they are taller than the Patagonians, they do not, to the eye, appear so large.

Their hands, and more especially their feet, have been said to be of the Papua form; but the shape of the latter is owing, it appears to me, to their always going barefooted: and I observed their hands particularly without being able to distinguish any peculiarity whatever in the form.

The young men frequently wear a wreath of leaves, or flowers, round the head, which, though becoming, has rather a Bacchanalian appearance. Some cut their hair short, others shave the greater part of their head, but solely from caprice: not one could give me any reason beyond that which is implied in 'it is the fashion'.

It is seldom that one meets a native entirely naked; I mean naked excepting the girdle which is always worn: generally they have a garment, or a piece of one, obtained from a white man. These remnants, often tattered, and, among the lower classes, always dirty, disfigure them much. Those whom I saw, with only a native girdle, but whose bodies were tattooed in the old fashion, appeared to my eye much less naked than the young men, not tattooed, and only half clothed.

The moral conduct and character of these islanders have undergone so much discussion; so various have been the decisions, and so varying are the opinions of voyagers and residents, that I, for one, am satisfied by the conclusion, that the good and the bad are mixed in Otaheite, much as they are in other parts of the world exposed to the contamination of unprincipled people. That the missionaries have done so much, in checking and restraining depravity, is to me matter of serious reflection.

I was surprised, when I first arrived at Otaheite, by finding that none of the natives who came on board would touch spirits; and that they would drink but very little wine. Afterwards, however, one chief was noticed who seemed differently disposed. Is it not a striking fact, that the people of a whole country have solemnly refrained from drinking spirits: does not this act alone entitle them to respect, and high consideration? So sincere are they on this subject, that, a short time since,



when they heard that a small vessel lying in their harbour had on board a cask of rum, which the master intended to sell to some of the residents, they went off to the vessel, and destroyed the obnoxious liquor.

One horrible defect in the former character of the Otaheitans has hardly been mentioned in the earlier writers. They were unkind, and utterly inattentive to the old and infirm: they were yet worse – they scrupled not to destroy their aged or sick, yes, even their parents, if disabled by age or by sickness.

Mr Wilson assured me that in former times, when a person had lingered in sickness, they would carry him to the waterside, under pretence of bathing him, dig a hole, and bury him alive! Thus they ended the life of a young man who had been servant to Mr Wilson, until he sickened, and, by the natives, was supposed to be dying. Mr Wilson tried all he could do, in the way of medical assistance, and had hopes of his recovery, when he suddenly disappeared: and not until a long time afterwards could he ascertain the horrid cruelty of which the natives had been guilty!

Mr Stokes passed some nights in Otaheitan cottages. He told me that the natives, both men and women, are extremely fond of their children, and are very kind to them. Not content with nursing and amusing them, they cram them as managers of poultry cause turkeys to be crammed, not exactly with pepper corns, or walnuts, but with bananas and other nutritive food. At each end of the houses he visited there was a small fire, one being for the elder, the other for the younger folks; this was in the evening, at their last mealtime.

Breadfruit, which had been previously roasted, and wild plantains brought from the mountains, were put to the fire to be warmed. Meanwhile coconuts were opened, their milk was poured into cups, made of empty nutshells, and handed about with the nuts. Each person had a nut and a cup of the milk, or juice. Taro-root roasted was then served, together with the breadfruit and plantain, on leaves freshly gathered; there was also a piece of brownish yellow wood, like the rotten root of a tree, hanging up in the hut, which the people sometimes eat; it is called Ti. Grace was said (a duty never omitted), and a clean, comfortable meal enjoyed by the whole party. Afterwards the fires were put out, and a queer little wooden pipe passed round. The strongest tobacco is thought the best, and they like to swallow the smoke. Sometimes, instead of tobacco, they use an indigenous herb.

Before sleeping the oldest man said prayers: one of the young men read a short portion of the New Testament, and then a hymn was sung

by the whole family. A lamp was kept burning all night. A curious snuff was observed by Mr Stokes, and from the method of using or taking it, I am inclined to think it an old custom, not imported by the white men. A substance, not unlike rhubarb in its appearance, but of a very pleasant fragrance, was rubbed on a piece of shark's skin, stretched on wood; and much it appeared to please an old man, who valued this snuff-stick so highly, that he would not part with it.

While we stayed at Otaheite we were supplied with excellent beef, and passably good vegetables; the latter however happened to be scarce. Most of the cattle belonged to the missionaries, who were trying to persuade the natives to rear them, and were beginning to succeed, though the people are fonder of their horses, of which there are a good many on the island, but ill kept and little understood.

Mr Pritchard had seen the queen, called Pomare, after her father, at Eimeo, the day before he arrived at Otaheite; and as she had not intimated an intention of coming thence, I agreed to go with him in a few days to pay my respects to her, and to make a formal application upon the subject of the *Truro*, a merchant vessel plundered and destroyed by the Low Islanders in 1830–31. I returned to Matavai in the evening, and, after landing Mr Wilson, remained nearly two hours listening to the natives singing. I asked them to dance; but they said it was forbidden, and that the watchman would take them to the governor of the district, who would fine them heavily. Singing, except hymns, is also forbidden to the grown people, but they seemed to like listening to the children.

This evening, before dark, there was a sight upon the *Beagle's* deck, which delighted us who wished to collect shells but had not time to look for them. An Englishman, John Middleton, had spread out a large collection which he had just brought from the Low Islands, and soon found eager purchasers.

19 November: We weighed anchor, and went into the little cove of Papawa, for the sake of watering quickly, without exposing the men and boats to a heavy surf. Walking to the house of Mr Nott, I saw an elderly native writing in a cottage, and apparently very intent upon his employment. He showed me what had engaged his attention, an Otaheitan version of the book of Jeremiah, in Mr Nott's writing, which he was copying in a very distinct, good hand.

Mr Nott, the senior missionary upon the island, had then almost completed a great work, the translation of the Bible.\*

\* This noble work is completed. I have now lying by me a copy of the entire Bible,



Since the 17th the weather had been too cloudy, by night and by day, to admit of astronomical observations. Instead of fine clear weather, there was a thickly overcast sky, and only light and variable wind.

21 November: I went to see 'Ua,' an old man, who remembered 'Toote' (Cook); yet was still strong and active: he told me that in those days he was a little boy. There were many more people then in Otaheite; ten to one, as compared with the present numbers: but sickness had destroyed a great many, he thought. The island was not so healthy as in former times; and they had caught diseases, in those days unknown. Asking who brought this or that disease, he imputed the worst to the ships which came after Cook's first visit, and left men upon the island until their return the following year. Curvature of the spine, or a humpback, never appeared until after Cook's visits; and as he had a humpbacked man in his ship, they attribute that deformity to him. 'Ua' told me that I need not yet have any anxiety about a westerly wind, or bad weather. 'The wind would be light and variable during that day, but on the morrow would draw round to the eastward, and two days afterwards the sky would be nearly free from clouds.' Thanking the old man with some presents, I returned on board; and the *Beagle* then got under weigh, 'swept' out of the harbour, and, by the sails and sweeps, alternately employed, regained her former anchorage in Matavai Bay. In the course of a walk among the cottages between Papava and Matavai, I found numerous tokens of industry, such as I had not expected in a South Sea island. In an enervating climate, where abundance of food is easily procured, one ought not to expect the contented natives to distress their minds or bodies, with anxious and industrious endeavours to supply wants which they do not feel, in any degree like the inhabitants of cold or temperate climates; yet the men of Otaheite undergo great fatigue, and carry heavy burthens up and down most difficult tracks in the mountains, in a manner astonishing, if not impossible, to Europeans. Mr Darwin, who made a three days' excursion among the wildest parts of the mountains, was quite enthusiastic in his account of the strength, activity, and above all, the excellent disposition and good conduct of the two natives who were his companions and guides.

in the language of Otaheite, translated and compiled by Mr Nott, who has just sailed from England on his return to Otaheite, carrying with him an ample number of copies of the Book of Books. I felt deeply gratified by that good man's kindness in giving me one of the first copies which were printed. F. R.

*From Charles Darwin's Diary:*

18 November: In the morning I came on shore early bringing with me some provisions in a bag and two blankets for myself and servant. These were lashed to each end of a pole and thus carried by my Tahitian companions. From custom a man will walk a whole day with fifty pounds at each end of such a stick. I had before told my guides to provide themselves with food and clothing, for the latter however they said their skins were sufficient and for the former, that there was plenty of food in the mountains. The line of march was the valley of Tia-auru in which the river that enters the sea by Point Venus flows.

A little higher up, the river divided itself into three little streams; the two northern ones were impracticable from a succession of waterfalls, which descended from the jagged summit of the highest mountain; the other to all appearance was equally inaccessible, but we managed to ascend in that direction by the most extraordinary road which I ever beheld. The sides of the valley were here quite precipitous, but as generally happens small ledges projected, which were thickly covered by wild bananas.

Our road at first lay through the wood which bordered each side of the river; the glimpses of the lofty central peaks, seen up the avenue of the valley were extremely picturesque. The valley soon began to narrow and the sides to grow higher and more precipitous. After having walked for three or four hours, with width of the ravine scarcely exceeded that of the bed of the stream; on each hand the walls were nearly vertical. These precipices must have been some thousand feet high; the whole formed a mountain gorge far more magnificent than anything I had ever beheld. Till the midday sun stood vertically over the ravine, the air had felt cool and damp, but now it became very sultry. Shaded by a ledge of rock, beneath a façade of columnar lava, we ate our dinner. My guide before this had procured a dish of small fish and freshwater prawns. They carried with them a small net stretched on a hoop; where the water was deep in eddies, they dived and like otters by their eyesight followed the fish into holes and corners and thus secured them. The Tahitians have the dexterity of amphibious animals in the water. Also, by climbing amongst these ledges hunting for fruit, they had discovered a track by which the whole precipice could be scaled. The first leaving the bottom of the valley was very dangerous; a face of naked rock had to be passed by the aid of ropes which we brought with us. How any person discovered that this formidable spot was the only point where the side of



the mountain could be attempted, I cannot imagine. We then cautiously followed one of the ledges, till we came to the stream already alluded to. This ledge formed a flat spot, above which a beautiful cascade of some hundred feet poured down its waters, and beneath it another high one emptied them into the main stream. From this cool shady recess we made a circuit to avoid the overhanging cascade. As before we followed little projecting ledges, the apparent danger being partly hidden by the thickness of the vegetation. In passing from one ledge to another there was a vertical wall of rock: one of the Tahitians, a fine active man, placed the trunk of a tree against this, swarmed up it and then by the aid of crevices reached the summit. He fixed the ropes to a projecting point and lowered them for us and then hauled up the dog and luggage. Beneath the ledge on which the dead tree was reared the precipice must have been five or six hundred feet deep; if the abyss had not been partly concealed by the overhanging ferns and lilies, my head would have turned giddy and nothing should have induced me to have attempted it. We continued to ascend, sometimes by ledges, and sometimes by knife-edged ridges, having on each hand profound ravines. In the evening we reached a flat little spot on the banks of the same stream which I have mentioned as descending by a chain of beautiful waterfalls. Here we bivouacked for the night. On each side of the ravine there were great beds of the mountain banana, covered with ripe fruit. Many of these plants grew to a height from twenty to twenty-five feet high and from three to four in circumference. By the aid of strips of bark for twine, the stems of the bamboos and the large leaf of the banana, the Tahitians in a few minutes built an excellent house; and with the withered leaves made a soft bed. They then proceeded to make a fire and cook our evening meal. A light was procured by rubbing a blunt pointed stick in a groove, as if with the intention of deepening it, until by friction the dust became ignited. A peculiarly white and very light wood is alone used for this purpose, it is the same which serves for poles to carry any burthen and for the floating outrigger to steady the canoe. The fire was produced in a few seconds; to a person, however, who does not understand the art, it requires the greatest exertion, as I found before I at last to my great pride succeeded in igniting the dust.

The Tahitians having made a small fire of sticks, placed a score of stones about the size of a cricket ball on the burning wood. In about ten minutes' time, the sticks were consumed and the stones hot. They had previously folded up in small parcels made of leaves, pieces of beef, fish, ripe and unripe bananas, and the tops of the wild arum. These

green parcels were laid in a layer between two of the hot stones and the whole then covered up by earth, so that no smoke or steam escaped. In about a quarter of an hour, the whole was most deliciously cooked; the choice green parcels were laid on a cloth of banana leaves; with a coconut shell we drank the cool water of the running stream and thus enjoyed our rustic meal.

Before we laid ourselves down to sleep, the elder Tahitian fell on his knees and with closed eyes repeated a long prayer in his native tongue. He prayed as a Christian should do, with fitting reverence, and without fear of ridicule or ostentation of piety. In a like manner, neither of the men would taste food without saying before hand a short grace. Those travellers who hint that a Tahitian prays only when the eyes of the missionary are fixed on him, should have slept with us that night on the mountain side. During the night it rained very heavily, but the good thatch of banana leaves kept us dry.

*19 November:* At daylight, after their morning prayer, my friends prepared an excellent breakfast in the same manner as in the evening. They themselves certainly partook of it largely; indeed I never saw any men eat anything nearly so much in quantity. They did not, however, overeat themselves, that is, their activity was anything but impaired. I should suppose such capacious stomachs must be the results of a large part of their diet consisting of fruits and vegetables which do not contain in a given bulk very much nutriment. Unwittingly I was the means of my companions breaking one of their own laws and resolutions: I took with me a flask of spirits, which they could not resolve to refuse, but as often as they drank a little, they put their fingers before their mouths and uttered the word 'Missionary'.

After breakfast we proceeded on our journey: as my object was merely to see a little of the interior scenery, we returned by another track, which descended into the main valley lower down. For some distance we wound along the side of the mountain which formed the valley; the track was extraordinarily intricate; in the less precipitous parts it passed through very extensive groves of the wild banana. The Tahitians with their naked tattooed bodies, their heads ornamented with flowers, and seen in the dark shade of the woods, would have formed a fine picture of man inhabiting some primeval forest. In our descent we followed the line of ridges; these were exceedingly narrow, and for considerable lengths steep as the inclination of a ladder, but all clothed by vegetation.

The extreme care necessary in poising each step, rendered the



walking fatiguing. I am not weary of expressing my astonishment at these ravines and precipices. The mountains may be almost described as merely rent by so many crevices. When viewing the surrounding country from the knife-edged ridges, the point of support was so small, that the effect was nearly the same as would, I imagine, be observed from a balloon. In this descent we only had need of using the ropes once, at the point where we entered the main valley. Proceeding downwards we slept under the same ledge of rocks where we had before dined. The night was fine but from the depth and narrowness of the gorge, profoundly dark.

*20 November*: In the morning we started by times and reached Matavai by noon. On the road we met a large party of noble athletic men going for the wild bananas. I found the ship, on account of difficulty in watering, had moved four miles to the harbour of Papava, to which place I immediately walked.

*From Captain FitzRoy's Narrative:*

Passing some tall palm trees, I asked a native to get me some coconuts. Putting a strip of bark between his feet, he threw off his shirt, and jumped 'at' the tree, catching the trunk with his feet and hands at the same moment; then moving his hands alternately, and his feet by short jumps, the band of bark assisting their hold on the slender trunk, in a few seconds he was at the top of a tree seventy feet in height, quite straight and perpendicular, and tapering in size from a foot to six inches in diameter.

Some curious relics of former times were found for me, which had long remained in dusty quiet; among them were tortoise-shell masks, and head pieces surmounted by feathers of the tropic bird; also an apron, ingeniously, or rather laboriously made of small pieces of mother of pearl. So long was it since they had been used, that a native about thirty years of age did not know what they were for: but from the signs and expressions of the old man to whom they belonged, I think they formed part of the dress of a priest, used when sacrificing a (perhaps human) victim. Two English sixpences also found their way to me, bearing the date 1787; memorials of the ill-fated *Bounty*.

News arrived that the queen intended to return to her headquarters at Papeete, and that she had ordered a present of fruit and pigs to be prepared.

*22 November*: Sunday. Early this morning a party went with me to Papeete, and others went to Mr Nott's church, while those who could

not go far from the ship attended Mr Wilson, to hear as well as see the natives at divine service. At Mr Pritchard's church we found an orderly, attentive, and decently dressed congregation. I saw nothing 'grotesque', nothing 'ludicrous', nor anything which had a tendency to 'depress the spirits', or 'disappoint one's expectations', as has been said.

The church was quite full and many were sitting outside; I suppose six hundred people were present besides children, who, like others of their happy age, required an occasional touch with the white wand of a most stern looking old beadle, to prevent their chattering to one another about the strangers, and their 'money'. (All gold or silver is by them called 'money'; the gold lace on a coat, an epaulette, a gold coin, or a dollar, is 'money'.)

Mr Pritchard's fluent delivery in the native language surprised and pleased us much. The greater part of the natives were very attentive. Two were making notes upon paper, of the subject of his discourse. A few were careless, but only a very few; and their eye-wanderings were caused chiefly by the strangers in uniform. Where is the English congregation of five or six hundred persons, in which a captious observer could not occasionally detect inattention to the clergyman? Hymns were sung with much propriety, and a very pleasing musical effect. The language is so soft and so full of vowels, that the good voices and very correct ears of the natives succeed admirably in hymns. After the service in the native language had ended, we repaired to the English chapel with Mr Pritchard, who performed divine service in the manner of the Independents. Occasional visitors from ships at the island, and the few European residents who are within reach, frequent this chapel.

It was certainly better to suppress altogether, rather than only to restrain and alter their former licentious amusements, but it seemed to me that some kind of innocent recreation was much wanted by these light-hearted islanders. There is a void in the mind where a naturally thoughtless and volatile disposition exists, which it is extremely difficult to fill with serious thoughts of any duration.

*23 November*: With Mr Henry (the son of the missionary) a well known chief, 'Hitote', came on board to share our breakfast. Afterwards I hastened to Papeete to pay my respects to Queen Pomare. I was in time to see her arrive from Eimeo, sitting on the gunwale of a whale-boat, loosely dressed in a dark kind of gown, without anything upon her head, hands, or feet, and without any kind of girdle or sash to confine her gown, which was fastened only at the throat. There was no reception at



landing: no attendance, no kind of outward ceremony showed that the 'Queen of the Isles' had arrived at her home.

Some time afterwards, when I heard that she was inclined to give an audience, I went to the royal cottage with Mr Pritchard. A parcel of half dressed merry looking damsels eyed us with an amusing mixture of shyness and curiosity. These, I concluded, were a part of the 'Queen's mob', as our interpreter had ignorantly or democratically called the royal attendants. Only a few men were about the house, one of whom was the queen's foster-father and another her husband.

Entering a small room, 'Ia-orana Pomare', with a shake of the hand, was the salutation given by Mr Pritchard, and by myself, following his example. On the only three chairs in the room we sat down, but the queen looked very uncomfortable, and certainly not at all dignified. I could not help pitying her, for it was evident she was expecting a lecture on the subject of the *Truro*, and felt her utter helplessness: I was therefore glad, after a few words of compliment, to see her mother, husband, and foster-father enter the room, though they sat down upon chests or the floor.

I delivered a letter from Commodore Mason, which she asked Mr Pritchard to interpret, and sent out to her secretary. A meeting of the chiefs, herself presiding, was proposed and decided to be held on the following day. Some conversation then passed on other subjects, and we took our leave by shaking each individual by the hand. This is certainly preferable to pressing noses, but I was sorry to see that the missionaries had attended but little to the outward demeanour, to the manners, to the attendance, and to the dwelling of the sovereign of a people whose happiness and improvement would certainly be increased by raising the character, and improving the condition of their ruler. While called a queen, Pomare ought to be supported by some of those ceremonious distinctions, which have, in all ages and nations, accompanied the chief authority.

Her small ill-furnished room and her awkwardly-contrived house were neither English nor Otaheitan. In affixing her signature, 'Vahine' is added, which means 'female' – thus 'Pomare Vahine'. Her husband is a young, intelligent man; but he has no share in the government, being only king-consort. This man was the only native of the island, that I saw, whose nose was sharp and projecting. It is amusing to think that they call a man 'long nose', in this country when they wish to wound his feelings deeply.

During the first few days after a child is born, the mother or her

attendants keep pressing the back of the infant's head with one hand, and the forehead and nose with the other, to make the head high and the nose and brow flat. Children of the higher ranks undergo more compression, because they are more carefully attended. How the queen's husband escaped, or could be chosen by her with such a nose, I am at a loss to discover.

24 November: With all the officers who could be spared from the duty of the ship, Mr Darwin and I repaired early to Papeete. Mr Wilson, Mr Henry and Hitote were of the party. Arrived at the hospitable abode of Mr Pritchard, we waited until a messenger informed us of the queen's arrival at the appointed place of meeting – the English chapel. From our position we had just seen the royal escort – a very inferior assemblage. It appeared that the chiefs and elderly people had walked to the chapel when our boats arrived, leaving only the younger branches of the community to accompany Pomare. The English chapel is a small, wooden structure, with a high, angular roof; it is about fifty feet in length and thirty feet wide; near the eastern end is a pulpit, and at each corner a small pew. The rest of the building is occupied by strong benches, extending nearly from side to side; latticed windows admit light and air; the roof is thatched in a partly Otaheitan manner; none of the woodwork is painted, neither is there any decoration. Entering the chapel with my companions, I turned towards the principal pews, expecting to see Pomare there; but no, she was sitting almost alone, at the other end of the building, looking very disconsolate. Natives sitting promiscuously on the benches saluted us as we entered: order, or any kind of form, there was none.

The only visible difference between Pomare and her subjects was her wearing a gay silk gown, tied however round the throat, though entirely loose elsewhere; being made and worn like a loose smock-frock, its uncouth appearance excited more notice from our eyes than the rich material. In her figure, her countenance, or her manner, there was nothing prepossessing, or at all calculated to command the respect of foreigners.

It had become customary to shake hands with the queen, as well as with the chiefs. This compliment we were expected to pay; but it seemed difficult to manage, since Pomare occupied a large share of the space between two benches nearest to the wall, and the next space was filled by natives. However, squeezing past her, one after another, shaking hands at the most awkward moment, we countermarched into vacant places on the benches next in front of her. The principal chiefs,



Utaame, Taati, Hitote, and others, sat near the queen, whose advisers and speakers appeared to be Taati and her foster-father. It was left for me to break the silence and enter upon the business for which we had assembled. Desirous of explaining the motives of our visit, by means of an interpreter in whom the natives would place confidence, I told Mitchell the pilot to request that Queen Pomare would choose a person to act in that character. She named Mr Pritchard.

Commodore Mason's letter to me, authorizing my proceedings, was then read – in English, by myself – and translated by Mr Pritchard. Next was read an agreement or bond, by which Queen Pomare had engaged to pay 2,853 dollars, or an equivalent, on or before 1 September 1835, as an indemnification for the capture and robbery of the *Truro* at the Low Islands.

The queen was asked whether her promise had been fulfilled?

Taati answered, 'Neither the money nor an equivalent has yet been given'.

I then reminded Pomare of the solemn nature of her agreement; of the loss which her character, and that of her chiefs, would sustain; and of the means England eventually might adopt to recover the property so nefariously taken away from British subjects. I said that I was on my way to England, where her conduct would become known; and if harsh measures should, in consequence, be adopted, she must herself expect to bear the blame.

These words seemed to produce a serious effect. Much argumentative discussion occupied the more respectable natives as well as the chiefs; while the queen sat in silence.

I must here remark, in explanation of the assuming or even harsh tone of my conduct towards Pomare, at this meeting, that there was too much reason for believing that she had abetted, if not in a great measure instigated, the piracy of the Low Islanders.

Taati replied, 'The honour of the queen is our honour. We will share her difficulties. Her friends prefer assisting her in clearing off this debt, to leaving her conduct exposed to censure. We have determined to unite in her cause, and endeavour to pay all before the departure of the man-of-war.'

The business for which we had assembled being over, I requested Mr Pritchard to remind the queen, that I had a long voyage to perform; and ought to depart from her territories directly she confided to me the promised document, relating to the affair of the *Truro*; and I then asked the queen and principal chiefs to honour our little vessel by a visit on the

following evening, to see a few fireworks: to which they willingly consented: some trifling conversation then passed; and the meeting ended.

Much more was said, during the time, than I have here detailed: my companions were as much astonished as myself at witnessing such order, so much sensible reasoning, and so good a delivery of their ideas! I shall long remember that meeting at Otaheite, and consider it one of the most interesting sights I ever witnessed. To me it was a beautiful miniature view of a nation emerging from heathen ignorance, and modestly setting forth their claims to be considered civilized and Christian.

It was quite dark when we left Papeete to return, by many miles among coral reefs, to the *Beagle*; but our cat-eyed pilot undertook to guide our three boats safely through intricate passages among the reefs, between which I could hardly find my way in broad daylight, even after having passed them several times. The distance to the ship was about four miles; and the night so dark, that the boats were obliged almost to touch each other to ensure safety; yet they arrived on board unhurt, contrary to my expectation; for my eyes could not detect any reason for altering our course every few minutes, neither could those of any other person, except the pilot, James Mitchell. Had he made a mistake of even a few yards, among so many intricate windings, our boats must have suffered (because the coral rocks are very sharp and soon split a plank), though in such smooth and shallow water, a wrong turning could have caused inconvenience only to ourselves, for there was little or no danger of more than a wetting.

The observations at Matavai being completed, I was enabled to leave the place, and invited Hitote and Mr Henry, who had returned with us, to pay another visit to Papeete in the *Beagle*, and meet the royal party.

25 November: At daylight this morning, while the *Beagle's* crew were unmooring and hoisting in the boats, I went to Mr Wilson's school-house, then used also as a chapel – the old chapel having been blown down by a violent gale of wind. Divine service (a hymn, a long extempore prayer, and another hymn) was performed. This is the established custom at all the missionary stations at Otaheite on Wednesday mornings: on other mornings one or two hours after daylight are employed in the schools. The congregation was numerous, and very attentive. I noticed that all the principal men of the district, besides Hitote who came from a distant part of the island, were present. Afterwards, Mr Darwin and I breakfasted with Mr Wilson at his house.



When under sail we tried to approach the entrance of Papeete Harbour, but baffling winds prevented our anchoring until three in the afternoon; and then, anticipating the royal visit, we tried to make such preparations as our little vessel could accomplish. Dressing the ship with flags, and preparing to man yards, was all we were able to do: salute we could not, on account of the chronometers.

*From Charles Darwin's Diary:*

The queen is an awkward large woman, without any beauty, gracefulness or dignity of manners. She appears to have only one royal attribute, viz. a perfect immovability of expression (and that generally rather a sulky one) under all circumstances.

*From Captain FitzRoy's Narrative:*

We were told that the queen had walked to Papava, distant about two miles, to inspect a quantity of fruit, coconuts, pineapples, etc., which she had ordered to be collected as a present to the man-of-war; and, with our glasses, we saw the royal party hastening along the beach, and in the midst of a number of women, children, and men, the queen was observed advancing at a quick walk. Soon afterwards, when it was supposed she had rested and dressed, we sent the boats. The chiefs were already on board. Mr Pritchard undertook the troublesome offices of interpreter and master of the ceremonies, and by his assistance we saw the whole party collected on the *Beagle's* upper deck, while the seamen manned yards, and we all gave the queen three cheers.

A bad dinner, accepted after the four mile walk in a manner it did not deserve, was succeeded by a few rockets, blue lights, and false fires, the only fireworks we possessed. Luckily the rockets were good and gave high satisfaction. Lying in the middle of a bay, whose radius, supposing it semi-circular, may be half a mile, our ears were startled by a thrilling outcry of delight echoing around the beach, as each successive rocket rushed into the sky and burst. This outcry from the natives on shore, who were taken by surprise (the night being very dark) showed how much they enjoyed the sight. Our visitors on board, being told what would happen, only repeated 'maitai', 'maitai', with earnestness. I much wished then to have had a few good fireworks of a more artificial character. To any one about to visit distant, especially half-civilized or savage nations, let me repeat a piece of advice given to me, but which from inadvertence I neglected to follow: 'take a large stock of fireworks.'

Some presents to each of our guests helped to amuse them and keep

up their cheerfulness. After tea I proposed hearing a few of the seamen's songs, as some of our crew were very good singers, not at the time thinking of their prejudices against any singing except hymns. Mr Pritchard had no word to interpret 'song' but 'himene'; and 'Rule Britannia', with one or two other grave performances, passed off very well, but, to the perplexing of Mr Pritchard and surprise of the Otaheitans, a merry comic song was struck up, which obliged Mr Pritchard to answer the queen's inquiries plainly, by saying, 'No, that was not a hymn', it was 'sea singing'. 'God save the King' sounded more gravely, and suited better.

We landed the party almost at their own doors, and if they were half as well pleased as we were, our little preparations had not been a waste of time and trouble. Their behaviour on board was extremely correct: their habits and manners perfectly inoffensive. No doubt they are improving yearly, and the example of the missionary families has an influence over them, exceeding that of very differently disposed people by whom they are too frequently visited.

26 November: At daylight this morning some of us visited the school. As I had heard of 'compulsion' and other absurdities, I went early to get there before Mr Pritchard arrived, without having hinted at such an intention.

In the school-house I found a number of children, waiting for their teacher, who soon arrived and gave them their tasks. The greater part of them wrote sentences on slates from his dictation, with ease and correctness. One sentence he gave them was, 'the captain wishes you happiness', which they wrote instantly, and some of their own accord added, 'and we wish happiness to the captain'. The handwriting of many, indeed most of the elder girls and boys, was very good: and to verbal questions they replied readily. They seemed to be in good discipline, and yet a merrier or more cheerful looking set of children I never saw. A hymn excellently, or, I ought perhaps to say, prettily sung, ended their attendance.

Returning by way of the church, I saw Hitote, his brother, and other chiefs, engaged in eager discussion. Mr Pritchard and I went in: 'You are just come in time,' said they, 'we are disputing about the lightning conductors on board the *Beagle*, and cannot determine whether they end in the ship's hold, or whether they go through her bottom, into the water.' Mr Pritchard explained: a momentary pause ensued – each seemed trying to understand the puzzling subject; when a shrewd old man, hitherto a quiet listener, remarked – 'you white men



are wonderfully clever, you know and do most things, I wish some of you' (passing his hand over his chin in a drolly rueful manner) 'I wish some of you would tell us how to rid our faces of these troublesome beards!' He had just been shaved.

In the course of the morning I waited upon the queen to inform her that the *Beagle* was then going out of the port; and that I waited only for her commands, and the letter she had promised: upon which she sent for her secretary and the chiefs; when we left her for a time. One of the persons who had been on board our vessel the previous evening, sent me a letter this morning, which is so peculiar and interesting that I here insert it.

Translation of a letter from 'Mare', one of the seven supreme judges of Otaheite; written in a round distinct hand, in his own language, and directed to me.

Tahiti, 26 November 1835

To you the officer of King William!

May the peace of God be with you. This is what I have to say to you, my dear friend. I praise you with grateful feelings in my heart for your kindness to me, an insignificant man, in giving to me a box and some other things besides. I and my wife will feel grateful to you when we look at these things. This is another thing with which I feel pleased; your having shown me the many good things on board your ship; and your men; they have great excellence, and a good character.

That you may be saved is the wish of your servant,

MARE

The queen's letter being finished, and sent to me by her messenger, I will give the translation made for me on the spot by Mr Pritchard.

Tahiti, 26 November 1835

To the captain of the ship of war:

This is what I have to say to you, before you leave us, respecting the debt. We have 2,338 dollars, which we are now taking to the person who is to receive this property, who is Mr Bicknell. We are now collecting the remainder.

Peace be with you,

And with your king, William,

(Signed) POMARE VAHINE

(Witnessed by) HITOTE and TAATI

Taking leave of the queen was our next engagement. At the door of

her house was a table, on which the loyal and kind-hearted natives were depositing their dollars, and fractions of dollars: to enable her to pay the debt. To me it was an affecting and an unpleasing sight – not the proofs of loyalty and affection – Heaven forbid! – but the reflection that those individuals had in no way done wrong, and that their dollars had been hardly earned and were highly prized. To show how little a metallic currency was then understood, I may mention that many individuals wished to subscribe fractions, who could not afford a whole dollar; but they were prevented, at first, because the collector knew not how to reckon a fraction of a dollar. Mr Pritchard easily explained this, and then the smaller coins (rials and two rial pieces) were soon numerous upon the table. Frequently, while walking about the island, men had asked me to give them a dollar in exchange for its value in small coin, which, to their surprise, I was always glad to do, when I had dollars with me.

Returning by the beach, we talked for some time with Taati, Utaame, and others. Old Ua was there also, to thank me for some trifles sent to him by one of the queen's maidens, who had attended her when on board the *Beagle*.

They expressed great anxiety about the arrival of another man-of-war, with, perhaps, harsher orders: and were very desirous to know when I should arrive in England, and when they would hear from me. I endeavoured to satisfy them on these points, before Mr Darwin and I wished them farewell and, after taking leave of Mr Pritchard's family, embarked. Mare and Mr Pritchard accompanied us to the vessel, then under sail outside the reefs; wished us a great deal more happiness than most of us will probably enjoy, and returned with Mr Henry and the pilot in their own boats. We made all sail, and soon lost sight of this beautiful island.



## 14. NEW ZEALAND

*From Captain FitzRoy's Narrative:*

Easterly winds swept us along a smooth sea for many days, after leaving Otaheite. At daylight on 3 December we saw Wailutaki, a small group of islets encircled by a coral reef, from four to eight miles in diameter. The principal one is 360 feet high, and nearly four miles long. On the 11th a few white tern were seen near the ship (in lat.  $28^{\circ}$  S. and long.  $180^{\circ}$ ), and as she was about 120 miles from any land then known, this notice may help to show within what limits the sight of those birds may be considered to indicate the vicinity of land. I am not at all surprised that the early voyagers should have taken so much notice of the appearance and flight of birds, when out of sight of land; since in my very short experience I have profited much by observing them, and I am thence led to conclude that land, especially small islands or reefs, has often been discovered in consequence of watching particular kinds of birds, and noticing the direction in which they fly of an evening, about sunset. Short winged birds, such as shags or boobies, seldom go a hundred miles from land, and generally return to their accustomed roosting place at night; and even those with longer wings which fly farther, do not habitually remain on the wing at night, though they are known to do so sometimes, especially if attracted by a ship, on which, doubtless, they would perch if she were to remain motionless, and her crew were to be quiet for a short time. Mistakes may occur in consequence of floating carcasses, trunks of trees, wrecks of vessels, or drifting seaweed, all which attract birds and afford them rest at night; but, generally speaking, if there is land within fifty miles of a vessel, its existence will be indicated, and the direction in which to look will be pointed out by birds. Decided oceanic fowl, such as albatrosses and all the petrel family, sleep upon the surface of their favourite element; therefore the flight of that description of bird can be no guide whatever, except in the breeding season, when they frequent the vicinity of land.

On 16 December indications of a westerly wind appeared; and for the next three days we were buffeted by a hard gale from south-west to

south-east. This was the more annoying on account of the chronometer measurement, because it was accompanied by a sudden change of temperature, which I thought would alter their rates. During the twenty-four hours previous to this southerly gale commencing, we found the current setting northward, about a mile an hour; but after the hardest part of the gale was over, it set to the south-west, at about the same rate.

Both before and during these three days, I was struck by the precise similarity of the clouds, sky, peculiarities of wind, and weather, to what we had been accustomed to meet with off the coast of Patagonia.

On the 19th we made the northern hills of New Zealand; but tantalized still by adverse winds, all the next day was spent in beating to windward, and not till the 21st could we succeed in obtaining access to the Bay of Islands.

We were all a good deal disappointed by the view. After Otaheite, the northern part of New Zealand had, to our eyes, a very ordinary appearance.

*21 December:* A light easterly breeze enabled us to steer towards the Bay of Islands. Few places are easier of access than this bay: excepting the Whale-rock, whose position is well ascertained, there are no hidden dangers: and within the line of the heads, there is little or no current deserving notice: outside that line, the current generally sets to the south-east about a mile an hour.

Compared with mountainous countries, the northern parts of New Zealand are not high; but they cannot be described as low land. With us the recent impressions caused by Otaheite, rendered the view of New Zealand, though novel, rather uninteresting.

Cape Pococke is a steep cliffy headland, of a dark colour, rather picturesque in its appearance: near it there is a conical rocky islet. Numerous islands, small and large, are scattered over the bay; an expanse of water really about ten miles square, though to the eye it appears much smaller, because so many islands intercept the view.

Near the middle of the west side of the bay is the opening of Kororareka Harbour, a secure but shallow port; better adapted to merchant shipping than to the use of men-of-war.

After passing Cape Pococke, and advancing about a mile, a small settlement appeared in the northern bight of the bay; and the English look of the houses was very gratifying to us. This, I found, was Tipuna, or Rangihoua, the place where the first settlement of white men was made upon the shores of New Zealand. On the farther side of Kororareka



other houses were then seen – neat, and apparently comfortable dwellings, well situated under the lee of the western hills, while close by, on our right hand, a curious line of flat-topped black rocks, a few feet only above the water, reminded us of the remains of a great mole.

Within the line from Cape Pococke to Cape Brett there is not more than thirty fathoms of water; and every where, excepting close to the rocks, the bottom is soft and tenacious, so that an anchor may be let go in any part. We saw small straggling villages of native huts in many places, and around each of them a substantial fence of palisaded posts and rails. These fences, and the cultivated spots of ground which appear as you proceed up the bay, might give a more favourable idea of the native habits than they yet deserve; for the fences are fortifications – defences against intruding men, not cattle.

In a conspicuous solitary position, opposite to the entrance of Kororareka harbour, a single English house, without another building within a mile of it, nor any protection except that of a tall staff, on which waved the British Union Jack, presented a contrast to the fortified villages; and forcibly impressed one's mind with a conviction of the great influence already obtained over the formerly wild cannibals of New Zealand.

The entrance to the harbour is narrow, even to the eye, but it is still more confined by shoal water. In entering or leaving it, a ship ought to keep close to Kororareka Point: after rounding that point, at the distance of a cable's length, the sheltered part of the port is seen, looking like the mouth of a navigable river. On the western side, the native village of Kororareka, a straggling collection of low huts, strongly palisaded; on the eastern, three or four English houses, the headquarters of the missionaries; on the rising ground, near the water, far up the harbour, several more houses and villages – gave an appearance of population and successful exertion as surprising as satisfactory. Near a detached house of European form, a large white ensign excited our curiosity; and we found it was the flag of New Zealand; differing only from the ensign of St George in the upper 'canton', next the staff, where, instead of a Union Jack, there is a red cross on a blue field; each quarter of the blue field being 'pierced' by a white star.

We anchored between Kororareka and Paihia (the missionary settlement): farther up the harbour were several whale-ships which had anchored there, I was told, in order to avoid the spirit-shops of Kororareka.

From this anchorage the view on all sides is pleasing. An appearance

of fertility every where meets the eye; but there are no grand or very remarkable features. There is nothing in the outward character of the country corresponding to the ferocious sanguinary disposition of its aboriginal inhabitants. The British resident, some English settlers, and two of the native chiefs came on board during the afternoon; and in the evening I made acquaintance with Mr Baker, a missionary residing at Paihia. The resident's boat was manned by young Zealanders, whose smooth faces, cropped hair, Scotch caps, and jackets and trousers were much approved of by a chief whose long war-canoe was well-manned by athletic savages with half-naked figures, faces deeply-scarred – rather than tattooed – and long curly hair.

In walking about the missionary establishment at Paihia, I was disappointed by seeing the natives so dirty, and their huts looking little better than pigstyes. Immediately round the dwellings of the missionaries I expected a better state of things; but I was told, that their numerous and increasing avocations engrossed all their time; and that the native population were slow in adopting habits, or even ideas, of cleanliness.

My first impression, upon seeing several New Zealanders in their native dress and dirtiness, was, that they were a race intermediate between the Otaheitans and Fuegians; and I afterwards found that Mr Stokes and others saw many precise resemblances to the Fuegians, while every one admitted their likeness to the Otaheitans. To me they all seem to be one and the same race of men, altered by climate, habits and food; but descended from the same original stock.

Of a middle size, spare, but strong frame, and dark complexion, the New Zealander's outward appearance is much in his favour; hardness and activity, as may be expected, he eminently possesses. The expression of his features indicates energy, quickness of apprehension, without much reflection; and a high degree of daring. Ferocity is a striking trait in the countenances of many among the older men, and it is increased considerably by the savage style in which their faces are disfigured, or, as they think, ornamented by lines cut in the skin with a blunt-edged iron tool, and stained black. These lines are certainly designed with as much taste, even elegance, as could possibly be exerted in such disfiguring devices. The expression which, it appears, is anxiously desired, is that of a demon-warrior.

The lines upon the face are not, however, arbitrary marks, invented or increased at the caprice of individuals, or the fancy of the operator who inflicts the torture; they are heraldic ornaments, distinctions far



more intelligible to the natives of New Zealand than our own armorial bearings are to many of us, in these unchivalric days. Young men have but few: slaves, born in bondage, or taken young, have scarcely any marks; but the older men, especially the more distinguished chiefs, are so covered with them that the natural expression of face is almost hidden under an ornamented mask. One object of the tattooing, is to prevent change of features after middle age. Some of the women, whom the missionaries endeavoured to persuade not to follow this practice, said, 'Let us have a few lines on our lips, that they may not shrivel when we are old.'

Every one has heard of, and many people have seen the war-dance. What exaggerated distortions of human features could be contrived more horrible than those they then display? What approach to demons could human beings make nearer than that which is made by the Zealanders when infuriating, maddening themselves for battle by their dance of death!

The hair of a New Zealander is naturally luxuriant, though rather coarse; its rough, free curliness in an unadorned, almost untouched state, heightens that expression of untameable ferocity which is so repulsive in the older men, especially in those of inferior degree. Many of the young women are good looking; and they dress their hair with some pains, and not a little oil.

Although cannibalism and infanticide have ceased in the northern parts of New Zealand, the aboriginal race is decreasing. The natives say frequently, 'The country is not for us; it is for the white men!' and they often remark upon their lessening numbers. Change of habits, European diseases, spirits, and the employment of many of their finest young men in whale-ships, an occupation which unhappily tends to their injury, combine to cause this diminution. Wearing more clothes, especially thick blankets, exposes them to sudden colds, which often end fatally. We were surprised at seeing almost every native wrapped up in a thick blanket, perhaps even in two or three blankets, while we were wearing thin clothing.

The countenances of some of the men, independent of the tattooing, are handsome, according to European ideas of line beauty. Regular, well-defined, and high features are often seen; but they are exceptions, rather than the usual characteristics. Generally speaking, the New Zealander has a retreating and narrow forehead – rather wide, however, at the base; a very prominent brow; deeply-sunk black eyes, small and ever restless; a small nose, rather hollow, in most cases, though occasion-

ally straight or even aquiline, with full nostrils; the upper lip is short, but that and the lower are thick; the mouth rather wide; white and much blunted teeth; with a chin neither large nor small, but rather broad. Some have higher and better heads, and a less marked expansion of brow, nostrils, and lips; others, again, are the reverse: usually, their eyes are placed horizontally; but some are inclined, like those of the Chinese, though not remarkably; indeed not so much so as those of a Scotchman whom I met there. Among the women I noticed a general depression of the bridge of the nose, and a flat frontal region.

The general complexion of both women and men is a dark, coppery-brown; but it varies from the lightest hue of copper to a rich mahogany or chocolate, and in some cases almost to black. The natural colour of the skin is much altered by paint, dirt, and exposure. Before closing this slight description of the personal appearance of the Zealanders, I must allude to the remarkable shape of their teeth. In a white man the enamel usually covers all the tooth, whether front or double; but the teeth of a man of New Zealand are like those of the Fuegians, and at a first glance remind one of those of a horse. Either they are all worn down – canine, cutting-teeth, and grinders – to an uniform height, so that their interior texture is quite exposed, or they are of a peculiar structure.

The New Zealanders' salutation has often been talked of as 'rubbing noses', it is, in fact, touching, or crossing them; for one person gently presses the bridge of his nose across that of his friend. Mr Darwin informed me that when a woman expects to be saluted by a person of consequence, in the 'nose pressing' manner, she sits down and makes a droll grunting noise, which is continued at intervals until the salute has been given.

The usual manner of the native is very inferior. Accustomed to a low, wretched dwelling, and to crouching in a canoe, his habitual posture of rest is squatting on his hams, or upon the ground, with his knees up to his chin; hence, also, his limbs are rather inferior in their shape. But arouse his spirit, set him in motion, excite him to action, and the crouching, indolent being is suddenly changed into an active and animated demoniac. The Zealander is extremely proud; he will not endure the slightest insult. A blow, even in jest, must be returned!

Every one has seen or heard so much of their weapons and canoes, that it is almost superfluous to speak of them; yet, in examining one of their larger canoes – seventy feet in length, from three to four in width, and about three in depth – I was much interested by observing what trouble and pains had been taken in building and trying to ornament



this, to them, first-rate vessel of war. Her lower body was formed out of the trunk of a single tree – the New Zealand kauri, the upper works by planks of the same wood; the stem and stern, raised and projecting, like those of the galleys of old, were carved and hideously disfigured, rather than ornamented by red, distorted faces with protruding tongues and glaring mother-of-pearl eyes. Much carving of an entirely different and rather tasteful design decorated the sides. Beneath the thwarts, a wicker-work platform, extending from end to end, served to confine the ballast to its proper position, and to afford a place upon which the warriors could stand to use their weapons. From forty to eighty men can embark in such canoes. But their day is gone! In a few years, scarcely a war-canoe will be found in the northern district of New Zealand.

*22 December:* On the little island of Paihia, where our instruments were landed for observations, the remains of half-burned human bones were found: and as the dead are not burned in this country, they must have been the remains of a former meal. It was difficult to decide upon the time which had elapsed since that feast was made, by the appearance of the bones. They might have been covered by earth for some time, and only lately exposed; or they might have been the remains of a very modern feast, indulged in upon a little island to which it was not probable that a missionary, or any one who might give information to him, could approach unperceived.

We were much struck by the beautiful appearance of an evergreen tree, resembling an ilex, or a large myrtle, when seen from a distance; whose bright red flowers, in large clusters, upon the dark green foliage, gave an effect which I longed to see transferred to an English garden. This tree seemed to be common. After landing, the fern attracted more notice than any other vegetable production: every where in New Zealand this useful plant is found. Why useful? may be thought. Because it was one principal article of food, before the introduction of potatoes. Owing to its abundance, and to the edible, as well as tolerably nutritious, nature of its roots, no man can ever starve in New Zealand who is able to gather fern: but that it is not a pleasant food may be inferred from the fact that no native eats fern-roots when he can get potatoes. Where the fern grows thickly, and high, the soil is known to be rich: where it is small, and scarce, the land is not worth cultivating.

Mr Williams, the elder, formerly a lieutenant in the navy, was absent on an exploring and negotiating expedition to the southern parts of the island. I much regretted having missed seeing him, as he was considered the leading person among the missionary body in New Zealand; and

was said, by every one, to be thoroughly devoted to the great cause, in which he was one of the first, and most daring. I walked with Mr Baker about the little village, or hamlet, of Paihia. A substantial stone building I thought must be the church; but was a good deal disappointed at being shown a small low edifice, as the place of worship; and hearing that the large stone house was the printing establishment. This I did not like; for I thought of the effect produced on ignorant minds by the magnificence of Roman Catholic churches.

Paihia is a pretty spot. The harbour of Kororareka lies in front; and an amphitheatre of verdant hills forms the back ground. But it must be hot during the summer, as it is in a hollow, facing the sun. A visit to Mr J. Busby, the 'British Resident', at his house (protected by the flag, as I have already mentioned) occupied Mr Darwin and myself some time. Like most of the missionary dwellings, it is a temporary boarded cottage, intended only for present purposes. Mr Busby was taking great pains with his garden; and among other plants he anticipated that vines would flourish.

Mr Busby's official occupation at New Zealand appeared to me of a very neutral character. An isolated individual, not having even the authority of a magistrate, encircled by savages, and by a most troublesome class of his own countrymen, I was not astonished at his anxiety to receive definite instructions, and substantial support; or at the numerous complaints continually made by the English settlers.

Afterwards we went to Kororareka. On a sandy level, narrowly bounded by a low range of hills, or rather rising grounds, stands the principal assemblage of houses in the island; or as the missionaries say, 'in the land'. I have said assemblage of houses, because it did not agree with my ideas of a town, a village, a hamlet, or even an Indian encampment. Near the beach were a few small cottages which had once been whitewashed. At the foot of the hills were two or three small houses of European build; but the remaining space of ground appeared to be covered by palings, and pig-styes. The temporary enclosures which are made in a market-place, for cattle, might give an idea of the appearance of these sadly wretched dwelling places. The palings, or palisades, are intended to be fortifications: they are high, sometimes eight or ten feet; and, almost encircling the whole, a stronger palisade is fixed, but so inefficiently that either strength, an axe, or fire, would ensure an entrance to resolute men. There is neither embankment nor ditch. Within the small square spaces, enclosed by the slighter palings, are the huts of the natives: the angular, low thatched roofs of which are scarcely



set off from the ground by walls a foot or two in height. These roofs slope downwards, lengthwise as well as sideways; so that the front of the hut is the highest part. The upper point of the roof may be eight feet from the ground; the space of ground occupied, about ten square feet; seldom more, indeed usually less. Besides the door, through which a man cannot pass excepting upon his hands and knees, there is neither window, nor aperture of any kind. The New Zealand 'order of architecture' is marked by two wide planks placed edgewise in front, joined together at the top by nails or pegs, and forming a wide angle, in which the space is filled up, excepting a door-way two feet square, with materials similar to those of the walls and roof, namely wicker work, or 'wattling', covered by a thatching of broad flag leaves or rushes. The eaves of the roof project two or three feet beyond the front; so likewise do the side walls. In this sort of porch the family sit, eat, and, in the daytime, often sleep. At night most of them huddle together, within what, in every respect, deserves the name of a sty: even a Fuegian wigwam is far preferable, for as that is frequently left vacant during many successive weeks, heavy rains and a cold climate are antidotes to any particular accumulation of dirt.

I was inquisitive about the large planks, generally painted red, which appeared in front of every house. The natives told me that such boards had always been made by their ancestors, before tools of any metal were seen in the land: they were from twelve to twenty feet in length, about two feet in breadth, and two inches thick: and they seemed to have been 'dubbed' down to a fair surface; but I am inclined to think that the wood is of a kind that splits easily into plank, like the alerce of southern Chile. Being the evening mealtime, some women, and male slaves, were removing the cinders from holes in the earth, whence steam was issuing profusely, under a shed, near the house I was examining. The shed was a light roof, upon upright poles, covering the cooking place – a few square yards of cinder-covered ground. Out of each hole dirty looking bunches of fish and leaves were raked with fingers and sticks. Hot stones were at the bottom of the hole, placed in the usual Polynesian and Chilote method. The fish had been wrapped in the leaves, but taking it out of the oven in such a manner had displaced the leaves, and substituted a coating of ashes and cinders. Potatoes, raked out of another hot hole, looked more eatable: but leaving the natives to their dirty food, we walked to the new church. A slightly built edifice of bricks, and light frame work, with an abundance of bad glass windows, gave me the idea of a small methodist meeting-house rather than an episcopal





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church. A good deal of money having been subscribed by residents, and visitors, specially for this church, it might be wished that a portion of it had been employed in obtaining a better design, and better materials, as it stands in a very conspicuous situation. To place a church in a stronghold of iniquity, such as Kororareka, the resort of the worst disposed inhabitants of New Zealand, native and foreign, was a daring experiment: yet notwithstanding the ill-will entertained towards the missionaries, by their 'spirit-selling' countrymen; by native chiefs, whose pandering trade was yearly lessened; and by the evil disposed of every description, no molestation had been offered, and not a pane of glass had been broken! neither had the church service been performed in vain to inattentive hearers.

Returning to the beach, we then paid a formal visit to one of the chiefs; and for another, who was not at home, I thought I could not do better than leave a present: his wife, or rather one of his wives, was pointed out to us, as the sister of the notorious Shunghi. Titore was the absent chief's name. He was out in the country, with a hundred well-armed followers, cultivating, as we were told, his yam and potato grounds. We next saw a burying place, or rather a place where the dead are exposed, upon a raised platform, to the wind and sun. Wrapped in cloth of the country, the bodies are placed upon small square platforms of boards, which are fixed upon single central posts, ten feet high. Bushes were growing, unmolested, in the enclosure, no foot entering to tread them down. Among these thickets I saw several large boards standing upright like gravestones, some of which were painted red, and uncouthly carved. Returning to our boat, the chief whom we had visited presented me with a garment of the country manufacture: his assumed haughtiness was amusing, from being characteristic. Our evening was passed in very interesting conversation with Mr W. Williams, and Mr Baker; the former had just arrived from Waimate, an agricultural settlement, lately established by the missionaries, in the interior.

*From the journal of Symes Covington, Darwin's servant:*

New Zealand much lower land than Otahite. The general face of the country woody and mountainous. Here are a great many English and Church Missionaries. Chapel with organ and many well built houses besides the Native or Indian huts which are built of rushes etc. The Natives wear mattsas clothing which are made of the hemp or flax of the Country. An immense quantity of potatoes grown here. Hogs also



but has flavour. The former are the principal subsistence of the Natives. There are also oxen, a few. (English I suppose). Natives wear their hair long, their faces tattooed, generally tall, raw boned and muscular and said to be cannibals. Mr Earle saw an instance of cannibalism amongst them when here a few years before our arrival. No heads could be purchased through much sought after at this place. Their War Canoes very large and likewise use the matt sail. As this is much colder than Otahite the Natives are constantly bartering for Blankets which in return they give matts etc. Left Mathews here with his brother a Missionary. A shark was caught on the coast 36 feet long, the jaws of which our captain procured as a specimen. Jaws when extended  $3\frac{1}{2}$  feet high. Was said it came with mouth open to a whale boat which latter was after whales, but as soon as it was perceived harpoons were got ready and thrust down its throat and killed. Passed our Christmas here pretty merrily, considering the place.

*From Captain FitzRoy's Narrative:*

On the 23rd, I went with Mr Baker to Tipuna, the place where the first missionaries, Mr King and Mr Kendal, established themselves in 1813. Mr King was absent, but I saw his wife and son, who told me that he was travelling about among the natives, and would not return for several days; he was on horseback, his son said, but quite alone. Mrs King described the former state of things which she had witnessed herself in strong terms; she could not look back to those days without shuddering. Being told in the evening, that 'before morning their house would be in flames'; and that 'stones were heating for the oven in which they themselves were to be cooked', was a quieting farewell, from a mob of angry natives on more than one occasion. But Mr King always found a trusty friend in a chief, whose name has been often noticed - Waripoaka. I met him near the house, in company with a young chief, whose sense of propriety was so delicate that he would not appear before Mrs King, because he was not dressed 'well enough'! Waripoaka was satisfied with his own attire, and went with us. To my prejudiced eye, the dress of the young man, a mat, or mantle of the country, loosely wrapped around a fine figure, appeared far more suitable than the long-tailed old coat, threadbare pantaloons, and worn-out hat, which utterly disguised and disfigured the old chief.

Mr King's son talked of his sheep, and I found that though not more than eighteen or twenty, he was already a farmer, possessing land and a flock of sheep. Returning by a different route, we landed upon an

island lately bought from the natives by two persons who had been masters of whale-ships.

This island, purchased for a trifling price, will become very valuable, as the trade to the Bay of Islands increases; and I regretted to see a spot of such future consequence in the hands of men, whose verbal attacks upon the missionaries, and illiberal aspersions of Mr Busby's character, disgusted me so much that I had hardly patience to make the inquiries which were the object of my visit; or to wait while Mr Baker told them of a plan which was in contemplation among the settlers, for the prevention, or at least restriction, of the sale of spirits.

Such men as these, strongly prejudiced, deaf to reason, and too often habitually vicious; run-away convicts, whose characters may be imagined; and democratic seceders from regular government, cause the principal difficulties against which honest, upright settlers, and the whole missionary body, have to contend. One of the men, whose share in the property of the island I have been regretting, was partly intoxicated while we were with him; but Waripoaka, who accompanied us, significantly warned me of his state as I entered the house.

*From Charles Darwin's Diary:*

Late in the evening I went to Mr Williams' house, where I passed the night. I found there a very large party of children, collected together for Christmas day, and who were sitting round a table at tea. I never saw a nicer or more merry group: and to think that this was in the centre of the land of cannibalism, murder and all atrocious crimes! The cordiality and the happiness so plainly pictured in the faces of the little circle is, I believe, from what I could see, equally felt by the older persons of the mission.

*24 December:* In the morning prayers were read in the native tongue to the whole family: after breakfast I rambled about the gardens and farm. This was market day when the natives of the surrounding hamlets bring their stock of potatoes, Indian corn or pigs, to exchange for blankets, tobacco and sometimes (from the persuasions of the missionaries) for soap. Mr Davies' eldest son who manages a farm of his own, is the man of business in the market. The children of the missionaries who came whilst young to the island, understood the language better than their parents, and can get anything more easily done by the natives. Mr Williams and Mr Davies walked with me to part of a neighbouring forest to show me the famous kauri pine. I measured one of these noble trees and found it to be thirty-one feet in circumference; there was



another close by which I did not see, thirty-three, and I have heard of one no less than forty feet. The trunks are also very remarkable by their smoothness, cylindrical figure, absence of branches, and having nearly the same girth for a length from sixty even to ninety feet. The crown of this tree where it is irregularly branched is small and out of proportion to the trunk; and the foliage is again diminutive as compared to the branches. The forest in this part was almost composed of the kauri; amongst which the great ones from the parallelism of their sides stood up like gigantic columns of wood. The timber of this tree is the most valuable product of the island; besides this, quantities of a resin oozes from the bark, which is collected and sold at a penny a pound to the North Americans, but its use is kept secret.

On returning from our pleasant walk to the houses, I dined with Mr Williams; and then a horse being lent me, I returned to the Bay of Islands. I took leave of the missionaries, with thankfulness for their kind welcome and with feelings of high respect for their gentlemanlike, useful and upright characters. I think it would be difficult to find a body of men better adapted for the high office which they fulfil.

*From Captain FitzRoy's Narrative:*

24 December: I went with Mr Baker to a scattered village, called Cawa-cawa. Leaving the ship early, we followed the windings of an estuary which forms Kororareka Harbour, until its shores contracted it to the limits of a fresh-water river. Three good houses on the eastern shore, lately built by respectable English settlers, attracted our notice in passing; and afterwards the 'Pah', a well-known chief, appeared like a cattle-enclosure upon a hill. He is the man who killed and ate a part of his female slave, when Mr Earle was there; he has still large possessions, and had larger, but has sold much for ammunition, muskets, and spirits. His honourable office at this time was that of supplying the numerous whale-ships which visited the harbour with his slaves; and he found such an employment of his female vassals answer better than the horrible one well described by Mr Earle. Dismal alternative! On board each of the ships we passed there were many of these women; but before we notice the 'mote', let us consider the great 'beam', - think of what our own seaports were in times of war, and be charitable to the South Sea Islanders.

Mr Baker had been urged by the natives of Cawa-cawa to visit them, and endeavour to settle a dispute which had arisen with a neighbouring village, or rather tribe. He also wished to gain more advocates for the abolition of spirits; and I was glad to profit by the opportunity of seeing

a little of the natives and their habits, in a place said to be Christianized, and uncontaminated by the spirit-sellers.

A few of our own countrymen were employing themselves as sawyers, on the banks of the river, near the village of Cawa-cawa; but neither their huts, their mode of living, nor their outward appearance, caused any feeling of good-will towards them on my part.

Having ascended the stream, as far as the boat could go, which was about four miles from the salt-water, we landed, and walked towards the village of Cawa-cawa, escorted by several elderly and a mob of young natives. Our way led through open underwood, maize-grounds, and damp swampy soil, in which I saw plenty of the plant called 'flax', supposed, a few years since, to be very valuable, and now probably much undervalued. Across a stream the natives seemed delighted to carry us; indeed, I may say once for all, that at this village their whole behaviour was affable, friendly, and open, to a degree nearly approaching that of the merry Otaheitans.

Under the shade of a large tree, the inhabitants of the widely-scattered huts soon assembled. For me they brought a chair out of a cottage; but for themselves their native soil offered a sufficient place of rest. In all positions, half-enveloped in blankets or coarse country matting, with their rough, curly hair protecting their heads from the sun's rays, and almost shading their tattooed faces, about a hundred men, women, and children surrounded their apparently most welcome friend 'Payka', as they called Mr Baker. Many fine forms and most expressive countenances were there. Such heads, indeed I may say, such a group for a painter! I had sufficient leisure to admire them; for it is etiquette in New Zealand to sit in silence during some minutes, previous to commencing any conversation. Engrossed by the fine, the grand heads of some of the old warriors, whose amply tattooed features had withstood the ravages of time more successfully than their once dark hair, and by the graceful figures of the younger women, I was sorry when the ceremonial silence was ended. By turns the principal men discussed with Mr Baker the business for which they had assembled.

I could understand few words used, but the gestures of the natives were sufficiently expressive to give a general idea of their meaning. Mr Baker's interpretation to me afterwards was to this effect: 'A neighbouring tribe has encroached upon the district which this tribe claim as hereditary property. These men prove their right to it by bringing forward several of their elders, who have at various times killed and eaten "rats" upon it.'

He recommended arbitration, each party to choose a 'wise man'; and



if the two wise men disagreed, they should refer the question to the deliberation of the missionaries, at their next general meeting.

By temporizing, talking to each party, and inducing one to meet the other half way, Mr Baker had no doubt of amicably arranging the affair. Is it not extremely gratifying to find the missionaries thus appealed to, and acting as mediators and peacemakers?

The singular reason for laying claim to this land, appears less extraordinary when explained. Formerly there were no wild quadrupeds, excepting rats, upon New Zealand: and while so destitute of animal food, a rat was considered 'game' by the natives; and no man would attempt to kill his neighbour's rats, or those which were found on his territory, without intending, or declaring war against him.

Satisfied, for the time, on the principal subject, the much desired abolition of the use and importation of ardent spirits, was discussed. An old man, named Noah, spoke to the tribe; and after alluding to the disgraceful and unfortunate events, caused by drinking, which had happened to their friends, and to neighbouring tribes, since the white men had introduced the vice of intoxication, old Noah ended a short but eloquent harangue, by saying 'expel the liquid fire'. The principal men, eight in number, signed, or made marks upon the paper, which contained the resolutions agreed to by acclamation. Noah wrote his name in a distinct hand: each of the others made marks resembling a small part of the tattooed lines upon their faces. One man imitated the mark upon the side of his nose; another that near his eye. Baked potatoes were afterwards brought to us; and a curious wine, of which I had not heard. It was dark coloured, and not unlike good elderberry wine. It is made from the small currant-like fruit of a shrub, which the settlers call 'native vine'; but the resemblance to a vine is about as evident as that of a common elderberry bush. It dyes the hands of the women and children who collect the juice, so deeply, that they cannot efface the stain for many days afterwards.

From the meeting place under the large tree, we went to see a chapel which the natives were building, by their own free will and labour; and in our way we passed through yam and potato grounds, so neatly kept, that no gardener need have hesitated to commend them. The intended chapel was a lightly framed building of wood, with a thatched roof. The natives seemed to be very proud of it, and were much gratified by our praises. Some large oxen, in a pen, were feeding on young branches, and leaves of trees, gathered for them by the natives, which they appeared to relish as much as hay: they were called 'booa-cow'.

At the door of a house, or rather in the porch (before described), I saw a woman reading: she was sick, Mr Baker told me, one of a long list of invalids, who frequently applied to the missionaries for advice and medicine. I looked at her book, it was the Gospel of St Matthew, printed at Paihia, in the New Zealand language. Now, certainly, there was neither constraint, nor any thing savouring of outward show, in this woman's occupation, for my seeing her was sudden, and quite accidental, arising from my going out of the usual path to look at the oxen.

*From Charles Darwin's Diary:*

*Christmas day:* In a few more days the fourth year of our absence from England will be completed. Our first Christmas day was spent at Plymouth; the second at St Martin's Cove near Cape Horn; the third at Port Desire in Patagonia; the fourth at anchor in the peninsula of Tres Montes; this fifth here, and the next I trust in Providence, again in England.

*From Captain FitzRoy's Narrative:*

*Christmas day:* Being Christmas day, several of our party attended divine service at Paihia, where Mr Baker officiated. Very few natives were present; but all the respectable part of the English community had assembled. Instead of performing the whole service first in one language, and afterwards in the other, as at Otaheite, the two entire services were mixed, and the whole extended to such a length that had even the most eloquent divine occupied the pulpit, his hearers could scarcely have helped feeling fatigued. Mr Baker appeared to be more fluent in the language of New Zealand, than in his own, a fortunate circumstance for the natives, though not for the English who attend his church.

A very correct musical ear seems to be as general among the people here, as among those of Otaheite. The responses of thirty natives, women and men, were made so simultaneously, and so perfectly in harmony, that I could no more distinguish the different voices, than I could those of a number of good choristers together. Their singing was equally melodious, yet neither I nor others were disposed to think it equal to that of Otaheite.

*26 December:* Disputes between masters of whale ships and their crews, and between both these classes and the New Zealanders, obliged me to meddle, though very reluctantly, in their affairs.

To give an idea of the nature of some of these quarrels, and of the serious consequences they might entail, I will describe briefly two or three cases which were referred to me.



A chief had been beaten while on board a whale ship, by some of her crew. No New Zealander will submit to be struck, but thus to treat a chief is unpardonable. Burning with indignation he maltreated the first Englishman whom he met on shore, and was concerting serious measures of revenge, when the master of the ship, and a number of his men, came to ask for assistance and protection.

Again; a chief, whose name I do not know, had been refused admittance on board a whale ship, where he had heard that one of his female slaves was living. He did not wish to injure her, or even take her away. His only motive, in asking admittance, was to satisfy himself that she was there. Highly affronted at the refusal, he spoke to me, previously to collecting his warriors and attacking the ship.

28 December: Accompanied by Mr Baker, I set out to go to Waimate, a settlement formed by the missionaries with the view of introducing agriculture and mechanical arts among the natives, in addition to the truths of the gospel. Entering one of the numerous creeks, Waitangi, by which the north-eastern shores of New Zealand are intersected, we went a little way in a boat, then landed and got on horseback. Two natives, who had been waiting with the horses, ran by their side during the rest of the day with much ease, though we trotted or cantered rather fast. One of them even carried a bundle weighing about thirty pounds. The men did this by choice, for the sake of riding back from Keri-keri, a place we were afterwards to visit, and whence Mr Baker and I would return by water.

To see fern every where, was a remarkable peculiarity. In some places it grew thickly, and to the height of a man, in others it was scantily scattered. It is said to be an index to the quality of the soil, which is productive in proportion to the quantity of fern. After ascending the first low hills, I was a little disappointed by the uniform and unpicturesque appearance around me. A rather level or irregularly undulating country, in which extensive plains were more remarkable than hills – every where verdant, in many places wooded, and intersected by numerous streams of water – pleased by its supposed capabilities, though not by the picturesqueness of its appearance. From seeing the remains of forest, or rather irregular-looking woods, in a variety of situations – at the summits of hills, as well as in the hollows of valleys; and from the prevalence of fern instead of grass, I was led to think that the whole land had once been thickly wooded, but that the natives had cleared away the trees by burning.

We passed by a native village, around which were many acres of



SYDNEY HARBOUR

Owen Stanley



well cultivated ground, with maize and potatoes in a thriving state. They were planted in little heaps of earth (like molehills), at exact distances, laid out by line. For planting the sweet potato, a kind of yam, or the lately introduced potato, a wooden stake is used as a substitute for a spade in preparing the ground. The natives acknowledge themselves much indebted to the white men for pigs and potatoes; but they speak angrily of the 'liquid fire' – and diseases which they brought. One old native also made a shrewd remark about certain seven-barrelled guns sent among them by some of our countrymen, even while others were preaching the gospel of peace, and trying to check their inclination to quarrel.

An open-sided house, or rather shed, standing apart from the little village, I was told was a chapel, which the natives had lately built of their own accord, and without telling the missionaries of their intention: when it was completed they applied to Mr Williams for a teacher.

A very fine-looking native passed us, whose air and manner of carrying his gun reminded me of an Albanian's. Every man now carries a gun or musket, who, a few years since, would have been armed with a war club, or patoopatoo, and a spear.

So accessible is the country between Waimate and the Bay of Islands, that, except across a few small ravines, which require log bridges, a cart might travel easily; though there was at this time no road: water conveyance also is every where at hand, so intersected is the land by arms of the sea. Fresh water, in rivers, brooks, and springs, is plentiful, and never fails.

There is a rare and curious bird in New Zealand, which few persons have seen. It is shy, and seldom visible in the daytime: the natives are said to chase it by moonlight. It is of the bustard or emu kind, unable to fly, though provided with short wings; it is said to be more hairy than feathery, and about the size of a small emu.

On rather a high plain, or very flat-topped hill, stands Waimate – the agricultural establishment of the Church Missionary Society. Near the houses a number of sheep were grazing: plenty of fowls, geese, and pigs; some cattle and horses; and several calves and colts, added to the comfortable, farm-like appearance. We accompanied Mr Davis into his house for a few minutes, walked over the garden and farm, looked at the farmyard, barn and mill and returned to dinner.

A little room, used by Mr Davis, pleased me much; for, in addition to clever contrivances and good carpentry, it contained a collection of excellent books, and a frame on which an unfinished plan of the Society's



farm bore testimony to the nature of the in-door occupations of our host. I did not expect to see much indication of reading, certainly none of drawing, in a newly-built house, standing in the midst of a tract of New Zealand, which two years previously was covered with fern.

Mr Davis showed me where Shunghi was buried. No monumental mark indicates the tabooed place in which the remains of the slaughter-loving cannibal were deposited; a few dark-leaved trees and some thickly-growing fern alone point out the spot.

It was also very gratifying to me to mark the lively interest taken by Mr Williams, Mr Davis, and Mr Baker in every detail connected with the Fuegians, and our attempt to establish Richard Matthews in Tierra del Fuego. Again and again they recurred to the subject, and asked for more information; they could not hear of my calling the attempt 'a failure'. 'It was the first step,' said they, 'and similar in its result to our first step in New Zealand. We failed at first; but, by God's blessing upon human exertions, we have at last succeeded far beyond our anticipations.'

At this interview it was fully decided that Richard Matthews should remain with his brother, a respectable young missionary mechanic, established at the northern end of the island, and lately married to Mr Davis's daughter. Among many subjects of conversation we discussed the dress of the natives; and Mr Williams assented fully to the inconvenience of their present awkward mode, and expressed an intention of trying to introduce something like the poncho and 'chilipā' dress of South America. With sincere regret I took leave of the residents at Waimate. Instead of hours, I could have passed days with them, had other duties allowed of following my own inclination.

At about ten o'clock, Mr Baker and I embarked in my boat, to return to Paihia. As we passed down a river-like arm of the sea by moonlight, but little idea of the country on either side could be formed. What I could distinguish was undulating, and rather low land. We were four hours on the water, though the boat moved fast with a fair wind.

On the following day (29th), Waripoaka visited the *Beagle*; he was accompanied by a mixed assemblage of men, women, children, pigs, dogs, and fowls, all in one large canoe. His own appearance, a spare figure and tattooed face, ill-dressed in a shabby old suit of European clothes; and the disorderly group in his train, formed an unfavourable outward contrast to the warlike array of a heathen New Zealand chief. Waripoaka seemed to be very intelligent and unassuming; perhaps his manner to white men was too humble. It did not agree with pre-

conceived ideas of an independent, haughty New Zealander, to see bows and awkward grimaces (intended for good manners) made by a man whose eye and aspect at once precluded the idea of any approach to refined habits.

During our stay at New Zealand we heard much of the zealous activity of the officers of *La Favorite* – a French surveying ship – which had lately visited, and made a minute plan of the Bay of Islands. They must have examined every corner and ascended every hill, by the accounts we received; but neither natives nor English settlers seemed able to comprehend the principle which animated Captain La Place and the officers of *La Favorite* to take so much trouble in a foreign country for no good to themselves alone. I was able to explain this to some of them by instancing my own occupation on the shores of South America, and showing that nations acted upon grander principles than individuals. I was told that M. La Place had likewise examined, with much care, a considerable extent of the eastern seacoasts of the northern large island.

Some of the Zealanders have amulets and other similar trifles hung around their necks. Small uncouth images, much like the Burmese or Chinese 'josses', formed out of a very hard stone, are so highly prized by them that they are, generally speaking, very reluctant to part with any. I got one from the daughter of Shunghi, but could not obtain a second, though she had several. I was told that they value them as hereditary relics, as well as supposed charms.

30 December: Unpleasant discussions, on the local discordances I have already mentioned, obliged me to delay sailing for some hours: but at last I escaped, happy to disentangle myself from a maze of disagreeable questions, in which it was not my proper business to interfere, though unavoidably I had become involved in them. By evening we had gained a good offing, and profited by it in the night, during a strong gale of wind from the eastward, with a lee current, setting to the north-west, about a knot an hour. When we sailed there was every appearance of a gale coming on, but all our necessary operations were completed, and to have stayed an hour longer in that place would have been far worse than passing some hours in a gale of wind at sea.

On the last day of this year (1835) we passed the north cape of New Zealand, and steered for Port Jackson. It has been said that the New Zealanders entertain vague ideas about the spirits of their dead hovering near this north cape. I had no opportunity of inquiring into this superstition, but as other authorities besides Cook mention it, no doubt there is some such belief among those who have not acquired different



notions from foreigners. To my mind it is interesting in two points of view; one, as showing their belief in a future state of existence; and the other, as indicating the quarter whence New Zealand was first peopled; for it appears to be an impression common to many savage nations, that their souls should go to the land of their ancestors.

In taking leave of this interesting country I will refer to Cook once more, for a curious notice, given in his third voyage, respecting great lizards in New Zealand, which have not, so far as I am aware, been lately described, or even met with. Taweiharooa gave an account of snakes and lizards of an enormous size: he described the latter as being eight feet in length, and as big round as a man's body. He said that they sometimes seize and devour men; that they burrow in the ground; and that they are killed by making fires at the mouths of the holes. Perhaps this huge kind of lizard has become extinct; but it is possible that it yet exists on the southern island. In its burrowing we are reminded of the great lizard, or iguana, of the Galapagos Islands; but the assertion that it sometimes seizes men seems to refer to an alligator, or crocodile. Cook heard of it shortly after leaving Queen Charlotte Sound, from a native of the southern large island. If such a reptile ever existed upon the northern island it must have been exterminated by the earliest aboriginal settlers, as they have now no tradition of any animals except dogs, pigs, rats, mice, and small lizards. Pigs and dogs, say the natives, were brought from the north, in canoes.

## 15. *JOURNEY HOME*

*From Captain FitzRoy's Narrative:*

On New Year's day 1836, while in sight of the islets called Three Kings, we passed through several tide 'races', one of which was rather 'heavy', and would have been impassable for a boat. These races moved towards the north while we could trace their progress. The temperature of the water fell six degrees after passing through the principal one. Next day, at noon, we found that during the past twenty-four hours we had been set as many miles southward (SSE.) and hence I am inclined to infer that we were influenced by regular tide-streams, rather than by currents setting always in one direction. To the succeeding day at noon (3 January) we were set only seven miles, by the water, and that due east. Afterwards, in our passage to Port Jackson, we had alternately northerly and south-easterly currents of about ten miles a day, and it was easy to tell which current we were in, by the temperature of the sea.

Near midnight, on the 11th, we saw the red, revolving light of Sydney Lighthouse, and next day entered Port Jackson, and anchored in Sydney Cove. Much as I had heard of the progress and importance of this place, my astonishment was indeed great, when I saw a well-built city covering the country near the port. Not many days previously I had been reading the account of Governor Phillip's voyage to Botany Bay in 1787-8, and little did I think that, in forty-eight years from the first discovery of Port Jackson, a city, upon a large scale, could have arisen out of a wilderness so near our antipodes. In the account just mentioned it is stated that 'from a piece of clay imported from Sydney Cove, Mr Wedgwood caused a medallion to be modelled, representing Hope, encouraging Art and Labour, under the influence of Peace, to pursue the means of giving security and happiness to the infant settlement. The following lines, in allusion to this medallion, were written by Dr Darwin.'\*

\* Darwin's grandfather, Erasmus Darwin



Where Sydney Cove her lucid bosom swells,  
 Courts her young navies and the storm repels,  
 High on a rock, amid the troubled air,  
 Hope stood sublime, and wav'd her golden hair;  
 Calm'd with her rosy smile the tossing deep,  
 And with sweet accents charm'd the winds to sleep;  
 To each wild plain, she stretch'd her snowy hand,  
 High-waving wood, and sea-encircled strand.  
 'Hear me,' she cried, 'ye rising realms! record  
 Time's opening scenes, and Truth's unerring word.  
 There shall broad streets their stately walls extend,  
 The circus widen, and the crescent bend;  
 There ray'd from cities o'er the cultur'd land,  
 Shall bright canals, and solid roads expand.  
 There the proud arch, Colossus-like, bestride  
 Yon glittering streams, and bound the chasing tide;  
 Embellish'd villas crown the landscape scene,  
 Farms wave with gold, and orchards blush between.  
 There shall tall spires, and dome-capt towers ascend,  
 And piers and quays their massy structures blend;  
 While with each breeze approaching vessels glide,  
 And northern treasures dance on every tide!  
 Here ceased the nymph – tumultuous echoes roar,  
 And Joy's loud voice was heard from shore to shore –  
 Her graceful steps descending press'd the plain;  
 And Peace, and Art, and Labour, join'd her train.

When I was at Sydney in 1836, all that was foretold in this allegory had come to pass, with one exception only, that of canals. It was always a country comparatively dry; and unfortunately the more wood is cleared away, the drier both climate and soil become, therefore it is unlikely that canals should ever be made there. This want of fresh water is the only drawback to the future prosperity of this mushroom city; which is now dependent upon a supply brought through iron pipes from a distance of several leagues. Mr Busby, father of the resident at New Zealand, was the projector and executor of this aqueduct, but, like many other really valuable things, his useful work as ably planned as it was perseveringly carried on against uncommon difficulties, is but little appreciated, even by those who daily drink the pure water which it supplies.

It is difficult to believe that Sydney will continue to flourish in

proportion to its rise. It has sprung into existence too suddenly. Convicts have forced its growth, even as a hot-bed forces plants, and premature decay may be expected from such early maturity. Other rising colonies have advantages in point of situation and climate, which the country about Sydney does not possess; and if our government establishment should be withdrawn, from that day the decline of the city would commence, because its natural advantages are not sufficient to enable it to compete with other places in those regions, excepting while fostered by the presence of regularly paid government officers, troops, and a large convict establishment.

There must be great difficulty in bringing up a family well in that country, in consequence of the demoralizing influence of convict servants, to which almost all children must be more or less exposed. Besides, literature is at a low ebb; most people are anxious about active farming, or commercial pursuits, which leave little leisure for reflection, or for reading more than those fritterers of the mind, daily newspapers and ephemeral trash. It was quite remarkable to see how few book-sellers' shops there were in Sydney, and what a low class of books, with some exceptions, was to be found in them. These few exceptions were the works usually called 'standard', which some persons who buy books, for show as furniture, rather than for real use, think it necessary to purchase. Another evil in the social system of Sydney and its vicinity, is the rancorous feeling which exists between the descendants of free settlers and the children of convicts. Fatal, indeed, would it be to the former, if the arm of power were removed; for their high principles and good feelings would be no match for the wiles and atrocities of such abandoned outcasts as are there congregated, and almost rejoice in their iniquity. Money is gained by such people by any and every means, save those of honest industry. By selling spirits, by theft, by receiving and selling stolen goods, by the wages of iniquity, and by exorbitant usury, fortunes have been amassed there in a few years which would make an honest man's hair stand on end. But do such men enjoy their wealth? Does it benefit them or their children? No. Their life is a miserable scene of anxiety, care, fear, and generally penuriousness; they die without a friend and without hope.

*From Charles Darwin's Diary :*

Early on the next morning Mr Archer, the joint superintendent, had the kindness to take me out kangaroo hunting. We continued riding the greater part of the day; but had very bad sport, not seeing a kangaroo or



even a wild dog. The greyhounds pursued a kangaroo rat into a hollow tree out of which we dragged it: it is an animal as big as a rabbit, but with the figure of a kangaroo. A few years since this country abounded with wild animals; now the emu is banished to a long distance and the kangaroo is become scarce; to both, the English greyhound is utterly destructive; it may be long before these animals are altogether exterminated, but their doom is fixed. The natives are always anxious to borrow the dogs from the farmhouses; their use, offal when an animal is killed, and milk from the cows, are the peace offerings of the settlers, who push further and further inland. The thoughtless aboriginal, blinded by these trifling advantages, is delighted at the approach of the white man, who seems predestined to inherit the country of his children.

At sunset by good fortune a party of a score of the aboriginal blacks passed by, each carrying, in their accustomed manner, a bundle of spears and other weapons. By giving a leading young man a shilling they were easily detained and they threw their spears for my amusement. They were all partly clothed and several could speak a little English; their countenances were good-humoured and pleasant and they appeared far from such utterly degraded beings as usually represented. In their own arts they are admirable; a cap being fixed at thirty yards distance, they transfixed it with the spear delivered by the throwing stick, with the rapidity of an arrow from the bow of a practised archer; in tracking animals and men they show most wonderful sagacity and I heard many of their remarks, which manifested considerable acuteness. They will not, however, cultivate the ground, or even take the trouble of keeping flocks of sheep which have been offered them; or build houses and remain stationary. Nevertheless, they appear to me to stand some few degrees higher in civilization, or more correctly, a few lower in barbarism, than the Fuegians.

Although having bad sport, we enjoyed a pleasant ride. The woodland is generally so open that a person on horseback can gallop through it; it is traversed by a few flat bottomed valleys, which are green and free from trees; in such spots the scenery was like that of a park and pretty. In the whole country I scarcely saw a place without the marks of fire; whether these had been more or less recent, whether the stumps were more or less black, was the greatest change which varied the monotony so wearisome to the traveller's eye. In these woods there are not many birds; I saw, however, some large flocks of the white cockatoo feeding in a corn field; and a few most beautiful parrots; crows, like our jackdaws, were not uncommon and another bird something like the

magpie. The English have not been very particular in giving names to the productions of Australia; trees of one family (*Casuarina*) are called oaks, for no one reason that I can discover without it is that there is no one point of resemblance; animals are called tigers and hyenas, simply because they are carnivorous, and so on in many other cases. In the dusk of the evening I took a stroll along a chain of ponds, which in this dry country represent the course of a river, and had the good fortune to see several of the famous platypus or *Ornithorhynchus paradoxicus*. They were diving and playing about the surface of the water; but showed very little of their bodies, so that they might easily have been mistaken for many water rats. Mr Browne shot one; certainly it is a most extraordinary animal; the stuffed specimens do not give at all a good idea of the recent appearance of the head and beak; the latter becoming hard and contracted.

A little time before this I had been lying on a sunny bank and was reflecting on the strange character of the animals of this country as compared to the rest of the world. An unbeliever in everything beyond his own reason might exclaim, 'Surely two distinct Creators must have been at work; their object, however, has been the same and certainly the end in each case is complete'. Whilst thus thinking, I observed the conical pitfall of a lion-ant – a fly fell in and immediately disappeared; then came a large but unwary ant. His struggles to escape being very violent, the little jets of sand were promptly directed against him. His fate, however, was better than that of the fly's. Without doubt the predacious larva belongs to the same genus but to a different species from the European kind. Now what would the disbeliever say to this? Would any two workmen ever hit on so beautiful, so simple, and yet so artificial a contrivance? It cannot be thought so. The one hand has surely worked throughout the universe. A geologist perhaps would suggest that the periods of creation have been distinct and remote the one from the other; that the Creator rested in his labour.

*Captain P. P. King (father of Midshipman King and FitzRoy's commanding officer on the first voyage of the Beagle to South America) in a letter to the Hydrographer:*

Sydney, 2 February 1836

My dear Beaufort,

You will have heard from FitzRoy who has been here a fortnight and sailed on the 30th for Van Diemens Land on his return. I regret to say he has suffered very much and is yet suffering much from ill health – he



has had a very severe shake to his constitution which a little *rest* in England will I hope restore for he is an excellent fellow and will I am satisfied yet be a shining ornament to our service.

Philip (my son) remains behind at his own – my desire – he has no chance of succeeding in the service and here he will do very well – I am much gratified by Capt. FitzRoy's handsome character of him – indeed he appears to have been much liked by his shipmates – who are all excellent young men. I shall be much disappointed if Wickham does not get his promotion for the Falkland Island Survey – Stokes of course must get it and I trust young Mellersh will not be forgotten – as well for his long service in both expeditions as for his other misfortunes.

This is a hurried note, I will write shortly again.

*Very truly yours*

PHILLIP P. KING

*Charles Darwin, in a letter home, 28 January 1836:*

From Sydney we go to Hobart Town, from thence to King George Sound and then adios to Australia. From Hobart Town being super-added to the list of places I think we shall not reach England before September: But thank God the captain is as home sick as I am, and I trust he will rather grow worse than better. He is busy in getting his account of the voyage in a forward state for publication. From those parts which I have seen of it, I think it will be well written, but to my taste is rather deficient in energy or vividness of description. I have been for the last twelve months on very cordial terms with him. He is an extraordinary but noble character, unfortunately, however, affected with strong peculiarities of temper. Of this, no man is more aware than himself, as he shows by his attempts to conquer them. I often doubt what will be his end; under many circumstances I am sure it would be a brilliant one, under others I fear a very unhappy one.

*From Captain FitzRoy's Narrative:*

The *Beagle* sailed from Sydney on the 30th, and anchored off Hobart Town on 5 February. The change of scene was as striking as a view of Gibraltar or Madeira after leaving the Downs. Comparatively speaking, near Sydney all was light-coloured and level; while in Van Diemen's Land we almost thought ourselves in another Tierra del Fuego. But this was only a first impression, on a blustering wet day. Fields of ripe corn, dotted, as it were, about the hilly woodlands, told us that the climate must generally be favourable; and the number of red brick cottages,

thickly scattered about, though apparently at random, proved an extent of population incompatible with an unproductive place.

During a few days' stay in Sullivan Cove, the chief anchorage, we had opportunities of going to some distance into the country, and seeing things which led me to think that there is a more solid foundation for future prosperity in Van Diemen's Land than can be found near Sydney. Natural advantages are greater; and likely to increase as the country is cleared and inhabited, because rain is now almost too plentiful, though corn ripens well and is of excellent quality. As a convict colony, it of course partakes of the evils I have mentioned; but it does so in a far less degree, partly because the convicts sent there were of a less profligate and more reclaimable class than those landed at Sydney, and partly because an excellent local government restrained the licentious, and encouraged the moral to a far greater extent than was, or perhaps could be effected among the more numerous and dispersed population of Sydney and its environs.

On the 17th, we sailed out of the picturesque Derwent, an arm of the sea extending inland many miles beyond Hobart Town, and thence worked our way southward round the Land of Van Diemen. We then steered westward, or as much so as the contrary winds would admit, until we made the land off King George Sound on 6 March; and a few hours afterwards moored in the principal anchorage, called Princess Royal Harbour; a wide but shallow place, with a very narrow entrance. The country round King George Sound has a dull, uniform aspect; there are no mountains or rivers; few trees are visible; white, sandy patches; scrubby bushes; bare masses of granite; and a slightly undulating outline meet and disappoint the eye of a stranger.

A few straggling houses, ill-placed in an exposed, cheerless situation, were seen by us as we entered the harbour; and had inclination been our guide, instead of duty, I certainly should have felt much disposed to 'put the helm up', and make all sail away from such an uninviting place.

Next day, however, we found that appearances were worse than the reality; for behind a hill, which separates the harbour from the sound, a thick wood was discovered, where there were many trees of considerable size; and in the midst of this wood I found Sir Richard Spencer's house, much resembling a small but comfortable farmhouse in England. This sort of isolated residence has a charm for some minds; but the loss of society, the numerous privations, and the vastly retrograde step necessarily taken in civilized existence by emigrating to perfectly new



countries, are I think stronger objections to the plan than usually occur to persons who have not seen its consequences in actual operation.

At this time there were about thirty houses, or cottages, in the neighbourhood of the sound and harbour; some had small gardens; but, generally speaking, there was no appearance of agriculture, excepting immediately around Sir Richard's house, where a few fields had been cleared and cultivated in the midst of the wood.

There is an extraordinary degree of local magnetic attraction about this place. We could not ascertain the amount of variation with any degree of accuracy until our compasses were placed upon a sandy beach of considerable extent, near the sea. Wherever there was stone, a kind of granite, near the instruments, they were so much affected as to vary many degrees from the truth, and quite irregularly: those on board were not influenced, at least not more than a degree. We were also perplexed by the irregular and peculiar tides.

We had a good opportunity of seeing several of the aborigines; for not only were there unusual numbers of neighbouring natives then about the settlement, but a strange tribe, called 'Cocotu', had lately arrived from a distance, and as the residents wished to conciliate them, a 'corobbery' was proposed, and Mr Darwin ensured the compliance of all the savages by providing an immense mess of boiled rice, with sugar, for their entertainment.

About two hours after dark the affair began. Nearly all the settlers, and their visitors, had assembled on a level place just outside the village, while the native men belonging to both tribes were painting, or rather daubing and spotting their soot-coloured bodies with a white pigment, as they clustered round blazing fires. When all was ready, the fires burning brightly, the gloom at a little distance intense, by contrast, and the spectators collected together, a heavy tramp shook the ground, and a hundred prancing demon-like figures emerged from the darkness, brandishing their weapons, stamping together in exact accordance, and making hoarse guttural sounds at each exertion. It was a fiendish sight, almost too disagreeable to be interesting. What pains savage man takes, in all parts of the world where he is found, to degrade his nature; that beautiful combination which is capable of so much intelligence and noble exertion when civilized and educated. While watching the vagaries of these performers, I could not but think of our imprudence in putting ourselves so completely into their power: about thirty unarmed men being intermixed with a hundred armed natives. The dancers were all men; a short kangaroo-skin cloak was thrown about their hips, and

white feathers were stuck round their heads: many were not painted, but those who were had similar figures on their breasts; some a cross, others something like a heart. Many had spears, and all had the 'throwing-stick'; and a kind of hatchet in a girdle round the waist. Much of the dancing was monotonous enough, after the first appearance, reminding me of persons working in a treadmill; but their imitation of snakes, and kangaroos, in a kind of hunting dance, was exceedingly good and interesting. The whole exhibition lasted more than an hour, during most of which time upwards of a hundred savages were exerting themselves in jumping and stamping as if their lives depended on their energetic movements. There was a boy who appeared to be idiotic, or afflicted with a kind of fit; but the man who was holding him seemed to be quite unconcerned about his convulsive efforts, saying, 'by and by he would be a doctor'.

*From Charles Darwin's Diary:*

When both tribes mingled in one dance, the ground trembled with the heaviness of their steps and the air resounded with their wild cry. Everyone appeared in high spirits; and the group of nearly naked figures viewed by the light of the blazing fires, all moving in hideous harmony, formed a perfect representation of a festival amongst the lowest barbarians. In Tierra del Fuego we have beheld many curious scenes in savage life, but I think never one where the natives were in such high spirits and so perfectly at their ease. After the dancing was over, the whole party formed a great circle on the ground and the boiled rice and sugar was distributed to the delight of all.

*From Captain FitzRoy's Narrative:*

After the corobbery the natives collected round the house where the feast was preparing; and it will not be easy to forget the screams of delight that burst from old and young as they looked in at the door and saw the tub in which their rice was smoking. Before the food was distributed they were told to sit down, which they immediately did, in a circle round the house. They separated, of their own accord, into families, each little party lighting a small fire before them. Their behaviour, and patience, were very remarkable and pleasing. One family had a native dog, which in size, colour, and shape, was like a fox, excepting that the nose was not quite so sharp, nor the tail so bushy.

Most of the aborigines had rather good countenances, and well-formed heads, as compared with those about Sydney, or in Van



Diemen's land. The lathy thinness of their persons, which seemed totally destitute of fat, and almost without flesh, is very remarkable.

Many of these natives have features smaller and less marked than are usual among savages; but their foreheads are higher and more full; they are not tall, few exceeding five feet eight inches in height: and the women are wretched objects. Some of the men had pieces of bone stuck through the cartilage of the nose, which, I heard, was to prevent their being killed by another tribe, who were seeking to revenge the death of one of their own party. I was told also, that when any death occurs in one tribe, the first individual of another that is encountered is sacrificed by the bereaved party, if strong enough; but I suspect my informant confused revenge for manslaughter with the strange story – that for every death in one tribe, however caused, a life must be taken from another. Should it be true, however, the scarcity of aboriginal population would have an explanation in addition to those which various writers have given. These natives bury their dead in a short grave; the body being laid on its side, with the knees drawn up to the chin.

During our stay at this place we caught plenty of fish, of twenty different kinds, with a seine; yet with such an abundant supply close at hand, the settlers were living principally on salt provisions.

*From Charles Darwin's Diary:*

One day I accompanied Capt. FitzRoy to Bald Head; this is the spot mentioned by so many navigators, where some have imagined they have seen coral and other petrified trees, standing in the position in which they grew. According to our view, the rock was formed by the wind heaping up calcareous sand, which by the percolation of rain was consolidated and in which process trees, roots and land shells were enclosed. In time the wood decayed and as this took place, lime was washed into the cylindrical cavities and became hard like stalactites. The weather is now again in parts wearing away these soft rocks and hence the harder casts of roots and branches stand out in exact imitation of a dead shrubbery. The day was to me very interesting, as I had never before heard of such a case.

*From Captain FitzRoy's Narrative:*

13 March 1836: We sailed, but it was the 18th before our little ship was sufficiently far westward to steer for my next object, the Keeling Islands.

From the 27th to the 30th we had a severe gale of wind, when near

the situation of those remote isles, and on the 31st were in much doubt whether they lay eastward or to the west of us. There was most reason to induce me to steer eastward – indeed I was about to give orders to that effect just as the sun was setting (no land being seen from the mast-head, though the horizon was clear) – when a number of gannets flew past the ship towards the west. We steered directly after them, and early next morning (after making but little way during a fine night) saw the Keelings right ahead, about sixteen miles distant.

A long but broken line of cocoa-palm trees, and a heavy surf breaking upon a low white beach, nowhere rising many feet above the foaming water, was all we could discern till within five miles of the larger Keeling (there are two distinct groups), and then we made out a number of low islets, nowhere more than thirty feet above the sea, covered with palmtrees, and encircling a large shallow lagoon.

We picked our way into Port Refuge, the only harbour, passing cautiously between patches of coral rock, clearly visible to an eye at the mast-head, and anchored in a safe, though not the best berth. An Englishman, Mr Leisk, came on board, and, guided by him, we moved into a small but secure cove close to Direction Island.

Many reasons had induced me to select this group of coral islets for such an examination as our time and means would admit of; and, as the tides were to be an object of especial attention in a spot so favourably situated for observing them, a tide-gauge was immediately placed. Its construction was then new, and, being found to answer, I will describe it briefly. Two poles were fixed upright, one on shore (above high water mark, and sheltered from wind), the other in the sea beyond the surf at low water. A block was fastened to the top of each pole, and a piece of well-stretched log-line rove through them. One end of the line was attached to a board that floated on the water; the other suspended a leaden weight, which traversed up and down the pole, on shore, as the float fell or rose with the tide. Simple as this contrivance was, and useful as we should have found it in many places where the surf or swell made it difficult to measure tides at night, without using a boat, I never thought of it till after we left King George Sound.

*From Charles Darwin's Diary:*

6 April: I accompanied Capt. FitzRoy to an island near the head of the lagoon; the channel was exceedingly intricate, winding through fields of delicately branched corals. We saw several turtle and two boats were then employed in catching them. The method is rather curious; the



water is so clear and shallow that although at first the turtle dives away with much rapidity, yet a canoe or a boat under sail, will after no very long chase overtake it; a man standing ready in the bows at this moment dashes through the water upon its back. Then clinging with both hands by the shell of the neck, he is carried away till the turtle becomes exhausted and is secured. It was quite an interesting chase to see the two boats doubling about, and the men dashing into the water till at last their prey was seized.

When we arrived at the head of the lagoon we crossed the island, and found a great surf breaking on the windward coast. I can hardly explain the cause, but there is to my mind a considerable degree of grandeur in the view of the outer shores of these lagoon islands. There is a simplicity in the barrier-like beach, the margin of green bushes and tall coconuts, the solid flat of coral rock, strewn with occasional great fragments, and the line of furious breakers all rounding away towards either hand. The ocean throwing its waters over the broad reef appears an invincible all-powerful enemy, yet we see it resisted and even conquered by means which would have been judged most weak and inefficient. We did not return on board till late in the evening, as we stayed sometime in the lagoon, looking at the coral fields and collecting specimens of the giant clam.

*From Captain FitzRoy's Narrative:*

Until the 12th every one was actively occupied; our boats were sent in all directions, though there was so much wind almost each day as materially to impede surveying. Soundings on the seaward sides of the islands could seldom be obtained; but two moderate days were eagerly taken advantage of to go round the whole group in a boat, and get a few deep soundings. The two principal islands, considering the whole southern group as one island, lie north and south of each other, fifteen miles apart; and as soundings were obtained two miles north of the large island, it may be inferred, I think, that the sea is not so deep between the two as it is in other directions. Only a mile from the southern extreme of the South Keeling, I could get no bottom with more than a thousand fathoms of line.

The southern cluster of islets encircle a shallow lagoon, of an oval form, about nine miles long, and six wide. The islets are mere skeletons – little better than coral reefs, on which broken coral and dust have been driven by sea and wind till enough has been accumulated to afford place and nourishment for thousands of coco palms. The outer edges of the

islands are considerably higher than the inner, but nowhere exceed about thirty feet above the mean level of the sea. The lagoon is shallow, almost filled with branching corals and coral sand. The small northern island is about a mile in diameter; a strip of low coral land, almost surrounding a small lagoon, and thickly covered with coconut trees.

These lonely islands (also called Cocos) were discovered in 1608–9 by Captain William Keeling, who was in the East India Company's service, and held a commission from King James I. Little or no notice was taken of them from that time till 1823, when one Alexander Hare, a British subject, established himself and a small party of Malays, upon the Southern Keeling Island, which he thought a favourable place for commerce, and for maintaining a seraglio of Malay women, whom he confined to one island – almost to one house.

In 1826, or within a year of that time, Mr J. C. Ross, sometime master of a merchant ship, took up his abode on the south-eastern islet of the group; and in a very short time Hare's Malay slaves, aggrieved by his harsh treatment of them, especially by his taking away the women, and shutting them up on an island which the Malay men might not approach, deserted in a body, and claimed protection from Mr Ross. Hare then left the Keelings, and about a year afterwards was arrested in his lawless career by death, while establishing another harem at Batavia.

From that time Mr Ross and the Malays lived peaceably, collecting coconut oil, turtle, tortoiseshell, and *bicho do mar*; and occasionally sailing to the Mauritius, Singapore, or Batavia to dispose of them and buy necessaries with their produce. Another Englishman, Mr C. Leisk, who had served as mate of Mr Ross's ship, lived with him, and they both had wives (English) and children, the whole party residing together in a large house of Malay build – just such a structure as one sees represented upon old japanned work. At the time of our visit Mr Ross was absent on one of their trading excursions, and his deputy, Leisk, was left in charge of everything.

By some strange misconception, not intentional act of injustice, Mr Ross had refused to give Hare's slaves their freedom, for fear that the executors of that man should demand their value from him; but he paid them each two rupees a week, in goods (at his own valuation), provided that they worked for him, both men and women, as he thought proper. Mr Leisk told me this, and said that 'many of the Malays were very discontented, and wanted to leave the island'. 'No wonder,' thought I, 'for they are still slaves, and only less ill-used than they were by the man who purchased them.'



These Malays were allowed to rear poultry, which they sometimes sold to shipping. They were also allowed to have the produce of a certain number of coconut trees, and might catch fish and turtle for their own use; but the sale of turtle to shipping, when they touched there, and the immense crops of coconuts which are produced annually on all the islets of the group were monopolized by Mr Ross for his sole advantage. One daily task imposed upon the Malay women was to 'husk' a hundred nuts, collected for them by the men, who extract a gallon of oil from every ten.

Another kind of oil, said to be very good, is derived from the fat tail of a large land-crab, which feeds on coconuts. About a pint and a half may be obtained from one crab. The manner in which these creatures, nearly the size of a large crayfish, tap the nuts in order to get at their contents is curious. Numbers of windfall nuts, in a comparatively soft state, are always to be found lying about under the trees: a crab seizes one of these, and pegs away at the three eyes with one of its claws, that is long and sharp, purposely, it would seem, until it opens a hole, through which the crab extracts the juice, and some of the solid part.

The manner of ascending tall palmtrees is similar to that described at Otaheite, and requires strength as well as agility: both which are also shown by these Malays in their chases after turtle among the shallows and coral 'thickets' of the lagoon, where they abound. A party of men go in a light boat and look for a fine turtle in some shallow place. Directly one is seen, they give chase in the boat, endeavouring to keep it in a shallow, and tolerably clear place, till it begins to be tired by its exertions to escape; then, watching a favourable moment, a man jumps out of the boat and seizes the turtle. Away it darts, with the man on its back grasping its neck until he can get an opportunity, by touching ground with his feet, to turn it over, and secure his prize. Only the more active men can succeed well in this sort of fishing.

Other unusual things were seen by us at this place, one or two of which I will mention. There are fish that live by feeding upon small branches of the coral, which grows in such profusion in the lagoon. One species of these fish is about two feet and a half long, of a beautiful green colour about the head and tail, with a hump on its head, and a bony kind of mouth, almost like that of a turtle, within which are two rows of saw-like teeth. Mr Stokes saw a dog, bred on the island, catch three such fish in the course of a few hours by chasing them in shallow water, springing after them, almost as a kangaroo springs on land. Sometimes one would take shelter under a rock, when the dog would

drive it out with his paw, and seize it with his mouth as it bolted.

Among the great variety of corals forming the walls around the immediately visible basement, and the underwater forests of the Keeling islands, there is more difference than between a lily of the valley and a gnarled oak. Some are fragile and delicate, of various colours, and just like vegetables to the eye, others are of a solid description, like petrified tropical plants; but all these grow within the outer reef, and chiefly in the lagoons.

The wall, or outer reef, about which so much has been said and thought, by able men, without their having arrived at any definite conclusion, is solid and rock-like, with a smooth surface; and where the surf is most violent, there the coral is fullest of animated matter. I was anxious to ascertain if possible, to what depth the living coral extended, but my efforts were almost in vain, on account of a surf always violent, and because the outer wall is so solid that I could not detach pieces from it lower down than five fathoms. Small anchors, hooks, grappling irons, and chains were all tried – and one after another broken by the swell almost as soon as we 'hove a strain' upon them with a 'purchase' in our largest boats. Judging however, from impressions made upon a large lead, the end of which was widened, and covered with tallow hardened with lime, and from such small fragments as we could raise, I concluded that the coral was not alive at a depth exceeding seven fathoms below low water. But this subject has been, or will be, fully discussed by Mr Darwin, therefore I need say no more.

*From the journal of Syms Covington, Darwin's servant:*

The Islands are complete forests of Coaco Nut Trees, if not for trees the land would be seen but a very short distance. Can wade from one Island to another when the tide is low to nearly all except entrance to Basin which Basin is formed by the Islands being as placed to form a circle. . . . The water is always being clear, the beautiful branches of Coral can be seen from the Ships side, the fish constantly passing and repassing amongst the Coral has a most beautiful effect . . .

On reefs are immense numbers of small fish of different species and of the most brilliant colours I ever saw or fancy could paint, and shapes. There are great numbers of green fish in Coral waters. Here also are Land Crabs, very curious and very strong in Claws, are eaten by inhabitants.

Here is I should suppose one of the largest shells in the World, sort of Clamp Shell. Would take a very strong man to lift one with the animal in. The largest is about 9 feet long with great numbers of different sort.



Great quantities of the Beech de la Mar is dried here for the Indies. On Sunday the 3rd of April was caught a shark 8 feet long which put a stop to our bathing which before was at every evening by moonlight. Here it is excessively hot, when even sitting still the sweat is constantly dropping off the body.

Here is only one genus of land bird, viz the Land Rail (indigenous to Islands) The Jarva Sparrow brought over here. A great many sea birds and very tame, as to let you come close to them or within a yard or so. Build their nests on the trees close to the beach.

*From Charles Darwin's Diary:*

We feel surprised when travellers relate accounts of the vast piles and extent of some ancient ruins; but how insignificant are the greatest of these, when compared to the matter here accumulated by various small animals. Throughout the whole group of islands, every single atom, even from the most minute particle to large fragments of rocks, bear the stamp of once having been subjected to the power of organic arrangement. Capt. FitzRoy at the distance of but little more than a mile from the shore sounded with a line 7,200 feet long, and found no bottom. Hence we must consider this island as the summit of a lofty mountain; to how great a depth or thickness the work of the coral animal extends is quite uncertain. If the opinion that the rock-making polypi continue to build upwards as the foundation of the island from volcanic agency, after intervals, gradually subsides, is granted to be true; then probably the coral limestone must be of great thickness. We see certain islands in the Pacific, such as Tahiti and Eimeo, mentioned in this journal, which are encircled by a coral reef separated from the shore by channels and basins of still water. Various causes tend to check the growth of the most efficient kinds of corals in these situations. Hence if we imagine such an island, after long successive intervals to subside a few feet, in a manner similar, but with a movement opposite to the continent of S. America; the coral would be continued upwards, rising from the foundation of the encircling reef. In time the central land would sink beneath the level of the sea and disappear, but the coral would have completed its circular wall. Should we not then have a lagoon island? Under this view, we must look at a lagoon island as a monument raised by myriads of tiny architects, to mark the spot where a former land lies buried in the depths of the ocean.

*This is followed by a note in FitzRoy's hand.*

Good, but first point not quite clear: FitzRoy.

*From Captain FitzRoy's Narrative:*

As if in speaking of these singular, though so small islands, where crabs eat coconuts, fish eat coral, dogs catch fish, men ride on turtle, and clam shells are dangerous man-traps, anything more were necessary to ensure the voyager's being treated like the old woman's son who talked to her about flying-fish, it must yet be said that the greater part of the sea-fowl roost on branches, and that many rats make their nests at the top of high palmtrees.

Excepting the two English families I have mentioned, all on the Keelings in 1836 were Mahometans. One of their number officiated as priest; but exclusive of an extreme dislike to pigs, they showed little outward attention to his injunctions. As no Christian minister had ever visited the place, and there was no immediate prospect of one coming there, I was asked to baptize the children of Mrs Leisk. So unusual a demand occasioned some scruples on my part, but at last I complied, and performed the appointed service in Mr Ross's house; where six children of various ages were christened in succession. This and other facts I have mentioned respecting these sequestered islands shew the necessity that exists for some inspecting influence being exercised at every place where British subjects are settled. A visit from a man of war, even once only in a year, is sufficient, merely in prospect, to keep bad characters in tolerable check, and would make known at headquarters the more urgent wants of the settlers.

On 12 April 1836 we sailed, carrying a good sea-stock of coconuts, pigs, poultry, pumpkins, and turtle. Maize and sugar-cane might have been had, if wanted. We first went round the northern Keeling: on this island, about a mile across and but a few feet above the ocean, two English vessels have been lost since 1825, and probably other ships met a similar fate there in earlier years, when its existence was hardly known.

*Charles Darwin, in a letter home, 29 April 1836:*

The captain is daily becoming a happier man; he now looks forward with cheerfulness to the work which is before him. He, like myself, is busy all day in writing, but instead of geology, it is the account of the voyage. I sometimes fear his 'Book' will be rather diffuse, but in most other respects it certainly will be good. His style is very simple and excellent. He has proposed to me to join him in publishing the account; that is for him to have the disposal and arranging of my journal, and to mingle it with his own. Of course I have said I am perfectly willing, if



he wants materials; or thinks the chit-chat details of my journal are any ways worth publishing. He has read over the part I have on board and likes it. I shall be anxious to hear your opinions, for it is a most dangerous task in these days, to publish accounts of parts of the world which have so frequently been visited. It is a rare piece of good fortune for me, that of the many errant (in ships) naturalists, there have been few, or rather no, geologists. I shall enter the field unopposed. I assure you I look forward with no little anxiety to the time when Professor Henslow, putting on a grave face, shall decide on the merits of my notes. If he shakes his head in a disapproving manner, I shall then know that I had better at once give up science, for science will have given up me. For I have worked with every grain of energy I possess.

*From Captain FitzRoy's Narrative:*

Our passage to the Mauritius was slow, but in smooth water. Tropic birds, a few terns and gannets were seen, at intervals, when passing the neighbourhood of the Chagos Islands, and at our approach to the island Rodriguez. We anchored in Port Louis, at the Mauritius, on 29 April: sailed thence on 9 May: passed near Madagascar, thence along the African shore, and anchored in Simon's Bay, at the Cape of Good Hope, on the 31st. From that well-known place we went to St Helena, Ascension, Bahia, Pernambuco, the Cape Verde Islands, and the Azores; and anchored at Falmouth, on 2 October, after an absence of four years and nine months from England.

From Falmouth we went to Plymouth; and thence, calling at Portsmouth, to the Thames. On the 28th our anchor was let go at Greenwich where chronometer rates were ascertained.

Greenwich was the last station at which observations were made; and, singularly enough, Mr Osborne and his companions came on board as we anchored there. Independent of the gratification of meeting them again, after so wide a separation, it may be supposed how my mind was relieved by his safe return from a very successful expedition, in which he had surveyed the whole coast of Peru, from Atacama to Guayaquil, without loss or accident. Although his own life was seriously risked on two or three occasions, by shots fired under misapprehension; I must not omit to mention that hostilities were suspended for a whole day, at Arica, between the landforces and an attacking squadron, in order that Mr Osborne might carry on his operations.

I would now speak of the steady support and unvarying help which I received from the officers of the *Beagle*: but where all did so much,

and all contributed so materially to the gatherings of the voyage, it is unnecessary to particularise, farther than by saying that Mr Stokes's services hold the first place in my own estimation.

In this long voyage fatal disease was unknown, except in the lamented case of the purser, and in that mentioned at Rio de Janeiro; neither of which had the least reference to the particular service on which the *Beagle* was employed: and it is perhaps remarkable, that while the *Beagle* was in commission, between February 1829 and November 1836, no serious illness, brought on or contracted while on service, happened on board; neither did any accident of consequence occur in the ship; nor did any man ever fall overboard during all that time.

The freedom from illness must be attributed, under Providence, to active employment, good clothing, and wholesome food, in healthy, though sometimes disagreeable climates: and our immunity from accident during exposure to a variety of risks, especially in boats, I attribute, referring to visible causes, to the care, attention, and vigilance of the excellent officers whose able assistance was not valued by me more than their sincere friendship.

*From Charles Darwin's Diary:*

Our voyage having come to an end, I will take a short retrospect of the advantages and disadvantages, the pains and pleasures, of our five years' wandering. If a person should ask my advice before undertaking a long voyage, my answer would depend upon his possessing a decided taste for some branch of knowledge which could by such means be acquired. No doubt it is a high satisfaction to behold various countries, and the many races of mankind, but the pleasures gained at the time do not counterbalance the evils. It is necessary to look forward to a harvest however distant it may be, when some fruit will be reaped, some good effected. Many of the losses which must be experienced are obvious; such as that of the society of all old friends, and of the sight of those places, with which every dearest remembrance is so intimately connected. These losses, however, are at the time partly relieved by the exhaustless delight of anticipating the long-wished for day of return. If, as poets say, life is a dream, I am sure in a long voyage these are the visions which best pass away the long night. Other losses, although not at first felt, after a period tell heavily; these are the want of room, of seclusion, of rest; the jading feeling of constant hurry; the privation of small luxuries, the comforts of civilization, domestic society, and lastly even of music and the other pleasures of imagination. When such trifles



are mentioned, it is evident that the real grievances, excepting from accident, of a sea life are at an end. The short space of sixty years has made a most astonishing difference in the facility of distant navigation. Even in the time of Cook, a man who left his comfortable fireside for such expeditions, did undergo privations: a yacht with every luxury of life might now circumnavigate the globe. Besides the vast improvements in ships and naval resources, the whole western shores of America are thrown open; and Australia is become a metropolis of a rising continent. How different are the circumstances to a man shipwrecked at the present day in the Pacific, to what they would have been in the time of Cook: since his voyage a hemisphere has been added to the civilized world.

If a person suffer much from seasickness, let him weigh it heavily in the balance: I speak from experience, it is no trifling evil cured in a week as most people suppose. If he takes pleasure in naval tactics, it will afford him full scope for his taste; but even the greater number of sailors, as it appears to me, have little real liking for the sea itself. It must be borne in mind how large a proportion of the time during a long voyage, is spent on the water, as compared to the days in harbour.

And what are the boasted glories of the illimitable ocean? A tedious waste, a desert of water, as the Arabian calls it. No doubt there are some delightful scenes; a moonlight night, with the clear heavens, the dark glittering sea, the white sails filled by the soft air of a gently blowing trade wind; a dead calm, the heaving surface polished like a mirror, and all quite still excepting the occasional flapping of the sails. It is well once to behold a squall, with its rising arch, and coming fury, or the heavy gale and mountainous waves. I confess, however, my imagination had painted something more grand, more terrific in the full grown storm. It is a finer sight on the canvas of Vandervelde, and infinitely finer when beheld on shore, where the waving trees, the wild flight of the birds, the dark shadows and bright lights, the rushing torrents, all proclaim the strife of the unloosed elements. At sea, the albatross and petrel fly as if the storm was their proper sphere, the water rises and sinks as if performing its usual task, the ship alone and its inhabitants seem the object of wrath. On a forlorn and weather-beaten coast, the scene is indeed different, but the feelings partake more of horror than of wild delight.

Let us now look at the brighter side of the past time. The pleasure derived from beholding the scenery and general aspect of the various countries we have visited, has decidedly been the most constant and highest source of enjoyment. It is probable that the picturesque beauty of many parts of Europe far exceeds anything we have beheld. But there

is a growing pleasure in comparing the character of scenery in different countries, which to a certain degree is distinct from merely admiring their beauty. It more depends on an acquaintance with the individual parts of each view: I am strongly induced to believe that, as in music, the person who understands every note, will, if he also has true taste, more thoroughly enjoy the whole; so he who examines each part of a fine view, may also thoroughly comprehend the full and combined effect. Hence a traveller should be a botanist, for in all views plants form the chief embellishment. Group masses of naked rocks, even in the wildest forms, for a time they may afford a sublime spectacle, but they will soon grow monotonous; paint them with bright and varied colours, they will become fantastick; clothe them with vegetation, they must form at least a decent, if not a most beautiful picture.

When I said that the scenery of Europe was probably superior to anything which we have beheld, I must except, as a class by itself, that of the intertropical regions.

Amongst the scenes which are deeply impressed on my mind, none exceed in sublimity the primeval forests, undefaced by the hand of man, whether those of Brazil, where the powers of life are predominant, or those of Tierra del Fuego, where death and decay prevail. Both are temples filled with the varied productions of the God of Nature. No one can stand unmoved in these solitudes, without feeling that there is more in man than the mere breath of his body. In calling up images of the past, I find the plains of Patagonia most frequently cross before my eyes. Yet these plains are pronounced by all most wretched and useless. They are only characterized by negative possessions; without habitations, without water, without trees, without mountains, they support merely a few dwarf plants. Why then, and the case is not peculiar to myself, do these arid wastes take so firm possession of the memory? Why have not the still more level, green and fertile pampas, which are serviceable to mankind, produced an equal impression? I can scarcely analyze these feelings; but it must be partly owing to the free scope given to the imagination. They are boundless, for they are scarcely practicable, and hence unknown: they bear the stamp of having thus lasted for ages, and there appears no limit to their duration through future time. If, as the ancients supposed, the flat earth was surrounded by an impassable breadth of water, or by deserts heated to an intolerable excess, who would not look at these last boundaries to man's knowledge with deep, but ill-defined sensations.

Lastly, of natural scenery, the views from lofty mountains, though



certainly in one sense not beautiful, are very memorable. I remember looking down from the crest of the highest Cordillera: the mind, undisturbed by minute details, was filled by the stupendous dimensions of the surrounding masses.

Of individual objects, perhaps no one is more sure to create astonishment, than the first sight in his native haunt, of a real barbarian – of man in his lowest and most savage state. One's mind hurries back over past centuries, and then asks, could our progenitors be such as these? Men, whose very signs and expressions are less intelligible to us than those of the domesticated animals; who do not possess the instinct of those animals, nor yet appear to boast of human reason, or at least of arts consequent on that reason. I do not believe it is possible to describe or paint the difference of savage and civilized man. It is the difference between a wild and tame animal: and part of the interest in beholding a savage is the same which would lead every one to desire to see the lion in his desert, the tiger tearing his prey in the jungle, the rhinoceros on the wide plain, or the hippopotamus wallowing in the mud of some African river.

Amongst the other most remarkable spectacles which we have beheld, may be ranked, the stars of the southern hemisphere, the waterspout, the glacier leading its blue stream of ice in a bold precipice overhanging the sea, a lagoon island, raised by the coral-forming animalcule, an active volcano, the overwhelming effects of a violent earthquake. These latter phenomena perhaps possess for me a higher interest, from their intimate connection with the geological structure of the world. The earthquake must, however, be to everyone a most impressive event; the solid earth, considered from our earliest childhood as the very type of solidity, has oscillated like a thin crust beneath our feet; and in seeing the most beautiful and laboured works of man in a moment overthrown, we feel the insignificance of his boasted power.

It has been said that the love of the chase is an inherent delight in man – a relic of an instinctive passion: if so, I am sure the pleasure of living in the open air, with the sky for a roof, and the ground for a table, is part of the same feeling. It is the savage returning to his wild and native habits. I always look back to our boat cruises and my land journeys, when through unfrequented countries, with a kind of extreme delight, which no scenes of civilization could create. I do not doubt every traveller must remember the glowing sense of happiness, from the simple consciousness of breathing in a foreign clime, where the civilized man has seldom or never trod.

There are several other sources of enjoyment in a long voyage, which are perhaps of a more reasonable nature. The map of the world ceases to be a blank; it becomes a picture full of the most varied and animated figures. Each part assumes its true dimensions: large continents are not looked at in the light of islands, or islands considered as mere specks, which in truth are larger than many kingdoms of Europe. Africa, or North and South America, are well-sounding names and easily pronounced, but it is not till having sailed for some weeks along small portions of their coasts, that one is thoroughly convinced, how large a piece of our immense world these names imply.

From seeing the present state, it is impossible not to look forward with high expectation to the future progress of nearly an entire hemisphere. The march of improvement, consequent on the introduction of Christianity, through the South Sea, probably stands by itself on the records of the world. It is the more striking when we remember that but sixty years since, Cook, whose most excellent judgment none will dispute, could foresee no prospect of such change. Yet these changes have now been effected by the philanthropic spirit of the English nation.

In the same quarter of the globe, Australia is rising, or indeed may be said to have risen, into a grand centre of civilization which at some not very remote period, will rule the empress of the southern hemisphere. It is impossible for an Englishman to behold these distant colonies, without a high pride and satisfaction. To hoist the British flag seems to draw as a certain consequence, wealth, prosperity and civilization.

In conclusion: it appears to me that nothing can be more improving to a young naturalist, than a journey in distant countries. It both sharpens and partly also allays that want and craving, which a man experiences although every corporeal sense is fully satisfied. The excitement from the novelty of objects, and the chance of success, stimulates him on to activity. Moreover, as a number of isolated facts soon become uninteresting, the habit of comparison leads to generalization; on the other hand, as the traveller stays but a short space of time in each place, his description must generally consist of mere sketches, instead of detailed observation. Hence arises, as I have found to my cost, a constant tendency to fill up the wide gaps of knowledge by inaccurate and superficial hypotheses.

But I have too deeply enjoyed the voyage not to recommend to any naturalist to take all chances, and to start on travels by land if possible, if otherwise, on a long voyage. He may feel assured he will meet with no difficulties or dangers, excepting in rare cases, nearly so bad, as he



beforehand imagined. In a moral point of view, the effect ought to be to teach him goodhumoured patience, unselfishness, the habit of acting for himself, and of making the best of everything, or contentment: in short, he should partake of the characteristic qualities of the greater number of sailors. Travelling ought also to teach him to distrust others; but at the same time he will discover how many truly goodnatured people there are, with whom he never before had, nor ever again will have any further communication, yet who are ready to offer him the most disinterested assistance.

*The Beagle dropped down to Woolwich where on 17 November 1836 she was paid off:*

The *Beagle* was put into commission on 4 July 1831; thus having completed the unusually long period of five years and one hundred and thirty six days.

ROBT. FITZROY

## 16. POSTSCRIPT

*Charles Darwin, in a letter to Robert FitzRoy:*

Shrewsbury, Thursday morning, 6 October 1836

My dear FitzRoy,

I arrived here yesterday morning at breakfasttime, and, thank God, found all my dear good sisters and father quite well. My father appears more cheerful and very little older than when I left. My sisters assure me I do not look the least different, and I am able to return the compliment. Indeed, all England appears changed excepting the good old town of Shrewsbury and its inhabitants, which, for all I can see to the contrary, may go on as they now are to Doomsday. I wish with all my heart I was writing to you amongst your friends instead of at that horrid Plymouth. But the day will soon come, and you will be as happy as I now am. I do assure you I am a very great man at home; the five years' voyage has certainly raised me a hundred percent. I fear such greatness must experience a fall.

I am thoroughly ashamed of myself in what a dead-and-half-alive state I spent the few last days on board; my only excuse is that certainly I was not quite well. The first day in the mail tired me, but as I drew nearer to Shrewsbury everything looked more beautiful and cheerful. In passing Gloucestershire and Worcestershire I wished much for you to admire the fields, woods and orchards. The stupid people on the coach did not seem to think the fields one bit greener than usual; but I am sure we should have thoroughly agreed that the wide world does not contain so happy a prospect as the rich cultivated land of England.

I hope you will not forget to send me a note telling me how you go on. I do indeed hope all your vexations and trouble with respect to our voyage, which we now know *has* an end, have come to a close. If you do not receive much satisfaction for all the mental and bodily energy you have expended in His Majesty's service, you will be most hardly treated. I put my radical sisters into an uproar at some of the prudent (if they were not honest Whigs, I would say shabby) proceedings of our Government. By the way, I must tell you for the honour and glory of the



family that my father has a large engraving of King George IV put up in his sitting-room. But I am no renegade, and by the time we meet my politics will be as firmly fixed and as wisely founded as ever they were.

I thought when I began this letter I would convince you what a steady and sober frame of mind I was in. But I find I am writing most precious nonsense. Two or three of our labourers yesterday immediately set to work, and got most excessively drunk in honour of the arrival of 'Master Charles'. Who then shall gainsay if Master Charles himself chooses to make himself a fool. Goodbye. God bless you. I hope you are as happy, but much wiser, than your most sincere but unworthy Philos.

CHAS DARWIN

*Robert FitzRoy, in a letter to Charles Darwin:*

*Beagle. Portsmouth 20 October 1836*

Dearest Philos,

What will you say to me for not having written before I know not – but really I have *not* been idle or forgetful.

I trusted to Fuller for all immediately necessary information and I will write now to give you the rest. Captain Beaufort was out of town when my letter and papers reached London (from Falmouth) and the chart duster put them *away* in a *corner* (excepting *one* private one) to await Captain B's *return*!!! Those papers related to the chronometric results etc. etc. – upon which the necessity for our going to Woolwich was to be founded – orders had been sent to Plymouth for the *Beagle* to pay off there – but the Lords had civility and sense enough to stay proceedings and approve of my going to London to see the Lords and Masters myself – I boarded Sir John Barrow and then made a stalking horse of *him* while attacking the *others*. All was satisfactorily settled in a very short time – and they acceded civilly to my proposals of calling at Portsmouth.

I was delighted to see that the Valparaíso cargo of charts had not only arrived but that they were mostly *engraved* – or in the engraver's hands and on a *large* scale! They have given much satisfaction at the Hydrography office. I have promised to give them a short paper for the Geol. Society – a slight *sketch* of our voyage, I will do what I can – according to time and ask you to add and correct. Fuller told me you looked very well and had on a *good hat*!

I was delighted by your letter, the account of your family, and the joy tipsy style of the whole letter were very pleasing. Indeed, Charles Darwin, I have *also* been *very* happy – Even at that horrid place

Plymouth – for that horrid place contains a *treasure* to me which even you were ignorant of!! Now guess and think and guess again. Believe it, or not, – the news is *true* – I am going to be *married*!!!!!! to Mary O'Brien. Now you may know that I had decided on this step, long, very long ago. All is settled and we shall be married in December.

Yours most sincerely,

ROBT. FITZROY

P.S.: Money matters are better than *you* think.



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