



*Botofogo Bay, Rio de Janeiro*

Darwin returned to the cottage on Botofogo Bay that he shared with the artist Augustus Earle.

C.D. TO MISS CAROLINE DARWIN

Botofogo Bay. April 25th

My dear Caroline,

I had sealed up the first letter all ready to be sent off during my absence: but no good opportunity occurred so it & this will go together. I take the opportunity of Maccormick returning to England, being invalided, i.e. being disagreeable to the Captain & Wickham. He is no loss. Derbyshire is also discharged the service from his own desire, not choosing his conduct, which has been bad about money matters, to be investigated. All this has been a long parenthesis.

My expedition lasted 15 days, most of which were ones of uncommon fatigue; I suppose for a civilised country travelling could not be worse – the greatest difficulty in getting anything to eat & not undressing for the five first days. I was very unwell for two days & the misery of riding in a scorching sun for about 10 hours was extreme. My horror of being left utterly destitute in a Venda will be better than any schoolmaster to make me learn Spanish as soon as we get into those countries. On the other side, there was a great interest & novelty in seeing the manner of living amongst the Brazilians, which [I] have [had the] opportunity



*Montevideo*

me, during these two months, from Nat: History. I have been wonderfully lucky with fossil bones – some of the animals must have been of great dimensions: I am almost sure that many of them are quite new; this is always pleasant, but with the antediluvian animals it is doubly so. I found parts of the curious osseous coat, which is attributed to the Megatherium; as the only specimens in Europe are at Madrid (originally in 1798 from Buenos Ayres) this alone is enough to repay some wearisome minutes. Amongst living animals I have not been less fortunate. I also had in September some good sporting; I shot one day a fine buck & doe, but in this line I never enjoyed anything so much as Ostrich hunting with the wild Soldiers, who are more than half Indians. They catch them by throwing two balls, which are attached to the ends of a thong, so as to entangle their legs: it was a fine animated chace. They found the same day 64 of their eggs.

It is now nearly four months since I have received a letter, so you can imagine how anxious I am for tomorrow morning: We are all very curious about politicks; all that we know is that the bill is past: but whether there is a King or a republic according to the Captain, remains to be proved.

Monte Video. I have just received your letter of June 28th & Susan's of May 12th. Far from your letters *not* containing news; I am astounded at the wonderful number of events, which monthly take place – and I assure you no half-famished



*Fuegian of the Yapoo Tekeenica tribe*



*Fuegians at the entrance to the Beagle Channel*

turned up to let go another anchor, for it blew a tremendous gale.

*Diary* pp. 124-5

DEC. 27th, 28th & 29th. To our great loss, the weather during these three days has been very bad, with much rain & violent squalls from the S.W. Yesterday the Captain went to reconnoitre the bays formed by the many islands at the back of Hermit's. I accompanied him, but the weather is so bleak & raw, as to render boating rather disagreeable. We ascended some of the hills, which as usual, showed us the nakedness of the land.

In most of the coves there were wigwams; some of them had been recently inhabited. The wigwam or Fuegian house is in shape like a cock of hay, about 4 feet high & circular; it can only be the work of an hour, being merely formed of a few branches & imperfectly thatched with grass, rushes &c. As shell fish, the chief source of subsistence, are soon exhausted in any one place, there is a constant necessity for migrating; & hence it comes that these dwellings are so very miserable. It is however evident that the same spot at intervals, is frequented for a succession of years. The wigwam is generally built on a hillock of shells & bones, a large mass weighing many tuns. Wild celery, Scurvy-grass, & other plants invariably grow on this heap of manure, so that by the brighter green of the vegetation the site of a wigwam is pointed out even at a great distance.



*Mount Sarmiento and the Lomas Range*

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 his 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 Woollya, 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



*Mount Sarmiento from Warp Bay*

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 6800 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,



*The 'Beagle' in Murray Narrow*

from doing anything to obtain food &c. Night & day large parties of the natives surrounded his house. One day, having requested an old man to leave the place, he returned with a large stone on his hand. Another day, a whole party advanced with stones & stakes, & some of the younger men & Jemmy's brother were crying. Matthews thought it was only to rob him & he met them with presents. I cannot help thinking that more was meant. They showed by signs they would strip him & pluck all the hairs out of his face & body. I think we returned just in time to save his life. The perfect equality of all the inhabitants will for many years prevent their civilization, even a shirt or other article of clothing is immediately torn into pieces. Until some chief rises, who by his power might be able to keep to himself such presents as animals &c. &c., there must be an end to all hopes of bettering their condition. It would not have been so bad if all the plunder had remained in one family or tribe. But there was a constant succession of fresh canoes & each one returned with something. Jemmy's own relations were absolutely so foolish & vain as to show to strangers what they had stolen & the method of doing it.

It was quite melancholy leaving our Fuegians amongst their barbarous countrymen. There was one comfort; they appeared to have no personal fears. But, in contradiction of what has often been stated, 3 years has been sufficient to change savages into as far as habits go, complete & voluntary Europaeans. York,



*Port Louis, Falkland Islands*

who was a full grown man & with a strong violent mind, will I am certain in every respect live as far as his means go, like an Englishman. Poor Jemmy looked rather disconsolate & certainly would have liked to have returned with us; he said 'they were all very bad men, no "sabe" nothing'. Jemmy's own brother had been stealing from him; as Jemmy said, 'what fashion do you call that'. I am afraid whatever other ends this excursion to England produces, it will not be conducive to their happiness. They have far too much sense not to see the vast superiority of civilized over uncivilized habits, yet I am afraid to the latter they must return.

We took Matthews & some of the clothes which he had buried, in the boat & made sail. The Captain to save time determined to go to the South & outside of Navarin Island, instead of our returning into the Beagle channel. We slept at night at the S. entrance of Ponsonby Sound, & in the morning (7th) started for the ship. There was a fresh breeze & a good deal of sea, rather more than is pleasant for a boat, so that on reaching in the evening the Beagle, there was the pleasure of smooth water joined to that of returning after 20 days absence. The distance we have run in the boats has been about 300 miles & as it was in an East & West direction it afforded an excellent geological section of the country.

*Diary pp.135-7*



*'Adventure' at Port Desire*

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



*Port Desire*

8th–23rd. Arrived at Port Desire. Our passage has been a very long one of seventeen days; the winds generally being light & foul, with the exception of a fresh gale or two.

The *Adventure* delayed us: she is found not to sail well on a wind; & at this place her sails will be altered. The harbor of Port Desire is a creek, which runs up the country in the form of a river: the entrance is very narrow; but with a fine breeze the *Beagle* entered in good style.

24th. Took a long walk on the North side: after ascending some rocks there is a great *level* plain, which extends in every direction but is divided by vallies. I thought I had seen some desert looking country near B. Blanca; but the land in this neighbourhead so far exceeds it in sterility, that this alone deserves the name of a desert. The plain is composed of gravel with very little vegetation & not a drop of water. In the vallies there is some little but it is very brackish. It is remarkable that on the surface of this plain there are shells of the same sort which now exist, & the muscles even with their usual blue colour. It is therefore certain, that within no great number of centuries all this country has been beneath the sea. Wretched looking as the country is, it supports very many Guanacoës. By great good luck I shot one; it weighed without its entrails 170 pounds: so that we shall have fresh meat for all hands on Christmas day.

Christmas 25th. After dining in the Gun-room, the officers & almost every man



*Christmas Day, 1833*

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 school-boy eagerness the seamen enjoyed them: old men with long beards & 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.

26th. The Beagle is anchored opposite to a fort erected by the old Spaniards. It was formerly attempted to make a settlement here; but it quite failed from the want of water in the summer, & the Indians in the winter. The buildings were begun in very good style, & remain a proof of the strong hand of old Spain. Some of the enclosures & some cherry trees may yet be seen. The fate of all the Spanish establishments on the coast of Patagonia, with the exception of the R. Negro, has been miserable. Port Famine, as it is well known, expresses the sufferings of the settlers. At St Josephs every man excepting two, was massacred by the Indians on a Sunday when in church. The two were prisoners some years with the Indians; one of them now in extreme old age, I conversed with at R. Negro. I walked this day to some fine cliffs, five miles to the South: here the usual geological story, of the same great oyster-bed being upheaved in modern days, was very evident. In the evening weather very cold, & a Tierra del Fuego gale of wind.

28th. The Yawl under the command of Mr Chaffers, with three days' provisions, was sent to survey the head of the creek. In the morning we searched for



*Bivouac at Port Desire*

succeeded in getting one in time for a Christmas dinner. The cavy is an animal something like a hare, but much larger. I was surprised to find them all so shy, but believe it is on account of the lions, which are pretty numerous here, and to whom they are a constant prey.

The most amusing part of the time, however, was that spent in an expedition up the harbour, in order to ascertain whether it did or did not terminate in a fresh water river. A party was formed consisting of Mr Darwin the naturalist, 3 officers and myself, with 4 or 5 seamen in the yawl, with provisions for 3 days. This I enjoyed exceedingly. The weather was fine, and we generally contrived to get into some little snug creek an hour or so before sunset, where the tents were rigged, a fire lighted, and skirmishers turned out to scower the ground and bring in everything in the shape of game that could be got hold of. In short, it was a genuine bivouack, and such as I am sure you would have liked much; and indeed both there and since I have often wished that you could form one of the party. Of course, I was not exempt from taking my turn in the night watch, for altho no Indians had been seen in the neighbourhood, they are known to come over this part of the country from the northward, and from the late massacres that have taken place in the neighbourhood of Buenos Ayres, we should stand a poor chance if caught napping. The chance of these, and the certainty of lions not being far off, was sufficient to keep my fancy at work during my watch, which was only for an hour and a half; when that was over, however, I had too much confidence in my party not to sleep soundly for the rest of the night.



*'Rhea Darwinii'*

We succeeded in finding good water, but it was too far up to be of use in watering the ship, and we returned.

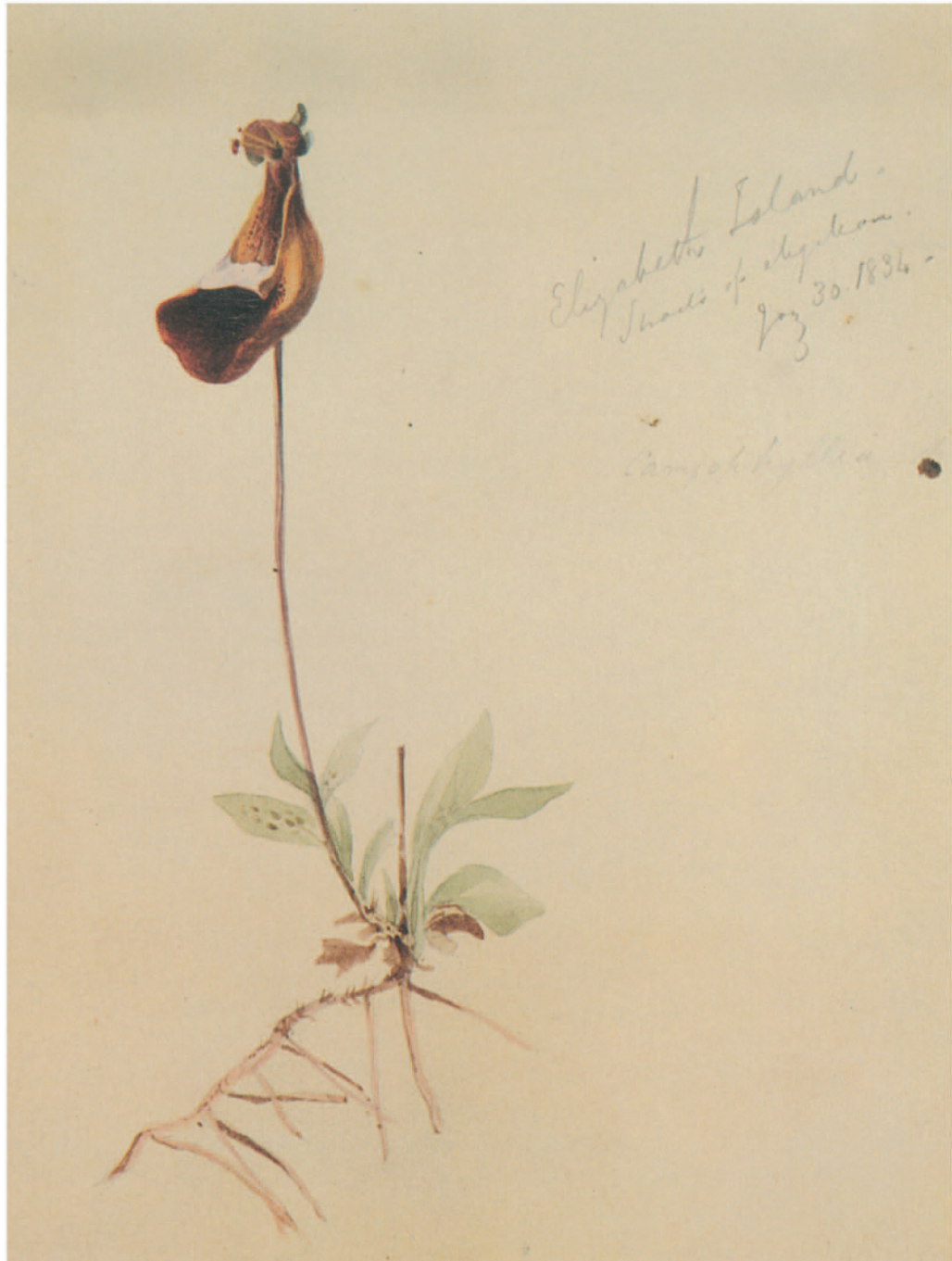
While here, as there was but little to be done in the way of sketching, I used generally to take my gun and was fortunate enough one day to bring home an ostrich, the only one indeed which as yet we had been able to kill, altho great numbers had been seen. It was a young one, and excellent eating.

I am happy to say that not only myself but all on board have up to this time been in excellent health, notwithstanding the variety of food which occasionally presents itself, it being allowed by all that any thing is better than our own salted beef and pork. Accordingly gulls, shaggs, and sharks, muscels, limpets and land crabbs, are seldom rejected if nothing better is to be had. Not that we are by any



*Entrance to Port St Julian*

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, ammuniton, 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



*Flower found on Elizabeth Island*

animals. In the morning they rise to pick shell fish at low water; & the women, winter & summer, dive to collect sea eggs; such miserable food is eked out by tasteless berries & Fungi. They are surrounded by hostile tribes speaking different dialects; & the cause of their warfare would appear to be the means of subsistence. Their country is a broken mass of wild rocks, lofty hills & useless



*Port Famine and Mount Tarn*

forests, & these are viewed through mists & endless storms. In search of food they move from spot to spot, & so steep is the coast, this must be done in wretched canoes. They cannot know the feeling of having a home, & 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 & 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 & build canoes, & then to enter upon one of the most inhospitable countries in the world? Such & 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



*Fuegians in the Beagle Channel*

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 Woollya; 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 changing his mind, and desiring to be placed at Woollya, 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



*Patagonians at Gregory Bay*

that Jemmy instead of recovering his own language has taught all his friends a little English: 'J. Button's canoe & Jemmy's wife come' – 'give me knife', was said by several of them.

We then bore away for this island – this little miserable seat of discord. We found that the Gauchos under pretence of a revolution had murdered & plundered all the Englishmen whom they could catch & some of their own countrymen. All the economy at home makes the foreign movements of England most contemptible: how different from old Spain. Here we dog-in the manger fashion seize an island & leave to protect it a Union Jack; the possessor has been of course murdered: we now send a Lieutenant with four sailors, without authority or instructions. A man of war, however, ventured to leave a party of marines, & by their assistance & the treachery of some of the party the murderers have all been taken – there being now as many prisoners as inhabitants. This island must some day become a very important halting place in the most turbulent sea in the world – it is mid way between Australia & South sea to England, between Chili, Peru &c & the R. Plata & R. de Janeiro. There are fine harbors, plenty of fresh water & good beef: it would doubtlessly produce the coarser vegetables. In other respects it is a wretched place: a little time since, I rode across the island & returned in four days: my excursion would have been longer but during the whole time it blew a gale of wind with hail & snow: there is no fire wood bigger



*River Santa Cruz*

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!

*Fresh* water is seldom found in these wastes; salinas (salt depositions or incrustations) are numerous. The climate is delightful to the bodily sensations; but for productions of the earth, as bad as any, excepting that of the Arabian or African desert. Rain is seldom known during three-quarters of the year, and even in the three winter months, when it may be expected, but little falls except on *rare* occasions, when it rains for two or three days in succession. Sea-winds sometimes bring small, misty rain for a few hours, but not enough to do good to vegetable produce.

The only animals which abound are guanacoës, 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



*Basalt Glen, Santa Cruz River*

cliffs. A stream of excellent water winds through it amongst the long grass, and a kind of jungle at the bottom. Lions or rather pumas shelter in it, as the recently torn remains of guanacoës showed us. Condors inhabit the basaltic cliffs. Near the river some imperfect columns of basalt give to a remarkable rocky height, the semblance of an old castle. Altogether it is a scene of wild loneliness quite fit to be the breeding place of lions.

*Narrative* 2 pp. 347–8

APRIL 27th. The bed of the river became rather narrower, and hence the stream more rapid. It here ran at the rate of six knots an hour. From this cause, and from the many great angular fragments, tracking the boats became both dangerous and laborious.

This day I shot a condor. It measured from tip to tip of the wings, eight and a half feet, and from beak to tail, four feet. It is a magnificent spectacle to behold several of these great birds seated on the edge of some steep precipice. I will here describe all I have observed respecting their habits. The condor is known to have a wide geographical range, being found on the west coast of South America, from the Strait of Magellan throughout the entire range of the Cordillera. On the Patagonian shore, the steep cliff near the mouth of the Rio Negro in lat. 41°, was



*Condors preying on a dead guanaco*

although surrounded by people, it began ravenously to tear a piece of carrion. In a garden at the same place, between twenty and thirty were kept alive. They were fed only once a week, but they appeared in pretty good health. The Chileno countrymen assert that the condor will live and retain its powers, between five and six weeks without eating. I cannot answer for the truth of this, but it is a cruel experiment, which very likely has been tried.

When an animal is killed in the country, it is well known that the condors, like other carrion vultures, soon gain intelligence of it, and congregate in an inexplicable manner. In most cases it must not be overlooked, that the birds have discovered their prey, and have picked the skeleton clean, before the flesh is in the least tainted. Remembering the opinions of M. Audubon, on the little smelling powers of such birds, I tried in the above-mentioned garden the following experiment: The condors were tied, each by a rope, in a long row at the bottom of a wall. Having folded up a piece of meat in white paper, I walked backwards and forwards, carrying it in my hand at the distance of about three yards, but no notice whatever was taken. I then threw it on the ground, within one yard of an old cock bird; he looked at it for a moment with attention, but then regarded it no more. With a stick I pushed it closer and closer, until at last he touched it with his beak; the paper was then instantly torn off with fury, and at the same moment, every



*Shooting guanacos*

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 far more dangerous than our ascent of the river.

5th. Our first day's work in returning was a distance of eighty-five miles, which had cost us six days hard labour in ascending. Next day we made good about eighty-two miles; and on the 7th we reached the salt water. Although we made such quick progress in returning, our halts for observations were similar to those made in going. While descending the rapid stream, so quickly and quietly, we saw many more guanacoes and ostriches than we had seen before; but our flying shots only frightened them, and time was too precious to admit of any delay. Only one fish was got, and that was a dead one, 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. Leaving a very small party near Weddell Bluff to look for guanacoes, I hastened on board with the boats; and with the ebb tide reached the *Beagle* before noon on the 8th. 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



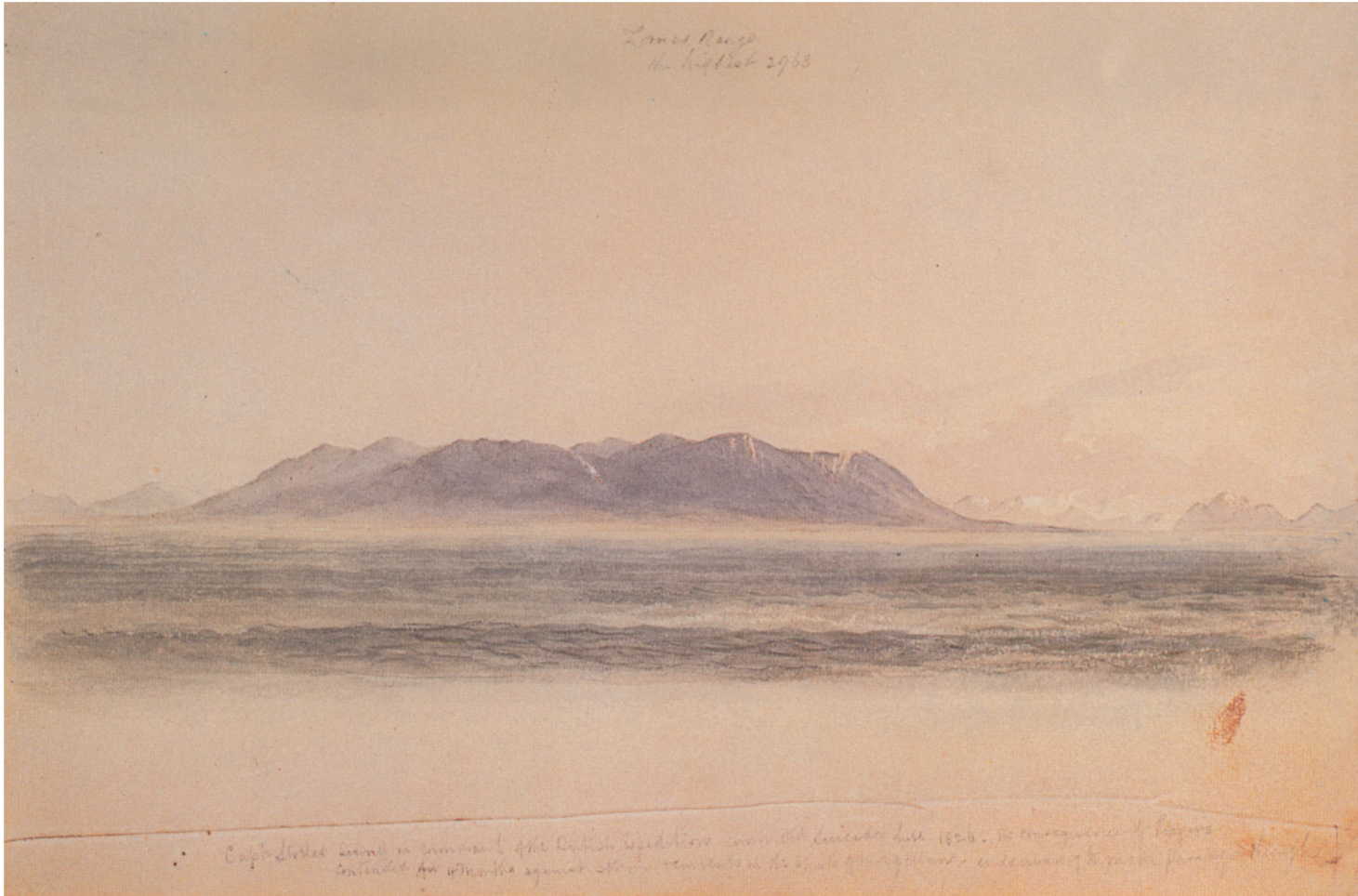
*Cordillera seen from Santa Cruz River*

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.

*Narrative* 2 pp.356-7

On May 12th the *Beagle* sailed southwards, and the next three weeks were spent taking soundings and surveying the coast on either side of the eastern entrance to the Strait of Magellan, assisted after May 23rd by the *Adventure*. On June 3rd both ships were moored in Port Famine, preparing for their passage into the Pacific by an unconventional route through the Magdalen and Cockburn Channels, which FitzRoy preferred to the normal one through the western part of the Strait of Magellan.

JUNE 9th. Good equal altitudes having been obtained, 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



*Port Famine*

Although with plenty to eat, they are excessively poor; there is little demand for labor, & from the scarcity of money nearly all payments are made with goods. Men carry on their backs from long distances, bags of charcoal, (the only fuel used in the town) to obtain the most trifling luxuries. The joy which the sight of a few Reals gave to these poor men was quite surprising; after making them a present, they always insisted on having your hand to shake it as a sign of their gratitude. One day I walked a few miles on the road to Castro. This place was the former capital & is now the second town in the island. The road is the only one which goes directly through the interior of the country. About two miles from S. Carlos it enters the forest, which covers the whole country & has only been rendered passable by the aid of the axe. For its whole length there are not more than two or three houses; the road itself was made in the time of the old Spaniards & is entirely formed of trunks of trees squared & placed side by side. From the gloomy damp nature of the climate, the wood had a dreary aspect; in the Tropics such a scene is *delightful* from the contrast it affords with the brilliancy & glare of every open spot. The country generally is only inhabited round the shores of the creeks



& Bays, & in this respect it resembles T. del Fuego. The road by the coast is in some places so bad that many houses have scarcely any communication with others excepting by boats.

The capital itself is worthy of the island, it is a small straggling dirty village; the houses are singular from being entirely built – sides, roofs, partitions &c. – of plank. The Alerce or cedar from which these planks are made grows on the sides of the Andes; they possess the curious property of splitting so evenly that by planing the planks are nearly as well formed as if sawed. These planks are the staple export of the Islands, to which may be added potatoes & hams.

*Diary* pp.232–3

C.D. TO MISS CATHERINE DARWIN

Sunday July 20th 1834 – a hundred miles South of Valparaiso

My dear Catherine,

Being at sea & the weather fine, I will begin a letter which shall be finished when we arrive in Port. I have received the whole series of letters up to yours of



*Mount Sarmiento*

to ascend it; I fear however the snow will be too thick. R. Corfield is living here, I cannot tell you how very obliging & kind he is to me. He has a very nice house & before long I am going on shore to pay him a visit; he presses me most good-naturedly to make his house my headquarters. I have had some long & pleasant walks in the country; I am afraid it is not a very good place for Natural History; after my first ride I shall know more about it.

I have received two letters from Henslow, he tells me my treasures have arrived safe & I am highly delighted at what he says about their value. What work I shall have, when I return; there will be a glorious mass of what Wickham calls d-d beastly devilment. Although Wickham always was growling at my bringing more dirt on board than any ten men, he is a great loss to me in the *Beagle*. He is far the most conversible being on board, I do not mean talks the most, for in that respect Sullivan quite bears away the palm. Our new artist, who joined us at M. Video, is a pleasant sort of person, rather too much of the drawing-master about him: he is very unlike to Earles eccentric character. We all jog on very well together; there is no quarrelling on board, which is something to say. The Captain keeps all smooth by rowing everyone in turn, which of course he has as much right to do, as a



*San Carlos de Chiloe*

the Almendral, which is an extensive suburb built on [a] small sand-plain, which very recently has been a sea-beach. The house is a very pleasant one; one story high, with all the rooms opening into a quadrangle; there is a small garden attached to it, which receives a small stream of water 6 hours in the week. Another gentleman lives with Mr Corfield; the expences of the house, table, wine, 2 men servants, 3 or 4 horses, is about 400 pounds sterling per annum. I should think this same establishment in England would at least cost double this sum.

5th. I have taken several long walks in the country. The vegetation here has a peculiar aspect; this is owing to the number & variety of bushes which seem to supply the place of plants; many of them bear very pretty flowers & very commonly the whole shrub has a strong resinous or aromatic smell. In climbing



*San Carlos de Chiloe*

amongst the hills one's hands, & even clothes, become strongly scented. With this sort of vegetation I am surprised to find that insects are far from common; indeed this scarcity holds good to some of the higher orders of animals; there are very few quadrupeds, & birds are not very plentiful. I have already found beds of recent shells, yet retaining their colors at an elevation of 1300 feet; & beneath this level the country is strewn with them. It seems not a very improbable conjecture that the want of animals may be owing to none having been created since this country was raised from the sea.

*Diary* pp.234-6

C.D. TO PROFESSOR HENSLAW

Valparaiso July 24th 1834

My dear Henslow

A box has just arrived, in which were two of your most kind & affectionate letters; you do not know how happy they have made me. One is dated Dec. 12th 1833 the other Jan: 15th of the *same year*! By what fatality it did not arrive sooner, I cannot conjecture: I regret it much; for it contains the information I most wanted about manner of packing etc etc: roots, with specimens of plants etc etc: this I suppose was written after the reception of first cargo of specimens. Not having heard from you untill March of this year; I really began to think my collections



*Bay of Valparaíso looking towards Viña del Mar*

books one single description of the polypus of any one Corall (excepting *Lobularia alcyonium* of Savigny). I found a curious little stony *Cellaria* (a new genus) each cell provided with [a] long toothed bristle; these are capable of various & rapid motions – this motion is often simultaneous & can be produced by irritation. This fact, as far as I see, is quite isolated in the history (excepting by the *Flustra*) with organ like *Vultures Head* of *Zoophites* – it points out a much more intimate relation between the *Polypi*, than Lamarck is willing to allow. I forget, whether I mentioned, having seen something of the manner of propagation in that most ambiguous family, the *Corallines*: I feel pretty well convinced if they are not *Plants*, they are not *Zoophites*: the ‘*gemmule*’ of a *Halimeda* contained several articulations united & ready to burst their envelope & become attached to some basis. I believe in *Zoophites*, universally the *gemmule* produces a single *Polypus*, which afterwards or at the same time, grows with its cell or single articulation.

The *Beagle* left the *Sts of Magellan* in the middle of winter; she found her road out by a wild unfrequented channel; well might Sir J. Narborough call the West coast South Desolation ‘because it is so desolate a land to behold’. We were driven into *Chiloe* by some very bad weather. An Englishman gave me 3 specimens of



*Coquimbo*

the famous Red Snow of the Northern Navigators. I am going to send to Henslow a description of this little Lichen, for him, if he thinks it worth while, to publish in some of the Periodicals. I am getting ready my last Cargo of specimens to send to England. This last trip has added half a mule's load, for without plenty of proof, I do not expect a word of what I have above written to be believed.

I arrived at this place a week since, & am as before living with Corfield. I have found him as kind & good-natured a friend as he is a good man. I staid also a week in St Jago, to rest after the Cordilleras, of which I stood in need, & lived in the house of Mr Caldcleugh (the author of some bad travels in S. America); he is a very pleasant person, & took an infinite degree of trouble for me. It is quite surprising how kind & hospitable I have found all the English merchants. Do mention to Mr Corfield of Pitchford, under what obligations I lie to his son.

Amongst the various pieces of news of which your letter is full, I am indeed very sorry to hear of poor Col. Leighton's death. I can well believe how much he is regretted. It is a bitter reflection when I think what changes will have taken place before I return. I pray to Heaven I may return to see all of you.

When you write to the West Indies or Madeira, remember me most



affectionately to Charlotte. I hope she will be happy there. When I enjoyed talking over all my schemes with her, how little did she expect to be so soon under a vertical sun & glowing atmosphere. I am surprised at any Husband liking to take his wife to such a country.

The Beagle after leaving me here, returned to Concepcion. Capt. FitzRoy has investigated with admirable precision the relative position of land & water since the great Earthquake. The rise is unequal, & parts of the coast are now settling down again, probably at each little trembling, which yet continue. The Isle of S. Maria has been elevated 10 feet; Capt. FitzRoy found a bed of Muscles with putrid fish that many feet above high water mark.

The Beagle passed this port yesterday. I hired a boat & pulled out to her. The Capt. is very well; I was the first to communicate to him his promotion. He is fully determined nothing shall induce him to delay the voyage a month; if time is lost in one place, something else shall be sacrificed. Our voyage now will solely consist in carrying a chain of longitudes between important positions.

My holidays extend till the middle of July, so that I have 10 weeks before me, & the Beagle will pick me up at any Port I choose. The day after tomorrow I start for



*Lady in Lima*

'tapadas', or concealed in the saya y manta, & a fruit called Chilimoya. To my mind the former is as beautiful as the latter is delicious. The close elastic gown fits the figure closely & obliges the ladies to walk with small steps, which they do very



*Charles Island, Galapagos*

Mexico; 4th. A *sylvicola*, an American form, and especially common in the northern division of the continent; 5th. Three species of mocking-birds, a genus common to both Americas; 6th. A finch, with a stiff tail and a long claw to its hinder toe, closely allied to a North American genus; 7th. A swallow belonging to the American division of that genus; 8th. A dove, like, but distinct from, the Chilian species; 9th. A group of finches, of which Mr Gould considers there are thirteen species; and these he has distributed into four new sub-genera. These birds are the most singular of any in the archipelago. They all agree in many points; namely, in a peculiar structure of their bill, short tails, general form, and in their plumage. The females are gray or brown, but the old cocks jet-black. All the species, excepting two, feed in flocks on the ground, and have very similar habits. It is very remarkable that a nearly perfect gradation of structure in this one group can be traced in the form of the beak, from one exceeding in dimensions that of the largest gros-beak, to another differing but little from that of a warbler. Of the aquatic birds I have already remarked that some are peculiar to these islands, and some common to North and South America.

We will now turn to the order of reptiles, which forms, perhaps, the most striking feature in the zoology of these islands. The species are not numerous, but the number of individuals of each kind, is extraordinarily great. There is one kind



*View of Sydney from North Shore*

present there were rather more. Although the farm is well stocked with every requisite, there was an apparent absence of comfort; & not even one woman resided here. The Sunset of a fine day will generally cast an air of happy contentment on any scene; but here at this retired farmhouse the brightest tints on the surrounding woods could not make me forget that forty hardened profligate men were ceasing from their daily labours, like the Slaves from Africa, yet without their just claim for compassion.

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 Grey-hounds 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 & 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, & milk from the cows, are the peace offerings of the Settlers, who push further & further inland. The thoughtless Aboriginal, blinded by these trifling advantages, is delighted at the approach of the White Man, who seems predestined to inherit