

Charles Darwin in Australia

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It is well-known that Darwin did not particularly like Australia, and negative images shine through the writings – notes, diaries and letters – that he compiled while he was here.

He visited three different parts of Australia. 12th–30th January 1836 (an extremely hot January) had seen him at Port Jackson in New South Wales, and then riding inland to the Blue Mountains and Bathurst. After ‘a six days passage .. the latter part of which were very cold and squally’ the ship arrived at Hobart Town, where he spent 7th–17th February. Then, after a passage during which he suffered ‘no little misery’ from the ‘strong westerly swell’ the *Beagle* spent a week at King George’s Sound (6th–14th March). Charles Darwin thus spent a total of some 36 days or part-days in the Australian colonies (Barlow 1934; Nicholas & Nicholas 1989; Armstrong 2004).

Amongst his first impressions approaching New South Wales in the ship was that the land ‘was covered by thin scrubby trees that bespoke useless sterility’. On 20th January he reached Bathurst which he thought ‘not very inviting’: ‘a hideous little red brick church’ stood by itself. On his return ride towards Sydney he stayed for one night at a farm run by two newly arrived Englishmen: ‘the total want of comfort was not very attractive’. Darwin did not like the reliance of the colony on convict labour, he thought the people were money-grubbing, and remarked that ‘children learn the vilest expressions’. Maybe he had a point (Barlow 1934).¹

His comments on the tiny settlement of King George’s Sound on the Southwest of the continent were particularly acerbic. ‘He who thinks like me will never wish to walk again in so uninviting a country’. Negative words and phrases abound: ‘bare hills’, ‘sandy, very poor soils’, ‘stunted trees’, ‘uncomfortable appearance’, ‘coarse grass’. And on departing:

Since leaving England I do not think we have visited any one place so very dull & uninteresting as K. George’s Sound. Farewell Australia, you are a rising infant & doubtless some day will reign a great princess in the South; but you are too great and ambitious for affection, yet not enough for respect; I leave your shores without sorrow or regret (*Diary* 14 March 1836)

But even in these words of farewell we can hear a note of ambivalence, and in fact many of his caustic comments were qualified, and there were places where he was much more positive. For example, a line or two after his

initial downbeat assessment of the countryside of New South Wales comes something of a eulogy:

In the evening I walked through the town & returned full of admiration at the whole scene. It is a most magnificent testimony to the power of the British nation: here in a less promising county scores of years have effected many times more than centuries in South America. My first feeling was to congratulate myself I was born an Englishman. ... the streets are regular, broad, clean and kept in excellent order ... shops are well furnished (*Diary* 12 January 1836)

And so it goes on. He comments on the rapid expansion of the suburbs of Sydney, comparing this to the development of London and Birmingham. The transport infrastructure is particularly admired, for example the ‘many large ships’ in Sydney Cove, and the surrounding warehouses. ‘The roads were excellent and made on the Macadam principle’, he remarks. He approved of the early development of steamships, which he noted in both Port Jackson and Hobart Town. He admired the expansion and prosperity of the wool industry; while he stayed on a sheep property, he talked at some length to the superintendent. In Tasmania particularly, he comments favourably on the development of agriculture: ‘bright yellow fields of corn’, ‘potato crops appeared luxuriant’, ‘good supplies of water’, ‘scenery magnificent’, ‘cultivated fields look well’, ‘gardens abounded with luxuriant vegetables and fruit trees’. He much preferred Tasmania to New South Wales (or King George’s Sound).

It is where he is evaluating the economic development of the Australian colonies that he is most positive. The Darwin family were Whigs, his father, as well as being a doctor, was an entrepreneur; there were family connections with the manufacturing Wedgwoods (Darwin married Emma Wedgwood not long after his return). Whigs believed in progress, trade and industry and the power of science and technology, so the reaction is perhaps not surprising. The landscape was unfamiliar and alien, and it is here that his remarks are most

¹ I have used the 1934 edition of Darwin’s Journal (*Charles Darwin’s Diary of the Voyage of HMS Beagle*, edited by Darwin’s granddaughter, Nora Barlow, Cambridge University Press). There are other editions. References here are to *Diary*. The book now known as *The Voyage of the Beagle*, is an edited version of this, with the style improved. I used a modern reprint of the 1845 edition.

negative, particularly during those bakingly hot days in inland New South Wales. But where Darwin looks ahead he is positive: 'Australia you are a rising infant and ... will reign a great princess in the south'; 'Australia must ultimately depend upon being the centre of commerce for the southern hemisphere', he foresaw. He was often remarkably prescient; he heard that there was 'excellent land' some 30 miles inland from King George's Sound, and he foresaw that in the very near future 'the land will be under cultivation', and the settlement that became Albany would become 'the seaport of this inland district'. Whiggery came with a firm belief in progress and the future.

It is sometimes maintained that by the time he reached Australia Darwin was tired, and fed up with the sea, ships and the sea-sickness to which he was very prone. This may well be so, but his powers of scientific observation and recording remained on a high level. He collected dozens, perhaps hundreds, of insects and shells, and a number of vertebrates (reptiles, birds, fish and amphibians)². In Tasmania he found also some flatworms or planaria, which he encountered in the some rotting wood, with which the forested country inland from Hobart abounded. Darwin did a number of experiments with these, testing their irritability. For example he described their reaction to light (they 'disliked' it and immediately crawled beneath fragments of wood). He also bisected one individual, and observed the organism's ability to regenerate from a fragment. But over a month later, as the *Beagle* entered the tropics 'they gradually sickened and died' The creatures perished 'through neglect' before the work could be completed. Amongst the shells he collected as he clambered over the rocks along the shoreline of the Derwent Estuary were barnacles, the group of which Darwin made a special study in his later life – a study that in no small way, established his reputation as a scientist.

His interest in geology was maintained. He wrote an extremely detailed memorandum on the geology of the Hobart region of Tasmania, identifying many rock-types accurately and reconstructing the geological history perceptively; unfortunately it was not published until the 1970s (Banks 1971). He also had some perceptive remarks on the deep valleys in the Blue Mountains, but he was wrong in believing that the sea had had a part in their erosion (Armstrong 1993). He had something of a preoccupation with sea-level change at the time, having just developed his theory of coral reefs. Some of his remarks on the geology of King George's Sound were more accurate, and he compared the rounded granite domes with some of the landscapes of South America, deducing that they were of similar material and had had a similar origin (Armstrong 1985).

He also attended an Aboriginal corroboree at King George's Sound, and has an excellent description of the dances he witnessed. In keeping with his age, Darwin often shows great interest in the weird, extraordinary and (to him) bizarre:

As soon as it grew dark, small fires were lighted, and the men commenced ... painting themselves white in spots and lines. large fires were kept blazing, round which the women and children were collected as spectators; the Cockatoo and King George's Men formed two distinct parties, and generally danced in answer to each other. The dancing consisted in their running either sideways or in Indian file into an open space, and stamping on the ground with great force as they marched together. Their heavy footsteps were accompanied by a kind of grunt, by beating their spears together, and by ... extending their arms and wriggling their bodies. It was a most rude and barbarous scene, and to our ideas without any sort of meaning; but we observed that the black women and children watched it with the greatest pleasure. Perhaps these dances originally represented actions, such as wars and victories; there was one called the Emu dance, in which each man extended his arm in a bent manner, like the neck of that bird. In another dance, one man imitated the movements of a kangaroo grazing in the woods, whilst a second crawled up, and pretended to spear him. ...[T]he air resounded with their wild cries. ... the group of nearly naked figures, viewed in the light of the blazing fires, all moving in hideous harmony, formed a perfect display of a festival amongst the lowest barbarians. In Tierra del Fuego, we have beheld many curious scenes in savage life, but never, I think, one where the natives were in such high spirits and so perfectly at their ease. (*Voyage of the Beagle* Chapter 19)

Darwin sees other peoples through the lens of his own background and education. Here again are the negative phrases: 'rude and barbarous', 'without any sort of meaning', 'hideous', 'lowest barbarians', 'savage'. But there is detailed observation, a comparative approach, and at least an attempt at interpretation. He also encountered indigenous people in New South Wales, suggesting that their numbers were declining. By the time of his Hobart visit the indigenous Tasmanian people had already been nearly exterminated and relocated, but he made extensive enquiries about them.

Darwin collected few plants in Australia, but his observation was excellent.

The extreme uniformity in the character of the Vegetation, is the most remarkable feature in the landscape of all parts of New S. Wales. Everywhere we have open woodland, the ground being partially covered with a most thin pasture. The trees nearly all belong to one peculiar family; the foliage is scanty & of a rather peculiar light green tint; it is not periodically shed; the surface of the leaves are placed in a vertical, instead of as in Europe a nearly

² Darwin's specimen notes are held in the University Library in Cambridge. I consulted the manuscript originals, but many of his notes are now available on the web.

horizontal position: This fact & their scantiness makes the woods light & shadowless; although under the scorching sun of summer, this is loss of comfort, it is of importance to the farmer, as it allows grass to grow where it otherwise could not (*Diary* 12 January 1836).

Anyone familiar with the Australian bush immediately feels that Darwin has captured the essential nature of Australian eucalypt woodland extremely well. He noted that the trees stood 'tolerably straight' and 'well apart'. He described the way in which the bark was annually shed, often hung in long shreds swinging in the wind, giving the landscape an 'untidy' and 'desolate appearance', and one of 'arid sterility': 'I cannot imagine a more complete contrast in every respect than the forest of ... Chiloé [an island off the coast of southern Chile], with the woods of Australia', he wrote.

He recorded:

The Grey hounds pursued a Kangaroo Rat [probably *Potarous tridactylus*, a potatroot] 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.

Darwin noticed that the almost ubiquitous effects of fire and he saw large flocks of white cockatoos (probably sulphur crested, *Cacatua galerita*), and 'a few most beautiful parrots' (perhaps crimson rosella, *Platycercus elegans*, eastern rosella, *Platycercus eximus* and king parrot *Alisterus scapularis*), there were crows 'like our jackdaws' and 'another bird something like a magpie (*Gymnorhina tibicen*)' (see also Nicholas & Nicholas, 1989). He saw casuarinas, thinking it odd that they were called oaks (she-oaks) as they did not resemble English oaks at all! In the pleasant evening he took a stroll along a chain of ponds, where he had the good fortune to see several individuals of the 'famous platypus' or *Ornithorhynchus paradoxicus*. In the same diary entry he recorded:

... I had been lying on a sunny bank & was reflecting on the strange character of the animals of this country 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 is the same & certainly the end in each case is complete' (*Diary* 18 January, 1836).

But he then spotted an antlion, capturing its prey and he continued:

Without doubt the predaecious 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, & 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 & remote the one from the other; that the Creator rested from his labor.

The 'sunny bank' was possibly that of Cox's River, between Blackheath and Bathurst. Darwin had travelled for several days through an open forest of eucalypts, acacias and casuarinas, often burnt. He had had been hunting for emu and kangaroo, and seen flocks of cockatoos and parrots. He had encountered groups of hunting Aborigines. He was very conscious of travelling through a very different environment from any that he had seen before.

But there was more to it than that. A few hours before he encountered the antlion, he had held in his hand a somewhat rabbit-like kangaroo-rat; he had had seen several platypi playing in a chain of ponds that represented the dry summer remnants of a river; they 'might easily have been mistaken for many water rats', although when his companion shot one he could see that they were quite different – 'a most extraordinary animal'. There were birds 'something like the [European] magpie' but although black and white, were very different in structure. The Australian trees were completely different from the oaks of the East Anglian and Shropshire countryside (but they were nevertheless trees). And the antlion (the larval form of an insect related to the lacewings, family Myrmeleontidae) was remarkably similar to that from Europe, in its appearance and its behaviour, and yet also subtly different.

Darwin was noticing an environment that was different, with different organisms, isolated from the rest of the world and yet there were creatures that, even if they belonged to different species, genera or families, resembled those with which he was familiar. Of the 'two distinct Creators', one of Australia, one of the rest of the world, he mused, 'their object has been the same and certainly in each case the end is complete.' Today we might argue that the platypus and the water rat, the Australian magpie and its European analogue, the two species of antlion, the marsupial carnivores and their placental mammal equivalents, filled similar ecological niches, and had been subjected to similar selection or adaptation pressures. Darwin was not able to go as far at the time, but he was on his way. He was not an evolutionist when he lay on the grassy bank in New South Wales that hot summer day in early 1836, but he was already beginning to think ecologically, in terms of whole environments, and to wonder about the manner in which individual organisms related to their surroundings. The she-oaks and gum-trees with their vertical leaves, the climate, the occurrence of fire, the soils, the Aborigines, the parrots and cockatoos, the emus, kangaroos and the kangaroo-rat were components of an integrated system.

Towards the end of the voyage Charles wrote in his journal:

The habit of comparison leads to generalisation.

By comparing environments one could bring out themes, trends and ideas. And Darwin was constantly comparing. He compared the Australian bush with the forests of South America, and with English woodlands. He compared the 40 or so islands HMS *Beagle* had visited. Before Australia the *Beagle* had called at Cape Verde, St Paul's and the Falklands in the Atlantic. The islands of Tierra del Fuego and Chiloé (off southern Chile) are of continental rocks and formed a contrast to the corals and

volcanic lavas of many of the islands he visited. Crossing the Pacific, the *Beagle* touched at four islands of the Galapagos, and at Tahiti; several other islets were observed from afar, before spending a few days at the Bay of Islands, New Zealand. After Australia the little ship proceeded to Cocos (Keeling) Islands and Mauritius and after a brief sojourn at Cape Town, visited Ascension Island, St Helena and the Cape Verde Islands (again) on the homeward run.

Constantly in his notes we see some comparative note added to observations made when he had seen a similar phenomenon elsewhere. The volcanic rocks of the Galapagos Islands were compared with those of Ascension and St Helena. The customs and appearance of the Tahitians were compared with those of the Maoris, and the Fuegians with the Australian Aboriginal people. Possibly similar comparisons were going on, unconsciously perhaps, when he compared Australian landscapes and societies with those of England. Where there were similarities to things with which he was familiar (in the landscape of Tasmania, in the thrusting economic development of New South Wales) he approved. Where it differed (in the convict society, and in the harsh dry hot interior) he was less impressed.

In the popular imagination, the Galapagos Islands are sometimes seen as the 'high point' of the voyage. But a detailed scrutiny of Darwin's notes shows that he did not particularly like that archipelago, and there was no 'Eureka' moment there. They were important, but not all important. In fact, the young naturalist spent much more time on East Falkland than in the Galapagos Islands. He collected more specimens there, and covered more pages

with notes. The visit was prior to that to the Galapagos Islands, but it is possible that he noted that the foxes from East Falkland and West Falkland were different (long before he saw the birds or tortoises of the Pacific island group). Or one could argue that the visits to coral islands – Tahiti, the Cocos (Keeling) Islands and Mauritius – the locales in which he developed his theory of coral reefs, were particularly significant. Or St Jago in the Cape Verde Islands where he first resolved to write a book about his discoveries. Or Australia, where to some extent 'it came together'.

But the argument is barren. It was all of them. It was his *comparative approach* that served him so well in evaluating the totality of some of the environments he encountered, and was ultimately one of the keys to his success.

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