

Book Review

*Fossils, Finches, and Fuegians: Charles Darwin's Adventures and Discoveries on the Beagle, 1832-1836*, by Richard Keynes. Harper-Collins, 2002.

Reviewed by Tom Shellberg

I never cared much about history. Especially the details. Give me the broad scope, please. A one-page synopsis of each century would be enough. But, after reading this 400-page book which describes one five-year voyage one hundred and sixty years ago, I'm questioning my bias. There is a lot of historical minutiae here, but I thoroughly enjoyed reading this book. *Fossils, Finches and Fuegians* is a very detailed chronicle, month by month, often day by day, and sometimes minute by minute, of the voyage of the Beagle. After reading the first few pages I realized that the main reason I was enjoying this book so much was precisely because of its meticulous description of wonderful detail which delightfully distinguishes this account from most others. The author writes so well and his descriptions are so accurate that every mile across the seas the reader smells the salt spray and hears the ship groan during storms. Every day delayed in ports the reader feels the impatience and frustration of captain FitzRoy and every day on shore the reader experiences the strange cultures in exotic settings much as did Darwin and FitzRoy and the crew. I felt like I was with Darwin climbing escarpments in the Andes with aching muscles to search for fossils, and that I was riding along with him on horseback across the Patagonian plains and hacking through the jungles of coastal Argentina. I don't recall ever reading any other history or biography where I smelled the roses so intensely. Again, it was the wonderful attention to small details which made this book so interesting to me.

Like his great grandfather Charles Darwin, the author Richard Darwin Keynes writes clear descriptive prose with meticulous care for scientific accuracy, but he skillfully blends in archival data and social and political history to produce an enchanting story which is beautifully illustrated with many original drawings and paintings, most of them done by the famous nineteenth-century artist, Conrad Martens. It's a sumptuous feast of delicious detail elegantly presented.

*Fossils Finches and Fuegians* includes a rich account of Darwin's many geological discoveries and insights, from the processes which produce mountains to various volcanic phenomena and the origin of coral atolls. I had not realized before reading this book that Darwin had made so many important contributions to the science of geology. And, there is much description, often in Darwin's own words, of his many biological discoveries, ranging from those concerning the structure of invertebrate nervous systems to the examination of ancient mammalian fossil species unknown to science, and the habits of flightless birds and dung beetles and Galapagos iguanas.

Darwin's discoveries aside, one of the most interesting strengths of this book is Keynes's frequent accounts of the social and political milieus of nineteenth-century South America and Australia and Oceania; battles between the gauchos and native Indians, the lawless soldiers and robbers of Buenos Aires, the very personal relationships with Fuegians such as Jemmy Button, and Darwin's impressions of the friendly and relatively civilized Tahitians compared with his descriptions of the warlike Maoris. So it's not just the descriptions of Darwin's scientific discoveries which make for fascinating reading; it's also the social-historical details which enrich this book: the primitive living conditions of the naked Fuegians, the dress and demeanor of the Queen of Tahiti, the estates of the governors and landed gentry who invited Darwin to visit, the murder and mayhem and mutinies on the high seas, the commerce and communications which connected continents long before telephones and airplanes, the insurgencies and revolutions in Argentina and Chile, the streets of Valparaiso, the parties on the *Beagle*, the letters to Darwin's sisters which tell so much about the customs of those times, the conversations with captain FitzRoy which tell so much about Darwin's amiability and social intelligence and the philosophic debates of that era. (Incidentally, Keynes dispels the myth that Darwin and FitzRoy were hostile intellectual combatants—that FitzRoy's fundamental Christianity clashed with Darwin's heretical evolutionary thoughts. Though FitzRoy was upset later with the publication of *On the Origin of Species*, during the voyage Darwin wasn't thinking much about evolution and he was still quite conventionally religious. The relationship between him and FitzRoy was not only very cordial, but one of mostly friendly mutual admiration.

I appreciated the subtle humor in many of Keynes's descriptions. "The only hotel was crowded out by passengers on ships from India, and Charles found himself in a set of excessively wealthy Nabobs who were heavy prozers but who could not, poor fellows, have raised between themselves a single healthy liver." Such passages blend in admirably with the tone of cultivated gossip among Darwin's contemporaries. For instance, after meeting the distinguished astronomer, mathematician, chemist, and philosopher John Herschel, "Charles later wrote disarmingly of him that 'he never talked much but every word he uttered was worth listening to. He was very shy and he often had a distressed expression. Lady Caro-

line Bell, at whose home I dined at the C. of Good Hope, admired Herschel much, but said that he always came into a room as if he knew that his hands were dirty, and that he knew that his wife knew that they were dirty.”

Because Keynes's descriptions of Darwin are so careful, and because he includes many of Darwin's private notes and personal letters there is a great deal of interesting information about Darwin's character and temperament. What a friendly, amiable, good-natured, pleasant young man Darwin was! How lucky people were to have Charles as a friend, and what a good sport he was. Despite almost constant arduous physical challenge and hardship, and frequent discomfort from seasickness and tropical maladies, other than occasional expressions of his homesickness there is hardly a complaint, and never the indulgence of self-pity. And, what an inquisitive fellow he was, always searching, always enthused to learn more, and always assiduously careful in his scientific observations.

This history predates Darwin's writing of *On the Origin of Species*, but there are numerous references, often citing Darwin's private notes and letters, to his heretical thoughts about the possible transmutation of species, and some early speculations which helped inspire his eventual theory of natural selection. But even people who are not particularly interested in tracing the inception of evolutionary theory will enjoy this book. The insightful biographical and social details and the great scientific adventure experienced by a young courageous explorer make this a fascinating read. *Fossils, Finches and Fuegians* is a page turner, an honest and elegant account of the marvelous scientific observations and the often perilous adventures of a young explorer whose discoveries and synthetic genius, soon after that famous voyage, forever changed our conceptions of the meaning of life.

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