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Eruptions islands of fire



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This document, dedicated to the volcanic eruptions of the Galapagos Islands, combines a series of photographs by the British researcher Godfrey Merlen, preserved as slides in the audiovisual collection of the Library, Archive & Museum of the Charles Darwin Foundation, with a selection of texts about the archipelago that are part of the "Historical Bibliography" of the *Galapagueana* digital project.

Using both resources, and connecting the visual works with fragments of narratives and chronicles, a comprehensive approach to one of the most important Galapagos natural phenomena is sought. An approach that goes beyond mere scientific knowledge and that places this phenomenon in a broad and comprehensive framework. The minimalist design reinforces the importance of the images, which are already part of the audiovisual heritage of the Galapagos.

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The texts included in these pages are quoted in their original version and language. At the end of the book, whenever necessary, a possible translation of them is offered.

Our thanks to Godfrey Merlen for the images, and to all the chroniclers, travelers and scholars who left, in their field notebooks, testimony of the natural wonders they found on their way through "The Encantadas".



"...pero en toda la isla no pienso que ay donde se pueda sembrar una hanega de mahiz, porque lo mas della está lleno de piedras muy grandes, que parece que en algun tiempo llovió Dios piedras."

Tomás de Berlanga. *Carta a Su Majestad de Fray Tomás de Berlanga, describiendo su viaje desde Panamá á Puerto Viejo, e los trabajos que padeció en la navegacion*. Portoviejo, 1535.



"They [the Galapagos Islands] are of a good height, most of them flat and even on the top; 4 or 5 of the easternmost are rocky, barren, and hilly, producing neither tree, herb, nor grass."

William Dampier. *A New Voyage round the World*. London: printed for James Knapton, 1697.



"They tell me the island is nothing but loose rocks, like cynders, very rotten and heavy, and the earth so parch'd, that it will not bear a man, but breaks into holes under his feet, which makes me suppose there has been a vulcano here."

Woodes Rogers. *A Cruising Voyage Round the World: First to the South-Seas, thence to the East-Indies, and Homewards by the Cape of Good Hope*. London: A. Bell & B. Lintot, 1712.



"...the land is barren and rocky; in some parts, it has the appearance of being covered with cinders; and in others, with a kind of iron clinker, in flakes of several feet in circumference, and from one to three inches thick: in passing over them, they sound like plates of iron: the earth is also frequently rent in cracks, that run irregularly from east to west, and are many fathoms deep: there were also large caves, and on the tops of every hill, which we ascended, was the mouth of a pit, whose depth must be immense, from the length of time, during which, a stone, that was thrown into it, was heard."

James Colnett. *A Voyage to the South Atlantic and around Cape Horn into the Pacific Ocean for the purpose of extending the Spermacetic Whaling Fisheries...* London: printed for the author by W. Bennett, 1798.



"These islands are all evidently of volcanic production; every mountain and hill is the crater of an extinguished volcano; and thousands of smaller fissures, which have burst from their sides, give them the most dreary, desolate, and inhospitable appearance imaginable.

...

...the whole island is a light and thirsty soil, composed entirely of volcanic matter, and probably owes its origin to no distant period, for the volcanic cinders and other appearances lying on every part of the surface, as well as the innumerable craters, and hills composed of ashes and lava, all apparently fresh.

...

We soon discovered that one of the numerous volcanoes had burst forth; but there were various opinions as to its situation: some supposed it to be on Narborough, others to the east of Narborough, and on the Island of Albemarle."

David Porter. *Journal of a Cruise Made to the Pacific Ocean by Captain David Porter in the United States Frigate Essex in the Years 1812, 1813, And 1814*. Philadelphia: published by Bradford and Inskeep, 1815.



"There are the craters of several old volcanoes, but I did not perceive the trace of any recent eruption."

J. Shillibeer. *A narrative of the Briton's voyage, to Pitcairn's Island*. Taunton: printed for the author by J. W. Marriott, 1817.



"I have seen places on this island [Albemarle] and also on James's, and Chatham Island for a mile square, which had the appearance of once being a solid rock; but had been heated by volcanos to such a degree as to cause it to melt and run off the sides of the hills, which resemble the waves of the sea; having the appearance in many places of the surf, as it rolls on shore on flat beaches, with one sea following on the back of another.

...

As our boat was coming from the watering place ... between sunset and dark ... we saw a large black cloud gathering over the highest mountain of Albemarle, which was the same place where one of the men on board our ship had asserted that he had seen a volcano burning in 1799; soon after the cloud gathered, it formed a spire ... it descended to the top of the mountain, with a body of fire following it..."

Amasa Delano. A Narrative of Voyages and Travels in the Northern and Southern Hemispheres, Comprising Three Voyages Round the World... Boston: printed by E. G. House, 1817.



"The mountain [in Abingdon] is studded on every side with craters, or mouths, from whence, at different periods, streams of lava have issued; and running far into the sea, have formed projecting points, such as that on which we fixed our station."

Basil Hall. *Extracts from a Journal Written on the Coasts of Chile, Peru and Mexico in the years 1820, 1821, 1822*. Volume II. Edinburgh: Archibald Constable and Co., 1825.



"In this excursion we trode, for the first time, on volcanic ground, and made our way, with difficulty, through the loose lava, which readily gave way under us, and reminded us of the slag and melted matter in the vicinity of a smelting furnace. Near this place we saw a large column of volcanic matter, situated amidst a stream of lava; its surface was rough and uneven, and in many places deeply excavated ... During my excursion, I had not the good fortune to see any vestiges of a crater..."

John Scouler. Account of a voyage to Madeira, Brazil, Juan Fernandez, and the Gallapagos Islands, performed in 1824 and 1825, with a view of examining their natural history, &c. *The Edinburgh Journal of Science*, 5 (11), October 1826, pp. 195-236.



"About half way down the steep south-east side of the island [Narborough], a volcano burns day and night; and near the beach, a crater was pouring forth streams of lava, which on reaching the sea caused it to bubble in an extraordinary manner."

Lord Byron. *Voyage of H. M. S. Blonde to the Sandwich Islands in the Years 1824-1825*. London: John Murray, 1826.



"Toute cette partie [Chatham] est curieuse par la multitude de petits cônes que l'on y voit, et qui, sans aucun doute, étaient jadis autant de cratères de volcans.

...

L'île Narborough est tout-à-fait improductive; elle est très-élevée et composée d'une multitude de volcans qui sont presque toujours en activité, ou qui, du moins, fument incessamment."

Abel du Petit-Thouars. Voyage autour du monde sur la frégate La Vénus pendant les années 1836-1839 publié par ordre du Roi, sous les auspices du Ministre de la Marine. Tome II. Paris: Gide, éditeur, 1841.



"They [the Galapagos] are all formed of volcanic rocks ... Some of the craters, surmounting the largest islands, are of immense size, and they rise to a height of between three and four thousand feet. Their flanks are studded by innumerable smaller orifices. I scarcely hesitate to affirm, that there must be in the whole archipelago at least two thousand craters. These consist either of lava and scoriae, or of finely-stratified, sandstone-like tuff."

Charles Darwin. *Journal of Researches into the Natural History and Geology of the countries visited during the voyage of H.M.S. Beagle round the world, under the Command of Capt. Fitz Roy*. London: John Murray, 1860.

Translations

"...but I don't think there is anywhere on the whole island where a bushel of corn can be planted, because most of it is full of very large stones, and it seems that at some time God rained stones."

Tomás de Berlanga, p. 3.

"The whole of this part [Chatham] is curious for the multitude of small cones that one sees there, and which, no doubt, were formerly so many craters of volcanoes.

...

Narborough Island is quite unproductive; it is very high and composed of a multitude of volcanoes which are almost always in activity, or at least incessantly smoking."

Abel du Petit-Thouars, p. 23.



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