

THURSDAY, DECEMBER 18, 1873

THE TRANSIT OF VENUS EXPEDITIONS

SOME time ago we called attention to the admirable opportunity which would be afforded by the approaching Astronomical Expeditions for the observation of the Transit of Venus to investigate the Natural History of several little-known islands of the Pacific. The addition of one or two members to these expeditions could make but a comparatively trifling addition to the expense, and while the Astronomers were observing, the Naturalists would be busily employed in collecting. We are glad to be informed that at a recent meeting of the Council of the Royal Society it was determined to take action in this matter, and to advise the Government to attach a small staff of Naturalists to the two expeditions destined to observe the transit in the Island of Rodriguez and Kerguelen's Land. There can be little doubt, we presume, that the Government will readily accede to the advice thus offered to them.

Rodriguez, an outlier of the Mascarene group, is in many ways specially worthy of thorough investigation. As a general rule oceanic islands lying at a distance from the great continents are of volcanic origin. The Seychelles and the island of Rodriguez are almost the only known exceptions to this rule. Rodriguez, so far as the slight information we possess on the subject extends, is believed to be composed of granite overlaid by limestone and other recent rocks. It is, therefore, of great importance that an accurate geological examination should be made of this island, more especially as its nearest neighbours Bourbon and Mauritius follow the ordinary rule of being volcanic. A second rich field of biological research in Rodriguez will be found in the fossil remains to be met with in the caves of the limestone rocks. These have already yielded good fruit to the investigations of Mr. Edward Newton, the Colonial Secretary of Mauritius, aided by grants from the British Association. The complete skeleton of *Pezophaps solitaria*, a bird allied to the Dodo of the Mauritius—has been restored from these remains, as is well-known from the excellent memoir upon this extinct bird published by Mr. Newton and his brother, Prof. Newton of Cambridge, in the Philosophical Transactions of the Royal Society. But besides additional bones of the Solitaire, which will be welcome to many Museums, it will be desirable to become acquainted with the other animals which were the Solitaire's fellow-creatures when in existence. Some of these are also obscurely known through the exertions of the Messrs. Newton, but it cannot be doubted that ample materials of this kind are still lying hid in the caves of Rodriguez for the benefit of future explorers.

The recent Zoology and Botany of Rodriguez also merit thorough investigation in order to ascertain whether they show any parallel differences to that of its geological structure as compared with the rest of the Mascarene group of islands.

Kerguelen's Land, the second point selected for biological investigation, is also likely to give ample occupation for a naturalist who will be able to devote several months to its exploration, while the necessary preparations are

being made for the observation of the great astronomical event. In 1840 Kerguelen's Land was visited by the Antarctic Expedition under Sir James Ross. The distinguished naturalist who accompanied the expedition ascertained that it contains a scanty land-flora of flowering plants, some of which belong to types elsewhere unknown, and an extraordinary profusion of marine forms of both the animal and vegetable kingdoms. Of the land-plants a good series was obtained, but as regards the marine flora and fauna much must remain to be done—especially as Sir James Ross's visit took place in mid-winter. The *Challenger* will visit Kerguelen's Land early next year in order to ascertain the best station for an Astronomical Observatory, and her excellent staff of naturalists will, without doubt, not neglect the opportunity thus given to them. But looking to the great size of the island, which measures nearly 100 miles by 50, and to what is reported of the excessive richness of the marine forms of life, there will certainly be ample occupation left for the naturalist whom it is proposed to send there along with the Transit expedition.

There is, in fact, no doubt that it would be difficult to find two spots on the earth's surface where investigation is more likely to lead to satisfactory results than in the case of these two little-known islands. Nor is the opportunity now offered of obtaining these results at a very small cost to the nation likely to recur, if now neglected. We trust, therefore, that on the part of the Government there will be no hesitation in acceding to the scheme put before them by the Council of the Royal Society.

ELLIS'S LIFE OF COUNT RUMFORD

Memoir of Sir Benjamin Thompson, Count Rumford, with Notices of his Daughter. By George E. Ellis. (Published in connection with an edition of Rumford's complete Works by the American Academy of Arts and Sciences. Boston.)

THIS biography supplies a want that has been sorely felt by all who have desired to obtain a reliable account of Count Rumford's eventful life. It is, I think, impossible to name any equally eminent man of modern times concerning whom so little was known before the publication of this work. The only preceding sources of information, Prof. Pictet's letters, Prof. Renwick's sketch in "Sparks's Library of American Biography," Cuvier's *Eloge* and the Cyclopædia biographies made up from these and each other, are most vexatiously contradictory on points of primary interest. Aided by Rumford's own correspondence, and other original and direct sources of information, Mr. Ellis's industry has at last rescued us from these perplexities.

The career of scientific notables is usually of a simple and uneventful character, but that of the poor school-master of New Hampshire is sufficiently adventurous and romantic to supply materials for a sensation-novel writer.

He married early; to quote his own words—"I took a wife, or rather she took me, at 19 years of age." He describes his married life as both happy and profitable, but it lasted scarcely three years, during which he became a prominent public man and a full-blown soldier, with