

thermal substances or in the physiological phenomena of vital organisms, gradually unveils a world of wonders, of which we have scarcely reached the threshold.

The Sandwich Islands, Papua or New Guinea, and some portions of New Holland, were all discovered in the early half of the sixteenth century.\* These discoveries prepared the way for those of Cabrillo, Sebastian Vizcaino, Mendaña, and Quiros, whose Sagittaria is Tahiti, and whose Archipelago del Espiritu Santo is the same as the New Hebrides of Cook.† Quiros was accompanied by the bold navigator who subsequently gave his name to the Torres Straits. The Pacific no longer appeared as it had done to Magellan, a desert waste; it was now animated by islands, which, however, for want of exact astronomical observations, appeared to have no fixed position, but floated from place to place over the charts. The Pacific remained for a long time the exclusive theater of the enterprises of the Spaniards and Portuguese. The important South Indian Malayan Archipelago, dimly described by Ptolemy, Cosmas, and Polo, unfolded itself in more distinct outlines after Albuquerque had established himself in 1511 in Malacca, and after the expedition of Anton Abreu. It is the special merit of the classical Portuguese historian, Barros, the cotemporary of Magellan and Camoens, to have so truly recognized the physical and ethnological character of this archipelago, as to be the first to propose that the Australian Polynesia should be distinguished as a fifth portion of the earth. It was not until the Dutch power acquired the ascendancy in the Moluccas

\* Gaetano discovered one of the Sandwich Islands in 1542. Respecting the voyage of Don Jorge de Menezes (1526), and that of Alvaro de Saavedra (1528), to the Ilhas de Papuas, see Barros, *Da Asia*, Dec. iv., liv. i., cap. 16; and Navarrete, t. v., p. 125. The "*Hydrography*" of Joh. Rotz (1542), which is preserved in the British Museum, and has been examined by the learned Dalrymple, contains outlines of New Holland, as does also the collection of maps of Jean Valard of Dieppe (1552), for the first knowledge of which we are indebted to M. Coquebert Monbret.

† After the death of Mendaña, his wife, Doña Isabela Baretos, a woman distinguished for personal courage and great mental endowments, undertook in the Pacific the command of the expedition, which did not terminate until 1596 (*Essai Polit. sur la Nouv. Esp.*, t. iv., p. 111).

Quiros practiced in his ships the distillation of fresh from salt water on a considerable scale, and his example was followed in several instances (Navarrete, t. i., p. liii.). The entire operation, as I have elsewhere shown on the testimony of Alexander of Aphrodisias, was known as early as the third century of our era, although it was not then practiced in ships.