together in a white mass, while the rocks below it are the reddest **in** the island.

Santorin is closely connected with the earthquake movements to which the countries in the neighbourhood of the Aegean are subject. It is hardly accurate to speak of the basin which forms the harbour as a crater, for most geologists support the view that the whole of this space was once covered by a single volcanic cone, the incline of which is represented by the outward slope of Santorin and Therasia, while the position of the crater was that now occupied by the Kaumene Islands; and that owing to a volcanic explosion and the subsidence of the strata the basin was formed. The Kaumene Islands arose subsequently, and that of Palaea Kaumene is considered to have been prehistoric. The principal eruptions that have taken place within historic times are that of 196 b.c., when, as we learn from Strabo (i. 3, § 16, p. 57), flames rose from the water half- way between Thera and Therasia for four days; that of **A.D.** 726, during the reign of the Emperor Leo the I saurian (on both these occasions islands were thrown up, but it is supposed that they afterwords disappeared); that of 1570, when Mikra Kaumene arose; that of 1650, which destroyed many lives by noxious exhalations, and ended in the upheaval of an island in the sea to the north-east of Santorin, which afterwards subsided and became a reef below sea-level; that of 1707, when Nea Kaumene arose; and that of 1866, when Nea Kaumene was extended towards the south and en- targed threefold.

In the southern parts both of Santorin and Therasia pre­historic dwellings have been found at some height above the sea, and there is no doubt that these date from a period antecedent to the formation of the bay. This is proved by their position underneath the layer of tufa which covers the islands, and by these layers of tufa being broken off precipitously, in the same way as the lava-rocks, a fact which can only be explained by the supposition that they all fell in together. The foundations of the dwellings rested, not on the tufa, but on the lava below it; and here and there between the stones branches of wild olive were found, according to a mode of building that still prevails in the island, in order to resist the shocks of earthquakes. Very few implements of metal were found. Some of the vases found were Cretan ware which had been imported; and the correspond­ence between these and various specimens of the native pottery proves that to some extent this primitive art was derived from Crete.

In Greek legend the island of Thera was connected with the story of the Argonauts, for it was represented as sprung from a clod of earth which was presented to those heroes by Triton (Apollon., iv., 1551 sq., 1731 sq.). According to Herodotus

(iv. 147), a Phoenician colony was established there by Cadmus. Subsequently a colony from Sparta, including some of the Minyae, was led thither by Theras, who gave the island his own name, in place of that of Calliste which it had borne before. But the one event which gave importance to Thera in ancient history was the planting of its famous colony of Cyrene on the north coast of Africa by Battus in 631 b.c., in accordance with a command of the Delphic oracle.

The ancient capital, which bore the same name as the island, occupied a site on the eastern coast now called Mesavouno, between Mount Elias and the sea. Since 1895 this place has been excavated by Baron Hiller von Gärtringen and other German explorers. There are extensive ancient cemeteries. A steep ascent leads from a Heroum of Artemidorus to the Agora; in its neighbourhood were the Stoa Basilice, a vast hall with a row of pillars; a temple of Dionysus and the Ptolemies, which at a later period was dedicated to the Caesars; and the barrack of the garrison of the Ptolemies and a gymnasium. The names which occur here remind us that Thera, as a member of the League of the Cyclades, was from b.c. 308 to 145 under the protectorate of the Ptolemies. The main street has narrow lanes diverging from it to right and left; one of these leads to the sanctuary of the Egyptian gods. Near the street there is a small theatre, beneath the seats of which a vast cistern was constructed, arranged so that rain-water should drain into it from the whole of the auditorium. The way then descends south-eastwards first to the temple of Ptolemy Euergetes III., and then to that of Apollo Cameius; finally, at the point where the rocks fall precipitously, there is a gymnasium of the Ephcbi. Numerous rock-carvings and inscriptions have been discovered,

as well as statues and vases of various periods. Near the western foot of Mount Elias is the temple of Thea Basileia, which, though very small, is perfect throughout even to the roof. It is now dedicated to St Nicolas Marmorites.

Tournefort mentions that in his time nine or ten chapels were dedicated to St Irene, the patron saint of the place; the name Santorin was given to the island after the fourth crusade, when the Byzantine empire was partitioned among the Latins, and the island formed a portion of the duchy of the Archipelago. Santorin is prosperous, for in addition to the wine trade, there is a large export of *pozzolana,* which, when mixed with lime, forms a hard cement. Santorin (officially Thera) is a province in the department of the Cyclades. It is divided into 9 communes (see Cvclades), with a total population of 19,597 in 1907.

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(H. F. T.)

SANTOS, a city and seaport of Brazil, in the state of São Paulo, about 230 tn. W.S.W. of Rio de Janeiro, and 49 m. by rail S.E. of São Paulo city. Pop. (1890) 13,012; (1902 estimate) 35,000. Santos covers an alluvial plain on the inner side of an island (called São Vicente) formed by an inland tidal channel sometimes called the Santos river. The commercial part of the city is some miles from the mouth of the channel, but the residential sections extend across the plain and line the beach facing the sea. The city is only a few feet above sea-level, the island is swampy, and deep, cement-lined channels drain the city. The Santos river is deep and free from obstructions, and in front of the city widens into a bay deep enough for the largest vessels. The water front, formerly beds of mud and slime, the source of many epidemics of fever, is now faced by a wall of stone and cement. Vessels moor alongside this quay, which is lined with warehouses and provided with railway tracks, &c. Formerly coffee was transported in carts from the railway station to the warehouses, thence loaded into lighters by porters, and from these transferred to vessels anchored in midstream. The improvements were planned by an American engineer, William Milnor Roberts (1810-1881). The thorough drainage of the city has made Santos comparatively healthy. The heavy rainfall (88½ in. per annum), neighbouring swamps, rank vegetation and great heat give rise to malarial and intestinal disorders, rheum­atism and other diseases. Beri-beri and smallpox are also common, and bubonic plague has appeared since 1900. The temperature ranges from 41° to 101∙3° F. in the shade.

The development of coffee production in the state of São Paulo during the closing years of the 19th century has made Santos the largest coffee shipping port in the world, the exports amounting to 5,849,114 bags, of 132½ each, in 1900, and 8,940,144 bags in 1908. The other exports include sugar, rice, rum, fruit, hides and manufactured goods. Bananas are grown in the vicinity for the River Plate markets. The most popular suburb in the vicinity of Santos is the bathing resort of Guarujá. The São Paulo railway, an English double-track line, provides communication with the interior, ascending the steep wooded slopes of the Serra do Mar by a series of inclines up which the cars are drawn by stationary engines on the old line, and by a series of gradients on the new line.

The first settlement on the São Paulo coast was that of São Vicente in 1532, about 6 m. S. of Santos on the same island. Other settlements soon followed, among them that of Santos in 1543-1546, and later on the small fort at the entrance to its harbour, which was used for protection against Indian raids from the north. São Vicente did not prosper, and was succeeded (1681) by São Paulo as the capital and by Santos as the seaport of the colony. It was captured by the English privateer, Thomas Cavendish, in 1591, when São Vicente was burned. The growth of the town was slow down to the end of the 19th century, because of insanitary conditions and epidemics.

SANUTO (Sanudo), MARINO, the elder, of Torcello (c. 1260- 1338), Venetian statesman, geographer, &c. He is best known