SUMATRA, in Malay called *Pulu Partcha* or *Indalas,* is one of the largest and most important islands of the East Indian Archipelago. It stretches from north-west to south-east for a distance of 1047 miles,—Tandjong Batu, the northmost point, being situated in 5° 40' N. lat. and the southmost in 5° 59' S. lat. The greatest breadth is about 230 miles. In area it is estimated that Sumatra, with its 170,744 square miles,@@1 is thirteen times the size of Holland, of which country the island is in large measure a dependency. The northern half runs obliquely parallel to the Malay Peninsula, from which it is separated by the Strait of Malacca, and the southern end is separated by the narrow Sunda Strait from Java. Unlike Java, Sumatra has a series of considerable islands (Nias Islands, Mentawei Islands, &c.) arranged like outworks in front of the coast that faces the open Indian Ocean. The general physical features of the island are simple and striking : a range of lofty mountains extends throughout its whole length, their western slopes descending rapidly towards the ocean and their eastern looking out over a vast alluvial tract of unusual uniformity. This mountain range is known as Bukit Barisan or Chain Mountain. It varies in average height from 1500 to 6000 feet, and consists of three or four ridges separated by plateau-like valleys. Among its more remarkable summits are Ya Mura or Gold Mountain, near the north end (6879 feet); Seret Berapi or Merapi (5857 feet), in 0° 44' N. lat. ; Pasaman or Mount Ophir (10,866); Merapi (9563); Indrapura, in 1° 36' S. lat. (11,800), which has the reputation of being the culminating point of the whole island ; Dempo (10,000) ; and Abong Abong (10,000). The summit of Indrapura was reached by the Central Sumatran Expedition of 1877-79. Towards the north end of the island the spurs •of the main chain sometimes extend towards the neigh­bourhood of the east coast. Owing to this configuration of the island, the water-courses of the western side are comparatively short : only very few of them are large enough to be navigable. Those of the eastern slope, on the other hand—such as the Tamiang, the Simpang, the Asahan, the Kubu, the Siak, the Indragiri, the Jambi, the Kampas, the Palembang—are longer, and can not un­frequently carry vessels of considerable burden. In their lower courses they form enormous inosculating deltas. The mountainous regions contain numerous lakes, many of them evidently the craters of extinct volcanoes. When, as sometimes happens, two or three of these craters have merged into one, the lake attains a great size. Amongst the larger lakes may be mentioned the Tao Silalahi, with its offshoots Tao Muara and Tao Balige ; Manindji, to the west of Fort de Kock; Sinkarah, south-east of Fort de Kock ; Korintji, inland from Indrapura ; Ranau, inland from Tampah ; and the lake of the X. Kotas, in the Padang Highlands.

*Volcanoes.—*Sumatra still possesses several centres of volcanic eruption, and in 1883 its southern extremity shared with Java in the disasters of the Krakatoa outbreak. Indrapura sends up from time to time heavy columns of smoke. Merapi,@@2 the most active of the volcanoes in the island, was in full eruption in the years 1807, 1822, 1834, 1845, 1863-64, and 1872. Mt Talang in the Padang High­lands, also has three craters, one of which is filled with molten sulphur. Junghuhn registered sixteen Sumatran volcanoes, and others have since been discovered.

*Geology.—*A large part of the Sumatran highlands con­sists of very old (probably Silurian or Devonian) slates and

clay schists, combined with hornblende talc and other schists, and traversed by veins of quartz. Granite also plays a considerable part, though it does not come so much to the surface. Carboniferous rocks (marls, sandstones, limestones, Ac.) are in some places well developed. Between the Carboniferous period and the Tertiary there is a great blank all through the island. Augite-andesite of late Eocene origin has greatly modified the surface of the country, and constitutes, *inter alia,* the main part of the Barisan range.@@3 The Tertiary formation is strongly developed in four different divisions. They are usually considered to be Eocene ; but this determination rests on badly preserved fossils. The oldest or breccia division consists of débris of carboniferous limestone, syenites, and granites, sometimes in the form of breccia proper, some­times in that of sandstones or marl clays. The fish remains found in the marls have led some palæontologists to assign a greater antiquity than that of Eocene to these strata, while others, again, consider them to be Miocene. Above this division (apparently absent in south Sumatra) comes the second of sandstones, clay rocks, coal-beds, and coal. The coal appears to be the result of a vegetation which grew *in situ.* Above the coal is sandstone, sometimes 1000 feet thick. The third division consists of marly sandstones of evidently marine origin ; it is well developed in west Sumatra, but is absent from the south of the island. The fourth division is a limestone, rich in remains of corals, molluscs, echinids, and especially in *Orbitoides* ; it is well developed both in the west and in the south. Miocene deposits are more abundant in the south than in the west. At Lubu Lintang in the Benkulen residency the Ebuma fossils are characteristic.@@4

*Minerals.—*Sumatra possesses various kinds of mineral wealth. Gold occurs in the central regions ; gold mines have long been worked in Menangkabau and the interior of Padang, and gold-washing is carried on in several of the streams. Tin, which forms the staple of the neigh­bouring island of Bangka or Banca *(q.v.),* is found more especially in Siak and the “ division ” of the L. Kotas. Copper mines are worked in the Padang Highlands (most largely in the district of Lake Sinkarah) and at Muki in Achin. Iron is not unfrequent, and magnetic iron is ob­tained at the “Iron Mountain” near Fort van der Capellen (Tanah Datar). Coal seams exist in the Malabuh valley (Achin),@@5 in the Sinamu valley, and on both sides of the Ombilin (Umbilin) river; the Ombilin field was brought into notice more especially by Mr D. D. Veth of the 1877- 79 expedition. Lignite of good quality is found in several localities. Oil wells are worked at Langkat and other places ; and arsenic, saltpetre, alum, naphtha, and sulphur may be collected in the volcanic districts.

*Administrative Divisions.—*The process by which the Dutch have advanced to their present position in Sumatra has been a very gradual one, and even yet, though their supremacy is effective all round the coast, much of the interior remains practically unpossessed. The following are the more important political subdivisions of the country.

A. The Dutch government of the West Coast (area 46,212 square miles), extending along the shore of the Indian Ocean from Trumon, 2° 53' N. lat., to the Mandjuta, 2° 25' S. lat., comprises the residencies Padang, Tapanuli, and the Padang Highlands *(Padangsche Bovenlanden).*

@@@1 The triangulation of Sumatra was commenced in June 1883 by the measurement of a base line 4857 metres (nearly 31/5 miles) long in the neighbourhood of Padang.

@@@2 For an account of changes in the principal crater see Verbeek’s paper in *Natuurk. Tidschr. van Ned. Indië,* 1885.

@@@3 For the geology see R. D. M. Verbeek, *Die Tertiärformation von Sumatra und ihren Thierresten ;* ‘ ‘ Topographische en Geologische Beschrijving van Zuid-Sumatra ” in *Jaarboek van het Μijnwesen in Ned. Indie,* 1881, pl. i. ; and short papers in *Geol. Μag.,* 1877, 1878, &c. See also the 2d part of *Midden-Sumatra,* by D. D. Veth, 1882.

@@@4 Full details and a geological bibliography will be found in H. van Cappelle, *Het Karakter van de Nederlandsch-Indische Tertiaire Fauna,* Sneek, 1885.

@@@5 See *Indische Gids,* 1880, paper and map.