

SUMATRA, in Malay called *Pulu Paritca* 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 northernmost point, being situated in 5° 40' N. lat. and the southernmost 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, Mentawai 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 insculcating 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; Mamindji, 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

¹ The triangulation of Sumatra was commenced in June 1883 by the measurement of a base line 4857 metres (nearly 3½ miles) long in the neighbourhood of Padang.

² For an account of changes in the principal crater see Verbeek's paper in *Natuurk. Tijdschr. van Ned. Indië*, 1865.

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, &c.) 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 debris 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 paleontologists 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*).

³ For the geology see R. D. M. Verbeek, *Die Tertiäre formation von Sumatra und ihren Thierresten*; "Topographische en Geologische Beschrijving van Zuid-Sumatra" in *Jaarboek van het Koninkrijk der Ned. Indië*, 1881, pl. i.; and short papers in *Geol. Mag.*, 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 Tertiäre Fauna*, Sneek, 1885.

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

The governor of the whole government has his residence at Padang. The residency of Padang is bounded south by Benkulen and north by Tapanuli. It contains a large number of separate districts, mostly corresponding to natural divisions formed by mountain-spurs or river valleys. Among the rest are Indrapura, Tapan, Lunang, and Silaut, which form the regency of Indrapura, and are the remains of the ancient kingdom of that name. Administratively Padang is divided into Ayer Bangis and Rau, Priaman, Padang, Painan. The headquarters of Ayer Bangis and Rau is Talu, to the north of Mt Ophir. Ayer Bangis itself is on the coast, and has a good roadstead on one of the islands that protect its bay. At Rau is the Dutch fort of Amerongen, and to the north-west the old fort of Balong or Sevenhoven. Padang is a town of some 2000 houses and 15,000 inhabitants, with a Chinese settlement and a European quarter. It is the chief market in Sumatra for gold. Indrapura lies about 8 miles up the river of its own name, and is now only an unimportant village of bamboo huts. The residency of Tapanuli is divided into Siboga (which includes the Nias Islands), Natal, Mandeling and Angkola, Padang Lawas. The town of Siboga has considerable commercial importance, the bay on which it stands being one of the finest in all Sumatra. Tapanuli, the ancient capital, and Sinkil, a commercial town, also deserve to be mentioned. In Natal (properly Natar) the leading places are Jambur, Sinkuang, and Natar. Padang Sidempuan, the chief town of Mandeling and Angkola, lies to the south of Mt Lubu Raya. Fort Elout was formerly the military centre in Great Mandeling. The residency of the Padang Highlands lies east of Padang proper. The whole surface is mountainous, and the natural districts are very numerous. Agam, Batipu and the X. Kotas,¹ the L. Kotas, Tanah Datar, and the XIII. and IX. Kotas form the five administrative divisions. Bukit Tinggi, or, as it is usually called, Fort de Kock, is the capital of the residency; other places of note are Bondjol, Padang Pandjang Payakombo, Fort van der Capellen, Pagar Rujung (the residence of the last prince of Menangkabau), Priyangan (the remains of another capital of Menangkabau), Sinkarah, and Solok. To the government of the West Coast belong the following islands:—Banyak Islands, a small limestone group, well wooded and sparsely peopled; Nias Islands, with an area of 2523 square miles; Bafu Islands (Pulu Pingi, Pulu Baai, Tanah Masa, Tanah Balla, &c.; area 630 square miles); Mentawai and Pagueh or Nassau Islands (area 4200 square miles); Engano (area 360 square miles), annexed by Holland in 1863 and seldom visited. The Nias Islands are a very interesting group (see Dr Schreiber in *Petermann's Mittheil.*, 1881). There are no volcanoes, but earthquakes are very frequent. In the north the villages are mainly perched on steep hills reached by ladders; in the south they are larger and occupy low-lying sites.

B. The residency of Benkulen or Bencoolen (*i.e.*, Bang Kulon, "west coast") lies along the west coast from the Mandjuta to the south end of Sumatra. It is divided into eight districts:—Mokko-Mokko; Lais or Sungei Lama; the district (*ommelanden*) of Benkulen; the capital Benkulen; Seluma; Mana and Pasumah Ulu Mana; Kauer; and lastly Kru. Among the noteworthy places are Mokko-Mokko with the old English fort Anna; Bantal; Lais (Laye), the former seat of the English resident; and Benkulen, the capital, with 12,000 inhabitants, Fort Marlborough, and a Chinese kampong (see BENCOLEN).

C. The residency of the Lampong districts, separated from Palembang by the Masudji river, is partly mountainous (Lampong Peak 6800 feet), partly so flat as to be under

¹ "Kota" means settlement or township, and a great many of the districts are named from the number of kotas they contain; thus in Agam we have the VII. Kotas, the VIII. Kotas, &c.

water in the rainy season. It is divided into the districts of Telok Betong, Tulang Bawang, Seputih, Sekampong, Katimbang, and Semangka. The more important places are Telok Betong, chief town of the residency, Menggala (with a good trade), Gunung Sugi, Sukadana, Tandjong Karang, Beniawang.

D. The residency of Palembang consists of the former kingdom of this name, various districts more or less dependent on that monarchy, and (since 1839) the kingdom of Jambi. With the exclusion of this last it is divided into the administrative districts of Palembang; Tebing Tinggi; Lematang Ulu, Lematang Ilir, and the Pasumah country; Komering Ulu, Ogan Ulu, Inim, and the Ranau districts; Musi Ilir; Ogan Ilir, Komering Ilir, and Blidah; and Ilihan and Banyu Asin. In the kingdom of Jambi the government is left in the hands of the native chief. The town of Palembang is a large place of 50,000 inhabitants (2500 Chinese), with extensive barracks, hospitals, &c., a mosque (1740), considered the finest in the Dutch Indies, and a traditional tomb of Alexander the Great. A good description of the town and its river approaches is given by Mr Forbes.

E. The kingdom of Indragiri (along with Kwanten and the districts of Reteh and Mandah) is administratively subject to the residency of Riouw.

F. The residency of the East Coast was formed in 1873 of the territory of Siak and its dependencies and the state of Kampar. It consists of five divisions,—the island Bengkalis, Siak proper, Labuan Batu, Asahan, Deli. The island has an area of 529 square miles and a population of 5000. Deli is the most important part of the residency,—having been since 1870 the seat of the Amsterdam Deli Company, engaged in growing tobacco, coffee, &c.

G. In 1878 the Achin (Atjeh) kingdom was turned into a Dutch government, but the greater part of the territory is still but little known. Compare *ACHIN*, vol. i. p. 95 sq.

Flora.—Though Sumatra is separated from Java by so narrow a strait, the botanist at once finds that he has broken new ground when he crosses to the northern island, and the farther he advances inward the more striking becomes the originality of the flora. The alang fields, which play a great part in Java, have even a wider range in Sumatra, descending to within 700 or 800 feet of sea-level; wherever a space in the forest is cleared this aggressive grass begins to take possession of the soil, and if once it be fully rooted the woodland has great difficulty in re-establishing itself. Among the orders more strongly represented in Sumatra than in Java are the *Dipterocarpaceae*, *Chrysobalanaceae*, *Sclerocarpaceae*, *Myrtaceae*, *Melastomaceae*, *Begoniaceae*, *Nepenthes*, *Oxalidaceae*, *Myristicaceae*, *Ternstroemiaceae*, *Connarusaceae*, *Amyridaceae*, *Cyrtandraceae*, *Epacridaceae*, and *Eriocaulaceae*. Many of the Sumatran forms which do not occur in Java are found in the Malay Peninsula. In the north the pine tree (*Pinus Merkusii*) has advanced almost to the equator, and in the south are a variety of species characteristic of the Australian region. The distribution of species does not depend on elevation to the same extent as in Java, where the horizontal zones are clearly marked; and there appears to be a tendency of all forms to grow at lower altitudes than in that island. A remarkable feature of the Sumatran flora is the great variety of trees that vie with each other in stature and beauty, and as a timber-producing country the island ranks high even among the richly wooded lands of the archipelago.² The process of reckless deforestation is, however, beginning to tell on certain districts,—the natives often destroying a whole tree for a plank or rafter. The principal cultivated plants, apart from sugar cane and coffee, are rice (in great variety of kinds), the cocoa-nut palm, the areng palm, the areca and the sago palms, maize (jagung), yams, and sweet potatoes; and among the fruit trees are the Indian tamarind, the blimbing, pomegranate, jambosa, guava, papaw, orange, and lemon. Even before the arrival of Europeans Sumatra was known for its pepper plantations; and these still form the most conspicuous feature of the south of the island. For the foreign market coffee is the most important of all the crops,—the Padang districts being the chief seat of its cultivation. The average value of the coffee brought to market in Padang in the three years 1880-82 was £521,000. Benzoin was formerly obtained almost exclusively from Sumatra from the *Styrax Benzoin*.³

² The Central Sumatra Expedition alone collected specimens of about 400 kinds of timber.

³ See Miquel, *Flora Ind. Batave*; Suppl. I., "Prodr. Florae Sumatranæ," 1860.

Fauna.—Snellemann confirms the statement of Wallace that no trace has been found of the orang-utan (*Simia satyrus*). The siamang (*Hylobates syndactylus*), an ape peculiar to the island, fills the woods with the cry "waa waa." The ungko (*Hylobates agilis*) is not so common. A fairly familiar form is the simpei (*Semnopithecus melalophus*). No apes are found on the plateau of Alahan Pandjang and the slopes of the mountains above 1500 metres. The tjigah (*Cercopithecus cynomolgus*) is the only ape found in central Sumatra in a tame state. The pig-tail ape (*Macacus nemestrinus*)—as Raffles described it in his "Descriptive Catalogue of a Zoological Collection made in Sumatra," *Trans. Linn. Soc.*, 1820, vol. xiii. p. 243—is employed by the natives of Benkulen to ascend the cocoa-nut trees for the purpose of gathering the nuts. The *Galopithecus volans* ("kubin," "flying cat," or "flying lemur") is fairly common. Bats of from twenty to twenty-five species have been registered; in central Sumatra they dwell in thousands in the limestone caves. The *Pteropus edulis* ("kalong," "flying fox") is to be met with almost everywhere, especially in the durian trees. The tiger frequently makes his presence felt, but is seldom seen, and less frequently hunted; he prefers to prowl in what the Malays call tiger weather, that is, dark, starless, misty nights. The "clouded tiger" or rimau bulu (*Felis macroelis*) is also known, as well as the Malay bear and wild dog. *Paradoxurus musanga* ("coffee-rat" of the Europeans) is only too abundant; *Arctictis binturong* appears to be rare. The Sumatran hare (*Lepus netscheri*), discovered in 1880, adds a second species to the *Lepus nigricollis*, the only hare previously known in the East Indian Archipelago. The *Manis javanicus* is the only representative of the *Edentata*. The *Pachydermata* are strongly characteristic of the Sumatran fauna: not only are the rhinoceros (*Rh. sumatranus*), the *Sus vittatus*, and the *Tapirus indicus* common, but the elephant (altogether absent from Java) is represented by a peculiar species. The Sumatran rhinoceros differs from the Javanese in having two horns, like the African variety. Its range does not extend more than 8500 feet above sea-level, and that of the elephant not above 4900 feet. The wild *Bos sondaicus* does not appear to exist in the island. The *Antelope sumatrensis* (kambang-utan) has been driven to the loneliest parts of the uplands. *Cervus equinus* is widely distributed, *Cervus muntjac* less so.¹

Inhabitants.—The bulk of the Sumatran population is Malayan; but to what extent the Malay has absorbed pre-Malayan blood is still open to investigation. The Kubus, a race or tribe still found in an emphatically savage state in the interior, have been by some regarded as the remains of an aboriginal stock; but Mr J. G. Garson, reporting on Kubu skulls and skeletons submitted to him by Mr Forbes, comes to the conclusion that they are decidedly Malay, though the frizzle in the hair might indicate a certain mixture of Negrito blood (*Journ. Anthropol. Inst.*, 1884). They speak the Malay dialect of the district to which they belong.

One of the most interesting of all the savage or semi-savage peoples is the Battaks or Batahs. About these a great deal has been written since Junghuhn published his *Die Battaländer* in 1847. It is not known whether they were settled in Sumatra before the Hindu period. Their language contains words of Sanskrit origin and others most readily referred to Javanese, Malay, Menangkabau, Macassar, Sundanese, Niasese, and Tagal influence. At the present time they occupy the country to the south-east of Achin, in the centre of which lies the great Toba Lake; but it is evident that they formerly possessed, or at least were present in, various other districts both north and south. The process of absorption into the Achin and Malay population which is now rapidly going on seems to have been long at work. In many points the Battaks are quite different from the Malay type. The average stature of the men is about 5 feet 4 inches, of the women 4 feet 8 inches. In general build they are rather thickset, with broad shoulders and fairly muscular limbs. The colour of the skin ranges from dark brown to a yellowish tint, the darkness apparently quite independent of climatic influences or distinction of race. The skull is rather oval than round. In marked contrast to the Malay type are the large black long-shaped eyes, beneath heavy black or dark brown eyebrows. The cheek bones are somewhat prominent, but less so than among the Malays. J. B. Neumann² reckons the inhabitants of the whole river basin of which he treats at 50,000. The Battak language,³ especially the Toba dialect, has been studied by Van der Tuuk (*Batakisch Woordenboek*). On the borders of Palembang and Benkulen live the Redjangers, a peculiar tribe who still employ a distinctive written character, which they cut with a kris on bamboo or lontar. The same character is employed by the Pasumahs, who bear traces of Javanese element or influence. Full details as to the various forms are given by Van Hasselt, *Volksbe-*

¹ For the birds see Forbes's *Naturalist's Wanderings*. On this, as on other branches of natural history, elaborate treatises appear in *Midden-Sumatra*.

² "Het Pane en Bila Stroomgebied," in *Tijdsch. Ned. Aardrijksk. Gen.*, 1886.
³ Mr. G. A. van Ophuysen has published in *Bijdr. tot Land-, Taal-, en Volkenkunde*, 1886 an interesting collection of Battak poetry. He describes a curious leaf language used by Battak lovers, in which the name of some leaf or plant is substituted for the word with which it has greatest phonetic similarity.

schr. en Taal van Mid.-Sumatra (1877-79 expedition). The original stock of the Achinese appears, according to K. H. F. van Langen (*Tijdschr. voor Ind. Taal-, Land-, en Volkenkunde*, Batavia, xxviii.), to have consisted of the Mantirs, who seem to have been driven inland by the Battaks and the Cheties (Tjeties) or Hindus. The Achinese language is at present spoken in four main dialects, of which the purest or most cultured is that of the XXV. and XXVI. Mukims. It shows, besides the Mantir element, Malay, Battak, Hindu, and Arabic influence. The inhabitants of the Nias Islands have a special tongue, which has been studied by Herr Sundermann.

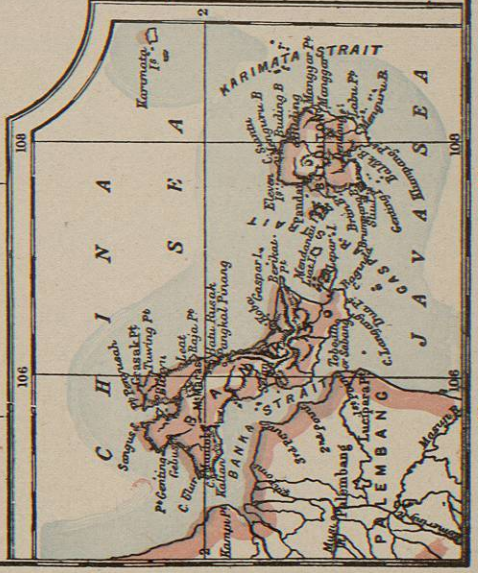
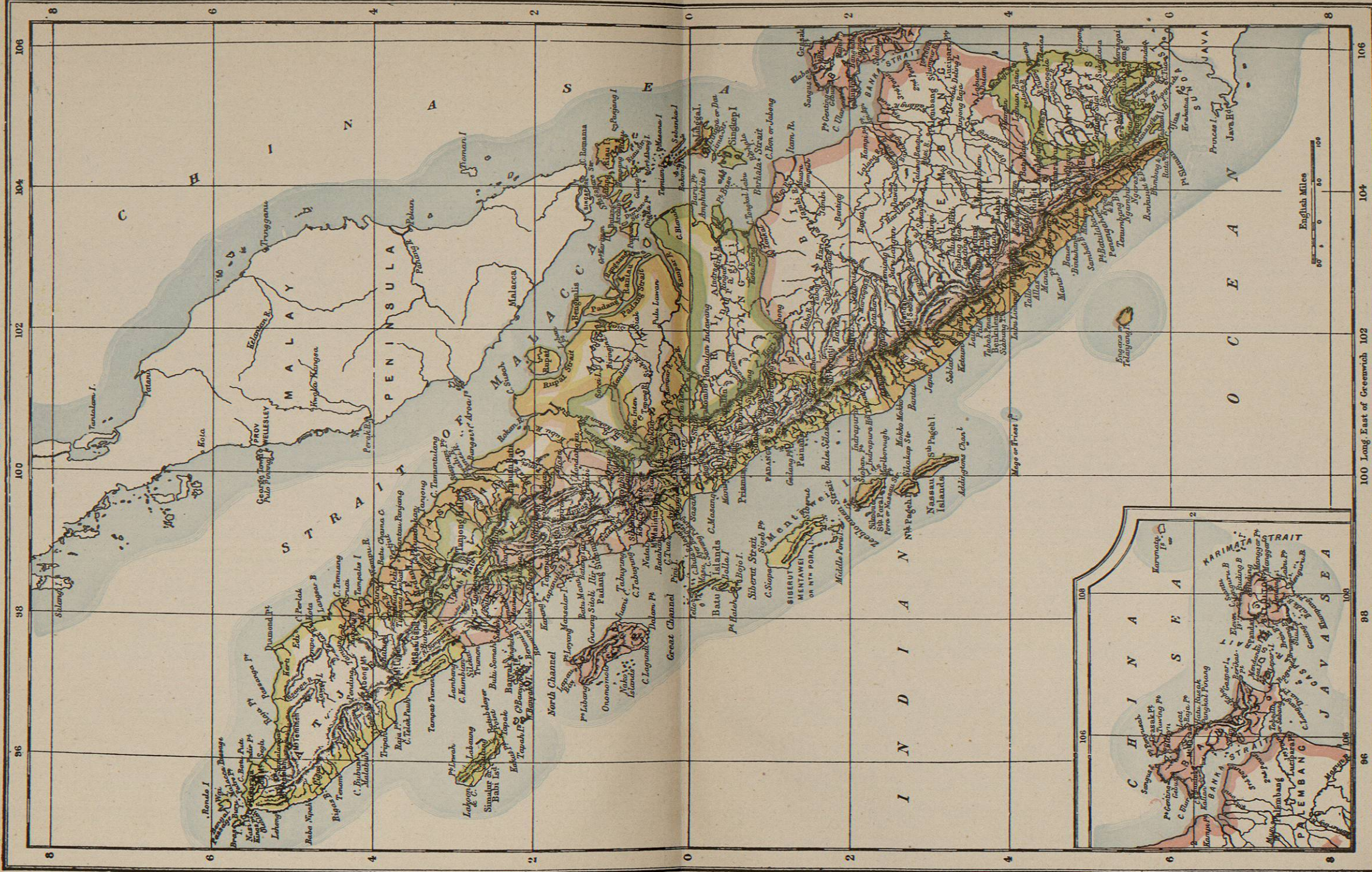
The physical conditions of large tracts render it certain that as a whole the island cannot be thickly peopled. In 1881 the Government *Almanac* gave the population of the Dutch possessions as 2,142,873 (2894 Europeans, 2,098,984 natives, 11,289 Chinese, 1929 "Arabs," and 27,777 Orientals of other stock). To this considerable additions must be made, as the kingdom of Achin (356,000 at least), as well as Indragiri and Kwanten (about 30,000). Perhaps a fair estimate for the whole is somewhat under 3,500,000. The Nias Islands would add 230,000 to the total. The most populous region is the government of the West Coast.

History.—As far as is known, Sumatran civilization and culture are of Hindu origin; and it is not improbable that the island was the first of all the archipelago to receive the Indian immigrants who played so important a part in the history of the region. Certain inscriptions discovered in the Padang Highlands seem to certify the existence in the 7th century of a powerful Hindu kingdom in Tanah Datar, not far from the site of the later capital of Menangkabau. In these inscriptions Sumatra is called the "first Java." The traces of Hindu influence still to be found in the island are extremely numerous, though far from being so important as those of Java. There are ruins of Hindu temples at Butar in Deli, near Pertibi, on the Panbi river at Jambi, in the interior of Palembang above Lahat, and in numerous other localities. One of the principal Hindu ruins is at Muara Takus on the Kampar river.⁴ The buildings (including a stupa 40 feet high) may possibly date from the 11th century. At Pagar Rujung are several stones with inscriptions in Sanskrit and Menangkabau Malay. Sanskrit words occur in the various languages spoken in the island; and the *Ficus religiosa*, the sacred tree of the Hindu, is also the sacred tree of the Battaks. At a later period the Hindu influence in Sumatra was strengthened by an influx of Hindus from Java, who settled in Palembang, Jambi, and Indragiri, but their attachment to Sivaism prevented them from coalescing with their Buddhist brethren in the north. In the 13th century Mohammedanism began to make itself felt, and in course of time took a firm hold upon some of the most important states. In Menangkabau, for instance, the Arabic alphabet displaced the Kawi (ancient Javanese) character previously employed. Native chronicles derive the Menangkabau princes from Alexander the Great; and the Achinese dynasty boasts its origin from a missionary of Islam. The town of Samudera was at that period the seat of an important principality in the north of the island, whose current name is probably a corruption of this word.⁵ Mr Wenniker in 1881 found a village called Samudra near Pasi (Passir), which possibly indicates the site.

Subjoined are a few leading events in the recent history of Sumatra. The island, or rather the portions possessed by the Dutch, were British from 1811 to 1816. 1821. Second expedition against Palembang; Palembang captured 23d June. 1822. Menangkabau recognized Dutch authority. 1825. Benkulen taken over from the English in May. 1837. Cultivation of coffee extended in West Coast region by Governor A. v. Michiels. 1840. Extension of the West Coast government to Sinkil. 1851. Revolt suppressed in Palembang; expedition to the Lampong districts. 1853. Cholera rages in the island; Raja Tiang Alam, ringleader of the revolt in Palembang, surrenders. 1858. Expedition against Jambi; sultan dethroned and treaty made with his successor. 1860. Redjang added to Palembang residency. 1863. Expedition against Nias. 1865. Expedition against Asahan and Serdang (East Coast). 1872. Agreement with the British Government in regard to Sumatra. 1873. War in Achin commenced. 1874. Capture of the kraton of Achin. 1876. Capture of the VI., IV., and IX. Mukims (Achin); expedition against Kota Jutan (East Coast); emancipation of slaves on West Coast. 1878. Benkulen made a residency; civil administration of Achin and dependencies entrusted to a governor.

The literature dealing with Sumatra is very extensive. Of the older works the best known is Marsden's *History of Sumatra*, 1811. A full list of other authorities will be found in Veth's *Aardrijkskundig Woordenboek van Nederland*, 1899. Among recent works by far the most important is *Midden-Sumatra; Reizen en Onderzoekingen der Sumatra Expeditie, 1877-1879* (1882), edited by Prof. P. J. Veth. See also Brau de Saint-Pol Lias, *Île de Sumatra*, 1884; Bastian, *Indonesien; Bujs, Twee Jaren op Sumatra's Westkust*; M. Faucher, "Rapport sur un Voyage à Sumatra," in *Archives des Missions Scient.*, 3d ser. vol. xii.; Kiehlstra, *Eschrijving van der Afsch. Oorlog, 1885-86*, and "Sumatras West-Kust van 1819-1825," in *Bijdr. tot Land-, &c., -Kunde*, 1887. (H. A. W.)

⁴ See descriptions of it in *Tijdschr. van Ind. Taal-, Land-, en Volkenkunde*, 1860 and 1879, and *Verhandel. Batav. Gen. van Kunst en Wetensch.*, 1881.
⁵ All the facts relating to this derivation are given in Yule and Burnell, *Glossary of Anglo-Indian Words*, s.v. "Sumatra."



SUMBAL, or SUMBUL, also called MUSK ROOT, a drug recently introduced into European medical practice. It consists of the root of *Ferula Sumbul*, Hook., a tall Umbelliferous plant found in the north of Bokhara, its range apparently extending beyond the Amur. It was first brought to Russia in 1835 as a substitute for musk; it was subsequently recommended as a remedy for cholera, and in 1867 was introduced into the British pharmacopœia. The root as found in commerce consists of transverse sections an inch or more in thickness and from 1 to 3 or more inches in diameter. It has a dark thin papery bark, a spongy texture, and the cut surface is marbled with white and blackish or pale brown; it has a musky odour and a bitter aromatic taste. Sumbal is used in medicine as an antispasmodic and stimulating tonic, especially in nervous diseases. It owes its medicinal properties to a balsamic resin and an essential oil. Of the former it contains about 9 per cent. and of the latter one-third per cent. The resin is soluble in ether and has a musky smell, which is not fully developed until after contact with water; by dry distillation it yields umbelliferone, $C_9H_6O_3$, a crystalline substance soluble in water, ether, and chloroform, and producing in an alkaline solution a brilliant blue fluorescence, which is destroyed by the addition of an acid in excess.

Under the name of East Indian sumbal, the root of *Dorema ammoniacum*, Don., has occasionally been offered in English commerce. It is of a browner hue, has the taste of ammoniacum, and gives a much darker tincture than the genuine drug; it is thus easily detected. The name "sumbal" (a word of Arabic origin, signifying a spike or ear) is applied to several fragrant roots in the East, the principal being *Nardostachys Jatamansi*, D.C. (see SPIKE-NARD). West African sumbal is the root of a species of *Cyperus*.

SUMBAWA (properly SAMBAWA or SAMAWA), an island of the East Indian Archipelago, one of the Sunda group, lies between 8° 6' and 9° 3' S. lat. and 116° 47' and 119° 12' E. long., to the east of Lombok, from which it is separated by the narrow Allas strait. Its area is estimated at 5186 square miles. The population was computed to number about 150,000 in 1887. The deep Bay of Salee or Sumbawa on the north divides the island into two peninsulas, and the isthmus is further reduced by the narrower Bay of Tjempi (Chempi) entering from the south. The eastern peninsula is deeply indented by the Bay of Bima. The whole surface of Sumbawa is mountainous: G. Nyenges, in the western peninsula, is 5560 feet high, and G. Tambora, in the eastern, which is said to have lost a third of its elevation in the eruption of 1815, is still 8697 feet high. There are no navigable streams. The climate and productions are not unlike those of Java, though the rains are heavier, the drought more severe, and the fertility less. Sulphur, arsenic, asphalt, and petroleum are the mineral products. Mohammedanism prevails throughout the island, except among certain mountain tribes.

Sumbawa is divided into four independent states,—Sumbawa proper, Dampo, Sangar, and Bima. Two other states on the northern extremity of the island were so devastated by the Tambora eruption of 1815 that their territory, after lying for long uninhabited, was in 1866 divided between Dampo and Sangar. Sumbawa proper occupies the western peninsula. The residence of the sultan is Sumbawa, 2 miles from the coast of the great bay, in 8° 32' S. lat. and 117° 20' 33" E. long. It is surrounded with palisade and ditches. The inhabitants of this state employ sometimes the Malay and sometimes the Macassar character in writing. A considerable trade is carried on in the export of horses, buffaloes, goats, dinding (dried flesh), skins, birds' nests, wax, rice, katjang, sappanwood, &c. Sumbawa entered into treaty relations with the Dutch East India Company in 1674. Dampo is the western half of the eastern peninsula. The capital of the state, Dampo, lies in the heart of the country, on a stream that falls into Tjempi Bay. Bada, the sultan's residence, is farther west. Sangar occupies the north-western promontory of the island, and Bima the extreme east. Bima or Bodjo, the chief town of the latter state, lies on the east side of the Bay of Bima; it has a stone-walled palace and a mosque, as well as a Dutch fort. The population of Bima is curiously divided into twelve guilds or castes (*dari*). In the town is a Government Christian school dating from 1874.

SUMMARY JURISDICTION. By a court of summary jurisdiction is meant a court in which cases are heard and determined by a justice or justices of the peace, without the intervention of a jury. Such a court has duties to perform of two different kinds. It either hears and determines a case in a judicial capacity, or it acts rather in a ministerial capacity where a *prima facie* case has been established, as by issuing a warrant of distress for non-payment of poor rate, or by committing an accused person for the decision of a higher court, generally assizes or quarter sessions. It is to the court acting in the former capacity that the term "court of summary jurisdiction" more strictly applies. Ever since the first institution of justices of the peace (see JUSTICE OF THE PEACE), the tendency of English legislation has been to enlarge their jurisdiction and to enable offences of a less heinous nature to be tried in their courts without a jury. This inroad upon the functions of the jury can only be made by legislation. "The common law is a stranger to it, unless in the case of contempts," says Blackstone. At common law all offences must be proceeded against by indictment, and an indictment can only be tried before a jury. Even where an offence is created by statute and is unknown to the common law the procedure must be by indictment, unless the statute creating the offence or some other statute specially makes it summary. The history of the gradual growth of summary jurisdiction will be found in Stephen, *History of the Criminal Law*, vol. i. chap. iv. The summary jurisdiction exercised by justices is the only one of much practical importance. It is unnecessary to do more than mention in passing the two other kinds named by Blackstone, that of the commissioners of taxes for revenue offences and that of the superior courts for CONTEMPT OF COURT (*q.v.*). A very remarkable case of the latter is the power given to a judge by 12 Geo. I. c. 29, s. 4, to summarily sentence to seven years' penal servitude a solicitor practising after conviction for perjury, forgery, or barratry.

The principal Acts now dealing with summary jurisdiction are the Summary Jurisdiction Act, 1848¹ (11 and 12 Vict. c. 43), one of what are called Jervis's Acts, and the Summary Jurisdiction Act, 1879 (42 and 43 Vict. c. 49). The former consolidated the law up to that time of a large number of Acts, but only to a certain extent, for a considerable number of previous enactments dealing in a greater or less degree with this subject are still law, the earliest being 5 Hen. IV. c. 10. It also amended the law in several important particulars. The amendment was in the direction of greater simplicity of procedure, and related to both criminal and quasi-criminal matters. The procedure under the Act is shortly this. In all cases where an information is laid or complaint made the justices are, on proof of a *prima facie* case, to issue a SUMMONS (*q.v.*). An information is laid in criminal matters in which the decision of the justices, if adverse to the defendant, would be a conviction. A complaint is made where the decision of the justices in such an event would be an order for the payment of money or otherwise in what may be called only quasi-criminal matters, *e.g.*, claims under the Employers and Workmen Act. If the summons is disobeyed, a warrant may (in criminal charges only) issue in the first instance at the discretion of a justice. The warrant is good only within the local jurisdiction of the justice issuing it; and, if it is required to be executed in another jurisdiction, it must be backed, *i.e.*, endorsed, by a justice of that jurisdiction (unless in case of a fresh pursuit, when it is good for 7 miles beyond the bounds of the jurisdiction in which it was issued). Complaints need not be in writing; informations usually are, though the Act does not make writing necessary. Where a warrant issues in the first instance, the information must be upon oath. In all cases not otherwise provided for, the information must be laid or complaint made within six calendar months from the time at which the matter of the information or complaint arose. The hearing is in open court, and parties may appear by counsel or solicitor. If both parties appear, the justices must hear and determine the case. If the defendant does not appear, the justices may hear and

¹ This name of the Act of 1848 is an example of a title of an Act conferred retrospectively (see STATUTE). The name was given to it by the Act of 1879. In the same way the name of the Scotch Summary Procedure Act, 1864, was changed to that of the Summary Jurisdiction Act, 1864, by the Summary Jurisdiction Act, 1881.