## THE INDO-CHINESE AND OCEANIC RACES— TYPES AND AFFINITIES1

I N the accompanying series of illustrations the late King of Camboja (Fig. 14) and the Stieng of the forest region east of the Me-Khong, between 12°-13° N. lat. (Fig. 15), may be compared, on the one hand, with the famous statue of the leprous king, Bua-Sivisi Miwong (Fig. 16), the traditional builder of the temple of Ongkor-Vaht, and on the other with the first King of Siam and his late Queen (Figs. 17 and 18). Here the resemblance of Figs. 14, 15, 16 to the European type and difference from the Mongoloid Siamese (17 and 18) is too obvious to need further comment. For these illustrations from Mouhot's "Travels in Siam, &c.," I am indebted to the courtesy of the publishers, Messrs. Murray, Albemarle Street.

The Caucasian element in Indo-China differs from the Mongoloid quite as much in speech as it does in other respects. Here the Mongol races, as already stated, all speak monosyllabic toned languages; but the Cambojans and kindred peoples all speak polysyllabic untoned languages, a fact scarcely yet recognised even by the best-informed philologists. Taking the Khmêr as the typical language of this group, it will be convenient here to establish its polysyllabic character, reserving the question of its true affinities till we come to the allied races of Malaysia and Polynesia. The so-called monosyllabic or isolating family of languages-Chinese, Tibetan, Annamese, Siamese, Laos, Khasia, Shan, Burmese, Khyeng, Karen, Talaing, Kuki, and most of the innumerable Himalayan dialects-must all be regarded as at present reduced to a state of profound phonetic decay. originally they were all essentially monosyllabic, possessing, like the Aryan, roots of one syllable only, it is very difficult to say; but it seems certain that they were not originally toned. In fact there can be no reasonable doubt that the tones are a later development, worked out unconsciously to preserve distinctions between words that had assumed the same form by loss of initial or final letters. Thus in Chinese the final letters m, k, t, p have disappeared in the correct Mandarin dialect, causing roots like kom, kok, kot, kop all to assume the form of ko, toned

four different ways according to the sense.

This principle, which, combined with the absence of inflection or root modification, constitutes the very essence of the monosyllabic system, pervades the whole family. But it is absolutely unknown in the Khmêr group, in which words, whether monosyllables or polysyllables, are always uttered without intonation, as in all other languages. Its polysyllabic character was not recognised by Francis Garnier, but it has been abundantly demonstrated by Bouillevaux and Aymonnier, and will be made evident further on. But because the Cambojans are of Caucasian, and their speech of polysyllabic, type, it does not follow that the Cambojan must be an Aryan language. As already pointed out, within the Caucasian ethnical, there are several fundamentally distinct linguistic groups, which are now past reconciliation. To attempt to affiliate Cambojan with Sanskrit must necessarily end in failure, as did Bopp's attempt to include the "Malayo-Polynesian" in the Aryan family. It must always be remembered that man is at least a quaternary, if not a tertiary animal, consequently that human speech is probably several hundred thousand years old. This period has been too short to evolve more than perhaps three or four really distinct physical types, but it has been long enough to evolve perhaps hundreds of really distinct linguistic types, many now extinct, some lingering on in contracted areas and remote corners, several, like the Sorb of Lusatia and the Pyrenean Basque, actually dying out, some few, like the Chinese, Russian, Spanish, and especially English, absorbing most of the rest, and threatening to divide the world between them.

Continued from p. 224.

#### B.—CAUCASIAN TYPE—(Continuea)

V. CCEANIC BRANCH: Indonesian and Sawaiori, or Eastern Polynesian Groups.

All the Oceanic peoples, other than the dark races of Class A, are commonly grouped together under the collective term "Malayo-Polynesian." By this name are consequently understood all the yellow, brown, or olivebrown inhabitants of Malaysia and the Indian and Pacific Oceans, that is to say, all varieties of Malays in Malacca and the Dutch East Indies, the Malagasy of Madagascar, the Philippine Islanders, the Micronesians, the natives of Formosa and the large brown Eastern Polynesians. expression was originally proposed by William von Humboldt, merely in a linguistic sense, to designate the group of fundamentally connected languages, which really prevail amongst all these widely diffused peoples. But, like Aryan and so many other similar terms, it gradually acquired an ethnical meaning, and most ethnologists now take it for granted that there is a Malayo-Polynesian race, as there is a Malayo-Polynesian speech. But such is not the case, and as on the mainland, so in the Oceanic area, the presence of the two distinct Caucasian and Mongolian types must be recognised and carefully distinguished. It seems hopeless to do this as long as the misguiding expression Malayo-Polynesian continues to figure in scientific writings. While retaining Malay for the typical olive-brown Mongolian element in the Eastern Archipelago, I have elsewhere proposed Indo-Pacific for the brown Caucasian element in the Indian and Pacific Oceans, and Sawaiori for the large brown Polynesians, constituting the eastern and most important branch of that element.

It has already been remarked that the Caucasians are e true autochthones of Indo-China. They seem to the true autochthones of Indo-China. They seem to have also preceded the Mongol migration to the Archipelago, no doubt driven thither by the continual pressure of the Mongols advancing southwards and eastwards from High Asia. In the Archipelago they occupied chiefly the large islands of Sumatra, Borneo, Gilolo, and Celèbes, here probably exterminating the aboriginal Negrito tribes. But here also they were followed by the Mongols from the mainland, with whom some amalgamated, producing the present mixed races of Western Malaysia, while others migrated eastwards to their present homes in the Eastern Pacific. Here they occupy almost exclusively all the islands east of a line running from Hawaii through Samoa to New Zealand, those groups included. West of that line they are found mostly blended with the Melanesians, as explained in Section II., but also in a pure state at a few isolated spots such as the Ellice and Phænix Islands, Rotuma and Uvea in the Loyalty group. They are also found blended with the

Malay and other elements in Micronesia.

That this large brown race reached the Pacific from the west there can be no reasonable doubt, and this view is now consequently held by Hale, Flower, Whitmee, de Quatrefages, and most recent ethnologists. F. Müller and de Quatrefages have even identified their legendary Pulotu, or Western Island of the Blest, with Buro in Malaysia, which is accordingly taken as their probable starting-point. But from whatever place they set out, they seem to have settled first in Samoa, which may therefore be taken as their second point of dispersion. " From this centre, and more particularly from the Island of Savaii, the principal of the group, their further migrations may be traced with some certainty from archipelago to archipelago through the uniform traditions of the various groups. In these traditions Savaii 1 is constantly

\* This word Savaii has by some been identified with Java. But the primitive form seems undoubtedly to have been Savaiki, in which both s and k are organic. On the other hand Java is the Sanskr.t Yavah for Diavah, the two-stalked barley, where the intial organic is d, droped as in the Latin Janus for Dianus (row due). Besides, although there are many Sanskr.t words in the Malay dialects, there are now in the Sawa.ori, the Cauca-sans having migrated eastwards long before the appearance of the Hindus in the Archipelago. Hence although they may have



-Cancasian Type, Indo-China. King of Camboja.



Fig. 15.-Caucasian Type, Indo-China. Stieng Savage, Cochin-China.

referred to under diverse forms as the original home of the race, or otherwise persists, as shown in the subjoined list, which will also serve to illustrate the permutation of letters in all these closely-connected dialects :-

SAVAIKI.—Organic Sawaiori form of the word. SAVAII.—The Samoan form; here still the name of

the island referred to in the Sawaiori traditions.

HAVAII.—The Tahitian form; here "the universe,"
"the world" in the national odes; also the old capital of Raiatea Island.

AVAIKI.-The Rarotonga form; here "the land under the wind."

HAWAIKI.-The Maori form; here the land whence came the first inhabitants of New Zealand.

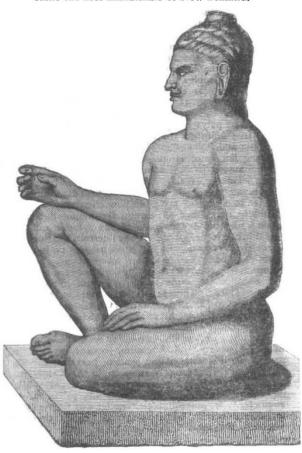


Fig. 16.—Caucasian Type, Indo-China. Statue of the Leprous King, founder of Ongkor-Vaht, Camboja.

HAVAIKI.—The Marquesas form; here "the lower regions of the dead." Over the victims in human sacrifices are uttered the words, "To fenua Havaiki" = Return to the land of thy forefathers.

HAWAII.-The Sandwich form; here still the chief island of the group.

HEAVAI.—The form in chart published by R. Forster in

vol. v. of Cook's Second Voyage, and based on information furnished by Tapaia, a native of Tahiti, who had no personal knowledge of Samoa.

HEAWIJE.—The form given by Cook in his account of his first visit to New Zealand (1770).1"

started from Java, they could not have carried its present name with them. I note that Prof. Sayce now identifies Janua with the Etruscan Ani, accounting for the Y by assimilation with Janua (Academy, August 21, 1880). But is not Janua itself a derived form from Janus, whence also Januarius?

" "Philology and Ethnology of the Inter-Oceanic Races," by A. H. Keane, in Stanford's "Australasia," 1879.

Dates have even been assigned for these various migra-Thus we are told that the Polynesians made their appearance in the Marquesas Islands about the beginning of the fifth century A.D., in Tahiti about 1100, in Rarotonga about 1200, in New Zealand about 1400, and so on. But all this, depending on the oral genealogies of the chiefs, and other equally unreliable data, must be regarded as pure conjecture. More probable is the statement that the race appeared in Malaysia

over a thousand years before any mention occurs of Malays in that region. At the same time it is idle to attempt assigning dates to strictly prehistoric events, with the correct sequence of

which we are more concerned. The Sawaiori are one of the finest races of mankind, Caucasian in all essentials, and without a trace of Mongolian blood. Observers, from Cook to the members of the Challenger Expedition, are unanimous in describing them as distinguished by their fine symmetrical proportions, tall stature, handsome and regular features. Cook gives the palm to the Marquesas Islanders, who, "for fine shape and regular features, surpass all other natives." The Samoans and Tahitians are very little inferior, and even of the Tongans (Friendly Archipelago) Lord George Campbell remarks:-Archipelago) Lord "There are no people in the world who strike one at first so much as these Friendly Islanders. Their clear, light copperbrown coloured skins, yellow and curly hair, good-humoured and handsome faces, their tout en-semble, formed a novel and splendid picture of the genus homo, and as far as physique and appearance goes they gave one certainly an impression of being a superior race to ours." Their average height is five feet ten inches, ranking in this respect next to the Tehuelches of Patagonia; they have smooth but not lank hair, often curly and wavy, and Mr. Staniland Wake has recently shown that, against the commonly-received opinion, the beard is naturally full, though often artificially removed. Add to all this a cheerful joyous temperament, a frank and truthful disposition and kindly nature, and you have a type as different as it is possible to im-

agine from the Mongolian, and consequently from the true Malay. Yet the Sawaiori and Malays are grouped together under the collective designation of "Malayo-Polynesians," as if they were merely two varieties of a common stock. All they have in common are one or two cranial features, of no particular value as racial tests, at least when taken apart, and the elements of their language, which we shall see is in this instance no racial test at all. The true affinities of with that fair element in Malaysia which Dr. Hamy proposes of the South Sea Islands.

to group as Indonesians, and whose relations to the Eastern Polynesians he has been one of the first to perceive. Noteworthy amongst these Indonesians, Pre-Malays, or Indo-Chinese Caucasians still unaffected by Mongol influences in the Archipelago are the Mentawey Islanders, who, though occupying the Pora Group some seventy miles off the west coast of Sumatra, are none the less closely related in physique, language, and customs, to the Eastern



Figs. 17, 18.-Mongoloid Types, Indo-China. King and Queen of Siam.

Polynesians. On this point the testimony of C. B. H. von Rosenberg is decisive. "On a closer inspection of the inhabitants the careful observer at once perceives that the Mentawey natives have but little in common with the peoples and tribes of the neighbouring islands, and thus as regards physical appearance, speech, customs, and usages, they stand almost quite apart. They bear such a decided stamp of a Polynesian tribe that one feels the Sawaiori are with the Caucasians of Indo-China, and far more inclined to compare them with the inhabitants

From this point of view it will be instructive to compare the native of Pora, Mentawey Group (Fig. 19), with the Battas of Pak-Pak, Sumatra (Figs. 20 and 21), all from von Rosenberg's "Malay Archipelago," vol. i. pp. 56 and 192. Owing to their splendid physique and "Caucasian features" Junghuhn and Van Leent take



Fig. 19.—Caucasian Type, Malaysia. Mentawey Islander.

these Sumatran Battas as the typical unmixed or pre-Malay element in the Archipelago, whom they would accordingly group collectively as the Batta race. The form Battak often occurs, but this is simply the plural of Batta, so that to write Battaks, as many do, is a solecism. Compared with the Malays proper, the Battas are tall and muscular,



Fig. 20.-Caucasian Type, Sumatra. Native of Batta Land.

with regular features, less prominent cheek-bones, light-brown complexion, with a ruddy tinge on the cheeks, finer hair, often brown and wavy, thicker beard. When in Jilolo in 1876 M. Achille Raffray met some so-called "Alfuros" of Dodinga, who might be taken as typical specimens of this Batta or Indonesian race (*Tour du* 

Monde, April 12, 1879, p. 234). We therefore separate this Batta, Indonesian or Pre-Malay element in the Archipelago from the Malay element proper, affiliating the former to the Indo-Chinese and Eastern Pacific Caucasians, the latter to the Indo-Chinese Mongolians. Whether the Caucasians are found in other parts of East



Fig. 21.—Caucasian Type, Malaysia. Native of Pak-Pak, Batta Land.

Asia is a question that cannot here be discussed, but it may be remarked that even the cautious Topinard ventures to include "the Ainos of Japan, the Miau-Tz' and the Lolos of Yunnan in the European group" ("Anthropology," p. 476).

## C. MONGOLIAN TYPE

VI. CONTINENTAL BRANCH: Indo-Chinese Group.
VII. OCEANIC BRANCH: Malayan Groups.

The main features of the continental branch of this division are too well known to need special comment What we are more immediately concerned with is its relation to the Oceanic section, and this relation will come out the more clearly if both are treated together. To avoid misconception, it may be well to observe that a portion only of the Continental branch is comprised in the Indo-Chinese group; for there are many other groups, such as the Mongolian proper, the Manchurian, the Tatar or Tûrkic, the Japanese, the Corean, the Finnic scattered over the greater part of Asia and penetrating westwards to the Baltic seaboard and Middle Danube basin. All these must be held, apart from the question of miscigenation, to belong to one primeval stock, constituting the Yellow or Mongolian division of the human family. We are all familiar with its essential characteristics: flat and broad features, prominent cheek-bones, short broad and flat nose, black almond-shaped and oblique eyes, long black and lank hair nearly cylindrical in section, little or no beard, low stature averaging about 5 feet 4 inches, dirty yellow or tawny complexion, slightly prognathous and more or less brachycephalous head.

This description corresponds substantially with the ordinary Malay type, such as we see it in Java, Bali, Madura, many parts of Sumatra, round the coast of Borneo, and in the peninsula of Malacca. The true aborigines of this region, as shown in a previous section, were the Negritos; consequently the Malays, like the

pre-Malays or Caucasian Indonesians, are here intruders. Intruders from where? Obviously from where the type exists, the neighbouring Indo-Chinese peninsula. What then becomes of the Malay as a primary division of mankind? As such it can no longer be recognised in anthropology, and must sink to the position of a mere variety of the Mongol type. The so-called true Malay or typical Malay is essentially a Mongolian, and the likeness between the two has not failed to strike all careful "The Malayan race," says Wallace, "as a observers. whole undoubtedly very closely resembles the East Asian populations from Siam to Manchuria. I was much struck with this, when in the Island of Bali I saw Chinese traders, who had adopted the costume of that country, and who could then hardly be distinguished from Malays; and on the other hand I have seen natives of Java who, as far as physiognomy was concerned, would pass very well for Chinese." Hence De Quatrefages rightly rejects the claim of the Malays to be regarded as a fundamental type. "All polygenists," he remarks, "have regarded the Malays as one of their human species; many monogenists have considered them as one of the principal races. I showed long ago that in reality they are only a mixed race in which white, black, and yellow elements are associated."

The last clause of this sentence gives the true solution of the problem. The inhabitants of Malaysia consist not of one, nor even of three distinct races, but of three races variously intermingled, the yellow or Mongolian, and the white or Caucasian chiefly in the west, these two and the black or Papûan chiefly in the east. As the fusion of yellow, white, and black produces the so-called "Alfuros" in the east, so the fusion of yellow and white produces the so-called Malays in the west. The more the yellow prevails the nearer do the Malays approach the Mongol type; the more the white prevails the nearer do they approach the Caucasian type, until in some places they seem to be no longer distinguishable from the Mongols, in others from the Caucasians. The Javanese are taken for Chinese by Wallace, just as the Mentawey Islanders are taken for Sawaiori or Eastern Polynesians by von Rosenberg. Under these circumstances it is not surprising that those who seek for unity in the Archipelago should meet with nothing but confusion. Prof. Flower comments on the divergent characteristics presented by the Malayan crania, remarking that "there is certainly no very great conformity in the characters of the skulls in our collections which are said to belong to Malays." This must always be the case until we come to an understanding as to the meaning of the term Malay, which after all is far more a national and linguistic than a racial expression. a racial expression. Proceeding on the groundless assumption of a common Malay type in Oceanica, Welcker arrived at the subjoined astonishing results from cranial measurements in Micronesia and Malaysia alone:--

### Length of Skull 100

				ndex of oreadth.		Index of height.		Difference.
Caroline Islanders				68		74		+ 6
"Alfuros"				74		79	•••	+ 5
Dyaks of Borneo				75		77		+ 2
Balinese				76	•••	77		+ 1
Amboynese				77		77	•••	+ 0.4
Sumatran				77		78		+ 1
Macassar				78		78		- 0'5
Javanese				79		80		+ 0.4
Buginese			•••	79		80		+ 0'4
Menadorese				80		81		+ 1
Madurese		•••		82		82		- 0.1

Yet even here Sumatran is taken as a unit, although it is not hazarding too much to say that a comparison of Atyeh, Batta, Palambang, Janebi, Siak, Menangkabu, Korinchi, Rejang, Lampung, and other crania from that island alone would probably yield almost as many dis-

crepancies as are revealed in this table. There is in fact less uniformity of type in Malaysia alone, with a population of some 25,000,000, than in the whole of China and Mongolia with a probable population of 400,000,000.

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(To be continued.)

# A CHAPTER IN THE HISTORY OF THE CONIFERÆ

II.

#### GINKGO (Linnæus)

THE perhaps better known name of this genus is Salisburia (Smith), but the Linnæan name, adapted from the Chinese, has unfortunately priority. The genus contains only one existing species, the gigantic Ginkgo biloba of Northern China and Japan. It is classified with the Taxeæ, is diœcious, and the flabelliform leaves are deciduous, leathery, very variably lobed, and of all sizes up to an extreme of five inches across. The fruit, about an inch in diameter, is drupaceous, on a slender footstalk, composed externally of a fleshy layer, and internally of a hard light-coloured shell, and is somewhat unsymmetrical, owing to the abortion of one of the seeds. The foliage is like that of the maidenhair fern, but the petiole is stout, often three inches long, and distinctly articulated at the base. An important characteristic in recognising the fossil leaf, besides the petiole, is that however irregularly they may be lobed, they are almost invariably primarily bilobed.

Though so restricted a genus now, its ancestry is perhaps more venerable than that of any other forest The Carboniferous fruits Trigonocarpus and Noeggerathia are believed by both Hooker and Saporta to have belonged to some ancestral form, and even the foliage of the latter, Psygmophyllum of Schimper, approaches nearly to that of Ginkgo. Baieria, beyond doubt a close ally, appears in the Permian, and Ginkgo in all probability in the bilobate Jeanpaulia of the Rhætic of Bayreuth, but the group did not reach its maximum until the Jurassics. A few species have been described in other works, but Heer's Jurassic flora of Eastern Siberia ("Flora foss. Arctica," vol. iv.) contains by far the most important contribution to their past history. Five genera are placed in the groups: Phanicopsis, Ginkgo, Baieria, Trichopitys, and Czekanowskia, but there is no special character uniting the latter to Ginkgo, although it is no doubt coniferous. The remains are clusters of occasionally forked acicular leaves, sheathing at the base in imbricated scales. The leaves widen in most specimens here and there into bead-like expansions, inferred to have been caused by some extinct type of parasitic fungus. It is thought by Heer that a detached stem bearing shortly petiolated double seeds or nuts may be their fruit. Phœnicopsis is a cluster of separate leaves, also sheathing in scales at the base, but forming a fine palm-like foliage, thought by Heer to unite Cordaites and

Baieria, yet without any direct affinity with Ginkgo.

The most aberrant of the genera obviously belonging to the group is Trichopitys of Saporta. In this the leaves were smaller, with fewer veins, and the parenchyma reduced to a narrow expansion margining each vein. Although so extreme a modification of the normal type, T. setacea¹ possesses the characteristic bilobation and petiole. Its affinity is best traced through G. concinna, which is similar, but with the segments of the leaves expanded to receive two to three veins each.

G. sibirica and G. lepida are separated on trivial grounds not supported by the illustrations, and when united furnish the chief and most abundant leaves in the deposit. These are nearly as large as in the existing species, but more digitate, and with about five veins to

 $^1$  T. pusilla probably belongs to some other division of the vegetable kingdom.