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MELANESIANS AND AUSTRALIANS
AND THE PEOPLING OF AMERICA

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CONTENTS

	PAGE
Introduction	2
Earlier speculations	2
Later theories	5
Documentary and material evidence.....	6
The "Negroes" of Darien and Peru.....	6
The Lagoa Santa skulls.....	9
The skeletal remains of Lower California.....	11
The Punin and Tunebo skulls.....	19
Other finds	20
Latest theories	22
Fuegians	26
The "Melanesians" of Bolivia.....	27
Critiques	30
Discussion	33
Time	33
Extension	35
Cultural remains	35
"Melanesians" in North America.....	36
Skin, hair, nose, and other features.....	39
The skull and the skeleton.....	40
Additional notes: Lower California.....	41
Physical characters of the Lower California aborigines.....	43
Native traditions	44
Modern exploration	44
Skeletal remains (Lower California).....	45
Résumé	47
Bibliographic notes	49
Pigasetta	49
Cavendish	49
Vizcaino	49
Dixon	50
Friederici	51
Nordenskiöld	51
Nicolle	51
Diguët	51
Wiener	51
Oetteking	52
Literature cited	52

INTRODUCTION

Speculation as to the origin of the American Indians dates from almost the moment of their discovery. It dates more particularly from the voyages of Vespucci, Balboa, and Magellan, which showed that America was a new world with new people. These people, as is well known, were taken by Columbus for the inhabitants of "the Indies", whence their collective name of "Indians". When this notion was shown to have been erroneous, there was a general effort to find their derivation; and as there were neither traditions nor any other data on the subject, a mass of opinions gradually accumulated.

The derivation of the American natives came to be attributed by different writers, in the course of time, to one or another of practically all the peoples of the Old World who knew navigation. Gradually, however, most of the initial theories came to be dropped, leaving a small but tenacious residue. Three main hypotheses remained. The first was that the Indians were the descendants of the Ten Lost Tribes of Israel. Lord Kingsborough, as late as the earlier half of the last century, bankrupted himself trying to prove this contention; and there are some who incline to believe thus to this moment. The second opinion, fathered by many, was that America had been reached and populated by various Old World peoples, of different racial origins, such as the Carthaginians, the Norsemen, other Europeans, and the Asiatics. This view gradually changed, on supposed cultural, morphological, and especially linguistic grounds, to a form which will be discussed later. The third hypothesis, upheld as early as 1635 by Brerewood, was that the Indians as a whole were of Asiatic ancestry and related to the Tartars and Mongolians.

It is the second theory, or that of multiple origins, in its present aspects which is to be discussed more especially in this paper. It postulates that more than one race contributed to the original peopling of the American continent, and while conceding the main element to have been northern Asiatic, would bring here contingents of aboriginal man from as far as Polynesia, Melanesia, and Australia. The principal exponent of this thesis at the present time is Rivet, the well-known and able French Americanist.

A brief historical review of the field will be useful.

EARLIER SPECULATIONS

A remarkably sensible opinion on the subject of the origin of the American Indians is met with as early as 1590 in the book of Padre

Acosta, one of the best informed of the earlier authorities on America. He says :

It seems to me very probable that there came in times past to the West Indies, overcome by strong winds, men who had no thoughts of such a voyage. . . . We may thus assume that the New World commenced to be inhabited by men who had been driven there by contrary winds, as in the end happened with the discoveries in our own times.¹

But the presence of various animals on the continent that are also known in the Old World indicated, Acosta believed, that the land somewhere in the as yet unexplored far north joined or closely approached that of the Old World. If this were so, then it would be easy to resolve the problem of the coming of man. He came not only over the sea but also traveling by land. This journey, too, was made without planning, little by little ; and thus in the course of time were filled the lands of the West Indies by so many nations, peoples, and languages.

His conclusion is that man of the Old World gradually extended his domain until he reached the New, aided in this by the continuity or vicinity of land ; and that, while there may have been different ways of peopling the very extensive American territories, the principal and truest cause of the peopling of the New World was this continuity or nearness of its land with that of some part of the Old World.²

¹ "Assi'que me parece cosa muy verisimil, que ayan en tiempos passados venido a Indias hombres vencidos de la furia de el viento, sin tener ellos tal pensamiento. . . . Assi qu podriamos pensar, que se commenço a habitar el nuevo orbe de hombres, a quien la contrariedad del tiempo, y la fuerza del Nortes, echò alla, como al fino vino descubrirse en nuestros tiempos. . . . Concluye pues con dezir, que es bien probable de pensar, que los primeros aportaron a Indias por naufragio y tempestad de mar." (Pp. 67-68.)

² Los primeros pobladores de las Indias "passaron no tanto nauegando por mar, como cammado por tierra. Y esse camino lo hizieron muy sin pensar, mudando sitios y tierras su poco a poco. Y unos poblando las ya halladas, otros buscando otras de nuevo, vinieron por discurso de tiempo a henchir las tierras de Indias, de tantas naciones, y gentes, y lenguas. . . . El lineage de los hombres se vino passando poco a poco, hasta llegar al nuevo orbe, ayudándo a esto la continuidad o vezindad de las tierras y a tiempos alguna nauegacion ; y que este fue el orden de venir, y no hazer armada de proposito, ni suceder algun grande naufragio. Aunque tambien pudo auer en parte algo desto : porque siendo aquestas regiones larguisimas, y auiendo en ellas innumerables naciones, bien podemos creer, que unos de una suerte, y otros de otra, se vinieron en fin a poblar. Mas al fin en lo que me resumo es, que el continurase la tierra de Indias con essotras de el mundo, alomenos estar muy cercanas, ha sido la mas principal, y mas verdadera razon de poblarse las Indias." (P. 81.)

By 1607, the time of Padre Garcia, another of the older authorities on the Indians, the opinions as to the origin of the latter are already legion. He summarizes them under 10 headings as follows (p. 12):

1. Over the seas (Ophir, Tarsis, and others).
2. Over the seas, accidental (storms, winds).
3. Over the land, or where the New World closely approached the Old, in the far north.
4. Carthaginians.
5. The Ten Lost Tribes of Israel.
6. Other Semites.
7. Atlantis.
8. Europe: Old Spanish, Romans, Greeks, Phoenicians, Canaanites.
9. Chinese (especially in Peru), Japanese, Coreans, Tartars.
10. Autochthone; Egyptians, Moors, and other north Africans; Canary Islanders; Ethiopians (Yucatan); old French, Celts; English and Irish; Courlanders; Troyans; Norwegians, Danes, Germans, Frisians; etc.

Garcia's own opinion is a sort of compound of all the above. He says:

The Indians proceed neither from one nation or people, nor have they come from one part alone of the Old World, or by the same road, or at the same time, in the same way, or for the same reasons; some have probably descended from the Carthaginians, others from the Ten Lost Tribes and other Israelites, others from the lost Atlantis, from the Greeks, the Phoenicians, and still others from the Chinese, Tartars, and other groups.^{3, 4}

Others of the more noteworthy earlier authors who have ranged themselves more or less on the side of multiple origins of the Ameri-

³ "los Indios que oi ai en las Indias Occidentales, i Nuevo Mundo, ni proceden de una nacion, i Gente, ni à aquellas Partes fueron de sola una de las del Mundo Viejo, ni tampoco caminaron, ò navegaron para allà los primeros Pobladores por el mismo camino, i viage, ni en un mismo tiempo, ni de una misma manera, sino que realmente proceden de diversas Naciones, de las quales unos fueron por Mar, forçados, i hecados de Tormenta, otros sin ella, i con Navegacion, i Arte particular, buscando aquellas Tierras, de que tenian alguna noticia. Unos caminaron por tierra, buscando aquella, de la qual hallaron hecha mencion en Autores graves: otros aportando à ella, acaso, ò compelidos de hambre, ò de Enemigos circunvecinos, o idendo caçando para comer, como Gente falvagina: Lo que siento acerca de esto, es, que unos Indios proceden de Cartaginenses, que poblaron la Española, Cuba, &c. Otros proceden de aquellos diez Tribus, que se perdieron, Otros proceden de la Gente, que poblò, ò mandò poblar, Ophir en la Nueva-España, i Perú. . . . Otros proceden de Gente que viva en la Isla Atlantica de Platon. Otros de algunos que partieron de las partes proximas i mas cercanas à la sobredicha Isla, pasaron por ella à las de Barlovento, que estàn bien cerca de donde ella estaba, i de aquellas à la Tierra firme. . . . Otros proceden de Griegos. Otros de Fenicianos. Otros de Chinos, i Tartaros, i otras Naciones. . . ." (P. 315.)

⁴ Shows Latin-like words in Peru (p. 174 et seq.), Greek (pp. 191-192), Phoenician (p. 253 et seq.).

cans include Milius (1607), Grotius (1642), De Laet (1643), Horn (1652), Holm (1702), Charlevoix (1744), and Clavigero (1807). They collectively add little if anything original. But the two last mentioned, unquestionably the best instructed, though adhering to American polygeny, each expressed independently a view on the problem which deserves to be quoted.

Charlevoix (1744) regards the majority of the theories hitherto advanced as "purely chimerical" and is of the opinion that

nearly all the writers on the subject have based their conjectures on such ruinous foundations, or had recourse to such frivolous deductions from names, customs, religion, and languages, that it appears quite as useless to try to refute the same as to conciliate them with each other. (Vol. 5, p. 2.)

And a similar sentiment is voiced by Clavigero, who says (vol. 2, p. 205):

There are authors who, in order to do wrong to no people, believe the Americans the descendants of all the nations of the world. So great a variety and extravagance of opinion is owing to a persuasion that, to make one nation be believed to have sprung from another, no more is necessary than to find some affinity in the words of their languages, and some similarity in their rites, customs, and manners.

LATER THEORIES

Scientific work proper on the American Indian commences with Linné, Buffon, and Blumenbach abroad, and with Jefferson and Barton in this country. All these write on the subject toward the end of the eighteenth or beginning of the nineteenth century; and since then there is a long list of students of man who occupy themselves with the problem of American origins. A majority of all these, particularly those of this continent and who had the broadest experience with the Indian, although well aware of the multiplicity of types and tribal variation, incline strongly toward the idea of his general north- and east-Asiatic affinities. Yet there were and are also other notions, particularly among European anthropologists, who have had less extensive direct contact with the Indian.

During the nineteenth and the present centuries polyracial theories of the origin of the American Indians are advanced not only by writers such as Coates and Baldwin, but also by a number of professional scientific men, among them Quatrefages, Rudolph Virchow, Rivet, and Corrêa. But the theories change and crystallize in new directions. The hypotheses of European, north-African and western Asiatic origins have practically been given up, but new ideas arise and are strongly supported. Basing their beliefs on apparent linguistic,

cultural, and even some physical resemblances, the later advocates of multiple American origins urge the acceptance of the theory that the Polynesians and Melanesians, and even the Australians, participated in the peopling of North and especially South America.

DOCUMENTARY AND MATERIAL EVIDENCE

The theories that will receive attention in this paper are only those that relate to the presence on the American continent, aside from the introductions through the white man's agencies, of African or Melanesian blacks, and of the Australians.

THE "NEGROES" OF DARIEN AND PERU

The beginnings of the theory of Melanesian migrations into America date far back. According to Pereira (1648), the first opinions to that effect were to be found in Martinez, Ortelio, and other early writers. He says (p. 21):

The extension, on the south or toward the Antarctic pole and beyond the Straits of Magellan of the land of Patagones, is unknown; but it is held as certain that, cold as these regions must be, they will be found peopled and continuous below the frigid zone. And, we are told by Martinez, Ortelio, and others, they join New Guinea, the Solomon Islands, the outskirts of Peru and the kingdom of Chile. Facilitating thus a transit, the population of and propagation in America were not difficult.

With these old opinions regarding the Melanesians, there are also some early references to "Negroes" on the American continent.

The first to refer to this subject is Peter Martyr, who, writing within 3 years after the discovery of the Pacific by Balboa and using information from letters received from the Isthmus, includes the following unaccredited passage in his *Thyrde Decade*:

There is a region not past two dayes journey distant from *Quarequa*, in which they founde only blacke Moores [in the original Latin text "Nigritos"]; and those excedynge fierce and cruell. They suppose that in tyme paste certeyne blacke mores sayled thether owt of *Aethiopia* to robbe: and that by shippewracke or some other chaunce, they were dryuen to those mountaynes. The inhabitantes of *Quarequa* lyue in continuall warre and debate with these blacke men. (Dec. 3, lib. I, p. 139.)⁵

⁵ According to Lehmann the Latin text reads: "Mancipia ibi negra repererunt, ex regione distante i Quarèqua dierum spatio tantum duorum, quae solos gignit Nigritos, et eos feroces atque admodum truces. Ex Aethiopia putant traiecisse quondam latrocinii causa Nigritos, inque illis montibus naufragatos fixisse pedem." (P. 330.)

The same "blacks" are later (1552) referred to by Gomara, who says:

In Cuareca Balboa found neither bread nor gold. . . . Instead he found some Negro slaves of the lord. He asked whence they had them but they could not tell him or understand more than that there were men of that color nearby with whom they carried on regular war. These were the first Negroes seen in the Indies and I believe there were seen no more.⁶

Apparently the same "blacks" are also referred to by Gutiérrez, who, however, gives this version:

In the pueblo Quareta were found two fine Negroes, slaves of señor Thoreca, who were said to have come here in balsas from the west from the south sea that at present is known as New Guinea.⁷

Oviedo, the first official historian of the newly discovered parts of America, who wrote earlier (1535-) than Gomara and who reached Darien personally within less than a year of Balboa's journey across the isthmus, spent a large part of his life in those regions and had direct contacts there with the Indians. He used what Balboa himself had written, consulted with him, and was intimately acquainted with the experiences of the other Spaniards who during his sojourn at Darien overran and exploited the territory. He gives much more numerous details about the natives than does Gomara, but in his account of the events at Darien (Lib. 29) has nothing whatever to say about any Negroes. There is no allusion to such people in the published accounts of any of the other Spanish officials and priests who were then or later in that region.

There is no doubt, of course, that the Darien Indians had slaves or serfs. Oviedo gives interesting and possibly significant information on this point. Speaking of the chiefs of some of the Darien tribes he tells us that:

And the same caciques gave the Spaniards some Indians whom they hold among themselves as slaves, who serve them, and whom they have captured in war that is never wanting among the Indians. They call these slaves *paco*, and each cacique has his slaves branded by a different sign on the arm or face,

⁶ In Cuareca (Isthmus of Panama) Balboa "no halló pan ni oro, que lo habían alzado antes de pelear. Empero halló algunos negros esclavos del señor. Preguntó de dónde los habían, y no le supieron decir o entender mas de que había hombres de aquel color cerca de allí, con quien tenían guerra muy ordinaria. Estos fueron los primeros negros que se vieron en Indias, y aun pienso que no se han visto más." (Vol. 1, chap. 62, p. 143.)

⁷ "En el pueblo de Quareta se hallaron dos negros finos, esclavos del señor Thoreca, que señalaron auer venido allí en balsas de hazia el poniente por esta mar del Sur que oy día se llama la Nueva Guinea." (Vol. 4, chap. 66, p. 573, quoted by Lehmann, p. 331.)

while some mark them by extracting one of their front teeth. Also, the caciques and their subjects paint themselves, and their devices and inventions in this respect are much different from those that they use for their slaves.⁸

The reports of "blacks" in the Panama territory fail also of any corroboration by later writers. In 1901 Vergara y Velasco states that, according to a report of a subchief, there existed in the Cuna district of Darien, until 10 years before, "remnants of an aboriginal population of reduced height, black skin, not exceeding 100 or 200 individuals and entirely savage";⁹ but as this applies to something existing (if such was the case) nearly four centuries after the introduction of the Negro into the Spanish American possessions, it can at best have but little bearing on the subject under discussion.

Nevertheless, the reports on the Darien "blacks" are evidently taken for facts by De Quatrefages, one of the foremost European anthropologists of his time. As early as 1861, in his "Unité de l'espèce humaine", Quatrefages says (p. 405):

Study of the physical characters leads, hence, to the admission that America has been peopled by emigrants from the Old World and belonging more or less to the three principal races of the same, namely, the white, the yellow, and the black.

On page 413 he refers to the "Negroes" spoken of by Martyr and Gomara. The above thought involves only the African Negro, but in time Quatrefages' view extends. One of the main though not immediate causes of this is the discovery of the Lagoa Santa type of skulls in South America.

Lehmann adds to the above one or two references (p. 331) from hazy legends of pre-Columbian Peru on black-skinned prisoners or slaves; he mentions further the paintings on two pieces of pottery found in the vicinity of Trujillo and pictured by Wiener, which show "dark-colored people who are driven by light-colored ones" building

⁸ "Y los mismos caciques daban á los españoles algunos indios que entre ellos tienen por esclavos, y se sirven dellos, que los han avido en la guerra, la qual nunca falta entre los indios unos con otros y al ques esclava llámanle *paco*, y cada cacique tiene sus esclavos herrados con su señal diferenciada en el brazo ó en la cara, y algunos tienen por señal sacarle al esclavo un diente de los delanteros de la boca. Tambien los caciques se pintan á sí y á sus indios y gente, y tienen sus divisas é invençiones de pinturas para esto de otra manera, muy diferenciadas de las que usan poner á los esclavos." (Vol. 3, lib. 29, cap. 2, p. 8.)

⁹ "Según informes de uno de sus prinzipales jefes, en esas montañas existian hace diez años restos de una población aborigen, de reducida talla, negra la piel, muy escasa en numero (100 à 200) y enteramente salvaje; refería que los Cuna-cunas quitaron à ese pueblo el terreno que hoy ocupan despues de una gran matanza y temen encontrar à alguno dellos que quedaron por creerlos hechiceros y hasta demonios." (Vol. 1, p. 878; quoted by W. Lehmann, p. 331.)

in one case a wall of stones, in the other a wall of bricks. All this, as well as what will follow on the subject of "blacks" in North America, will receive consideration in the critical part of this paper.

THE LAGOA SANTA SKULLS

In 1835-44, in certain caves of the state of Minas Geraes, Brazil, and in association with the bones of extinct as well as still living animals, P. W. Lund, a noted Danish naturalist, found a series of remains of human skeletons.¹⁰

These remains included 17 or 18 more or less imperfect skulls, one of which came to be preserved in the Historical and Geographical Institute of Brazil, Rio de Janeiro, one—of a child—in the British Museum, and the rest in Copenhagen. They are commented upon, as far as their racial features are concerned, thus by Lund himself (1844):¹¹

If we consider these remains of man from the standpoint of the ethnographic traits which they present, we shall see that all the skulls bear the distinctive features of the American race. . . . The race which occupied this part of the world in remote antiquity was in its general type the same as that which inhabited the country at the time of the discovery by the Europeans.

In 1876 the skull preserved in Rio de Janeiro is described by Lacerda and Peixoto. Their main conclusion is (pp. 72-73), that the fossil cranium of Lagoa Santa "closely approaches in its characteristics the crania of the Botocudos."

In 1879, on the occasion of the Anthropological Congress in Moscow, Quatrefages presents a communication dealing with the Lagoa Santa discoveries and the Lacerda and Peixoto report on one of the skulls from the cave of Sumidouro. In discussing the characteristics of this skull¹² he calls especial attention to its height. His statements in this connection could not be more explicit, yet in course of time they have been so abused that they deserve to be quoted in full. They are as follows:

By the union of dolichocephaly and hypsistenocephaly the skull of Lagoa Santa approaches in a very unexpected way the skulls of divers other races, and particularly those of the Papuans. The two characteristics are even more accentuated in it than in the average of the Melaneseans so well studied by M. Hamy. . . . In calling attention to these resemblances I intend in no

¹⁰ For a detailed account of these remains see Hrdlička (1912).

¹¹ In his important communication to C. C. Rafn, Secretary of the Société Royale des Antiquaires du Nord. See Lund in *Literature Cited*.

¹² The principal measurements of the specimen, which belonged to a male of about 30 years of age, are given thus: Capacity, 1388 cc; diam. ant.-poster., 18.5 cm; transverse max., 12.9 cm; "vertical", 14.5 cm; C. I., 69.7.

way to draw a conclusion as to identity, nor even to a closeness of the races. Their dimensions in the skulls which I compare do not approach each other except in result of the reached compensations. Thus in the Papuans a plane passing from the anterior alveolar border and external occipital protuberance leaves beneath it only a very small portion of the occipital bone. This is different in the skull of Lagoa Santa, in which the inferior occipital region bulges considerably. It is the exceptional development of this portion which compensates for the lowering of the vault and gives to the skull its great height.¹³

To which Quatrefages adds :

In taking here the Papuan head for comparison, I do not intend to establish any ethnological relation between the man of Sumidouro and the inhabitants of New Guinea. Hypsistenocephaly is found also in the African Negroes and among the Malaysian populations, but at the moment when I wrote the present memoir, the Papuans were the only ones whose craniological study had been finished. This is why I believed it interesting to point out the characteristics possessed in common by these two human groups so distant in space and in time.¹⁴

Notwithstanding Quatrefages' clear and most sensible statements, a "Melanesian" suggestion has been made and will insistently be used by later authors in support of their theories.

The next to discuss the Lagoa Santa crania is the anatomist and anthropologist Kollmann (1884). After a study of 11 of the specimens at Copenhagen, his conclusions, so far as the characteristics of the skulls are concerned, are that—

howsoever valuable all these individual features established by means of craniology are, much more significant still is the fact, which must impress itself

¹³ "Par la réunion de la dolichocéphalie et de l'hypsisténocéphalie, la tête de Lagoa-Santa se rapproche d'une manière assez inattendue des têtes de divers autres races et en particulier des têtes papouas. Les deux caractères sont même plus accusés chez elle, que chez la moyenne des Mélanésiens si bien étudiés par M-r Hamy. . . . En signalant ces ressemblances, je n'entends nullement conclure à une identité, ni même à un voisinage des races. Les chiffres précédents ne se rapprochent que par suite des compensations établies dans les têtes que je compare. Ainsi chez les Papouas un plan passant par le bord alvéolaire antérieur et la protubérance occipitale externe, ne laisse au dessous de lui qu' une très faible portion de l'occipital. Il en est autrement dans le crâne de Lagoa-Santa, où la région occipitale inférieure se renfle considérablement. C'est le développement exceptionnel de cette partie qui compense le surbaissement de la voute et donne au crâne sa grande hauteur." (Pp. 329-330.)

¹⁴ "En prenant ici la tête papouas pour terme de comparaison, je n'entends établir d'ailleurs aucun rapport ethnologique entre l'homme du Sumidouro et les habitants de la Nouvelle Guinée. L'hypsisténocéphalie se retrouve chez les nègres africains, chez les populations malaisiennes, mais au moment, où je redigeais le mémoire actuel, les papouas étaient les seuls dont l'étude craniologique fut terminée. Voilà pourquoi j'ai cru intéressant de signaler la communauté de caractères existant entre ces groupes humains si distant dans l'espace et dans le temps." (Footnote 2, p. 329.)

upon everyone, that the skulls from Lagoa Santa have the character of American crania, the racial features of the still-living Indians. (Pp. 198-199.)

In 1885 a succinct report on his study of the whole collection of the Lagoa Santa crania preserved at Copenhagen is published by Ten Kate. After showing that these skulls are not as uniform as has been represented by Kollmann, who did not study quite all the specimens, the author says:

I accept willingly the view that the skulls of Lagoa Santa offer close analogies with other American series, notably with the Botocudos and natives of Lower California. (P. 243.)

The year 1888 sees the publication by the Lund Museum of a volume of the Danish studies on the Lagoa Santa remains, and this includes communications on the human bones by Lütken and Hansen.

Lütken, in an excellent exposition of the subject, is justly skeptical as to the great antiquity of the remains and avoids all speculation as to their racial affinities. In the same volume, however, Hansen publishes an exhaustive study of the Lagoa Santa human skeletal remains that are preserved in Copenhagen, and though he has no Melanesian materials for comparison, he accentuates Quatrefages' suggestion as to the resemblance of the Lagoa Santa skulls and bones to those of the Papuans. He says: The type of the skulls "corresponds perfectly to the Papuan type, a fact already announced by M. de Quatrefages in connection with the skull of Rio, but still more pronounced when one considers the whole series"; and, "The bones of the limbs indicate a small or medium stature but robust [body], a new resemblance with the Papuans."²⁵

Meanwhile, some especially interesting discoveries, which eventually give the theory of Oceanic blacks in America a certain standing, are reported from Lower California.

THE SKELETAL REMAINS OF LOWER CALIFORNIA

The finds in Lower California were initiated in 1883 by the visit to that region of one of the foremost students of the American natives of the latter part of the past century, Dr. Ten Kate. Part of the results of this trip was the collection, from caves on the island of Espiritu Santo and the neighboring coast, of seven skulls and a small series of other parts of the skeleton. In the caves the bones lay

²⁵ "Ce type correspond parfaitement au type Papou, fait déjà signalé par M. de Quatrefages pour le crâne de Rio, mais encore plus prononcé si l'on regarde toute la série au lieu de la seule pièce qu'il connût. . . . Les os des membres indiquent une stature petite ou moyenne mais très forte, ressemblance nouvelle avec les Papous." (P. 36.)

either free and mixed on the floor or were inhumed at but a slight depth from the surface. These remains were reported upon in 1884.

The main feature of the skulls is the exceptionally narrow and high vault. In various respects they resemble the skulls of the Melanesians, though they are even more dolichocephalic, but in others they resemble those of some American Indians. Ten Kate says further: "I have nothing in my collection of Lower California that would remind me of more or less Melanesian types *in the living*. All the individuals I saw had the characteristics of the various mixbloods and Indians that are found in Mexico in general."¹⁶,¹⁷ To which he adds: The old authors, speaking of the Indians of the Peninsula, say that "these much resembled other 'Mexicans', and that there were large differences in stature and skin color. . . . I have seen but two individuals reputedly legitimate Indians, an old lady who was of a noted Indian type such as may be found in almost any part of Mexico", and a man, of uncertain derivation. And if these two were Indians, "then surely there are still to the south of La Paz many Indians, such as those I met on the road and who call themselves 'gente de razon' and consequently Catholics, who presented Indian types much more marked than those of the above two individuals."

The main conclusions of Ten Kate in this article (1884) have been so misrepresented that they must here be quoted in the original. They are:

1. Il existait, dans la partie australe de la presqu'île californienne et les îles de la côte avoisinante, une race indigène dont le caractère le plus frappant est la réunion de la dolichocéphalie et l'hypsisténocéphalie;

2. Cette race se rapproche d'un côté des Mélanésiens; d'un autre côté, des races américaines se rapprochant le plus de la race dolichocéphale dont le type de Lagoa Santa est le représentant le plus ancien;

3. La race de la presqu'île de la dite morphologie céphalique était d'une taille un peu au-dessus de la moyenne (1^m, 65 environ). (Pp. 568-569).

In 1887 Ten Kate published in Mexico a second and similar paper on the anthropology of Lower California. After giving the measurements of the seven skulls dealt with in his earlier report, and of some

¹⁶ "Je n'ai rien dans mes souvenirs de la basse Californie qui me rappelle des types plus ou moins mélanésiens observés *sur le vivant*. Tous les individus que j'ai vus avaient les traits de métis et d'Indiens si variés que l'on trouve au Mexique en général."

¹⁷ "Plusieurs de ces caractères se trouvent plus ou moins prononcés sur des crânes mélanésiens et à en juger d'après l'impression générale de notre série, on croirait avoir affaire à des Mélanésiens. . . . Les auteurs anciens ne nous décrivent pas le type des Péricués en particulier, mais bien celui des Indiens de la péninsule en général. Ils disent qu'ils ressemblent beaucoup aux autres 'Mexicains' et qu'il y avait de grandes différences de taille et de couleur de la peau. Baegert a observé évidemment l'oeil bridé chez les Guaycuri."

bones, he says once more: "Many of these characters of the skulls are encountered, more or less marked, in Melanesian skulls, and to judge from the general impression of our series it might be believed that we were dealing with Melanesians." However, (p. 14) "if on one hand our Californian skulls offer similarities with the Melanesians, on the other they possess similar characters with those of certain American series", especially such as those of the Botocudo, the Patagonians, and the ancient Lagoa Santa group.

In 1888 Ten Kate publishes in *Science* an excellent critique of the paper in which Dr. Brinton attempted to deny the Mongoloid affinity of the American Indians. In this critique, based on extensive personal observations among both the North and the South American tribes, he unequivocally asserts his conviction of such an affinity, and has no word to say about the possibility of any other racial constituents on the continent.

In 1887 and 1889 the field is entered, once more, by Quatrefages. In these years he publishes two volumes on the "*Histoire générale des races humaines*". In the first volume (1887) he makes no reference to any Melanesian element in the region of Lagoa Santa or anywhere else in South America, but believes (pp. 145-146) that the Melanesian Negroes "have reached on one side Easter Island and on the other even California". His map of human migrations in the Pacific (opp. p. 144) fails also to show any oceanic human stream advancing beyond Easter Island toward South America. In the second volume, however, published in 1889, there are a number of references to Melanesian elements in the New World. So far as South America is concerned, but little is said in this connection, and that little is very vague or even negative; but there are some positive statements as to California.

On page 308 of this volume we read: The characteristics of the Lagoa Santa skulls "might make us think that the fossil race of Brazil belonged to the Negro type. But in the special memoir which I have devoted to the subject I have already stated that such an approach should be discarded."³⁸ He adds in the next paragraph:

In reality, among the present populations there are those that have preserved in a remarkable manner the craniological type of Lagoa Santa and are evidently

³⁸ "Des recherches encore inédits, que M. Hansen a bien voulu me communiquer, il résulte que la race américaine de Lagoa-Santa est bien décidément à la fois dolichocéphale et hypsisténocephale. En outre, la phototype que nous devons à MM. Lacerda et Peixoto nous la montre comme présentant un prognathisme très accusé. Au premier abord, la réunion de ces trois caractères pourrait faire penser que la race fossile du Brésil se rattachait au type nègre. Mais dans le mémoire spécial que je lui ai consacré, j'ai déjà signalé ce rapprochement comme devant être écarté."

representatives, at times but very little admixed, of this race. But none of these resemble the Negro in the general aspect, in color, in the hair, etc., while a large quantity of evidence shows them by all the external characteristics to be very close to certain of the yellow races.¹⁹

Struck by the resemblance of the dolicho-hypsistenocephalic skull type to that of the Eskimo, Quatrefages suggests that "the race of Lagoa Santa, as far as can be judged from the data we possess, might be considered as a simple group of the Eskimoid family."²⁰

Other references to the Oceanic blacks in this volume are as follows:

The blacks played but a small rôle in the constitution of the American races.²¹

The arrival of the Papuans in New Zealand and especially in California was incidental and

due, very probably, to some accident on the seas, to the carrying away of some canoes by the currents of New-Holland or the Kouro Sivo.²²

In Malaysia, the black element, so easy of recognition when pure, shows its intervention even after much crossing. In America, this element has disappeared everywhere, except in a very few and circumscribed localities.²³

The three fundamental types of humanity [white, yellow, black] are encountered therefore in America, as in Malaysia.²⁴

¹⁹ "En effet, parmi les populations actuelles, il en est qui ont conservé d'une manière remarquable le type craniologique de Lagoa-Santa et sont évidemment les représentants parfois assez peu métissés de cette race. Or, aucune d'elles ne ressemble au Nègre par le facies général, par le teint, par la chevelure, etc.; tandis qu'une foule de documents nous les montre comme étant très voisines de certaines races jaunes par tour leurs caractères extérieurs. C'est donc parmi les représentants de ce type qu'il faut chercher des affinités ethniques reliant les tribus fossiles à leurs descendants." (Pp. 308-309.)

²⁰ "La race de Lagoa Santa, à en juger par les documents dont nous disposons, pourrait être considérée comme un simple *groupe* de la *famille esquimale*." (P. 310.)

²¹ "Les Noirs n'ont été que pour très peu de chose dans la constitution des races américaines." (P. 335.)

²² "On ne saurait, je pense, attribuer en entier l'expansion des Papouas à l'initiative et à l'activité volontaire de ces insulaires. Leur arrivée à la Nouvelle-Zélande et surtout en Californie est due, bien probablement, à quelque accident de mer, à l'entraînement de quelques canots par le courant de la Nouvelle-Hollande et par le Kouro-Sivo." (P. 360.)

²³ "En Malaisie, l'élément noir, si facile à reconnaître lorsqu'il est pur, accuse son intervention même après de nombreux croisements. En Amérique, cet élément disparaît de partout, sauf sur un très petit nombre de points extrêmement circonscrits." (P. 550.)

²⁴ "Les trois types fondamentaux de l'humanité se sont donc rencontrés en Amérique comme en Malaisie." (P. 551.)

On pages 550-552 Quatrefages, now seriously influenced by the Ten Kate finds in Lower California, thus summarizes his views on the subject:

On the whole, America appears to have been peopled, for the larger part, by immigrants connected more or less with the yellow stem. Relations of all kinds existing between American aborigines and different Asiatic groups have been noted many times by a multitude of travelers who have seen and compared the two races. The European anthropologists have been able on different occasions to recognize the exactness of these relations.

Notwithstanding this he believes that there also came to the American coasts, through accidents of the sea, some blacks from the South Seas. And these blacks

have not all remained on the coasts. Some of their tribes have penetrated considerably into the interior of the continent. The ethnological map of M. Powers shows that the tribe of the Achomawis, among others, reached the Sierra Nevada and confines of the Shoshones. Judging from the following statement, which I take from Schoolcraft, they reached much beyond this and farther to the south. In 1775 the Padre Francisco Garcés visited Zuñi, one of the southernmost pueblos, and found there two races of men and two languages. One part of the inhabitants showed a clear red color and handsome features; the others were black and ugly. An instructed native, interrogated on the subject, replied that the red people had come from one of the pueblos that became ruined, while the blacks were the ancient inhabitants of the country. Thus at least at this point the Papuas, represented doubtless by mixbloods, have preceded the Pueblos, as they have preceded the Maoris in New Zealand. . . .

I have mentioned before the little that one can attribute to the African Negroes, and I do not return to that part. As to the Melanesian blacks, their rôle, although circumscribed, has been much more considerable. Already, the details given by La Pérouse on the natives in the environs of Monterey authorize plainly the admission that a black element had at least modified at that point the color of the local races. The information which we owe to Stephen Powers on several other Californian tribes should not leave place for the slightest doubt. It results from his descriptions that the color is, as was said by La Pérouse, perfectly or nearly perfectly black among the Yuroks, Karoks, Chillalas, Gallineros, Achomawis, etc. This author speaks, among other things, of the shiny and supple skin of some of these tribes, and compares them in this regard to the Ethiopian Negroes; and this character is in complete discord with what one observes in the yellow races. Unfortunately, Mr. Powers says nothing about the hair, nor about the form of the skull. But this last deficiency is filled by the discovery of M. Ten Kate. . . .

The California family is far from being homogeneous and should later on be divided. The three fundamental types of humanity, the black, the yellow, and the white, here encounter each other. We know that the representatives of the first have arrived by the sea from the Melanesian islands. As to the two others, at least on the whole, they came from the north. Possibly linguistics, interrogated on the point of the mixture of the black race with the yellow and white, will also give indications on the subject.

In addition to the above, Quatrefages came to believe in the presence and rather wide dispersion in pre-Columbian America of the early Norsemen, the Canary Islanders, and perhaps other contingents of the white race; in smaller accidental accretions of the African Negroes; in the presence of small elements of the Polynesians and Indonesians, and of larger numbers of the Chinese and Japanese.

In 1890, before the VIII International Congress of Americanists at Paris, Ten Kate (1892) returns once more to the question of the racial affinity of the American natives. In speaking on the "Question of Plurality and Parentage of the American Races", he expresses himself thus:

I maintain that the Americans, by the assemblage of their characters, belong to the yellow races and that they are, as the Malay and the Polynesians, congeners of the so-called Mongolic peoples of Asia. Moreover, I believe this to be the opinion of the majority of anthropologists, French as well as others. . . . I have not arrived at this conclusion until after I have seen and examined a great number. (P. 293.)

In 1917 Ten Kate still holds that "the somatic characteristics of the American Indians, taken as a whole, are those of the yellow races in general"; also that "one finds Americanoid types almost everywhere: in Siberia, in the Himalayas and the neighboring regions, in China, Japan, Indonesia, and Polynesia." He believes he can distinguish in America at least six principal or "primordial" and perhaps as many secondary "races"; some of which races, both principal and secondary, inhabit also certain parts of eastern Asia and Oceania. He makes no point of the occurrence of the seemingly Melanesian-like skulls about La Paz in Lower California, and there is no reference in the paper to Melanesian or other blacks.

In 1894 approximately 100 additional skeletal parts, including one skull, are brought from the east coast of Lower California by Léon Diguet and are shortly after that briefly reported upon by Deniker (1895). The skull resembles in the essentials those reported by Ten Kate; the bones indicate a stature, in the men, of about 162 cm.

These remains, together with nine other skulls and some bones from the same region brought by Diguet as a result of his second trip to Lower California in 1898, became the property of the Muséum d'Histoire Naturelle, Paris, and came to be studied, together with the Ten Kate material which is in the collections of the Société d'Anthropologie in the same city, by Paul Rivet. Utilizing also data on the small collection of Lower California remains preserved in the United States National Museum at Washington, furnished by Hrdlička, Rivet in 1909 published a handsome report on the materials.

He has obtained from the long bones the stature, for the males, of 164.4 cm; and the characteristics of the 18 available skulls, together with those of the other parts of the skeleton, lead him to the following deductions:

The Pericues [Lower Californians] differ from the American races in general and especially from the neighboring Indian populations in the proportions of their body and in a certain number of the characteristics of their skeleton, which appear to approximate them to Negritic peoples, without however showing a perfect identity with the latter.²⁵

The main features that present similarities with the blacks, in Rivet's opinion, are the lack of platycnemy in the tibia and the high pilasteric index of the femur, together with the relative shortness of the neck and the torsion of this bone. As to the skulls, there is no line of demarcation between those of the Pericues and those of the Indians farther north, the characteristics of the one group passing gradually into those of the others;²⁶ but he regards this as evidence of an infiltration of the southern type into the more northern.²⁷

Following Quatrefages, Rivet calls attention to the resemblance of the South California cranial type to that of the northern Eskimo on one hand, and to the Lagoa Santa skulls on the other, and then concludes that,

²⁵ "Ils différaient des races américaines en général et surtout des populations avoisinantes par les proportions du corps et par un certain nombre de caractères squelettiques, qui semblent les rapprocher des populations nigritiques, sans qu'il y ait toutefois identité parfaite avec celles-ci." (P. 212.)

²⁶ "On constate également de la façon la plus évidente que plus on s'éloigne de la Basse-Californie en allant vers le nord, plus l'indice cephalique tend à augmenter, et ce phénomène apparaît avec une netteté vraiment frappante. Ce fait, qui a été déjà signalé par Boas puis par Matiegka, ne laisse pas d'être assez embarrassant. En effet, étant donnée la continuité des termes de passage qui existent entre la forme hypsisténocéphale typique de Basse-Californie et les formes plus ou moins platymésati- ou platybrachycéphales de l'archipel septentrional, il est extrêmement difficile de faire des coupures dans un groupement en apparence aussi homogène, ou, en d'autres termes, d'indiquer une limite entre les variations extrêmes de deux ou plusieurs types humains réunis les uns aux autres, comme dans le cas précédent, par des formes de transition aussi nombreuses que possible. En réalité, le problème est insoluble si l'on s'en tient aux rapports métriques, c'est-à-dire aux indices, et pour le résoudre, il faut faire appel à la morphologie." (Pp. 239-240.)

²⁷ "Une infiltration du type hypsidolichocéphale s'est donc certainement produite vers le continent, plus accentuée, semble-t-il, que vers les îles, mais elle a été arrêtée et submergée par les flots d'une autre race à caractères tout à fait différents, et paraît de ce fait avoir été assez limitée." (P. 242.)

the Pericues of Lower California and the race of Lagoa Santa, with their multiple representations, belong to one and the same ethnic type, which is none other than the dolicho-acrocephalic Oceanic type of Biasutti and Mochi.²⁸

In the following pages (244-248) Rivet inclines gradually more and more to the conclusion that the Lower Californian and related types of man in the two Americas are of Melanesian origin, owing to ancient immigration from the Pacific; and that the differences they present from the parent stock and among themselves are due to local differentiations. He summarizes his views thus:

[The Lower Californians] connect closely with the South American race of Lagoa Santa. They present no less evident affinities with the hypsi-stenocephalic race spread over Melanesia and Australia. The differences which exist between the three varieties of the same race, both as to skull and as to skeleton, are explainable by the different conditions of life and different environment to which they have been subjected. The double hypothesis advanced by Ten Kate in 1884 finds therefore in all points a confirmation. (P. 248.)

This adds a strange and unexpected chapter to the whole subject. From this it would seem to be but a short step toward the conclusion that the Australians have actually reached pre-Columbian America, and this step, it will be seen, is not long in being taken.

Meanwhile, in 1877 and again in 1888, Rudolf Virchow, seeing the variety of American-Indian crania, reaches the belief that this indicates a heterogeneity of origin; but we find here, as so often before as well as later, an evident confusion of the concepts of "race" and "type". He says, in his earlier communication (p. 155):

The general craniological classification does not accordingly exclude the possibility that, at very different times, dolichocephalic as well as brachycephalic immigration into America took place. . . . The most dangerous of all is the acceptance of a uniform old American stock. . . . The "red race" is probably just as little uniform as autochthonous.

In 1888 he amplifies this statement thus:

Today I restrict myself to declaring that the physiognomic characters of the American heads [skulls] show a divergence so manifest that it is necessary to renounce definitely the conception of a universal and common type of the American aborigines. They, too, are a mixture of several original races, and the program of future researches will find its final expression in the separation of the different ethnic elements that have entered into the composition of the various living and extinct tribes. (P. 260.)

²⁸ "En définitive, les minimes différences qui existent au point de vue crânien entre les deux races hypsicéphales de l'Amérique du Nord et de l'Amérique du Sud me semblent explicables par l'évolution divergente d'un même type originel et les différences beaucoup plus marquées du squelette facial par des conditions de vie et surtout d'alimentation diverses, et je crois avec Ten Kate que les Péricues de Basse-Californie et la race de Lagoa-Santa, avec ses multiples représentants, appartiennent à un seul et même type ethnique, qui n'est autre que le type dolicho-acrocéphale océanique de Biasutti et Mochi." (P. 244.)

THE PUNIN AND TUNEBO SKULLS

In 1923 Mr. Tate, field assistant of the department of mammalogy, American Museum of Natural History, found in a ravine near the village of Punin, central Ecuador, a human cranium without the lower jaw (Sullivan and Hellman, 1925). The skull lay "in a low bank, directly over the water-course of the Quebrada Chalan, down which a trickle of water flows normally but which is subjected to torrential violence when rains are heavy." The bank at this point was about 6 or 7 feet high, and the skull appeared "under conditions which suggested but offered no definite proof of considerable antiquity". (P. 314.) The specimen, which upon being taken out broke under its own weight, was brought to the American Museum and repaired and examined by Sullivan, while the dental arch and teeth were studied by Hellman.

The cranium is defective, especially in the facial parts, and lacks the lower jaw. It appears to have certain resemblances to an Australian skull. The conclusion of the authors is as follows:

While the skull is undoubtedly American in the sense that the Lagoa-Santa, Pericue, and Paltacalo material is American, it is not a common American calvarium; . . . In so far as the calvarium under discussion is concerned, we can only say that there is absolutely no basis for excluding it from a series of Australian or Tasmanian crania and every reason for including it. It is quite possible that if we had the mandible and other parts of the skeleton our decision might be different. We wish to emphasize particularly the point that in claiming that this calvarium is Australoid we have in mind a basic racial relationship and do not believe that it necessarily represents migration from Australia or Melanesia. We feel that unless this is indeed a very remarkable case of parallelism this type in America and the similar type in Australia and Melanesia are derivations of the same basal racial stock. (Pp. 321-323.)

The statements in the last two sentences are not readily understandable, and no effort is made to explain them.

The author who, next to Rivet, takes the most pronounced stand on the subject of the presence of Melanesians in America, is the esteemed veteran of French anthropologists and Rivet's close friend, R. Verneau (1924). In 1922 he receives from a missionary two Indian skulls from Colombia. One of these is deformed, but the other, that of a recent "Tunebo Indian" who died of a snake bite and whose body was abandoned by his friends, is normal. The skull is large (capacity 1705 cc²⁰) and the principal measurements of the vault are: length max., 19.1; breadth max., 13.3; and basilo-bregmatic height, 13.9 cm.

²⁰ This must be an error; the outside dimensions of the skull indicate a capacity in the neighborhood of 1550 cc.

Except for the capacity, Verneau finds these dimensions to be very close to those of the Papuans and especially the Malicollo Islanders of New Hebrides; there are also Melanesian resemblances, together with some differences, of visual character. The facial parts and particularly the facial breadth are somewhat less like those of the South Seas blacks.

Though conscious of the danger of drawing deductions from a single skull, Verneau nevertheless feels justified in concluding that the Tunebo cranium reproduces the Papuan type. Compared with those of different Melanesians, and more particularly with a selected skull of a Papuan, the specimen in question shows various differences, but these may individually be encountered in other Melanesian crania and hence do not affect the conclusions. "Our Tunebo", he says, "offers such a sum of characters identical with those of the Papuans that the few differences it presents—which can only correspond to individual variations—do not in any way authorize its separation."³⁰

A further support is given also to the Papuan resemblances of some of the crania from Lower California. "All in all," Verneau decides, "it now appears no longer permissible to doubt the great extension of the Papuan type in the New World. Its traces it was found possible to follow, in space, from Lower California to the southern extremity of the continent and from the Atlantic to the Pacific; in time, from the epoch of the race of Lagoa Santa to our day." Verneau admits, it is true, that there are still "many gaps in our knowledge" on the subject, and that "nothing is known as to the mode of the Papuan migration"; but those are his only concessions.³¹

OTHER FINDS

In 1924, also, Lebzelter reports, before the Göteborg assembly of the Congress of Americanists, on a normal male adult Ona skull collected by Father Gusinde. The specimen is contrasted with the casts of one Tasmanian skull, one Lagoa Santa skull, and the Chapelle-aux-

³⁰ "Notre Tunebo offre une telle somme de caractères indentiques à ceux des Papouas que les quelques particularités qu'il présente—et qui peuvent ne correspondre qu'à des variations individuelles—n'autorisent nullement à l'en séparer." (P. 378.)

³¹ "En résumé, il ne semble plus permis de douter, à l'heure actuelle, et la grande extension du type papoua dans le Nouveau Monde. Ses traces ont pu être suivies, dans l'espace, depuis la Basse-Californie jusqu'à l'extrémité australe de l'Amérique, et de l'Atlantique au Pacifique; dans le temps, depuis l'époque où la race vivait à Lagoa-Santa jusqu'à nos jours. Certes, il existe encore beaucoup de lacunes dans nos connaissances, mais que de progrès ont été accomplis depuis le jour où A. de Quatrefages a attiré l'attention sur la question." (P. 382.)

Saint Neanderthal cranium. The results indicate, in Lebzelter's opinion (1925), that the Ona specimen in many respects shows a primitive, "so-to-speak, Australoid" type, though "of course the specimen did not belong to a representative of that race; it is on the whole of a highly developed type, but one which presents a large number of primitive characters."³² On the purely morphological grounds of the available material it does not seem to Lebzelter very probable that unmixed Australoids had ever been present in South America,

for we know up to the present not a single skull that could be attributed to the Austro-Melanesian race; we know only American crania with more or less primitive "Australoid" features. . . . Should an Australoid element in South America be ever surely determined, we should then have to accept the fact that in the three southernmost parts of the inhabited world there exist the remains of one and the same racial group which, following anthropological usage, we call the "Australoid" group.³³

³² "Wir finden also an dem untersuchten Schädel eine solche Menge primitiver Merkmale, dass die Annahme, dass innerhalb der Onabevölkerung auch Erbanlagen einer sehr primitiven, sagen wir 'australoiden' Rasse vorhanden sind, wohl nicht umgangen werden kann. Freilich gehörte der untersuchte Schädel nicht zu einem Vertreter dieser primitiven Rasse, sondern wir haben einem im ganzen hochentwickelten Schädeltypus vor uns, an dem bloss eine grosse Anzahl primitiver Merkmale vorhanden sind." (P. 429.)

³³ "Das Vorhandensein dieser 'primitiven' Züge lässt sich nicht leugnen. Die Frage ihrer Herkunft kann verschieden beantwortet werden. Einmal kann das Auftreten solcher primitiver Merkmale in die natürliche Variationsbreite sowohl der Eskimos wie der Dolichoiden Süd-Amerikas fallen. Diese beiden Rassen hätten sohin als Ganzes eine Reihe primitiver Erbanlagen. Die zweite Möglichkeit besteht darin, dass diesen beiden Rassen oder zumindest doch den südamerikanischen Dolichoiden ein primitives, sagen wir 'australoides' Rassenelement beigemischt ist. Dabei bleibt zu erwägen, ob diese Beimischung bereits vor der Besiedlung Amerikas erfolgte, oder ob die Einwanderer auf eine australoide Schichte gestossen sind, die schon früher vorhanden war. Nach der rein morphologischen Betrachtung des vorliegenden Materiales erscheint es nicht sehr wahrscheinlich, dass es in Süd-Amerika jemals unvermischte Australoide gegeben hat, denn wir kennen bisher keinen einzigen Schädel, der etwa der austromelanesischen Rasse zugezählt werden könnte; wir kennen nur amerikanische Schädel mit einer grösseren oder geringeren Zahl primitiver 'australoider' Merkmale. Dies würde darauf hindeuten, dass die Beimischung australoider Elemente sehr weit zurückliegt und quantitativ nicht bedeutend war. Die Anthropologie allein wird nicht in der Lage sein, diese Frage zu lösen, hier müssen geographische und historische Erwägungen eingreifen. 'Australoide' Rassen waren in vergangener Zeit viel weiter verbreitet. Wir wissen, dass sich die Neanderthal-Rasse von Mitteleuropa bis zum Kaukasus und bis nach Süd-Afrika ausgedehnt hat. In Süd-Afrika hat neuerdings R. Broom australoide Einflüsse nachgewiesen.

"Sollte sich wirklich auch in Südamerika ein 'australoides' Element mit Sicherheit nachweisen lassen, dann hätten wir an den drei südlichsten Enden der bewohnten Welt die Reste ein und derselben Rassengruppe anzunehmen, die wir nach wissenschaftlichen Brauch die 'australoiden' Gruppe nennen." (P. 434.)

LATEST THEORIES

About this same time there is another communication on Polynesian and Melano-Australian elements in America by Rivet, and the evidence begins now to be extended also to the philological and cultural realms. The paper is published in 1924 and reprinted in 1925. In the former we read as follows:

A North American [Hoka] and a South American [Tson] linguistic group can be attached, respectively, to the Melano-Polynesian and the Australian families.

In 1909, taking up again an idea advanced once by Ten Kate and de Quatrefages, I have demonstrated that, by their osteological characters, the ancient inhabitants of the southern part of Lower California and the South American race called Lagoa Santa, presented very clear affinities with the hypsistenocephalic race of Melanesia, and this thesis has recently been entirely confirmed by R. Verneau. . . . Graebner, E. Nordenskiöld, and Father Schmidt pointed out the remarkable similarities which exist between the American and the Melano-Polynesian civilizations.

The date when the Australians and Melanesians arrived in America cannot, naturally, be fixed with precision; but it is at all events possible to affirm that it was very ancient. . . . When the Europeans arrived in America the "uniformization" in the aspect of the American tribes had already been realized under the double influence of the environment and of mixture (the latter having been surely the most efficacious); and it must have required many centuries for this result to be attained.³⁴

An especially definitive article on the problem under consideration, by Rivet, appeared in 1925 in *L'Anthropologie*. The paper is a terse

³⁴ "Un groupe linguistique nord-américain et un groupe sud-américain peuvent être rattachés respectivement à la famille mélano-polynésienne et à la famille australienne." (P. 336.)

"En 1909, reprenant une idée autrefois émise par Ten Kate et par de Quatrefages, j'ai démontré que, par leurs caractères ostéologiques, les anciens habitants de la partie méridionale de la péninsule californienne et la race sud-américaine, dite race de Lagoa Santa, présentaient des affinités très nettes avec la race hypsisténocéphale de Mélanésie, et cette thèse a été entièrement confirmée récemment par R. Verneau. . . . Graebner, E. Nordenskiöld et le Père Schmidt ont signalé les similitudes remarquables qui existent entre les civilisations américaines et mélano-polynésiennes." (P. 339.)

"La date à laquelle les Australiens et les Mélanésiens sont arrivés en Amérique ne peut être naturellement fixée avec précision. On peut affirmer toutefois qu'elle est très ancienne. . . . Lorsque les Européens sont arrivés en Amérique, cette uniformisation d'aspect des tribus américaines était déjà réalisée sous la double influence du milieu et du métissage (cette dernière ayant été certainement la plus efficace); or, il a fallu, sans aucun doute, de nombreux siècles pour que ce résultat soit atteint." (Pp. 340-341.)

discussion of the whole subject. It presents no new facts. The author marshalls succinctly all the hitherto given physical, as well as certain cultural and linguistic items of evidence that apparently favor the theory of ancient Melanesian-Australian influx to the American continent, as well as some of the objections, and concludes:

There are now certain proofs that four elements have entered into the formation of the American people:

An Australian element;

An element attached linguistically to the Malayo-Polynesian and by its physical characteristics to the Melanesian group;

An Asiatic element, doubtless the most important, which gave the people of the New World in general a certain uniformity of external aspect; and

An Uralian element, represented by the Eskimo.

The order of the coming of these different elements seems to have been that in which they are here enumerated.⁸⁵

In 1926 the problem of Australoid immigration into South America is dealt with by Corrêa (1926 a). The Wegener hypothesis of movements of the continents leads Corrêa to the belief that South America at one time had a land connection with Australia through the intermediary of the since displaced and severed Antarctica, and that man from Australia and Tasmania reached America over the land and over the small straits, canals, and islands that marked the former continuity of the continental masses.⁸⁶

In 1926, too, Corrêa presents his views more amply and explicitly at the XXII International Congress of Americanists in Rome. He offers no original observations, but combats the view of the basic unity of the American race and formulates thus his conclusions:

Anthropological, ethnographical, and linguistic analysis permits us to believe that the genesis of the pre-Columbian populations of America involves the intervention of divers ethnic strata. It is possible to distinguish, dispersed among

⁸⁵ "En résumé, on a maintenant des preuves certaines que quatre éléments sont intervenus dans la formation du peuple américain:

"Un élément australien;

"Un élément de parler malayo-polynésien se rattachant par ses caractères physiques au groupe mélanésien;

"Un élément asiatique, sans doute de beaucoup le plus important, qui a imposé à l'ensemble des habitants du Nouveau-Monde une certaine uniformité d'aspect extérieur;

"Un élément ouralien, représenté par les Eskimo.

"Il semble que l'ordre d'arrivée de ces divers éléments soit celui dans lequel je viens de les énumérer." (P. 311.)

⁸⁶ . . . ficava "a possibilidade da passagem do Homen, que transporia mais facilmente pequenos estreitos e canais e aproveitaria istmos, penínsulas e ilhas que marcavam, como ainda hoje algumas o fazem, a anterior continuidade dessas massas continentais." (P. 229.)

the American Indians in variable degrees, Asiatic (Mongoloid and non-Mongoloid), Melanesian, Polynesian, Caucasoid, and Australian affinities. I believe the first to be the clearest, the last most attenuated. There have also been mentioned [in connection with America] Pygmies, or Negritos. This problem awaits solution.³⁷

Regarding the Australia-Antarctic-South America route for human immigration—"the topographic, biogeographic, paleontological, and anthropological considerations render the utilization of this route very probable"; though he is aware of the conjectural nature of his hypothesis and of the fact that its adoption demands objective proofs.³⁸

In the same year Rivet (1926 c) discusses the problem of the way of the supposed Australian migrations toward the American continent. He states that during the last few years it has been possible to "establish", by anthropological, ethnographic, archeological, and linguistic means, immigrations of Malayo-Polynesian, Melanesian, and Australian contingents into the New World, but that the mode of coming of the Australians offers still considerable difficulties. They, as well as the Tson (the Patagonians, the Onas), their South American "relatives," knew but primitive means of navigation which were insufficient for any long sea voyage, and there is no indication that they possessed anything superior in this respect in the past. The coming of the Australians by way of the Bering Strait must be excluded—there are no traces of them on the way. There remains the southern route suggested by Corrêa, over the islands and waters of the Antarctic, which may have presented a different configuration in the past, due possibly to a greater ice extension. The material evidences of such migration remain to be determined.

³⁷ "L'analyse anthropologique, l'ethnographie, la linguistique, nous permettent de croire à la genèse des populations précolombiennes de l'Amérique en admettant l'intervention de diverses stratifications ethniques. On peut démêler parsemées, en degrés variables, chez les Indiens de l'Amérique des affinités asiatiques (mongoloïdes et non-mongoloïdes), mélanésiennes, polynésiennes, caucasoides, australiennes. Je crois que les premières sont les plus nettes, les dernières les plus atténuées. On a parlé aussi de Pygmées, voire de Négritos. C'est un problème à résoudre." (P. 107.)

³⁸ "Mais les considérations topographiques, biogéographiques, paléontologiques et anthropologiques rendent très vraisemblable l'utilisation de cette voie d'accès. . . . Certes l'adoption définitive de mon hypothèse exige préalablement des documents objectifs de l'utilisation de cette voie par l'homme. Il faut cependant espérer qu'on obtiendra dans l'avenir ces documents, dont un grand nombre sont peut-être ensevelis sous les glaces mystérieuses des terres antarctiques." (P. 116.)

"Je ne conteste pas le caractère conjectural de plusieurs de mes considérations. On n'oserait pas donner comme déjà établie la voie de transit dont j'ai présenté l'hypothèse. Mais je n'hésite pas à considérer celle-ci comme légitime et très vraisemblable." (P. 118.)

In 1926 in *Scientia*, Rivet, although not bringing any new evidence, states his beliefs with especial emphasis. All the hypotheses that endeavor to explain the coming of man to America over since-vanished continents may now be eliminated, for such disappearances, in the unanimous view of the geologists, were all anterior to the Quaternary period. The American Indians are not autochthonous. They did not have a unique [single] origin, but have suffered the dominant influence of a race which, in a certain measure, has produced uniformity of their external aspect; and they did not reach America before the end of the paleolithic period. There were three main ethnic elements that entered into the formation of the pre-Columbian American population, namely: the Australian; a group speaking a Malayo-Polynesian language but physically connected with the Melanese; and, by far the most important, an Asiatic element, in which may be distinguished two related groups, one Uralian (Eskimo) and the other Sino-Tibetan (NaDene). The order of arrival of these elements on the American continent appears to have been that in which they are enumerated.

In 1927 Rivet, basing his conclusions on the Lagoa Santa skulls, on a collection of crania from limited localities in Ecuador and in Lower California, and on certain ethnographic and linguistic data, comes to a "renewed conception" of the peopling of America:

Surely, the Asiatic element here plays the principal rôle, but henceforth a part must also be assigned to a Melanesian and an Australian element. . . . The American aborigine appears therefore as a product of very diverse ethnic elements, among which the Asiatic was manifestly the dominant one.³⁹

Rivet reaches further interesting conclusions as to the times of the immigration into America. Nothing to date, he believes, authorizes us to suppose that the first occupants reached America before the

³⁹ "De cet ensemble de fait découverts en quelques mois, se dégage une conception renouvelée du peuplement de l'Amérique.

"Certes, l'apport asiatique y joue toujours le rôle principal, mais une part doit être faite désormais à un apport mélanésien et à un apport australien. En outre, la notion assez vague d'une migration asiatique s'est précisée, au moins en partie, puisque, dans la masse de ces émigrants, on peut maintenant discerner des Sino-Thibétains et des Finno-Ougriens.

"L'homme américain apparaît donc comme le produit d'éléments ethniques très divers, parmi lesquels l'élément asiatique a manifestement été dominant. C'est cet élément qui a donné à l'Indien cette uniformité d'aspect tout extérieure, sous laquelle une observation attentive découvre un extrême polymorphisme, manifeste non seulement dans le type physique, mais dans la civilisation et dans le langage." (Pp. 22, 23.)

end of the glacial epoch.⁴⁰ The routes from Asia were across Bering Strait and the Aleutians. They were certainly followed at all subsequent times and have served for many human waves.⁴¹ The Melanesian migration must have been over the seas and was certainly very ancient.⁴² The Australians came, about 6,000 years ago, along the shores of the Antarctic.⁴³

The theory, it is seen, has developed.

FUEGIANS

A study of 47 Fuegian skulls in Gusinde's and certain European collections, together with some Australian materials, led Gusinde and Lebzelter in 1927 to the following somewhat ambiguous conclusions:

The general impression conveyed by the somatological status of each of the three Fuegian tribes is unequivocally that of what is characteristic of the Ameri-

⁴⁰ "Aucun fait ne nous autorisant à supposer à l'heure actuelle que le Nouveau Monde ait reçu ses premiers occupants avant la fin de l'époque quaternaire, il est certain que les voies d'accès que l'homme a pu emprunter étaient sensiblement les mêmes qu'aujourd'hui et nous devons renoncer à supposer qu'il ait utilisé des terres ou des continents disparus à des époques géologiques antérieures." (P. 23.)

⁴¹ "Pour la migration asiatique, la route naturelle a été celle du détroit de Behring et du chapelet des îles Aléoutiennes. Elle a été certainement suivie à toutes les époques et a livré passage à de multiples vagues humaines." (P. 23.)

⁴² "La migration mélanésienne a dû, par contre, être essentiellement une migration maritime, transpacifique. Pour un peuple qui avait occupé successivement toutes les îles de la Polynésie, jusques et y compris l'île de Paques, atteindre la côte américaine n'était presque qu'un jeu. J'ai, d'ailleurs, montré que les successeurs des Mélanésiens, les Polynésiens, n'avaient pas perdu le secret de cette route vers les terres de l'est et entretenaient avec l'Amérique du Sud des relations commerciales, à la faveur desquelles des échanges culturels et des emprunts de plantes utiles (notamment le cocotier et le calebassier) se sont réalisés.

La date de la migration mélanésienne ne peut naturellement être fixée d'une façon absolue. Elle est certainement très ancienne, tout d'abord parce qu'il a sans doute fallu beaucoup de temps pour que cet élément ethnique soit absorbé par les immigrants asiatiques, absorption déjà réalisée au moment de la découverte de l'Amérique, et aussi parce que des éléments culturels mélanésiens typiques apparaissent sur la côte péruvienne dès les horizons archéologiques les plus anciens. C'est tout ce que, pour l'instant, on peut se hasarder à dire." (P. 23.)

⁴³ "L'arrivée d'un élément australien en Amérique s'explique beaucoup plus difficilement, car les Australiens sont et ont toujours été de mauvais navigateurs et n'ont jamais possédé d'embarcations permettant de longues traversées.

"Après avoir envisagé plusieurs hypothèses, je me suis finalement rallié à l'idée suggérée par Mendes Corrêa. Selon lui, les Australiens auraient gagné l'Amérique en suivant les rives de l'Antarctique et en utilisant les chapelets d'îles qui relie ce continent à l'Australie d'une part, à l'Amérique d'autre part. Il est possible, en effet, qu'au moment de l'optimum postglaciaire, les conditions

can race; the tall Selk'nam, especially, show far-reaching analogies with the Tehuelche of Patagonia, while the smaller, more pygmoid Yamana and Hala-kwulup resemble some of the shorter-statured Indian tribes of northern South America, especially in the interior of Amazonas. However, notwithstanding this more general outer equality, there appeared on closer study various unmistakable peculiarities which have the status of racial features." (Pp. 259-260.)

On the basis of a relatively considerable amount of Australian and Fuegian material it has become possible to draw the broad conclusion that in the structure of the individual bones, as in the total build of the cranial vault, there are extensive similarities, similarities that for the most part extend also to the Neandertal races. On the other hand, however, there is found, as apparent from the dimensional determinations, a smaller series of characteristics which the Fuegians share with the Neandertalers but not with the Australo-Melanesians. These facts indicate in what light the relations of these groups must be appraised: they point undoubtedly to an original connection; they all denote a certain original style of the structural plan, which manifests itself to small details. This assumption receives further strengthening and support from the study of the facial parts of the skull. (P. 266.)

THE "MELANESIANS" OF BOLIVIA

While the above reports were accumulating, a new "Melanesian" focus developed in eastern Bolivia. Called to the country by the University of La Paz about 1925, Dr. Richard N. Wegner visited Bolivia, observed some of the native tribes of the country, and believed that he saw or learned of physical types among them that resembled the Melanesians.

In 1927 he published a brief account of these types, with six photographs of individuals. He has not seen the people in question, the photographs having been taken by Engineer R. Gerstmann, who had met with a small group and who furnished Wegner both the pictures and the information concerning them. They belong to certain nomads, small parties of which, surrounded by Indian tribes, roam through the forests of eastern Bolivia between the Piray and Grande Rivers. They are described as in some instances rather tall (one man 1.78 meters), with markedly wavy hair and a strong growth of beard. They also show thick lips, low root of the nose, flat nose with transverse apertures, dark, Negroid skin color; but they are asserted to have "not the least to do" with the now widely spread Negroes in the area. To find such a "strongly differing race" among the Indian tribes of the region is, in the opinion of Wegner, of "sensational"

climatiques de ces régions, aujourd'hui si inhospitalières, aient pu permettre le passage d'une migration humaine. Dans cette hypothèse, l'exode australien vers l'Amérique remonterait à 6.000 ans environ." (P. 24.)

"die als Rassenmerkmale sich ausgaben".

interest to science. In many points he sees their striking resemblance to types of the southern seas, particularly those of New Guinea, both the Negritos and the Papuans.

In 1930 Wegner states further his belief that he had also seen in the Quruñgá traces of an older and lower race, which reminded him of the Papuans or South Sea islanders.

The above reports have drawn attention anew to the tribes mentioned, especially to the Siriono. These groups, however, were not unknown before. They are dealt with rather thoroughly, in fact, by Father Cardús, one of the Franciscan missionaries among the tribes of eastern Bolivia. Writing of the years 1883-4, Father Cardús says:

The Sirionos are of the Guarani race, and their language is very much like that of the Guarayos. They are very savage and ferocious, and live dispersed over the forests and pampas along the streams and about the lakes of the region between the lands of the Bibosí, Guarayos, Carmen y Loreto de Mojos, and the Piray River. . . .⁴⁵

The Sirionos are dark in color like the Guarayos, or possibly somewhat paler, for the reason that they are nearly always in the shade of trees. Some few were encountered who could be taken for Whites and with blue eyes, but this is due to the fact that such individuals were taken as children from some ranch or settlement of the Whites. There has also been seen among them a Negro, a son, we suppose, of some Negro deserter of the army in the time of the "independencia". There are also among them some families of different origin, whose language the Guarayos cannot understand. They are probably of the Mojo race and live in every way as the others.⁴⁶

What we are most sure of is that formerly the Sirionos did not do such harm as at the present and that at various places they came to beg something from travelers, without molesting the latter. It appears that the Whites were the first to hurt them, especially the traders, who through fear and cowardice started to shoot at them with their guns to drive them away from the forests and the roads; which certainly could not have been very agreeable to these savages who, like all the rest, are so suspicious and revengeful. The fact is that at present the Sirionos are very inimical to all the Whites as well as to

⁴⁵ "Los *sirionos* son de raza guarani, y su lengua es muy parecida á la de los guarayos. Componen una tribu muy salvaje y feroz, y viven diseminados por los bosques, pampas, rios, arroyos y lagunas comprendidos entre las cercanías de Bibosí, Guarayos, Carmen y Loreto de Mojos, y el rio Piray." (Pp. 279, 280.)

⁴⁶ "Los *sirionos* son de color moreno como les guarayos, y tal vez un poco más pálidos, por razon de estar casi siempre bajo la sombra de los árboles. Se han encontrado unos pocos que podrian decirse blancos y con ojos azules, pero esto se debe á que siendo chicos han sido llevados de alguna estancia ó pueblos de blancos. Tambien se ha visto algun negro entre ellos, que suponemos ser hijo de algun negro deserter de la tropa en tiempo de la independencia. Hay tambien entre ellos algunas familias de diferente origen, cuya lengua los guarayos no pueden entender. Probablemente son de raza mojena, y viven en todo como los demás." (P. 280.)

all the other Indians, and that they do not want to talk with anyone nor to see anybody except, if they can, to discharge an arrow at them.⁴⁷

Koch-Grünberg (1906), referring to the many little-known hordes roaming the primeval forests of eastern Bolivia and neighboring regions, though not mentioning the Siriono, believes that they all belong to the great poorly defined group known by the opprobrious name of "Makis" and representing the remains of the old original population of the territory.⁴⁸ A portrait of a Makú (p. 180) shows a typical Indian; but two other pictures—one that of a woman from the same river (Tiquié) as the Makú (p. 179), the other of a youth from the Rio Ica—show a decided Negro (African) admixture.

In 1911 the Siriono and their material culture were briefly dealt with by Nordenskiöld. They have a rather wide distribution, are treated roughly by the Whites, and are feared and hated by the surrounding Indians. It is not certain whether all that are called "Siriono" in Bolivia belong to one tribe. They have been mentioned in literature since 1839 (D'Orbigny). Their language is said to be corrupted Guarani, but they seem also to have another language. Nordenskiöld saw two Siriono youths, one of whom he pictures. His skin was of the same brown as that of the Guarayu Indians. The hair of the second youth was somewhat brownish, and his skin was unusually light, like that of "a strongly anaemic White who has lived long in the Tropics".

The Siriono seem to Nordenskiöld to belong to the Makú tribes; they are probably "primitive Indians who as a result of their contacts with Guarani-speaking fugitives were largely 'Guaranized'."

⁴⁷ "Lo que sabemos mejor es, que antes los sirionos no hacian tanto daño como ahora, y que en varios lugares salian á pedir algo á los viajeros, sin molestarlos. Parece que los blancos han sido los primeros en molestarlos á ellos, principalmente los comerciantes, quienes por temor y por cobardía empezaron á dispararles algunos tiros con armas de fuego, para alejarlos de las pascanas y caminos; lo cual no podia ciertamente agradar mucho á unos salvajes que, como todos los demás, son tan desconfiados y vengativos. El hecho es que actualmente los sirionos están muy enemistados con todos los blancos y con todos los demás indios, y que no quieren hablar con nadie, ni ver á nadie sin que, si pueden, no les disparen un flechazo." (P. 282.)

⁴⁸ "In der Tat versteht man unter diesem Sammelnamen eine ganze Anzahl von Horden mit sehr voneinander abweichenden und sehr primitiven Sprachen, die eine ganz neue Gruppe darstellen. Ich möchte alle diese niedrigstehenden Horden, die sich somatisch sehr von den übrigen Stämmen dieser Gegenden unterscheiden, auch kulturell einen durchaus altertümlichen Charakter tragen und sich über ein riesiges Gebiet, sozusagen von Manáos bis zu den Ande ausdehnen, für die Reste einer sehr ursprünglichen Bevölkerungsschicht halten." (P. 180.)

The hair of the second youth as pictured by Nordenskiöld (plate 6) is curly, and his aspect, in the opinion of the present writer, is that of an Indian-Negro mixblood.

Finally—as a result of a trip to Chile and Bolivia and the examination of considerable skeletal material from those countries, Dr. O. Aichel reported that he had found “interglacial man” and “Neanderthaloid types”, but failed to obtain evidence of either Australian or Oceanic immigration. (Aichel, 1932.)

CRITIQUES

The subjects dealt with in this paper have never as yet received a thorough discussion. A sensible, broad and well-documented exposition of the whole subject of the peopling of America appeared in 1922 from the pen of the respected veteran French anthropologist, Henry Vignaud; and the most relevant section of the treatise leaves no doubt as to the conclusions of the author. It reads as follows:

A number of these scientists believe that Malayo-Polynesian [term used often by Rivet] immigrations have sensibly modified the primitive yellow type of the American Indians, who would thus form today but a mixed race. We believe that the most recent researches do not justify this opinion. We know nothing of the migrations to which is attributed such a great importance, and the proof that they had any influence on the formation of the American physical type is completely wanting. In our opinion, this type has remained what it was originally—the type of a branch of the great original yellow race, and one that has suffered the least through environment and through contacts with foreign elements.⁴⁹

Noteworthy as the above statement was, it received scant or no attention, and new contributions to the Malayo-Polynesian and Melano-Australian theories followed.

A mildly critical discussion, based on historical, cultural, and linguistic evidence, of the problem of Australian, Melanesian, and Malayo-Polynesian presence in pre-Columbian South America, was published in 1930 by the well-known Americanist, Walter Lehmann. In this

⁴⁹ “Plusieurs de ces savants croient que des émigrations malayo-polynésiennes ont sensiblement modifié le type jaune primitif des Indiens américains, qui ne formeraient plus aujourd’hui qu’une race métisse. Nous pensons que les plus récentes recherches ne justifient pas cette opinion. Nous ne savons rien de ces migrations auxquelles on attribue une si grande importance et la preuve qu’elles ont exercé une influence quelconque sur la formation du type physique américain manque complètement. Selon nous, ce type est resté ce qu’il était originellement, et c’est celui de la branche de la grande race jaune primitive qui a subi le moins l’influence des milieux et des contacts avec l’étranger.” (P. 25.)

discussion due notice is taken of the assumed evidence on the subject, including the vague early references to "blacks" in the Darien region and elsewhere, as well as of all the seeming proofs advanced by Rivet, but they are found wanting, and the author, while not closing the door to any possible new and more satisfactory evidence, remains in general unconvinced or skeptical. Speaking of the supposed relations of the Chon (Patagonian and Ona) with the Australian languages, he says:

It remains uncertain whether the word comparisons of Rivet do justice to the realities of the languages used. . . . The dictum of Wilhelm von Humboldt that such comparisons should not be trusted readily is true even today. . . . For the present it cannot yet be said that the similarities he [Rivet] brings forth can be regarded as assured facts.⁵⁰

As to the ethnographical resemblances enumerated by Rivet, Lehmann is of the opinion "that it is still too early to draw, from his comparisons, any valid conclusions."⁵¹

The question of the Darien or other "Negroids" is undecided; the subject calls for further investigation.

An able treatment of the subject of migrations to America from the Pacific was presented in 1933 by Roland B. Dixon,⁵² one of the foremost American ethnologists. His principal conclusions on the problem were as follows:

It has been seen that the claims for similarity between American and Oceanic traits are in the majority of cases only superficially true. The resemblances, so far as they exist, are analogies and not homologies, and as soon as one studies details, the differences are found to be both significant and fundamental. (P. 344.)

A further point of significance is that if we are to explain the presence of these Polynesian or Melanesian traits in America as due to diffusion, why do we not also find here other traits equally or even more characteristic of the supposedly immigrant peoples? (P. 345.)

I believe, therefore, that quite apart from the lack of validity of many of the analogies claimed between American and Oceanic cultural traits, the practical difficulties in the way of diffusion as an explanation are well-nigh insurmountable. (P. 351.)

⁵⁰ "Es bleibe dahingestellt, ob die von Rivet versuchten Wortvergleichen dem wirklichen Wesen der herangezogenen Sprachen gerecht werden. . . . Noch heute gilt der Ausspruch Wilhelm von Humboldts zu Recht, dass man sich derartigen Vergleichen nicht leichtgläubig anvertrauen darf. . . . Es kann heute noch nicht gesagt werden, dass die von ihm aufgestellten Gleichungen als gezeichnete Tatsachen angesehen werden dürfen." (P. 326.)

⁵¹ "dass es noch verfrüht ist, aus den von ihm vorgenommenen Vergleichen irgendwelche endgültigen Schlüsse zu ziehen."

⁵² The question of possible Polynesian voyages to America is discussed more especially by this author in his paper published in 1934.

When all the many instances are sifted and critically weighed, there remains a very small residue of, perhaps, two or three which render the acceptance of trans-Pacific contact not only just, but apparently inescapable, although the *modus operandi* is still very difficult to understand. Such contacts as did occur were, however, limited I believe to Polynesia; I know as yet of no valid evidence for any with Melanesia or beyond. But although Polynesians did thus very rarely, and probably at long intervals, make such contacts with the people of South America, the net result was negligible so far as America as a whole or South America in particular was concerned; and the claims of the diffusionists for the far-reaching influences of trans-Pacific cultural diffusion must, I believe, be disallowed. (P. 253.)

The latest (1934) discussion of the subject dealt with in this treatise is contained in Von Eikstedt's "Rassenkunde". Regarding the Melanesians, this author is skeptical so far as the Lagoa Santa and other South American groups are concerned; the cranial resemblances mean merely a partial convergence; but, basing his belief on some mentions of "blacks" in the early writers,⁵³ he accepts readily the presence of true "Melanesoids" in Darien and Lower California.⁵⁴

On page 750 of the same publication Von Eikstedt is even more explicit. Speaking of the cranial resemblances of the Australians and Melanesians with some of the South American Indians, he says:

It is understood that there can be no question of direct race relation. This is excluded not only by the spatial conditions, but also by the physical characteristics of the living. We have here not related races but similar phylogenetic phases. The so-called Australimorphous hominid stage is found in old Europe as the Aurignacian race, in South Africa as the Cape-flats race, in Australia as the Australians, and finally also in the coast type of Brazil.⁵⁵

⁵³ Martyr, Petrus, 1533; De Gamboa, Sarmiento (?); Vizcaino, 1602.

⁵⁴ "Der bewiesene melanesid-lagide Parallelismus stellt ausschliesslich einen kraniologischen Parallelismus dar. Die heutigen Ges und Tunebo sind alles andere als dunkelhäutig und kraushaarig. Wir haben in diesen Fällen also eine partielle Konvergenz vor uns, die wohl ein abstammungsgeschichtliches Interesse haben kann, aber keine taxonomische Bedeutung besitzt. Altperuanische Berichte sind zu vage, um überhaupt gewertet zu werden. Was aber die offenbar in Darien und Kalifornien vertretenen richtigen Melanesoiden angeht, so ist ihr Auftreten nicht überraschend." (P. 871.)

⁵⁵ "Selbstverständlich kann es sich nicht um direkte Rassenverwandtschaft handeln. Das schliessen nicht nur die räumlichen Verhältnisse, sondern schliesst auch die Somatologie der Lebenden aus. Es liegen mithin nich verwandte Rassen, sondern ähnliche phylogenetische Schichten vor. Die sog. australimorphe Schicht der Hominiden findet sich als Aurignac-Rasse im alten Europa, als Cape-flats-Rasse in Südafrika, als Australier in Australien, und schliesslich bietet der alte Küstentypus Brasiliens die gleiche Schicht auch im letzten Raum der zirkumasiatischen Landmassen, in Amerika." (P. 750.)

DISCUSSION

Thus the theories have grown, and the simple realities have become more and more obscured. An untraceable mention, an overstatement by an imaginative correspondent or writer, a dark skin, a broad nose, wavy hair, a brief visit to a few tribes, a few measurements and peculiarities of a skull, or just an inspiration without direct knowledge of America or the Indian, have seemed to scientific theorists justification enough for bringing to the New World the most unlikely human groups, with their women, over thousands of miles of unknown oceans, in spite of the obstacles of thirst, hunger, winds, and currents.

If these hypotheses are true, they ought to withstand critical examination. Being brought forward by men whose words deserve attention, they cannot be wafted aside by any mere negation, even though this were based on sufficient knowledge. Let us then, with open minds, test the evidence brought in support of these theories. This should be done from the point of view of that branch of science which must be the chief arbiter in such matters, namely, physical anthropology; though other relevant considerations may be unavoidable.

TIME

When are the different contingents of "blacks" supposed to have reached pre-Columbian America?

So far as the "Africans" of Darien are concerned, the matter is fairly simple. They are said (in Peter Martyr) to have reached the American shores but recently. But the source of the reports of this group is not known. They are not authenticated by either the authorities of the territory nor by Oviedo, the official historian and early settler of the newly discovered land. Moreover, a group of either pirates or slaves from a ship of the time would of necessity have been small and without women. For such a group to penetrate a territory of virile tribes, maintain itself as such for any length of time, and even conduct war with the natives, borders on the impossible. There is no further notice or trace of the group, Velasco's 1901 second-hand report applying to conditions nearly four centuries after the multiple introduction of the Negro into America by the Spaniards. Can any scientific weight, under such conditions, continue to be given to this item? It does not seem possible. Moreover, such an occurrence, even if by some rare chance real, would have had no effect on the American native population.

There remain, therefore, only the Melanesians and the Australians.

The spread of the Melanesians in the South Seas preceded, it is known, that of the Polynesians, but was antedated by that of the Negritos. According to various indications, the "Melanesian" sailings belonged essentially to the last millennium before the Christian era. But by that time America was already peopled; furthermore, judging from the reception given the first contingents of Whites, what chance of survival would there have been for a small stray group of any other people, and especially one not stronger than the native Americans? Where the first Whites were not massacred or sacrificed, they were soon provided with native wives, and their blood was thus started on a progressive dilution until within a few generations it practically disappeared; and the same would have been the lot of any isolated small parties of other strangers.

To leave any traces of their type, and especially any plain traces, the Oceanic blacks would either have had to reach America in respectable numbers of both sexes—which, considering the distances they would have had to cover and their means of transportation, appears impossible—or they would have had to reach the continent before the Indians did, which borders on the fabulous. At this point it is legitimate to ask whether there were as yet any "Melanesians" before the time of the peopling of the Americas from the far north. They are a mixed people. They show to this day types that approach now the Indonesian, now the Negrito, and not seldom even that of the true Negro, all of which indicates as yet imperfectly assimilated mixtures. These conditions differ, moreover, from group to group. And to this day there is known no real antiquity of any of the groups. Who then can venture to say just who were the forefathers of the Melanesians far back of the historic period. There are serious difficulties, it is evident, whichever way one turns.

With the Australians matters are still worse. These people, too, are badly mixed, and the strains differ from province to province. (Hrdlička, 1928.) Rivet suggests that they came to America some 6,000 years ago, and Mendez Corrêa's Antarctic theory would tend to place the coming in a still more remote past; but what and where were the "Australians" of that time, and which of the strains of today represents the ancestral strain that would have reached America? One might even ask whether 6,000 years ago Australia itself was as yet peopled, for even with the Talgai skull there is no conclusive evidence on that point. Added to this are the same difficulties concerning the American preservation of the type as there were with the Melanesians.

The above are no mere academic objections, but real material obstacles that would have to be scientifically disposed of before the claims they relate to could be accepted as established.

EXTENSION

The Oceanic "blacks" are represented as having reached Tierra del Fuego, a part of Brazil, Ecuador, and Colombia, and lower as well as upper California, spreading as far eastward, at least, as New Mexico. This is a very wide distribution, but the voids in it are even more remarkable. They comprise vast regions in Argentina, Brazil, the Andean and Pacific South America, and all central America. There is no comfort in the suggestion that many of these parts are still but little known and that the gaps may be closed through future discoveries. A population of such assumed extent would of necessity have represented such numbers and so long a presence that its material remains would have to be at least fairly abundant, and some remains could not have failed to be discovered by this time. Great difficulties here, alone, confront those who would foster the Melano-Australian notions in relation to America.

CULTURAL REMAINS

So far as known, the supposed Australian and Melanesian blacks have left no sites that could be attributed to them, no recognizable accumulations, no archeological remains whatsoever in any part of America. They must have forgotten the boats they came in and even the sea itself, becoming largely land dwellers. There is no trustworthy tradition about them. They left, it is claimed, a series of words in some of the Indian languages; but the words of comparison are taken from different observers, and from the recent Indians as well as the recent Australians and Melanesians, the assumption being that these select words remained the same in both parts of the world from the far past to this day.

These matters should not be discussed by one not a specialist in these lines; but there is to be remarked the very striking fact that not one of the numerous American workers of note in the lines of archeology, cultural anthropology, or linguistics, men who have devoted their lives to these subjects and had the closest contact with the American aborigines, has either advanced or identified himself with the Melano-Australian hypotheses.

"MELANESIANS" IN NORTH AMERICA

While very lucid and critical about the Lagoa Santa and other South American remains, so far as then known, Quatrefages in his last major work (1889) has accepted, as significant, references that lacked scientific support or were even grossly erroneous.

Three separate accounts were used by this author (1889), the first found in the Journal of La Pérouse, the second in Stephen Powers, and the third in the account of Padre Francisco Garcés.⁵⁶ The first two relate to Indians of California, the last to the Zuñi.

As to La Pérouse (1791), all that this explorer says is as follows:
In old and new California there are

about 50,000 wandering Indians. . . . These Indians are in general small and weak, and discover none of that love of liberty and independence which characterizes the northern nations, of whose arts and industry they are also destitute; their colour very nearly approaches that of the negroes whose hair is not woolly; the hair of these people is strong, and of great length; they cut it four or five inches from the roots. Several among them have a beard, others, according to the missionary fathers, have never had any, and this is a question which is even undecided in the country. . . . We perceived only half the adults to have a beard, this, with some of them, was very ample, and would have made a figure of some importance in Turkey, or the vicinity of Moscow. (Vol. 2, pp. 196-198.)

To this is added the following: At Mission San Carlos, near Monterey—"The colour of these Indians, which is that of Negroes. . . ." (Vol. 2, p. 212.)

The exact reference to the work of Powers is not given, but it can only be his "Tribes of California" (Contributions to North American Ethnology, vol. 3, Washington, 1877). This is one of the classics in its field. It was not written by an expert, the author having been a journalist, but it gives by far the most comprehensive and generally reliable information on the Indians of California published to that date. In all its 635 pages there is not the slightest suggestion of any race but the Indian. The text must have been badly misunderstood. What Powers says about the physical characters of the several tribes mentioned is as follows:

[*The Karok.*].—On the Klamath there live three distinct tribes, called the Yú-rok, Ká-rok, and Mó-dock, which names are said to mean, respectively, "down the river", "up the river", and "head of the river". (P. 19.)

The Karok are probably the finest tribe in California. Their stature is only a trifle under the American; they have well-sized bodies, erect and strongly knit together, of an almost feminine roundness and smoothness. . . .

⁵⁶ Said to be recorded by Schoolcraft, but I was not able to locate it in the Schoolcraft archives.

(P. 19.) The Klamath face is a little less broad than that on the Sacramento; in early manhood nearly as oval as the American; cheek bones large and round-capped, but not too prominent; head brachycephalic; eyes bright, moderately well sized, and freely opened straight across the face; nose thick-walled and broad, straight as the Grecian, nares ovoid, root not so depressed as in the Sacramento Valley; forehead low and wide, nearly on a perpendicular line with the chin; color ranging from hazel or buff-hazel to old bronze, and almost to black. . . . (Pp. 19 and 20.) With their smooth, hazel skins, nearly oval faces, full and brilliant eyes, some of the young women—barring the tattooed chins—have a piquant and splendid beauty.

[*The Yurok.*]—Living nearer the coast, they are several shades darker than the Karok, frequently almost black; and they are not so fine a race, having lower foreheads and more projecting chins. On the coast they incline to be pudgy in stature, though on the Klamath there are many specimens of splendid savagery. Like all California women their mohelas (a Spanish word of general use) are rather handsome in their free and untailing youth . . . (p. 44).

Portraits of Yurok women (figs. 2 and 3), and all other portraits of the Californians in the book, show purely Indian features.

[*The Chillula.*]—Like most of the coast tribes they are very dark-colored, squat in stature, rather fuller-faced than the interior Indians. (P. 87.)

[*The Gallinomero.*]—May be considered a branch of the great family of the Pomo. . . . They are nearly black, Ventura being the blackest of all; and on a warm, sunny day in February when he is chopping wood briskly his cuticle shines like that of a Louisiana field-hand. The nose is moderately high, straight and emphatic, with thick walls, and ovoid or nearly round nares; lips rather thick and sensual; forehead low, but nearly perpendicular with the chin; face rounder and flatter than in the Atlantic Indian; eyes well-sized and freely opened straight across the face, with a sluggish but foxy expression; color varying from old bronze or brown almost to black. (P. 174 et seq.)

[*The Achomawi* (Pit River Indians)].—The faces are broad and black and calm, and shining with an Ethiopian unctuousness; the foreheads are like a wall; in those solid, round-capped cheek-bones, standing over against one another so far apart, and in those massive lower jaws, there is unmistakable strength, bred in the bone through tranquil generations. . . . Here is a hearty and a lusty savagery which it is pleasant to see. (P. 267 et seq.)

[*In general.*]—Physically considered the California Indians are superior to the Chinese, at least to those brought over to America. (P. 401.)

There is no word in Power's work likening the people to Negroes, African or Melanesian; nor is there any trace in the text or the illustrations of wavy or curly hair, or of anything else that would suggest aught but Indian.

As to the Zuñi, Quatrefages quotes from Schoolcraft (citation not given) thus:

In 1775 the Padre Francisco Garcés visited Zuñi, one of the southernmost pueblos, and found there two races of men and two languages. One part of the inhabitants showed a clear red color and handsome features; the others were black and ugly. An instructed native, interrogated on the subject, replied that the red people had come from one of the pueblos that became ruined, while the blacks were the ancient inhabitants of the country.

All these references to "blacks" in California Quatrefages regards as applying to Oceanic Negroes and in connection with the Garcés account says:

Thus at least at this point the Papuas, represented doubtless by mixbloods, have preceded the Pueblos, as they have preceded the Maoris in New Zealand.

As to Father Garcés, the fact is he never visited the Zuñi. The farthest he reached were the Hopi in Arizona. And it is of the Oraibi village of the Hopi that he has the following to say:

There are in this pueblo two languages, and I noted that even the modes of singing are diverse, as are the two classes of persons, who are distinguished from each other in the stature and color of both males and females (Indios y Indias). There are some of a very light (claro) and somewhat ruddy (rubio) complexion, as well-formed as the Yabipais; there are others small, dark, and ill-favored. (1900 edition, vol. 2, p. 384.)

It does not need any argument to see that in all three of the references to "blacks" in California and the southwest the eminent author was unfortunate and that they cannot be used in support of the presence in those regions of any other racial element than the Indian.

Another reference that may be brought forth in this connection is that of Vizcaino, of which Quatrefages did not know. It relates to the southern end of Lower California and hence to the region from which proceed the Ten Kate and Diguet collections. It dates from 1602 and is given by Torquemada (1615) as follows:

Father Antonio asked a Negro to carry in a basket some biscuits and distribute them among the Indians; the Negro went, and they showed much pleasure at seeing the Negro and gave him to understand that they were friendly and had had dealings with some Negroes; and that somewhere nearby there ought to be some settlement of Negroes.⁵⁷

The only comment that seems possible on the above note is that it is very vague and uncertain. The Spanish did not know the language

⁵⁷ "El Padre Frai Antonio. . . . llamó à un Negro, que traía en una Espuerta, ò Tanate, un poco de Vizcocho, para repartirlo entre ellos; y el Negro se llegó, y ellos se hollgaron mucho con ver el Negro; y le dieron a entender, tenían ellos amistad, y trato, con algunos Negros; y que por alli cerca debía de aver alguna Poblacion de Negros." (P. 698.)

of the tribe they met with and had no interpreter; and the encounter took place in 1602, 97 years after the importation of Negroes into the West Indies⁵⁸ and scores of years after their introduction into Mexico. A little out-of-the-way settlement of escaped slaves would then have been quite possible; but there is no corroboration of any such people in this region by either the early missionaries or other writers. A fact which might possibly be drawn upon in this connection is the presence in the collection from this territory in the U.S. National Museum of two evidently Negro skeletons; but this collection was made 200 years later, after the Negro had effected a wide penetration.

SKIN, HAIR, NOSE, AND OTHER FEATURES

The basic pillar of anthropology is variation, and there is no anthropologist who is not deeply cognizant of this principle. The entire organic evolution, including that of man, is based upon and made possible only by individual and groupal variability. This means that however pure, i. e., free of mixture, human or other beings may be, there will be no two individuals, nor even any two features, exactly alike; and the same applies even more strongly to any two families, clans, tribes, or other groups. The demonstration of these facts is all about us. Further, it is well known that the normal genetic variations are influenced by the environment including habits, food, and even pathology.

But the lessons of all this are often forgotten, even by scientific workers. Thus the skin color of the Indian ranges normally and outside of all admixtures from yellowish-tan to the dark brown of solid chocolate. It is especially dark in hot and dry regions, such as Arizona and the Californias, and that particularly in the old men, who used to go almost or wholly naked. But the color is never black. It could only be compared with that of the not infrequent fullblood Negro who is dark brown rather than black. Between the color of such a Negro and that of a dark fullblood Indian there is but little difference, and it means no more that the Indian has any Negro blood than that the Negro has any Indian admixture. They are both within the possibility of normal plus environmental and conditional range of variation of their two races. These are simple facts, with many analogies in other parts of the world.

⁵⁸ "As early as 1505 Negroes were sent to the Antilles to work in mines." The Catholic Encyclopedia, vol. 3, pp. 397-398. See also page 41.

As to the hair and features, the normal ranges of individual variation here, too, account for racial approaches. But there enters here another important factor on the originally Latin parts of the American continent, and that is the extensive admixture with post-Columbian African blacks. During more than four centuries the Negro has been brought to America. The total number of African blacks thus introduced into this continent reached millions. A considerable number from among these blacks have mixed with the Indians, and the resulting mixbloods have, as captives or visitors, spread the new blood widely, even to tribes that may never have had any direct contact with the Negro. Thus more or less truly Negroid features, as those of Whites, may today appear almost anywhere in the American tribes, but they mean as a rule a post-Columbian African, or again European, admixture. All this is well known to all anthropologists, but is often lost sight of.

THE SKULL AND THE SKELETON

What has just been said about the body applies also to the skull and the skeleton. Apparently Negroid characteristics of and about the nasal aperture, especially, are not rare in America, particularly in the hot regions. In the Southwest it is the Pueblos that show this more than the Californians, but the resemblance is limited to the nasal aperture, not extending to the nasal bones or other structures. Moreover, there is generally no reflection of it in the living.

As to the relative dimensions of the vault of the skull—in other words, its type—these are as much simply architectonic as of racial significance. Individual skulls from widely different races may and do closely resemble each other in both their absolute and relative proportions without there having been the slightest contact between the groups. It is well established that all recent human groups belong to the same species, that their differentiation is not very ancient, that their skeletal development follows the same laws, and that barring their distinguishing external marks, they present many similarities. It is only the totality of detailed cranial and facial characters of an ample series of skulls that is of much value in racial differentiation. To what disastrous results an implicit dependence on some of the cranial measurements or characters might lead, especially in single or but a few specimens, has been shown repeatedly even in cases of noted authors. With the bones of the skeleton matters are even more difficult, the general pan-human resemblances being still closer. It would be a rash anthropologist who from the skeleton alone, less the skull, would attempt a positive racial identification, except perhaps

in specially characteristic examples of the African Negro. This is not to deny the value of craniometry or osteometry, but only to emphasize the fact that these, like all other scientific methods, have their limitations.

ADDITIONAL NOTES: LOWER CALIFORNIA

Let us look more closely and critically at the cornerstone of all the contentions here dealt with, the case of Lower California. We find the following:

Lower California was reached by Ortun Jimenez as early as 1534; its coasts were explored in part by Cortés in 1536, fully by Ulloa in 1537-38, and were touched upon by Cavendish in 1587.

The bay of San Barnabè, discovered by Cavendish, was reached and briefly occupied in 1596 by the expedition of Sebastian Vizcaino. Other trips to the southeastern coast of the peninsula were made from Mexico at different times during the century. Pearl fisheries had been conducted by the Mexicans in the gulf along the eastern coasts of the peninsula since 1615 and, some rich pearls having been brought out, "from that time on many of the settlers from the provinces of Culiacan and Chiametla commence to frequent the gulf in small boats to fish for pearls and to obtain these from the natives" (Venegas), as a result of which the Indians suffered many vexations. In 1632 a new effort at a "conquest" of the peninsula and at colonization was made by Orteya. Still other efforts followed, all abortive, until the arrival in 1697 of Padres Salvatierra and Piccolo, who established the first missions, guarded by soldiers. The Philippine galleons began in 1734 to touch at Cape San Lucas for taking on water, debarking the sick, and repairing. In 1735-36 Yaqui and other soldiers from Sonora and Sinaloa made war against the Lower Californians. Moreover, throughout the latter part, at least, of the history of the country there is evidence of a continuing admixture of the Indians through the agency of soldiers and others, besides which there was an introduction of some Yaqui women and even whole families.⁵⁹

In addition to all this, there was early and repeated introduction of the African Negro among the Indians of southeastern and southern California. The introduction of the Negro into America began with the second voyage of Columbus in 1494. By 1501 "no Jews, Moors, or new converts were to go to the Indies, or be permitted to remain there"; but Negro slaves "born in the power of Christians, were to be allowed to pass to the Indies, and the officers of the royal revenue

⁵⁹ See especially Lassépas (1859, pp. 8-10).

were to receive the money to be paid for their permits." (Helps, vol. 1, p. 180.) Not long after Ovando had come to the government of Hispaniola, it appears that he "solicited that no Negro slaves should be sent to Hispaniola, for they fled amongst the Indians and taught them bad customs, and never could be captured." (Helps, vol. 1, pp. 219-220.) Las Casas, to relieve the burden of the Indians, advised "that each Spanish resident in the island should have licence to import a dozen Negro slaves." (Helps, vol. 2, p. 18.) "The number of Negroes imported into America from the year 1517, when the trade was first permitted by Charles the Fifth, to 1807, the year in which the British Parliament passed the act abolishing the slave trade, cannot be estimated at less than five or six millions." (Helps, vol. 4, p. 371.) "Many instances might be adduced showing that, in the decade from 1535 to 1545, Negroes had come to form part of the households of the wealthier colonists. At the same time, in the West India Islands, which had borne the first shock of the conquest and where the Indians had been more swiftly destroyed, the Negroes were beginning to form the bulk of the population; and the licences for importation were steadily increasing in number." (Helps, vol. 4, p. 401.)

Cortés, in 1535 or 1536 (De Humboldt, 1825) in his journey to Lower California, carried with him 300 Negro slaves. Both Ulloa (1539) and Alarchon (1540), his lieutenants, were accompanied by Negroes.⁹⁰ Venegas says (pp. 94, 201): "It is known that some ships have left Mulattoes and Mestizos at Cape San Lucas." "Yeneca", Clavigero tells us in his History of Lower California (1852, p. 83), "was a place inhabited by a tribe of Indians whose chief was a mulatto named *Chicori*"; while "the governor of Santiago [mission between La Paz and Cape Lucas] was a convert named Boton, son of a mulatto and an Indian woman". From the records about the missions it is seen that mulattoes or Negroes who lived with the Indians were instrumental in the insurrections of the Lower Californians against the Missions; and that the first permanent settlers were released soldiers, sailors, and those who knew how to work the ground (see Lassépas, op. cit.). Among these men, who generally married native women, were not a few colored.

These data show that from at least as early as 1545 the African Negro came into contact with the natives of Lower California and eventually mixed with them. There is a bare possibility that a few Oceanic blacks may have been left in the vicinity of Cape San Lucas

⁹⁰ See also Helps, A. (1855); Winsor, J. (1885); Rippy, J. F. (1921).

by the Philippine galleons; but in general the blacks who reached the territory were African. They admixed the natives especially about the more frequented ports, such as La Paz, and they or their descendants could not but have left some of their skeletal remains with those of the Indians. That this actually happened has already been noted, and that it influenced the theories of the peopling of the peninsula will be shown later.

PHYSICAL CHARACTERS OF THE LOWER CALIFORNIA ABORIGINES

None of the explorers, missionaries, or others who ever came in contact with the natives of Lower California calls them anything but Indians, and none makes any allusion to anything other than Indian concerning their looks or behavior. This has some weight, for among the explorers and especially the missionaries were men of education, who, moreover, were well acquainted with the Indian elsewhere. What statements there are concerning the physical characteristics of the natives in question show them to be only Indians. The relevant notes are as follows:

1539. Ulloa (1810, vol. 3, pp. 478-486):

The next day wee rode at anker here [southern parts of east coast Lower California] for lacke of good weather to sayle withall: whereupon the Captaine determined to goe on shore with nine or ten in his company, to see whether there were any people there, or any signe of people that had bene there, and they found on the maine land seuen or eight Indians like to Chichimecas, which were gone a fishing, and had a raft of canes; . . . these Indians were of great stature and saluage, fat also and well set, and of browne colour. . . . Iuan Castilio the Chiefe Pilot went that day in the bote on shore with seuen in his company, and they landed neere the Sea, and on a certaine low ground they found foure or fwe Indians Chichemecas of great stature, and went toward them, who fled away like Deere that had been chased. After this the Pilot went a little way along the Seashore, and then returned to his boate, and by that time he was entered thereinto, he saw about fifteen Indians of great stature also, with their bowes and arrowes.

1759. Venegas (p. 58):

Of all the nations hitherto discovered, the [Lower] Californians are at least equal to any in the make of their bodies. Their faces also are far from being disagreeable, though their daubing them with ointments, painting them, and boring holes through their nostrils and ears are very great disadvantages. Their complexion indeed is more tanned and swarthy than that of the other Indians of New Spain. But they are in general robust, vigorous, and of healthy countenance.

1773. Baegert (pp. 357-358):

In physical appearance the [Lower] Californians resemble perfectly the Mexicans and other aboriginal inhabitants of America. Their skin is of a dark

chestnut or clove color, passing, however, sometimes into different shades, some individuals being of a more swarthy complexion, while others are tan or copper colored. But in new-born children the color is much paler, so that they hardly can be distinguished from white children when presented for baptism; yet it appears soon after birth, and assumes its dark tinge in a short time. The hair is black as pitch and straight, and seldom turns gray, except sometimes in cases of extreme old age. They are all beardless, and their eye-brows are but scantily provided with hair. The heads of children at their birth, instead of being covered with scales, exhibit hair, sometimes half a finger long. The teeth, though never cleaned are of the whiteness of ivory. The angles of the eyes towards the nose are not pointed, but arched like a bow [epicanthus]. They are well-formed and well-proportioned people, very supple, and can lift up from the ground stones, bones, and similar things with the big and second toes. All walk, with a few exceptions, even to the most advanced age, perfectly straight. Their children stand and walk, before they are a year old, briskly on their feet. Some are tall and of a commanding appearance, others small of stature, as elsewhere, but no corpulent individuals are seen among them, which may be accounted for by their manner of living, for, being compelled to run much around, they have no chance of growing stout.

1789. Clavigero:

In features, in hair, in beard, and in color, they [the Lower Californians] are similar to the natives of Mexico.⁶¹

NATIVE TRADITIONS

All the native traditions of their origin, among the Indians of Lower California, pointed to the north. No known tradition of any of the neighboring tribes, to the north or to the east, has anything in it that would refer to any non-Indian population in, or influx to, those parts of the world.

MODERN EXPLORATION

None of the Mexicans who within the last or the present centuries have studied their native tribes suggest even by a single word anything but Indian in aboriginal Lower California or on the west coasts of Mexico.

During the period from the latter part of the last century to the present time, the tribes in the vicinity of Lower California have been visited and studied by many American, as well as some European, anthropologists, including Ten Kate, Hrdlička, McGee, Kroeber, and all those who have given their attention to the tribes north of the peninsula, particularly Boas and C. Hart Merriam. There is not

⁶¹ "Nelle fozze, nei capelli, nella barba, et nel colore sono simili ai popoli ne Missico." (1789, vol. 1, p. 113.)

one word in the reports of any of these that would suggest the presence in these regions of any people but Indians. Diguët's portraits (1899) of the few survivors of the Lower Californians, except where the individual is plainly a mixblood, show characteristic Indian physiognomies, without trace of anything extraneous.

SKELETAL REMAINS (LOWER CALIFORNIA)

The American studies of the skulls and bones of the Californian, southwestern, and Mexican Indians have shown nothing that does not fall within the range of variation of the Indian.⁶²

The United States National Museum has seven adult skulls from the east coast of Lower California, several of which show red paint. One, U.S.N.M. no 61398, from the vicinity of La Paz, collected by L. Belding—one of the original Ten Kate specimens—is painted red but is distinctly Negroid (African). It shows, moreover, a marked scaphocephaly due to premature union of the sagittal suture, a frequent and highly characteristic feature of the African Negro. The skeletal parts, also stained red, show a marked case of rickets, a disease absent in the Indians and so far as known also in the Melanesians, but common in the American colored people. The bones show marks of no great age and may well be late post-Columbian. The skeleton seems to be unquestionably that of an African Negro, who, judging from the rickets, was probably born in America.

Of the remaining six skulls, five are plainly enough Indian, though not of the common Indian types. One alone, U.S.N.M. no. 148213, from Espiritu Santo Island, is in its vault rather strongly reminiscent of some Melanesian types, but it differs from these in the teeth, the glabella, the nasion-orbital region, the malars, the alveolar protrusion, and other particulars. One can readily see how, without sufficient American material for comparison, the opinion that such a specimen was Melanesian might be formed by reputable men of science. Such opinion, however, would fail to take into consideration the fact that the vaults of skulls of the same cranial indices, particularly in the very long, narrow, and high, as in the short, broad, and low skulls, resemble each other considerably all over the earth, regardless of race; and it would fail to realize the possibilities in American as well as other skulls, under related conditions, of related developments.

⁶² Hrdlička (1906, 1927, 1931). See also report on crania measured by Kroeber, Loud, Gifford, and Hooton in Gifford, E. W. (1926).

Pronounced grades of dolicho-steno-hypsicephaly occur in native skulls in other parts of America, and they even occur in instances among English and American whites, with no pathological significance. The essential character in such skulls or heads is the narrowness of the vault, the length and height being in the main of compensatory nature. The causes of the excessive normal narrowness are as yet not clearly understood. The sutures in such cases show no premature occlusion, the temporal muscles no excessive development. Such individual skulls do not fall outside the curve of normal variation: they are merely at its extreme; there is no reason, therefore, to regard them either as mutants or as extraneous. This type of skull tends, however, to "run" in families, and an incidental segregation of such families could quite possibly produce a regional strain or group marked predominantly by conspicuous narrowness of the skull.

Such a segregation has apparently taken place in southern Lower California, as may have happened before in the Lagoa Santa region and elsewhere in America. Recent evidence shows a similar group in southwestern Texas. Some very narrow skulls, proceeding from north-central Texas, were recently brought to our attention by Hooton (1933). Of four of the five crania, Hooton says: "They are excessively dolichocephalic", but otherwise "in no particular unusual"; they may represent one of the earlier strata of the American population, but "there is a definite possibility that the extreme dolichocephaly of these skulls is merely a local or familial variation." Western Texas seems particularly fertile in this type of specimens. The whole subject is now being studied by Dr. Stewart (1935) of the United States National Museum. Decidedly narrow and long, and often high, crania may be seen not uncommonly among the eastern Algonkians, especially those of Long, Manhattan, and Staten Islands (Hrdlička, 1927, 1916). Cranial vaults (not considering facial parts) exceedingly like those of Lower California and Texas, are now known from Labrador, Greenland, the old igloos near Point Barrow, and Seward Peninsula (Hrdlička, 1930).

It seems that henceforth it will be necessary to recognize in both the Americas a widespread though irregular occurrence, among the dolichocephalic types, of skulls with excessively narrow, long, and frequently relatively high vaults, with here and there a local segregation and consequent prevalence of these characters. Such grouping, as indicated, is especially common among the Arctic Eskimo, but has manifested itself also here and there among the Indians. The "type" thus produced means, according to all the evidence, nothing extra-American, nor does it mean as Quatrefages inclined to believe, an

extension of the Eskimo, but is essentially of cranio-technological character, multiplied in various localities through heredity. Its realization is to be viewed as an interesting and peculiar natural phenomenon and not necessarily a foreign introduction. One of the greatest faults and impediments of anthropology has always been and is largely to this day, in spite of ever-growing evidence to the contrary, the notion of the permanence of skull types, and of their changeability only through racial mixtures or replacements. It is time that this attitude be replaced by more modern and rational views on the subject, based on the steadily increasing knowledge of biological laws and processes, together with such powerful factors as segregation and isolation.

RÉSUMÉ

A critical examination of the few mentions of "blacks" in America shows that, impartially considered, none bears the character of scientific evidence, particularly as to pre-Columbian occurrence.

From the standpoint of physical anthropology, the question of the presence in pre-Columbian America of a substratum of Melanesians and even Australians begins with Quatrefages', and somewhat later Ten Kate's suggestions of morphological similarities with express disavowals of racial connections. As times goes on these suggestions are gradually clothed with unwarranted significance; the presence of a Melanesian, and eventually even Australian, element in the American aboriginal population takes on more and more of reality; the doctrine is supported by resemblances in certain cranial forms and dimensions and eventually also by a series of cultural and linguistic similarities; until finally the belief assumes the semblance of a demonstrated fact. The Melanesians come to account for the American dolicho-hypsistenocephals wherever these are met with, and the Australians, though less in importance, occur from Ecuador to Tierra del Fuego. The presence of the Australians is determined on the basis of a few defective crania and resemblances in a small series of words, and these suffice not merely for the formulation of the conclusion as to the presence of the Australians in America, but also for the invocation of geographical conditions in the Antarctic that would permit the immigration of these poor navigators from Australia. Publications are multiplied, and the same communications are published repeatedly, to convince. The evidence appears at first sight so sufficient and so well backed that some serious students, though perhaps they have never had the chance to study the American natives first hand or to any material extent, feel justified in accepting and even fostering the hypotheses.

To the writer, who has spent the major part of his life in somatological and medical studies among the American natives, who has personally visited more than 100 tribes from Point Barrow in the north to Patagonia in the south, who now has at his disposal in his division in the U.S. National Museum over 10,000 American crania and skeletons, all of which have passed through his hands, and who was fortunate enough to examine a larger number of Australian skulls than any other man (1928), the acceptance of the theory of the presence on the American continent of old contingents of either Melanesians or Australians has not been possible. To him the whole history of the case appears to have transcended the realm of critical science and passed into that of psychology. He has asked for proofs (1926), but these were not furnished. He has scanned the assumed evidence with open mind, and found it wanting.

The objections are briefly as follows:

The assumed basic foundations of the contentions are built on sand. They are the statements of Quatrefages and Ten Kate. Both these observers made legitimate suggestions regarding some of the morphological features of certain American skulls. If both went somewhat beyond this, the dearth of material in their time, the prevalent exaggerated values then attributed to various cranial features, deceptive statements in publications of non-scientific writers, and the lures of theory, were perhaps sufficient explanation. Yet neither has seen anything really Melanesian or especially Australian in South America, which is a point of especial weight with Ten Kate, who spent a considerable length of time in Argentina and studied Indian material in that country. Nothing could be clearer than the statement of Quatrefages concerning his reference to Papuan skulls in connection with the skull from Lagoa Santa.

There remain the skulls of Lower California. These skulls, like those of southwestern Texas, do bear certain resemblances to some of those of Melanesia. But this type is found also in not a few other and widely separated regions of America, both among the Indians and the Eskimo. It is contemporaneous with other types of these American people and connects with them. In the regions in which it is found there were never reported any aberrant strains or any strains other than the Indians or the Eskimo.

The only conclusion that appears possible in view of all the facts is that the hypotheses of either Melanesian or Australian, and even that of recognizable Polynesian, presence on the American continent is not demonstrable, nor even probable; that the dolicho-steno-hypsi-cephalic cranium is not extraneous but represents one of the several

cranial types of both the Indian and the Eskimo; and that whatever cultural or other resemblances may appear to exist between the pre-Columbian Americas and the South Seas must have other explanations than any material accession of the peoples of the latter parts of the world to the American populations.

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PIGASETTA, 1519, Brazil; in Burney, J., A chronological history of the discoveries in the South Sea or Pacific Ocean: Voyage of Fernando de Magalhães, 1517, vol. 1, p. 21 et seq., London, 1803.

The Brazilians of the region of Rio de Janeiro are thus described by Pigasetta: "They are without religion. Natural instinct is their only law. It is not uncommon to see men 125 years of age, and some of 140. They live in long houses or cabins they call *boc*, one of which sometimes contains a hundred families. They are cannibals, but eat only their enemies. They are olive coloured, well made, their hair short and woolly. They paint themselves both in body and in the face, but principally the latter. Most of the men had the lower lip perforated in three places, in which they wore ornaments, generally made of stone, of a cylindrical form, about 2 inches in length. Their chief had the title of Cacique. . . ."

"In colour they were blacker than was thought to correspond with so cold a climate. . . ."

According to Burney: "Pigasetta was a man of observation, but with very moderate literary acquirements; he was fond of the marvellous, and much addicted to the superstitions of his time. . . . His narrative was written in a mixed or provincial dialect of the Italian language." His description of a Patagon (p. 33): "'This man', says Pigasetta, 'was so tall that our heads scarcely came up to his waist, and his voice was like that of a bull.' The guanaco is described by Pigasetta to 'have head and ears like those of a mule, a body like a camel, legs like a stag, and a tail like that of a horse, which it resembles likewise in its neighing.' Pigasetta gives also some 'strange descriptions of birds seen by them; some which never make nests, and have no feet, but the female lays and hatches her eggs on the back of the male in the middle of the sea.'"

CAVENDISH, 1587, southern end of Lower California; in Kerr, Robert, A general history and collection of voyages and travels, vol. 10, Edinburgh, 1814.

Cape St. Lucas, Lower California:

"Within this cape, there is a large bay, called by the Spaniards *Aguada Segura*, into which falls a fine fresh-water river, the banks of which are usually inhabited by many Indians in the summer. . . . Having dismissed the Spanish captain with a noble present, and sufficient provision for his defence against the Indians. . . ." (Pp. 80-81.) The above is all that is said about the natives.

VIZCAINO, 1596, 1602, lower end of Southern California; in Torquemada, J. de, Monarchia Indiana, vol. 1, book 5, chaps. 41-45.

There are the following more relevant references to the natives; they contain no trace of any suggestion as to Negroid characters.

Near Puerto San Sebastián the Spanish "hallaron grande numero de Indios Infieles, Gente desnuda, y con Arcos, y Flechas, que son sus Armas ordinarias, y algunos Dardos de Varas tostadas, que suelen arrojarlos, y hacen mucho daño con ellos. Fueron mui bien recibidos de todos aquellos Indios, sin ninguna resistencia, aunque por ambas partes hubo grande vigilancia, porque los Indios recelaban alguna traicion, y los nuestros algun daño." (P. 682.)

At Puerto San Sebastian: "dispararon algunas Pieças de Artilleria, en presencia de much multitud de Indios, que alli estaban, que avian salido à vèr los Forasteros." (P. 683.)

Report of two soldiers on their trip to an inland village of above Indians:

"Lo que dieron por nueva fue, que vieron gran suma de Gente, y muchas Mugerres, y Niños, que los salieron à vèr, que tenian las Casas debaxo de Tierra, algunas cabadas en Peñas, y otras paxiças. Esta Gente, Rancheada por aquellos Lugares, venia cada Dia donde los nuestros estaban, dando siempre mues tras de Paz, los unos, y los otros; mas en quinze Dias que alli estuvieron." (P. 683.)

Puerto La Paz: "mucha Gente, que rëcibieron bien, y con muchas señas de Paz, y amistad ña nuestros Españoles, haciendo grandes demonstraciones de contento, con su venida."

"acudia todos los Dias grande numero de ellos, y con mucha familiarida los trataban, y comunicaba, y les traian algunas Frutas, y Pescado. Los Religiosos, por su parte, incitaban à los Indios, que les diesen à sus Hijos, y à todos los Muchachos, que tenian, para enseñarlos."

Puerto San Bernabè: "en la Plaia avia un grande numero de Indios desnudos, todos con Arcos y Flechas, y algunos de ellos, con Dardos en las manos; los quales con gran grita, y voceria, y hechando Arena con las manos en alto, parecia llamban à los de los Navios."

"Los Indios andan desnudos, y usan Copetes, y en ellos ponen quantas cosas hallan, que les parezcan vistosas. Algunos de ellos tenian los cabellos rubios, usan emijarse de blanco, y negro, y son afables, alegres, agradecidos, y Gente de buenas entrañas, y un natural docil."

DIXON, ROLAND B., *The independence of the culture of the American Indian*. Science, vol. 35, pp. 46-55, 1912.

"The Papuan tribes are not, so far as we know, a markedly seafaring people, and so far no evidence of their actual presence east of the 180° meridian has come to light." (P. 54.)

"Although certain curious coincidences undoubtedly exist with parts of Oceania and southeastern Asia, no historical relationship between the cultures of the two widely separated regions can as yet be said to have been established."

DIXON, ROLAND B., *Contacts with America across the Southern Pacific*. In *American Aborigines*, Fifth Pacific Sci. Congr., pp. 315-353, published in Toronto, 1933.

"What, then is the answer to this problem of trans-Pacific cultural diffusion? Does the demonstration that a Polynesian contact took place once entitle the diffusionist to assert that all his other claims must be admitted too? I do not think so. For the speciousness of most of his trait analogies still holds, and in all such cases the claim for exotic introduction has no real basis. When all the many instances are sifted and critically weighed, there remains a very small residue of, perhaps, two or three which render the acceptance of trans-Pacific contact not only just, but apparently inescapable, although the *modus operandi* is still very difficult to understand. Such contacts as did occur were, however, limited I believe to Polynesia; I know as yet of no valid evidence for any with Melanesia or beyond. But although Polynesians did thus very rarely, and probably at long intervals, make such contacts with the people of South America, the net result was negligible so far as America as a whole or South America in particular was concerned; and the claims of the diffusionists for the far-reaching influences of trans-Pacific cultural diffusion must, I believe, be disallowed."

FRIEDERICI, GEORG, Malaio-Polynesische Wanderungen. Verhandlungen des neunzehnten deutschen Geographentages zu Strassburg, im Elsass, pp. 210-211, Berlin, 1915.

FRIEDERICI, GEORG, Die vorkolumbischen Verbindungen der Südseevölker mit Amerika. *Mitteil. deutsch. Schutzgebieten*, vol. 36, p. 45, 1928.

FRIEDERICI, GEORG, Zu den vorkolumbischen Verbindungen der Südsee-Völker mit Amerika. *Anthropos*, vol. 24, pp. 441-487, 1929; with extensive bibliography.

Critical discussion of the seeming cultural and linguistic evidence. Author remains skeptical.

NORDENSKIÖLD, E., Origin of the Indian civilizations in South America. *In* American Aborigines, Fifth Pacific Sci. Congr., pp. 249-311 (with 5 pp. of bibliography), published in Toronto, 1933.

"I wish to make it clear that by this time I have become very skeptical of Indian culture having been appreciably influenced from Oceania, although I shall endeavour to stand entirely apart from that, and discuss the problem as objectively as possible." (P. 261.)

"As is well known, we find in South America quite a number of culture elements of which parallels are found in Oceania. *These we may call Oceanic, although it certainly does not imply any proof that they have been imported into America from Oceania.*" (P. 264.)

"In conclusion I ought to remark that South American Indian civilization includes certain elements that have been adopted in post-Columbian times from Negroes and Europeans, and have so completely merged into this culture that it is only through the most careful investigation that proofs of their origin are establishable." (P. 306.)

NICOLLE, C., Un argument d'ordre médical en faveur de l'opinion de Paul Rivet sur l'origine océanienne de certaines tribus indiennes du nouveau monde. *Journ. Soc. Américanistes Paris*, vol. 24, pp. 225-229, 1932.

Advances the theory that the typhus of the rat had been brought to America on the boats of the Pacific migrants.

DIGUET, L., Anciennes sépultures indigènes de la Basse-Californie méridionale. *Journ. Soc. Américanistes Paris*, n. s., vol. 2, pp. 329-333, 1905.

Among the few cultural objects found by Diguët in the Southern California caves with the human bones, was a string apron such as described by the early missionaries as the unique garment of the women among the Pericue Indians.

WIENER, CHAS., Pérou et Bolivie, Paris, 1880.

Fig. p. 481: "Peinture d'un vase, trouvé à Santiago de Cao, près de Trujillo, représentant des maçons construisant un mur en briques." Two figures with white faces, four black; the white figures look like Whites, have peaked soft caps (like night caps); the black figures—without any definite racial characteristics—are evidently slaves. Bricks small, like ordinary white man's bricks.

"Peinture d'un vase trouvé à Puno représentant des Indiens construisant une maison." (P. 471.) No description; three figures with white faces, two with dark; clothing of white-faced figures like that of Whites (especially last figure on right); that of dark-faced is Indian; features of large dark figure an Indian, those of small dark figure indistinguishable.

OETTEKING, BRUNO, *Anthropomorphologische Beziehungen zwischen der Osterinsel und America*. Eugen Fischer Festband, *Zeitschr. Morphol. und Anthropol.*, vol. 34, pp. 303-313, 1934.

The author points to the resemblances between a skull from Easter Island and some of those of California and Texas, but draws from this no unwarrantable conclusions. He accepts the opinion that some contacts between the Pacific Islanders and the American continent had been realized, but as to their time, magnitude, and nature, states that all is still problematical. He comments on the improbability of any very ancient or extensive comings; America must have been well peopled before any Pacific accretions could have reached it. A justified objection concerns Oettekings's assumption that similarity of cranial and especially vault type means the same derivation; it may not, in fact, mean even a close racial relation.

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