

RACE TYPES IN POLYNESIA¹

BY LOUIS R. SULLIVAN

THE now rapidly accumulating data on the biology of the inhabitants of Polynesia are beginning to indicate clearly that the "Polynesians" are in no sense to be considered a uniform racial type. The "Polynesian type" is an abstract concept into the composition of which have entered the characteristics of several physical types. It is roughly comparable to an "American type," defined by the average characteristics of the Anglo-Saxon, Slavic, Mediterranean, Indian, Negroid and Mongol elements which inhabit America.

Anthropologists have disagreed on the racial affinities of the Polynesians. Some have classified them as Mongols, others have classified them as Caucasians, while still others have maintained that they are a separate race. This in itself is strong evidence that the Polynesians are a badly mixed people for whenever there has been a general disagreement as to the racial affinities of any group it has been found almost invariably that the group was a non-homogeneous group.

There is much vagueness as to what constitutes a Polynesian but as generally conceived and described, the Polynesian is a tall and remarkably well-proportioned type with a short head, a high and relatively narrow nose, straight or slightly wavy black hair and a yellowish brown skin. Now, as a matter of fact, in no part of Polynesia from which we have data, does this type make up the entire population at the present time. There is strong evidence that in times past, and not so very long past either, this element was entirely absent, or not present in any appreciable strength.

¹ Based upon the published craniometric and osteometric literature and upon the field data on the living Polynesians obtained by members of the Bayard Dominick Polynesian expeditions of the Bernice Pauahi Bishop Museum.

Look for a moment at stature or body height. The living men yield the following averages in centimeters:

Hawaiian 170	Marquesan 170	Tubuai 171
New Zealand 171	Tuamotu 172	Easter Island 172
Samoa 172	Tahiti 173	Tonga 173
		Cook 176

Compare with these figures the reconstructed stature of the skeletal remains which have been studied:

Hawaiian 163	New Zealand 163	Chatham Island 165	other Polynesians 166
--------------	-----------------	--------------------	-----------------------

These differences are enormous and amount in some instances to nearly three inches.

The cephalic index tells a similar story of change:

Cephalic Length-Breadth Index

	Skeletal	Living
Tahiti, Pomotu, Tubuai	76	85
Tahiti	77	86
Maori	74	78
Samoa	78	84
Marquesas	76	79
Hawaii	80	84

Brachycephaly or a tendency to short-headedness is characteristic of a majority of the living peoples, but not of the prehistoric peoples represented by the skeletal remains.

A study of the nasal index complicates matters somewhat. The nasal index of the skull varies from 44 in the Moriori to 53 in the remains from Easter Island. In detail it is distributed as follows:

Moriori 43.9	Maori 47.9	Marquesas 49.3	Tahiti 49.4
Hawaii 49.9	Easter Island 52.5		

On the living the nasal index has different values of course, but is similar to the nasal index in the skull in that a small index indicates a narrow nose and a large number indicates a wide nose. The values on the living for nasal index are:

Samoa 74,	Tonga 76,	Maori 76,	Hawaiian 78,	Tahiti 80,
Tuamotu 80,	Tubuai 80,	Marquesas 82,	Easter Island 82,	Cook 85.

There is seen to be a tendency to both broad noses and narrow noses in both the long-headed and short-headed groups.

In the Chatham Island material we have the long head combined with a narrow nose, lack of prognathism and moderate stature. This element has been isolated in the living in all parts of Polynesia and is Caucasoid in appearance. It is probably a very primitive caucasoid type. If we are to call any type Polynesian it would almost seem that this type had the best claim to that title.

If we turn next to Easter Island, we find a long head combined with a broad nose and a moderate tendency to prognathism (projecting face). This element has long been recognized and has been described as Melanesian or an Oceanic negro. So far I have been unable to isolate this element in large numbers in the living population and consequently cannot state how closely it resembles the Melanesians. In the skeletal remains this type is fairly common in New Zealand, Easter Island, and to a lesser degree in Central Polynesia. It cannot rightly be called Polynesian, of course, since it is more important elsewhere.

In Tonga, Samoa, Tahiti, etc., we find an extremely short head combined with a relatively narrow nose and high stature. This element is the one generally taken as typical of Polynesia and by some anthropologists has been designated as the true Polynesian. I have already indicated above the objections to this. They are Polynesians in the same sense perhaps that the Anglo-Saxon inhabitants of the United States are Americans. Some authors have appreciated this fact and have called them Indonesians. Indonesian is a term generally applied to the Caucasoid peoples of Malaysia regardless of the fact that there are undoubtedly two Caucasoid elements in Malaysia, a long-headed one similar to the one I have called Polynesian, and a short-headed one related to the type under discussion. The principal objections to this use of the term Indonesian are the facts that it has been applied to two Caucasoid types, neither of which is important numerically in Indonesia, and that it has also been applied to other types more characteristic of Indonesia. This type has also been designated as Proto-Armenoid and Alpine.

In Hawaii, in the Marquesas and to a lesser degree elsewhere in Polynesia, we find a short head combined with a broad nose, low

stature and a dark skin. Some authors have described this as Negrito, but it is not Negrito in the generally accepted conception of that term. I have designated it as Indonesian chiefly because it is or has been a very important element in southeastern Asia and the Malay Archipelago. It should be pointed out, however, that I am using the term Indonesian in a sense entirely different from that in which Logan first used it. I am not the first to do this since Giuffrida-Ruggeri and others have previously used the term to describe other types than those designated by Logan.

The essential thing to note at present is that the population of Polynesia is composed of at least four different and distinct elements. Two of these are Caucasoid in appearance and quite generally distributed throughout Polynesia. One other is generally considered Negroid or Melanesian. A fourth is of somewhat doubtful affiliation, but shows several Negroid characteristics as well as some Mongoloid characters. These types combine in various proportions to make up the populations of the different island groups. Different islands in the same groups contain these elements in different proportions.

Before these types can be satisfactorily named it is necessary to have more information on their specific racial relationship. This is true outside of Polynesia as well. It is pretty generally recognized in anthropology that we have more names than physical types. The same type in three different parts of the world is often designated by as many different names. Our current anthropological classifications of man are a scramble of geography and anatomy. Until we untangle some of these highly complex mixed populations and make more progress on detailed relationships, we cannot work out any lasting classification. If it can be demonstrated beyond doubt that the tall short-headed, narrow nosed type in Polynesia is identical with the European and Asiatic Alpine, then it should be designated as a Polynesian branch of the Alpine Race. We should not have three terms, such as Alpine, Indonesian and Polynesian to designate the same type in different parts of the world.

The question will of course be raised, "Is it certain that these types are not local types differentiated by isolation on the different

islands?" This seemed at first plausible to me for it was something of a strain to my credulity to believe that some of these remote island groups had been reached by man not only once but in a few instances as many as four separate times. But when I found each and every one of these types outside of Polynesia I was forced to abandon the idea of local differentiation. No one of these four types is confined wholly to Polynesia. The distribution of these types both within and without Polynesia argues strongly against a local origin of these types in Polynesia.

Aside from the almost certain fact that the tall short-headed narrow-nosed element is a fairly recent arrival in Polynesia, the sequence of these types and their order of arrival in the various islands is not clear at the present time.

AMERICAN MUSEUM OF NATURAL HISTORY,
NEW YORK CITY.

THE FIELD OF PALEOLITHIC ART

BY GEORGE GRANT MAC CURDY

THE paleolithic artist's range of models included both the animate and the inanimate, but was confined almost wholly to the fauna. Among the fauna, mammals (including man) largely monopolized his attention. Birds and fishes came in for a relatively small share; reptilian representations are practically non-existent, and the same may be said of invertebrates. Plant-like forms are very rare. The inanimate field is represented by claviform and tectiform figures; also by chevrons, frets or grecques, spirals, volutes, wave ornaments, and alphabetiform signs, some of which were derived from animate objects through processes of conventionalization.

In a study of cave art, one is impressed, although not surprised, by the extent to which it reflects the fauna of the time. To the hunter, game animals would naturally loom large on the horizon; that which makes the strongest appeal to the senses is the first to find expression, especially when it happens to be essential to one's existence. Among the animal forms reproduced in paleolithic art, game animals occur much more frequently than any other kinds; the horse far outnumbered the hyena; as does the red deer compared with the lion. To one animal killed because it was dangerous to man (or to the animals on which he fed), there would be scores of game animals captured. Besides, many of the representations are prayers for the increase of the species useful for food and would account in part for the preponderance noted above.

The cave artist not only had predilection for such species as the horse and red deer, but he also seems to have had a preference for the female of the species. In some species the sex distinction is much more pronounced than in others. The stag can be distinguished from the hind by the presence of antlers; figures of the hind far outnumber those of the stag, a fact which is significant. The hind is the symbol of fecundity; the larger the number of