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THE KARIFS AND INSULAR CARIBS.

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THE word "Carib" is very elastic in meaning. It is applied in Spanish America to any wild and savage tribe. Originally it referred only to the natives of the Lesser Antilles and the South American mainland. The words "Carib" and "cannibal" are probably mispronunciations of their proper name *Karina*. The pure Caribs are represented to-day by several tribes in South America and a remnant in the Caribbee Islands. Throughout the American tropics there are Carib mixtures. In Spanish and British Honduras there are many black Caribs. The early Spaniards applied the term *grifos* to the crosses between Negro and Carib, probably because of the frizzled nature of their hair. This word has been frenchified into *griffe* and is now applied also to mulattoes in Louisiana.

In Froude's "English in the West Indies" there are many reckless statements, examples of which are that Pere Labat discovered from the language of the Caribs that they were North American Indians, that they called themselves *Banari*, which means "come from over sea," and that their dialect was almost identical with what he had heard in Florida. There seems to be little foundation for this statement. There are reasons for believing that the Caribs of the Lesser Antilles migrated from northern Venezuela and that they spoke a dialect of the language of the mainland Caribs.

According to the Spaniards the Caribs of old were exceedingly fierce and corrupt, but these statements, as well as others concerning their language, are controverted. Dr. Wilson calls them the "historic race" of the Antilles, and Peschel speaks of them as an "extraordinarily gifted race, both physically and intellectually, whom we must not condemn too severely for their complete nudity, their inclination to piracy, their craving after human flesh and the poisoning of their arrows." Some of the highest and some of the lowest specimens of South American Indians are Caribs.

The mainland and probably also the insular Caribs poisoned their arrows with curare, the juice of *Strychnos toxifera*, a climbing plant of Equatorial America. The arrows were light and were blown through a tube in a manner similar to the Dyaks of Borneo. This tube was made from the stems of *Arundinaria Schomburgkii*, a plant of the grass family resembling bamboo. This plant was named in honor of Schomburgk, a famous German traveller, sent in 1835 to explore Guiana by the Geographical Society of London. Among his many interesting finds was the *Victoria regia*. He had opportunity to witness the effect of their poisoned arrows and is charged with the statement that a deer at the top of its speed when hit with such a dart drops dead at the end of forty yards.

In what follows the writer only refers to the insular Caribs and the Karifs or black Caribs on the coast of the Bay of Honduras.

St. Vincent and Dominica were the principal rendezvous of the insular Caribs, although they occupied all the islands of that beautiful chain extending from Puerto Rico to the mouths of the Orinoco and raided at times Jamaica and San Domingo.

Many and bloody were the wars which the Caribs fought with the early colonists. In spite of their endurance they were unable to withstand the superior force and diseases of the Europeans, and all that is left in the Lesser Antilles is a little colony on the Island of St. Vincent.

In an old book on the "Caribby" Islands, the aborigines are described as good-looking, well-proportioned people of medium size, with mouths not overly large; teeth, close and white; complexion, orange; beards, scanty; hair long and black, and eyes black, piercing and somewhat Mongolian. This description fairly applies to the yellow Caribs still living on the Island of St. Vincent.

The original Carib looked very fierce because he wore no clothing, and dyed his body with arnotto (*Bixa Orellana*). It was called *roucou*, and in French Guiana there is a low tribe of Caribs called the *Roucouyennes*.

The Caribs of to-day are very able watermen. The boys even while very young are of an amphibious nature. They can catch a three-pence before it strikes the bottom of the bay, and think nothing of putting to sea on a fishing expedition on two logs nailed together. Even the women of the Black Caribs of Honduras bring bananas in small piroques to the ships in rough weather. They inherit this from their forefathers. The word "canoe," it is said, is of Carib origin. They were probably the first Indians to invent the sail. When the wind was fair they spread a cotton cloth; at other times it is said they rowed their canoes with oars, and even sang a song in time to the stroke, as sailors do to-day. Their piroques-of-war were often forty feet in length by six in width. Boats of almost this size, hewn from a single log, may be seen to-day in British Honduras. The trunks of the Giant Ceiba (*Bornbax Ceiba*) were used for this purpose. It is said that the word "ceiba" is a Spanish corruption of an Indian word for boat. The tree is of enormous size, but the wood is soft and not durable. It is also the Sacred God Tree of the Negroes.

Carib relics are often found. A collection was on exhibition at the Fair in Jamaica. They deftly fashioned implements and utensils from stone, bone and shell. There are two rocks in Grenada on which quaint hieroglyphics are cut. There too is the "hill of the leapers," where a hard-pressed, ill-fated band of Indians plunged into the sea. Many interesting remains were found on the Island of Amba, and these were of such superior workmanship that they reminded the discoverers of Greek patterns.

At the Jamaica Exhibition in 1891 there were six Caribs sent by the Government of St. Vincent. Three of these were types of "yellow" and three of "black" Caribs. They were engaged in basket making in the Industrial Village. At this work they are very skilful, the baskets they weave being water-tight.

The yellow Caribs form the purest remnant of the aborigines of the Lesser Antilles. The black Caribs

partake more of the characteristics of the Negro than Indian. Besides weaving baskets and fishing they raise patches of yams, casava, bananas and the like. A few fled to Trinidad when the volcano Sonfriere erupted.

The black Caribs, it is said, originated in this way: A slave ship was wrecked on the Island of Bequia. Those who escaped, together with other runaway slaves, captured Indian wives. Their progeny is the so-cailed "black Carib." They increased rapidly, became troublesome and finally occasioned much bloodshed. In character they were not unlike the Jamaica Maroons, the offspring of runaway slaves, who have lived for many years in the secluded valleys of that rugged island.

In October, 1776, the last Carib war was fought. Five thousand and eighty men, women and children were removed to the Island of Balliceaux from St. Vincent. The following year they were shipped to the Spanish main, but owing to revolutions, having had enough of wars and quarrels, many drifted to the coast of British Honduras to seek peace and protection under their former masters, the British.

In Balize they call themselves "Karifs." Such a name serves well to distinguish them from the Caribs of pure Indian blood.

During the past winter the writer came much in contact with the Karifs on the coast of Honduras. He left the beautiful Island of Cozumal, famous for its healthfulness and its fine-flavored tobacco, and coasted for several days along Yucutan and Honduras. The only boats passed were fruiters, fishermen carrying their catch alive in tanks to Havana, and a Norwegian bark with a load of mahogany. One looks longingly toward the site of ancient Tuloom and pictures in his mind what ruined cities may be hid in the forests of that unexplored wilderness. Although these waters are of much interest and beauty, one is menaced by constant danger, since to be cast on the reefs on one side means certain destruction, or to be washed on the sandy shore of Yucutan on the other is to fall into the hands of very hostile Indians. One draws a freer breath when he reaches the coast of Honduras. It was Christmas night when the writer arrived at Belize, the capital.

The mahogany cutters in large numbers came in from the forests, and the Karifs from the neighboring coast villages paddled into town in their light piroques. The array of color in this collection of types and rabble of merry-making people was dazzling. The moonlit streets resounded with the cries of drunken woodmen. Gaily dressed musicians marched up and down, followed by a horde of merry men and women and half-dressed children. The players rattled the loose teeth in the jaw-bone of a donkey, rubbed a piece of tin over an old cassava grater, played home-made guitars, rattled bones and beat tam-tams. Many were singing a strange melody to the tune, half humming, half pronouncing words in an unintelligible patois and keeping time by wiggling their bodies.

The festivities over, the Karifs left for their homes, and the city resumed its usual peaceful silence.

In British Honduras there are about 32,000 people; 14,000 of these constitute the Spanish element (that is, Spanish and Indian and pure Indian); there are about the same number of negroes and mulattoes; 3,000 Karifs; and 1,000 Europeans and others. The coast is mainly inhabited, the interior being mostly an unexplored wilderness.

The colored population (that is, negroes and mulattoes excluding the Karifs) are very influential citizens in Belize. Many own considerable property and marry whites. They are called Creoles, which wounds the pride of the Louisiana Creoles, since they profess to be of pure French or Spanish extraction.

The Karifs live in huts made of pimento slats covered with mud and thatched with the leaves of the Cohune palm. They hunt, fish and grow cassava, yams and maize. They also raise cocoanuts and bananas, which they sell to fruiters.

The women wear nothing but a loose, sleeveless chemise of white cotton, which reaches to their knees, and a kerchief picturesquely tied around the head. The men wear a cotton shirt, pants and straw hat.

Under the refining influence of English rule, with schools, churches, hospitals, and especially the absence of American missionaries and color prejudice, they are rapidly improving.

PROFESSOR LANGLEY ON THE INTERNAL WORK OF THE WIND.

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IN the current number of the *American Journal of Science* there is a paper by Professor Langley, entitled "The Internal Work of the Wind," in which he gives the results of some very interesting observations on the extreme fluctuation in the horizontal speed of the wind as recorded on a light anemometer, at intervals, not of minutes, but of a few seconds only. He finds, for instance, that a conventional twenty-mile-an-hour wind will continually range from ten to thirty-miles an hour, at intervals of twenty seconds, occasionally rising to thirty-five miles an hour, or falling to a momentary lull. From these unexpected facts the Professor argues for such a necessary turmoil in the atmosphere as appears to him to furnish the factor necessary to afford an intelligible explanation of the otherwise apparently inexplicable problem of a heavy body, like a vulture, circling for hours aloft, without wing-motion or apparent effort of any kind. Further, the Professor regards this "internal force" of the atmosphere as a factor of so much importance in aeronautics that he ventures the prediction that the aerodrome of the future, by the mere change of the inclinations or aspects which it presents to the wind, will be able to achieve long journeys, even to circumnavigate the globe, with the expenditure of no more energy than is required for the necessary adjustment of its inclinations to the changes of the medium it floats in, except during calms.

Anything published by Professor Langley as the result of his careful deliberation is entitled to respectful consideration, but in the present instance I venture the assertion that he is being led away by a fallacy from his true line of investigation of this very interesting problem. His point of departure is, I think, easily traceable to a sentence embodying the expression that it would be impossible for a bird to circle in the effortless manner exhibited by a vulture under his notice, if the winds had been mere horizontal currents. This is an unsupported, and I believe it is a mistaken assumption; but leaving this for the present, I will first deal with what I consider the mechanical heresy involved in his prediction of the capabilities of the aerodrome of the future. Direct onward flight and circling involve some differences of mechanical principle. The eagle can circle upward with rigidly extended wings, but in essaying an onward course under the same conditions he must descend.

The mechanical principle of bird-sailing, that is, of gliding down an incline, may be expressed as the translation of the force of gravity into horizontal flight, by the pressure of a column of air on the under surface of the bird or artificial aeroplane presented to it at a suitable angle. The weight, with the first fall from a state of rest, gives the impulse, and the maintenance of the due angle, the direc-