

Modern Mayas May Explain Ancestors

Archæology—Eugenics

Why the glory of the Mayan civilization in prehistoric America has never been revived by any Indian descendants of that superior group may yet be understood, by studying the living Mayas of Mexico. This is the belief of Dr. H. H. Laughlin, eugenicist, of the Carnegie Institution of Washington.

Ruins of stone cities in the jungles of Guatemala and Yucatan are mysterious evidence of the artistic skill and organized effort once put forth by this Indian line. Stone tablets show that their astronomer-priests reckoned time by a calendar more accurate than any possessed by Europeans of the same eras. When the Spaniards came to America, these Mayas had been in conflict with Aztec and other Mexican tribes and had begun to slip back culturally.

Archæologists have wondered why this fading of culture occurred and why none of the Indians who claim descent from the superior Mayan culture have displayed the old artistry or intellectual power. Dr. Laughlin suggests that eugenics has a service to render to archæology in solving this problem.

A check should first be made, he

proposes, to determine whether there are really any living Mayas who may be taken as lineal and uncrossed descendants of the ancient Mayas. If these exist, then the abilities and traits of their ancestors should be analyzed on the basis of their accomplishments, and the modern Mayas should be tested to see whether they have inherited any capacities along the lines that made their ancestors great. If they have totally lost this inheritance, the decline of the Mayan culture may be explained on the grounds of racial degeneracy, and that alone would be a sufficient basic cause, Dr. Laughlin states.

"It is possible for subsequent generations to be lineal descendants of superior stocks and still to be quite different from such ancestors in certain qualities, or even to be degenerate in hereditary capacities," he has explained.

In population groups where superior families have few children and inferior families have many children, surprising changes occur in five generations. An inferior group which comprises 10 per cent. of a population will increase until it makes up 90 per cent. if it averages four children to

a family; a superior group comprising 60 per cent. of the population will at the same time dwindle to less than 1 per cent. of the population if it averages one child to a family; and a 30 per cent. middle group with two children to a family will be reduced to about 8 per cent. of the population. If such a change took place in Mayan communities their downward tendency can be understood.

If it can be shown that no such racial degeneracy overtook these Indians, breeding out the abilities essential to their success, then that old question at least will be settled, and the search for the answer to the Mayan riddle can be shifted with more confidence to the environmental factors.

The Mayas offer a peculiarly fine opportunity for studying the part played by heredity and environment in a great racial cycle, Dr. Laughlin shows, because it is doubtful if any other country claims to have uncultured inhabitants who are the unmixed and lineal descendants of the men and women who developed and sustained one of the world's high cultures.

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Confer on Spontaneous Combustion

Chemistry

An investigation of the world's worst uncaught "firebug" looms. A conference to discuss the facts, clues, and unknown quantities in the case regarding spontaneous combustion was held in Washington by the National Fire Protection Association in cooperation with the U. S. Departments of Agriculture and Commerce, on November 14 and 15.

When fire gets an insidious start in a dry, well-managed place where no human being has been wandering about with matches or other fire-making materials, the usual explanation is spontaneous heating and ignition, said David J. Price, chief of the division of chemical engineering at the Department of Agriculture, in outlining the situation faced by the conference. But the usual explanation, he continued, is almost as unsatisfactory as writing down a mystery on a police blotter under the heading "unsolved", for the process which sets up spontaneous heating and ignition is still unknown.

The undetected process manages to start \$20,000,000 worth of fires each year, according to insurance figures, and there is \$200,000,000 more lost in fires vaguely attributed to causes unknown.

The conference is not to be limited to a few experts, Mr. Price emphasized. All who can shed light on the case or who are interested in the problem in any way are invited. The meeting will attract representatives of the railroads, marine transportation lines, manufacturing industries, the sugar industry, feed and cereal manufacturers, producers of hemp and other combustible fibers and of animal and vegetable oils, the paint and varnish industry, the fertilizer industry, and insurance companies.

The problem is to discover the laws of nature under which the destructive process operates and then to prevent the circumstances which make the process possible. A prominent government chemist, Dr. Charles A. Browne, holds the theory that the process is

both bacterial and chemical.

Describing conditions in a haystack which catches fire, he points out that first of all bacterial action causes fermentation. This heats the hay, but not enough to cause ignition, for at 150 degrees Fahrenheit the bacterial process is mostly destroyed by heat, and 600 degrees would be necessary for ignition. His theory is that a chemical process enters the situation. The bacteria produce gases, and as the haystack is heating, the gases press out from the centers of chemical activity and form channels in the hay. When a channel reaches the surface of the stack, air rushes in suddenly, and the hot, unsaturated products are oxidized and the temperature rises to such a point that fire is readily produced.

It is hoped that the conference will start action toward an organized study of the causes and conditions that produce these presumably preventable fires, Mr. Price stated.

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