

NATURE'S INTELLIGENT AMERICAN INDIANS

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Nature has been building human cultures throughout the world during tens of thousands of years. These have risen and flourished and have either past into decadence or have continued to thrive through many centuries depending upon their ability to adapt themselves to Nature's requirements for maintaining life. The history of man on the earth has disclosed very few cultural groups that have maintained their existence to the present time and these only because they have learned Nature's lessons and heeded them. Outstanding among these are the American Indians. His proving grounds have included ranges of habitation from the Arctic and Antarctic to equatorial jungles, and from sea level to high mountain valleys and plateaus. His food supply, accordingly, has varied with these foods which are characteristic of all these zones. In spite of this great diversity the American Indian has had a wonderful capacity for adaptation and has had the intelligence to build a unique culture which included wisdom for preserving for his posterity all of the fundamentals required for maintaining life in these various zones.

A study of human nutritional needs in various environments and climates reveals that man's requirements on a chemical basis are practically the same everywhere with modification for providing additional fuel for his body to maintain warmth in extreme climates. The Indian has everywhere learned that the requirements of his body are in general those of the animal life around him. He, accordingly, has learned that the storage depots of the animal body will provide him with the food products that he personally needs. Where the environment has been such that the scanty vegetation has supported limited quantities of animal life he has learned to conserve both animal and vegetable foods taking great care not to destroy the environment. Unlike many of the displacing cultures that have taken his best territory from him he was always able to spare enough moose, caribou and buffalo to keep the hunting fields stocked for feeding his descendants.

In order to learn why our highly modernized cultures of the present are rapidly degenerating, I have gone to various parts of the world to study remnants of primitive racial stocks both where they are isolated and where they are in the process of being modernized through being in contact with our modern culture and its commerce. I have found in each of fourteen primitive racial groups that they were breaking down physically directly in proportion as they displaced the native nutrition of their habitat with the modern foods of commerce. While the various races had developed national characteristics that gave them a racial physical type, they have in every case lost certain racial characteristics, even in the first generation, after the parents had displaced the native foods with the highly modernized foods of commerce. Further, these physical changes have been similar to those patterns which are dominant in practically all of our modernized groups. It is a matter of great significance and importance that wherever the primitive groups have maintained an existence through many centuries, they have known the necessity for supplying the parents with the nutritive foods that are essential for reproducing normal generations having a constant physical quality and standard of perfection. The nature of the essential chemical content of the foods has been disclosed by modern science. Even in the absence of specific knowledge as to the nature of the many and varied chemical substances required for human nutrition, the American Indian has been capable of continually selecting from the foods of the environment those special products that were essential for all the varied needs for growth and reproduction. He has been able to do this because of his acute capacity for correct observation and reasoning from cause to effect.

One of Nature's greatest endowments in all forms of life has been the capacity of various animal forms to react within their environment under the influence of an inherited type of wisdom which we call instinct. The American Indian everywhere seems to have been conscious of his relationship to the world of Nature in which he lives. This is so intimate that mother Nature has supplied him with adequate wisdom for efficiently living in the various

environments so long as he faithfully respects and obeys her commands. He has continually looked to animal life about him to learn from them the foods he must eat in order to maintain his physical excellence and the existence of his kind.

It is at this point that our declining modern civilization has made one of its greatest mistakes. Among the animals this quality of knowledge at birth which we call instinct not only preserves the infant but continually sustains the animal not only through its growing period but also throughout its life. This quality of knowledge at birth constitutes what is probably the greatest sustaining force for all forms of animal life.

A splendid illustration is provided in birds of how the parent animal can transmit to its offspring not only a brain mechanism that is capable of learning and of functioning continually according to its acquired wisdom, but also sufficient knowledge for managing its own birth. The developing chick completes its prenatal growth in a hard-walled encasement, the strength of which far exceeds the strength of this developing embryo. We think of the chick, whether of a tiny bird or a large domestic animal, as breaking through its shell by a series of blows delivered with the tip of its bill. The space occupied, however, is such that there is no room for the head to be drawn back and the blow to be struck. Indeed the shell is not broken with the tip of the bill. Chick embryos are born with a little tool on the top of the bill, not at the tip, which is very hard resembling enamel. The shell is ruptured by a series of incisions that are made on the inside of the shell which weakens it sufficiently so that the struggling of the bird bursts open the shell. Very soon after the birth of the chick this structure is absorbed and disappears. This young bird, accordingly, is not only born because it has a brain but because it has a brain that already has recorded knowledge which we call instinct.

One of the most serious misfortunes occurring in our modernized civilization is the dwarfing and in many cases the complete loss of this quality

of inherent wisdom which not only sustains the infant at and following birth but supplies it with intelligence throughout its entire life.

The problem of instinct and the part it plays in even our modern civilization in spite of its progressive degeneration, is splendidly illustrated in a series of infant studies in which babies are taken at the weaning age, some at six months, and permitted to make their own selection of foods from a series made available on a little table before them. In one set of experiments with which I assisted in selecting the foods, sixteen different foods were used and placed on the table and weighed in and weighed out each day. These children consistently showed better growth in the six months period than the control group in modern hospital wards. They also went six months without a single digestive upset. The foods used in this particular test were those that I had found primitive races using in various parts of the world, including the foods used by the Indians of the far North in Canada in which bone marrow played an important part. It was most significant that these children selected bone marrow, preferably raw, more than any other food.

One of the first and most serious expressions of degeneration involves the blighting of this inherent quality of instinct. Its loss seriously disarms the modernized individual of both animal and human species. I intentionally use the word modernized as applied to animals so I may emphasize by comparison the series of defects that occur in successive deprivations of parent animals. In the dog species, for example, the bull dogs, Boston terriers, and toy dogs are the product of this type of parental management and individual nutrition through several generations. The effect of this is to so seriously injure them that English bull dog mothers have largely lost the instinct of motherhood and the young have often quite largely lost the capacity for utilizing the breast food of the mother.

It is particularly important that the living primitive races have to a splendid degree maintained through adult life many of these expressions of instinct which provide largely for individual and race preservation. It

is of interest that modern science goes far toward helping us to interpret and understand some of the essential workings of this process. Notwithstanding this key to our degeneration our modernized cultures largely lack the capacity to resist the destructive processes. Whereas modern science aids us in understanding the forces that constitute our breakdown, many of the primitive races including the American Indians without this knowledge have understood clearly not only the necessity for preventing physical degeneration but the means whereby superb physical excellence and capacity for reproduction can be maintained. This is splendidly illustrated in the countless contributions that primitive races have made to the sum total of common knowledge.

When I was travelling in northern Canada inside the Rocky Mountain Range, I was shown the burial place of a large group of white prospectors who had died of scurvy because of lack of vitamin C in their nutrition. I learned through my interpreters among the local Indians that practically any Indian could have told the whites how they could have readily stopped that disease and cured the men in the expedition. These prospectors were undertaking to go by land from the McKenzie River Delta over the Rocky Mountain Divide to the Yukon River at the time of the gold rush. When I asked why the Indians did not tell the white man, their reply was that the white man knew too much to ask the Indian anything. Notwithstanding this white sailors and military expeditions had been dying of scurvy many hundreds of years, while the Indians have long known means for the prevention of scurvy and have practiced them.

In 1535 when Jacques Cartier, the explorer, was in Canada his men were dying rapidly of scurvy. The local Indians taught them how to steep green succulent shoots from the spruce trees and give this decoction to the men. ^{This} Their completely cured their scurvy, but European sailors continued for hundreds of years to die of scurvy.

This problem of wisdom of the Indian tribes of various areas in North and South America constitutes one of the most beautiful incidents and inspiring records of American and world history. A few of the many outstanding medicines

that the American Indian has given the world are quinine for the control of malaria, cocaine for the control of pain and the use of aluminum silicate for the treating of certain digestive disorders.

A splendid illustration of the practical wisdom of the American Indians was brought to my attention when I was returning from the far north in Canada on the waterway inside the Rocky Mountains, east of Alaska. As we were coming upstream travelling as rapidly as our motor driven craft could carry us because of the danger of a freeze-up terminating navigation, we were hailed by two men waving frantically on the shore who entreated us to carry them back to civilization. They were prospectors who had gone into that country for a two years stay searching for rare minerals. One of them told me of his experience. They had undertaken to get into that isolated territory by using an airplane to fly them and their supplies in from Alaska but the plane could not take them over the elevation of the Rocky Mountain Range and was forced to put them down on a lake west of the Rocky Mountains. They undertook to carry their material over the range which they found to be a hundred miles wide and with an elevation of nine thousand feet. They found that this task of portaging their essential material and food would take them two years to accomplish. Accordingly, they abandoned the entire enterprise and undertook to save their lives and get out before the winter freeze-up. While crossing over the divide one of them nearly lost his eyesight which was not due, however, to snow blindness. The pain was so severe that he was almost insane and his blindness such that he continually stumbled and fell over obstructions. He almost ran into a grizzly bear and her two cubs. Fortunately, the cubs ran away and the old bear followed. He sat down on a stone sobbing with the conviction that he never would see his wife and children again. While sitting there he heard a voice. It proved to be that of an old Indian who was tracking the grizzly bear. Neither could speak the other's language but the Indian with his superior wisdom recognized the nature of the prospector's trouble as being due to a nutritional deficiency which he knew how to correct. He, ac-

Accordingly, led the man to a mountain stream where the Indian proceeded to build a trap of stones in which to catch fish. He then went upstream through the bushes and came splashing down the stream chasing the trout ahead of him into the trap, where he caught them and threw them out on the bank. He had this nearly blind prospector eat the tissues back of the eyes which modern science has disclosed to be one of the richest sources of vitamin A in the entire body even exceeding that of the liver. In a few hours' time the pain was relieved and his sight was rapidly returning. In profound gratitude he offered the Indian his rifle which the Indian declined. The simple living Indian had greater wisdom than the highly trained college professor and with it he had a noble heart.

The physical changes that are produced as a result of inadequate nutrition can be divided into two groups, first, those which relate to the faulty nutrition of the individual which includes dental caries or tooth decay, and second, those physical ^{injuries} changes which are the direct result of imperfect germ cells as provided by the parents due to their inadequate nutrition prior to and at the time of fertilization.

Since the available space in this article is quite brief, I will limit the illustrations and detailed studies to only one of the expressions, namely, tooth decay. In all the primitive racial stocks that I have studied there has been a marked difference in the incidence of dental caries in the two groups; namely, those that have been prevented from using foods of commerce, chiefly because of their isolation, and those who because of their contact with the foods of commerce have adopted the dietary patterns of modern white man including the use of highly modified foods, namely, refined sweets, demineralized and devitalized cereal foods, particularly white flour, highly sweetened jams and jellies with a limitation of the animal foods largely to the muscle meat. These have crowded out the body-building and repairing chemicals. Dental caries increased from an average of 1 tooth per 100 teeth to an average of 30 teeth per 100.

As illustrations I will use eight pictures to show the changes in the teeth with change in nutrition for each of four isolated groups all of American

Indian steak, two in North America and two in South America. Figures 1 and 5 show Indians of the far north in Canada. In Figure 1 we see the typical splendid teeth of a woman living in a community where a very large part of the available food consists of the organs of animals, chiefly moose and caribou. I examined one group of 70 Indians who were highly protected from foods of modern commerce and not one of the seventy had a single tooth that had been attacked by dental caries or tooth decay. In contrast, we see in Figure 5 a modernized Indian mother living in Anchorage in southern Alaska whose upper front teeth are decayed to the gumline and the back teeth are badly riddled with decay. The food of the isolated Indian included the organs of animals and that of the woman in Figure 5 consisted of white flour, sugar and jams, and canned foods available in commerce.

In Figures 2 and 6 are illustrated Seminole Indians in Florida. Figure 2 illustrates a woman who is living very largely on the native foods, including turtles, native plants, fish and shell fish. The woman in Figure 6 was living almost entirely on the demineralized and devitalized foods of commerce such as white flour, sugar and jams, and canned foods.

The Indian in Figure 3 is living on the coast of Peru, South America, where like the ancestors of his Chimu tribe he is living largely out of the sea which provides an abundance of fish forms. His teeth are free from dental caries and he has many physical characteristics that display the excellence of the nutrition of that group both in his generation and in the hundreds of years preceding as evidenced by the burials. In contrast with this we have a highly modernized Indian boy in Figure 7 also living on the coast in the port of Quayaquil, Ecuador. Like large numbers that I saw on the streets of that city, dental caries had already robbed him in his boyhood of a large proportion of his teeth as shown by his disfigurement.

In Figure 4 we have a woman of the Amazon Jungle showing her magnificent and fine physical form. In my studies there I found large groups entirely free from tooth decay. In contrast we see in Figure 8 a young man of the same

stock whose teeth are badly decayed. He was living in a colony that was being supplied modern foods of commerce which was causing the breakdown not only of the teeth but other organs.

It is important to keep in mind that this problem of dental caries is almost entirely the result of faulty nutrition of the foods of the individual at the time and prior to the time the teeth are decaying. An important lesson for us is to recognize that Nature in these various districts of the earth has provided the foods, if properly selected, that will not only build good teeth but keep them sound, if the individual will limit his foods to the use of those that will provide the body building and repairing chemicals adequate for ^amaintaining/proper chemical balance within the blood and saliva, which latter provides the environment for the teeth and controls the type of bacteria that will grow.

Since tooth decay, serious and important as it is, is only one of many expressions of modern degeneration which is tending to exterminate the splendid Indian cultures just as it is exterminating the white race, it is very important that not only this expression of degeneration but also many of the other forms causing race decline should be a matter of careful study and education of Indian groups throughout all the Americas. In order to make this possible in very simple and concise form, I have prepared a series of illustrated discourses in which several hundred pictures such as are used in this article, are provided on film strips of the standard 35 millimeter film, which can be shown with a small projector. The story carried by each picture is described in a manual which is synchronized to the numbered pictures. Experience with the use of these lectures in schools, both grade and high schools, has demonstrated that the boys and girls are keenly interested not only in their own betterment but also in the improvement of the race. This, accordingly, provides a means for recovery of our vanishing physical and mental qualities through the improvement of racial stock by returning to Nature's formulae for building body and character, since personality and character also are

related directly to the capacity ^{for} of creating each new generation. It is not an accident that both physical weakness and character degeneration are associated with an inadequate nutrition of the parents.

Many students of the American Indian groups have emphasized their sterling qualities. These qualities have been based upon the Indian's high appreciation of his close interrelationship with Nature.

Ernest Thompson Seton in his book THE GOSPEL OF THE RED MAN estimates their character as follows:

"The culture and civilization of the White man are essentially material; his measure of success is, "How much property have I acquired for myself?" The culture of the Red man is fundamentally spiritual; his measure of success is, "How much service have I rendered to my people?"

If the world was populated by cultures with these high ideals based on an intimate cooperation with the fundamental laws of mother Nature we would not have the great scourges due to selfishness and greed that are ravaging the world today. Indeed at the rate the white man is degenerating through his disregard of Nature's laws of life, it will not be long until his culture will disappear from the earth. The question is whether our modernized groups will have the knowledge or personal character necessary for living in harmony with mother Nature. In this situation Nature may call upon her more obedient Indian stocks and it is very important that they shall not be led astray and dispoiled by the illusions of our modern white race, so they may cooperate with Nature in building an ideal civilization.

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