

[S. CA STATE DENT. ASSOC. J
MAY 1958
VOL. 26, NO. 5]

The Canine Teeth---

Normal Functional Relation of the Natural Teeth of Man (continued)

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THE DENTITION OF THE PRESENT CALIFORNIA INDIAN

In order to satisfy my conviction that primitive man would have exhibited an overbite of the canines and an interlocking position similar to the anthropoids, I set out in search of living California Indians who would be living in the same manner as their white neighbors. I was quite fortunate in my search to have the help of the Bureau of Indian Affairs at Sacramento. I was given information on the location of the one remaining organized group of Maidu, located 30 to 40 miles east of Sacramento and Colusa in the foothills of the Sierras and a short distance from Auburn in Placer County. With the assistance of Doctor Walter Banbrock of Auburn, arrangements were made for us to make a field trip examination of the young members of the group. We were assured full cooperation by their spokeswoman, Mrs. Violet Rey, and that if we found what we were looking for, individual members could be transported to the offices of Dr. Banbrock so that impressions could be taken for study casts.

The group was small, approximately 82 members. The plot of land given to them could not be called a reservation, a better term would be a refuge as it consisted of 42 acres of rocky soil unfit for tilling. However, a small plot had been cleared for cultivation, upon which they produced their own vegetables and berries. Cottages of the group were quite livable, having running water and electricity. An electric washing machine, operating constantly,

served as the community laundry. Their way of life today is not unlike their white neighbors. In order to give the reader a better perspective of their diet of today and that of their ancestors before the white man arrived on the scene, I would like to quote some excerpts from a letter I received from Mrs. Rey after our visit.

"Our group has been on this Rancheria since 1916. It was originally bought and set aside for homeless Indians by the United States Government. We have no chief now. About four years ago Antone Wiley, the last chief, died and no successor has been chosen. I am the main spokeswoman for the Auburn Indian Rancheria, the other two are Cleve Rey and Carl Moman. I am usually at home, while the men go away from home to work. Hence, I was chosen main spokeswoman so that I could attend to any business in their absence.

"We have no tribal council. If any business of importance comes up, a meeting is held, at which all adult members of the group, men and women, have their say. Then when the pros and cons are settled, I usually write or send word to the Indian Area Director or others concerned.

"In the preparation of our food we use the same utensils that our 'white' neighbors would. Pots, pans, silverware, glasses and chinaware. No native dishes of pottery or baskets are used. In fact, very few of us own baskets of any kind, the few that do keep them for show. We have the same menu as the 'whites', except maybe we

eat a heavier meal for breakfast, usually lots of fried foods. The meals are prepared from available fresh stocks as afforded, such as meats, vegetables, cereals and fruits. I believe that the diet is usually too starchy, potatoes, beans, macaroni, and lots of bread. Acorn soup is now a rare treat and made only on special occasions. If at anytime anyone is fortunate enough to have a great quantity of fish, some is dried and a part is canned. We do a lot of canning and jelly making (using pectin) because a lot of fruit is available.

"I do hope that some of this information is helpful to you. I am afraid that we have lost our native habits. For years we have mingled with the 'whites' and have accepted their ways as better if we are to survive in this day of progress. Our living depends on our being able to mingle and get along with our 'white' neighbors."

From the preceding statements by Mrs. Rey, we note that their way of life today is the same as that of the average 'white' of today. Such being the case, we would not expect to see the edge-to-edge bite of the incisors and canines and extreme attrition as seen in the primitive. Oral examinations revealed the overbite of the incisors and overbite and interlocking position of the canines. Due to ravages of caries, many members had premature extractions. Such being the case, the available supply of good specimens was limited. Be that as it may, sufficient material and data were available to demonstrate that transition from the edge-to-edge primitive relation to the overbite as seen in European man of today took place, as soon as they adopted the Western way of living. Some of the changes in the way of living would include the immediate change from a stone age to the metal; changes in methods of preserving foods for storage and future use, from the drying methods to canning, etc.; a change in methods of preparing foods for cooking; a change in cooking methods; a change in utensils as well as a change in eating habits. These changes have eliminated attrition, thus permitting the teeth to erupt into normal position in the alveoli and into normal functional relation with their opponents, and maintaining the vertical relation.

The early California Indian was omniv-

orous. Included in his diet were grains, fruits, berries, meat and vegetables. Information submitted to me by Mrs. Rey lists a great variety of each as follows: acorns, seeds of wild oats, wild rice and other grains. These were toasted for meals. Roots or young tender shoots of tule, wild potatoes, blue bells and chatterbox. For greens they ate fresh clover (much of this was dried for winter use), watercress, wild sweetpeas, (the tips or buds just before blooming) lambquarter, pigweed and California poppy. Fruits included a great variety of wild cherries, plums, crabapples, wild grape. Wild berries, such as the blackberry, were eaten fresh in season although a great part of the harvest was cooked and dried in cakes for winter use. Manzanita berries were used for drinks. For meat the menu consisted of wild rabbits, squirrels, birds and deer. Also worms and the larva of the yellow jackets, grasshoppers which were roasted, then ground and mixed with meal and made into a mush were a part of their diet. The Maidu was not a great fish eater. He also included a certain type of eel, but never snakes of any kind.

The foregoing information coincides quite well with that contained in the "Handbook of the Indians of California" by A. L. Kroeber. However, Kroeber (18) goes into greater detail in all the cultural phases affecting the life of the California Indian. His description of the methods used for grinding food by the use of stone or wood mortars and the metate (used extensively by the Indians of the southwest and found in use by some of the California Indians) would indicate that considerable amounts of abrasive substances were readily incorporated in the food. Leaching of acorn meal in sand pits would likewise incorporate abrasive matter with the meal. Heating the meal by placing it in tightly woven baskets, casting heated stones into it and stirring would also increase the abrasive content. Other factors contributing to the extensive attrition would no doubt include the hard toasted grains and the hard dried berry cakes. The coarseness of these foods would involve greater muscular effort or force to masticate them sufficiently for deglutition. A comparison of the progress of attrition in the California Indian with that shown by

