

## ESKIMOS AND ALEUTS; THEIR ORIGINS AND EVOLUTION

By WILLIAM S. LAUGHLIN  
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Reviewed by

WILBERT RUSCH SR.

Concordia Junior College, Ann Arbor, Michigan

*Science* for the 8th of November, 1963, contains a fascinating and interestingly written article entitled *Eskimos and Aleuts: Their Origins and Evolution* by William S. Laughlin. The article proposes a picture of Mongoloid peoples migrating across the Bering Platform, then withdrawing from the main migration route as the Bering Sea advanced and settling in the Aleutian area. Here, over a relatively short time, significant differences developed between these Mongoloids and others who settled in Alaska and Greenland. As a professor of anthropology at the University of Wisconsin, the author is at home in the area and well qualified, judging from the number of references in the bibliography to other literature on the subject, which he has contributed.

The article begins by dating the first contact between Eskimos and Europeans at about 1,000 A. D., when they were discovered by Leif Erickson. Although this was the first historical contact, at that time Greenlandic Eskimos, Alaskan Eskimos and Aleuts had already been in North America for over 4,000 years. Laughlin then points out that the Eskimos and Aleuts are Mongoloids, with various adaptations having developed to suit the wide range of environments encountered. One might bear in mind that the climatic range is from Marine West Coast to tundra and ice-cap in this part of the world.

The variations encountered through their distribution over a long coastal area make these people uniquely suited for studies of population genetics as well as microevolution. There have been a number of stratified village sites that, after excavation, revealed many animal remains as well as human artifacts and skeletons. A further source of information is the result of studies of blood group distribution as found among the current Aleuts, Greenlandic Eskimos and Indian tribes of North America.

Laughlin reports some of the findings of R. F. Black which pertain to the geological past of the Alaskan area. It is proposed that about 12,000 years ago, dry land extended out to Umnak Island. The Bering platform up to 8,000 years ago was dry land and offered an easy path for migrations of animals and human beings from what is now Siberia across to Alaska and points east and south from there. As the water level rose, the passageway was narrowed, and future migrants may have passed without necessarily making contact with established groups such as the Aleuts, who possibly migrated around to the south of the passage. Hill remnants

of the presently submerged platform are such islands as the Pribilofs, Umnak, Anangula, Nunivak, St. Lawrence Island, etc.

In the vicinity of Umnak there is at present a village of some fifty-five Aleuts, called Nikolski. On the south margin of this community is an old stratified village site called Chaluka. Excavations have revealed 4,000 years of continuous record. Laughlin lists possible food sites and useful drift products which might have, been available to the inhabitants here to increase the comfort of living at this site. Geological evidence would seem to indicate this village could not be older than 5,000 B.C. It would also seem to indicate a constant water level during this period. A sample taken from the lowest inhabited level and dated by radio-carbon resulted in a proposed age of 4,000 years for the site.

The most fascinating and valuable part of the whole article to me is a series of photographs on page 637 which compare the skulls of a paleo-Aleut with those of the neo-Aleut. A study of this series of photographs indicates that the paleo-Aleut appears to have the more modern cranium whereas the neo-Aleut looks more primitive, being broader, having accessory infraorbital foramina as well as a much shortened cranium and other differences. Another fascinating picture is on page 639 showing the mandible of a man of Japan of about 1,000 A.D. This looks somewhat reminiscent of that of the Heidelberg jaw except for the chin. It is mentioned that the breadth of the ramus exceeds that of *Homo neanderthalis*. On the same page is a statement that Eskimos probably have more sweat glands than members of other races.

On page 641 there is discussion of blood group data with respect to Eskimo and Aleut groups. This data shows that the members of this stock are clearly distinguished from American Indians and more similar to Asiatic Mongoloids on the basis of this distribution. Blood type B apparently occurs in the Eskimo Aleut groups and ranges from 2 to 26% whereas in American Indians it is zero.

Another photograph on page 641 is the photographic view of the top of a neo-Aleut cranium showing an extra horizontal suture-which separates the upper portion of the occipital into a triangular region. This feature must be uncommon enough in the modern European and American white race to account for its never being mentioned in the average general or vertebrate biology text. Incidentally, the statement is made that this feature is also found

in *Sinanthropus pekinensis*, Mongoloids, and American Indians in varying but often high frequencies. The next page 642 shows the palate of a paleo-Aleut showing some similarities between that and current Mongoloids, American Indians, Polynesians, and *Sinanthropus pekinensis*.

On page 643 is probably, from our point of view, the most important paragraph of the article which is headed *Sinanthropus and Modern Mongoloids*. Laughlin proposes a time limit for contemporary Mongoloid type existence of the order of magnitude of 10-15,000 years. Apparently there have been considerable changes within the last several hundred years. He also points out the importance of the finding that Middle Pleistocene *Sinanthropus* displays traits that are also found in current Mongoloid populations as well as among the related American Indians.

Reference is made to the three skulls from the Upper Cave of Chou Kou Tien in North China, "They are thought to be Late Pleistocene, but they are probably no older than the early American Indian remains such as the 'Midlands Woman,' to which a date earlier than 8,000 B.C. and possibly as early as 18,500 B.C. has been assigned." (Page 643). The statement is further made that the three skulls from Chou Kou Tien resemble "unmigrated American Indians," which is apparently a quote from W. Howell's *Mankind in the Making*, Doubleday, New York, 1959, p. 300. A further statement, "The evidence from China indicates that modern mongoloids are relatively recent development." The

reference given for this is K. Chang, *Science* 136, 149 (1962) .

The final interesting statement on this page reads, "In discussing the nomenclature and classification of *Sinanthropus pekinensis*, Weidenrich remarked, 'It would be best to call it *Homo sapiens erectus pekinensis*. Otherwise it would appear as a proper species, different from *Homo Sapiens*, which remains doubtful, to say the least.' " Page 643 This last is taken from F. Weidenreich, *Paleontology Sinica*, 1943, No. 10, 127, 246, 256 ,1943) .

Laughlin summarizes by holding that Mongoloids represent a recent development in humanity, possibly occurring as a distinctive type within the past 15,000 years. Although recognizing the differences between *Sinanthropus* and current Mongoloid, it still holds that there are more shared traits than with members of any other of the living races today. The small number of fossil remains, the great time lapses, all go to make proposed inferences tentative. In further summing up, Laughlin finds that significant differences are present between the related Aleuts, Eskimos and American Indians; and that apparently this has occurred over a demonstrated short time lapse. When this is coupled with the large differences found among various living human groups, e.g. Bushmen and Eskimos, one is justified in concluding that *Sinanthropus*, and by inference I would also say *Pithecanthropus*, also belong to the same species, *Homo sapiens*.

Wilbert H. Rusch, Sr.  
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