

PALEONTOLOGY

Earth's Oldest Man Now Two Million Years Old

► BY A NEW METHOD of dating ancient rocks, scientists now find that the volcanic beds surrounding the remains of the world's oldest known human being are more than two million years old.

The new age is reported in *Science*, 148: 72, 1965, by R. L. Fleischer, P. B. Price, R. M. Walker of General Electric Research Laboratory, Schenectady, N.Y., and Dr. L. S. B. Leakey of Coryndon Museum Centre for Prehistory and Paleontology, Nairobi, Africa.

Scientists formerly believed the human remains of *Zinjanthropus* and *Homo habilis*, discovered in the Olduvai Gorge, Tanganyika, by Dr. Leakey, were 1.75 million years old, as determined by the radioactive decay of potassium and argon.

The new more accurate method of determining age is called fission-track dating, by which scientists count the number of tracks caused by spontaneous fission of uranium 238 during the lifetime of the sample. By studying the density of these tracks and the number of uranium atoms, scientists can determine the age. This method has proved successful in dating glass samples and various minerals from 20 to 1.3 billion years old.

• *Science News Letter*, 87:244 April 17, 1965

ARCHAEOLOGY

Bering Strait Studied As Land and Sea

► FOR MILLIONS of years the Bering Strait area between Russia and North America was sometimes a land bridge across which animals and prehistoric man traveled and sometimes a seaway through which marine creatures migrated between North Pacific and North Atlantic oceans.

Recent Soviet and American studies of fossils, sediments and rocks around the Chukotka Peninsula extending eastward from Russia and the Seward Peninsula extending westward from Alaska have cast new light on just when the land bridges and sea lanes were opened and closed, reported Drs. D. M. Hopkins and F. S. MacNeil of the U.S. Geological Survey, Menlo Park, Calif., and Drs. R. L. Merklin and O. M. Petrov of the Academy of Sciences of the USSR in Moscow.

During the time of the great ice ages, more than a million years ago, glaciers crept down from the north to cover vast areas of northern lands and leave deposits of rock, earth and other materials when they receded.

By studying the sediments exposed in recent times along the Alaskan and Siberian shores, the scientists hope to find similarities along the opposite shores and to establish precise histories of the land bridges and seaways, the scientists reported in *Science*, 147:1107, 1965.

The Bering Strait may have been open for sea traffic just before glaciers in the last ice age arrived to block it up again.

At certain times during this glaciation period the Strait was open and then closed again, forming a land bridge.

Comparisons between the Russian and U.S. scientific research are complicated by factors such as differences in concepts and nomenclature concerning the sea creatures, deformations of the areas since the glaciers receded, and the fact that currents of water flowing up the Alaskan coast and down the Chukotka coast have brought about differences in temperatures and animal species.

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ANTHROPOLOGY

Early Man's Teeth Gave 'Survival' Edge

► THE LA JOLLAN PEOPLE who lived in Southern California as long as 9,000 years ago had huge teeth and toothaches to match.

This disclosure came from Dr. Albert Dahlberg, University of Chicago anthropologist and dentist, after he examined the teeth in La Jollan skulls in the Museum of Man, San Diego, Calif.

The aborigines of Australia are the only living race of people that have teeth as big as the La Jollans had, said Dr. Dahlberg.

The La Jollans' big teeth probably gave them a "survival advantage" over their contemporaries in prehistoric times.

A shovel-like formation of the upper teeth identified the La Jollans as Mongolian.

Some teeth showed a peculiar pattern of wear, which indicated that the La Jollans may have used their teeth as tools.

The La Jollans had practically no cavities, probably because they lacked sugar in their diet.

As for the big toothaches, Dr. Dahlberg said that people who lived before dentistry often chewed on one side of their mouth, probably because the other side hurt. The La Jollan teeth he examined indicated this.

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ARCHAEOLOGY

Forms May Have Lived In Proterozoic Canada

► MANY SMALL, round and elliptical forms, found in the black shales of the Labrador Trough, Quebec, may have been living creatures 600 million years ago in the Proterozoic era.

The bodies were found in compressed carbonized form and some of them were composed of pyrite minerals. The longest measure less than two inches long, according to Bruce L. Stinchcomb, Harold L. Levin and Dorothy J. Echols of Washington University in St. Louis.

Another group of samples, collected at Schefferville, Quebec, are larger and have been better preserved, they reported in *Science*, 148:75, 1965.

Scientists believe these tiny forms may once have been alive because their shapes are so constant and they have been preserved by carbonization, an indication of organic life.

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Questions

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