

Birthplace of the Moon

THE FACT that the north and south magnetic poles of the earth are approximately at the ends of the Pacific Ocean Basin is circumstantial evidence for the old theory that the moon was born from that part of the earth.

According to this idea, at some time in the distant past a huge mass was torn loose from the earth to form the moon, and the hole that it left is now the Pacific Ocean. The magnetic evidence is pointed out by Dr. Oliver J. Lee, of the Dearborn Observatory, Northwestern University.

The geographical north and south poles of the earth are, of course, symmetrically placed, 180 degrees apart, or just half way around from each other. Dr. Lee points out that the case of the magnetic poles is different.

"A remarkable asymmetry exists in the longitude of the earth's magnetic poles, which are at present in 96° west and 155° east longitude," he states. "They are, therefore, only 109° apart, and their longitudes mark out roughly the average boundaries of the Pacific Ocean, the vast basin of which has many 'deeps' and is enclosed by a giant circlet of extinct and active volcanoes.

"If this basin is the birthplace of the moon, it does not seem unreasonable to expect that enough of the heavier, deep-lying magnetic elements in the earth may have been torn along, placenta-wise, on that natal occasion to actually fix the magnetic poles of the earth in these regions. Perhaps it would be better to say that when the lunar material departed, a shift in the distribution of magnetic materials within the remaining mass took place toward the Pacific basin."

Geology

Science News-Letter, August 9, 1930

New Hormone

A HORMONE is secreted by the middle part of the brain which stimulates the kidneys to increased activity, Dr. J. Olivet of the Augusta Hospital, Berlin, has just reported. The hormone is produced by the middle part of the brain but is ejected when other parts of the brain are irritated.

Some time ago it was observed that irritation of certain spots of the brain, particularly that known as the fourth ventricle, stimulated the kidneys and produced a strong diuretic action. It was believed that

this was purely a nervous action, that when the fourth ventricle was irritated a nerve sent a message to the kidneys which increased their activity.

However, it was found that the same result was produced when the kidneys were entirely freed of their nerves. This led to the theory that the messenger from the brain to the kidneys was a chemical and not a nervous one, at least in this case.

Dr. Olivet found that the blood serum of animals that had had their brain ventricles irritated produced the same effect on the kidneys, when injected into other animals, as did direct irritation of the brain ventricle. This he considered evidence that a hormone was at work. The hormone seems to be present not only in the blood serum but in the urine of the animals.

Physiology

Science News-Letter, August 9, 1930

Eskimo Chewing

THE OLD adage has been altered to read, "Tell me *how* you eat and I'll tell you what you are"; but Prof. Earnest A. Hooton of Harvard University has doubts of the validity of this particular article of evolutionary doctrine. In the scientific periodical, *Human Biology*, he discusses this and other skepticisms that have grown up in his mind concerning certain special hypotheses in evolution.

It has for a long time been stoutly maintained by some anthropologists that the peculiar shape of Eskimo skulls was impressed on them by the hard exercise of the jaw muscles of this people, necessitated by their exclusive diet of meat and fish, and to the fact that they prepare leather by chewing animal skins soft. But Prof. Hooton calls attention to the countervailing facts that much of the fish that Eskimos eat has been frozen hard and then thawed again, reducing it to "about the consistency of ice cream," and that the chewing of hides is exclusively women's work, whereas the peculiar skull shape in Eskimos is most strongly evident on the male side of the igloo.

Among the other beliefs at which Prof. Hooton looks quizzically is the doctrine that Negroes, Malays and other dark peoples have deeply pigmented skins as a result of the constant tanning they get from the tropical sun.

Anthropology

Science News-Letter, August 9, 1930

IN VARIOUS

Spleen X-Rayed

AN X-ray picture of the spleen, one of the body's most important organs, may now be made, Drs. W. S. Keith and D. R. Briggs of the University of Chicago have just reported. This means that when physicians suspect an illness is due to disease of the spleen, they may examine the organ by X-ray without making an exploratory operation into the abdomen.

The spleen is a unique organ. It has the most abundant blood supply of any organ of the animal body. Moreover, its tiny blood vessels are richly supplied with scavenger cells. These cells mechanically filter out bacteria and other undesirable particles from the blood stream.

Taking advantage of this unusually efficient local scavenger function, Drs. Keith and Briggs injected emulsions of iodized or X-ray-opaque nutrient oils into the blood stream. Within half an hour most of the oil droplets had been taken up by the scavenger apparatus of the spleen. X-ray pictures now showed sharply defined splenic shadows, even more dense than the shadows cast by the adjacent bones.

The injected emulsion is practically non-toxic, and disappears from the body within a few days. It is presumably digested and used as food by internal tissues.

Physiology

Science News-Letter, August 9, 1930

Third Baby Orang

A BABY orang-utan, the third born in captivity, arrived recently at the Philadelphia Zoological Gardens. The first infant orang was born in the Zoo in Nuremberg, Germany, and lived about a week. The second was born of the present mother in the Philadelphia Zoo and lived about a year. This baby was five pounds in weight at birth and is thriving.

There has been a theory that the orangs seek seclusion for the birth of their young, but this mother made her nest right up against the bars of her cage in full sight of the crowds.

Zoology

Science News-Letter, August 9, 1930

SCIENCE FIELDS

Musk-Oxen For Alaska

IN an effort to replace the lost musk-ox herds of northern Alaska, the U. S. Department of Agriculture has arranged to import thirty of these odd but valuable animals from Greenland.

They will make a long detour on their way, for they are to be brought first to New York, thence by rail to Seattle, and finally by steamer and rail again to Fairbanks, Alaska. Representatives of the Bureau of Biological Survey, skilled in the handling of wild animals in transit, will accompany them all the way.

The little herd will be an expensive one, for an appropriation of \$40,000 has been set aside to cover the cost of its acquisition, transportation and establishment in the protected enclosure that will be its new home. But it is expected that the animals may eventually pay for themselves many times over, as the imported reindeer have done, by becoming the basis of a new meat-producing industry utilizing food plants that now go to waste. Alaska once had a fair number of musk-oxen in the northern part of the territory, but indiscriminate hunting by explorers, hunters and natives with newly-acquired firearms exterminated the herds.

The musk-ox is not an ox, in spite of its name. It looks a little like a long-haired but diminutive brand of cattle, but zoologically stands in a "missing-link" position between cattle and sheep. Its Latin name, *Ovibos*, is a recognition of that fact, for it translates literally into "sheep-cow."

Zoology

Science News-Letter, August 9, 1930

Tropical Opossums

A TINY opossum no bigger than a mouse, with nine little ones clinging to her fur, was found hiding in a bunch of bananas by a grocer of Waco, Texas, and turned them over to the zoology department of Baylor University there. Dr. G. E. Potter, head of the department, reports the find in *Science*.

These tiny tropical opossums have been reported as banana-bunch immigrants a few times before, but this specimen seems to set a record for the size of the family travelling.

Dr. Potter states that the mother was seen several times to run her sharp snout under one of her offspring on the floor and toss it into the air and on to her back, where it dug its little paws into her fur and wrapped its tail around hers, after the manner of the young of our larger native opossums.

It is hoped that whoever finds a tiny opossum-like animal hiding in the fruit section of a grocery or delicatessen will take the trouble to capture it and send it as quickly as possible to the nearest college biology department or zoological park. If the animal is dead when found or dies afterward, it should be preserved in alcohol or a solution of formalin.

Zoology

Science News-Letter, August 9, 1930

Prehistoric Apartment

HOW the Indians of the Mimbres Valley lived and farmed two or three thousand years ago is shown by discoveries made in a great 125-room pueblo or prehistoric apartment house by Paul H. Nesbitt, leader of the Logan Museum-Southwestern Expedition, sponsored by Beloit College, Beloit, Wis. The ruins of the cultural area being explored by Mr. Nesbitt and his students date, according to archaeologists, between 1000 B. C. and 200 B. C.

In a statement to Science Service, Mr. Nesbitt said:

"One cache of 25 stone hoes was found on a stone ledge a few inches above the floor of a room and another lot of 48 stone hoes was found in association with a male skeleton. Such hoes are rare and the number above represents a greater total than has ever been found in any single ruin in the southwest.

"With another burial was found a copper bell, a product not manufactured here but brought by trade from old Mexico. Only one other such bell has been found in this area. W. Bradfield, state archaeologist of Santa Fé, in 1924 found one at Cameron Creek ruin near Hurley, N. M. The bell is of great importance as it throws additional light on the age of these ruins.

"I have been able to establish three house types based on pottery and house construction. The early inhabitants lived in pit rooms (entirely subterranean); later the houses became semi-subterranean and finally were built entirely above ground."

Archæology

Science News-Letter, August 9, 1930

New Weather Bureau

THE Union of Socialist Soviet Republics is organizing the study of the manifold geographical, hydrological, and meteorological features of its vast territory under the direction of a newly formed hydro-meteorological department.

The new department will have functions similar to those of the U. S. Weather Bureau in the gathering and disseminating of weather information, and the making of meteorological and hydrological reports and forecasts for the aid of aviators, farmers, navigators, and others who depend on accurate predictions of weather. It will also study terrestrial magnetism.

A district system, with local stations and observatories, is being organized to work on the varied local conditions and problems, for the area of Russia is so great as to include semi-tropical climate as well as polar ice and snow fields. Each of the republics has its own hydro-meteorological committee, and they all report to the main U. S. S. R. Hydro-Meteorological Committee, of which Professor Vangenheim is the new president.

Meteorology

Science News-Letter, August 9, 1930

Weak Solutions

A NEW riddle for scientists to solve may have been created by recent observations of Prof. Carl Oppenheimer of Berlin and Herman Junker of Hamburg.

These men have been working with extremely weak solutions of metal salts, of hormones and some of the vitamins. The solutions are so weak that they cannot contain any molecules, as their concentration is one part in ten sextillions.

Still these extremely weak solutions, which contain an unimaginably tiny amount of a metal salt or a physiological substance, are able to affect the rate of growth of tiny living organisms, the protozoa.

Biochemistry

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Chemistry in India

THE progress of India in the field of chemistry is reflected in the recent announcement that the Indian Chemical Society's official journal is now being published monthly instead of quarterly as formerly.

Chemistry

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