oldest inhabitants, Folsom Man, were unearthed in Virginia and northern North Carolina.

Evidence was found indicating that although Yuma man lived in America before Folsom man he continued throughout the Folsom period, making them contemporaries.

Metallographic study of ancient iron objects found in prehistoric sites in Virginia and Ohio provided evidence that iron may have been worked in America in pre-Columbian days.

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An ancient "lost city" which had been a flourishing city of about 100,000 population at the time of the Crusades and is still remarkably well preserved, was found in the Seistan area of Afghanistan.

Man's earliest realistic portrait was found in the form of a 12,000-year-old stone work of art making use of painting, engraving and sculpture, discovered in a cave at Angles-sur-l'Anglin, France.

Newly discovered ape-men of South Africa were shown to have crushed baboon skulls caused by animal bones serving as clubs.

The buffalo grass growth on the Great Plains was due to the Indian custom of periodic burning off to keep the country open, it was reported.

Famous Piltdown man, long considered one of mankind's oldest ancestors, was found to be no more than 10,000 years old instead of 100,000 to 500,000 as previously thought.

Early Stone Age tools found at the former sites of beaches in Portuguese East Africa gave information of ocean and sea level changes in the region.

Animals hunted by Old Stone Age man are portrayed by lines engraved on a large rounded pebble found in a rock shelter in eastern France.

A group of Indians, descendants of the Maya, were found to have lost nearly two inches in height in the course of two centuries.

Evidence of a gambling place used by pre-Columbian Indians was found near the California-Nevada boundary.

Ancient bone ax-heads believed to be prototypes for Neolithic man's stone ax-head were discovered on the west bank of the Nile.

Drawing of a whale hunt on a 500-year-old snow knife found in the Canadian Arctic provided evidence of a vanished people and of changes in ice conditions and altered ocean currents.

ASTRONOMY

## Minor Planet Found To Pass Closest to Sun

A minor planet or asteroid was found to have a path which apparently takes it closer to the sun than any previously charted, promising to give important data for the studies of the solar system.

A second satellite of Neptune was discovered. Demonstration was made of the absence of a lunar eclipse effect when observations are made by radar in wavelengths of 1.25 cm., indicating that the moon is covered with a non-conducting layer of dust.

Discovery of bright line radiation in the spectra of objects previously identified as globular clusters showed that they are apparently Pleiades-like groups composed of stars and nebulosity in the Andromeda Nebula.

Dim stars broadcast to the earth a shortwave radio noise that was received with special antenna.

Construction was begun on a 50-foot radio mirror which will be used in connection with a sensitive radio receiver to pick up cosmic static.

Two cooperating institutions began a survey

of the brightest stars of the Milky Way up to a distance of 32,000 light years, photographing fields of stars through an objective prism used with the Schmidt telescope.

Great clouds of matter in the space between the stars are relatively uniform in composition, it was indicated by the uniformity of H and K spectrum lines of various stars.

Three novae were reported, one in the constellation Cetus and thought to be our second nearest star neighbor in space, another in Scorpius, and the third in Scutus; one discovered nine years ago was confirmed.

Twenty millionths of an inch of glass hampering the big glass eye of Palomar had to be polished away before the giant eye could have another try at probing the great unknown; the 48-inch Schmidt telescope helped to lay the groundwork for the 200-inch Hale telescope.

The giant, 98-inch glass mirror for the largest telescope in the world outside of the United States was presented to Britain's Royal Greenwich Observatory by the McGregor Fund of Detroit

The Radcliffe 74-inch reflector at Pretoria, South Africa, started operation.

Purchase was made by Lick Observatory of a 120-inch glass blank for a new 120-inch reflecting telescope,

Six new comets were discovered.

Some clusters of stars in the Milky Way galaxy were reported to be disintegrating while others were becoming denser and more strongly clustered than ever.

Low-frequency radar was used to detect fast-moving meteors.

A photographic study of meteors was begun, showing as one of the first results that the density of the atmosphere 45 miles or so above the earth increases in summer and decreases in winter.

Yellowish lemon-shaped stars were reported to be possible planetary ancestors of other planetary systems.

A noisy zone millions of miles deep was advanced as the mechanism whereby giant red stars with intensely hot centers are able to exist.

A new electronic plate-measuring machine to

help discover what makes up the stars was announced.

The latest theory on the origin of the earth stated that the earth was once a pancake of gas and dust rotating around the sun.

The theory that comet heads were formed from the melting of various ices of common gases, starting in the outer reaches of the solar system and mixed with meteoric particles was proposed.

A photographic survey of the sky using the 48-inch wide-angled Schmidt telescope, of which the plates are to be utilized in the production of sky atlas was begun.

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A "vacuum ultraviolet" emulsion useful for studying the sun from rockets sent high into our atmosphere was developed.

**BIOLOGICAL SCIENCES** 

## Algae Were Studied as a Substitute for Food

A freshwater alga, Chlorella, as well as yeasts and seaweed were studied as possible substitute foods for man and animals to avert future famines

Fertilized ova from artificially inseminated pedigreed cows were successfully implanted in the bodies of scrub cows.

the bodies of scrub cows.

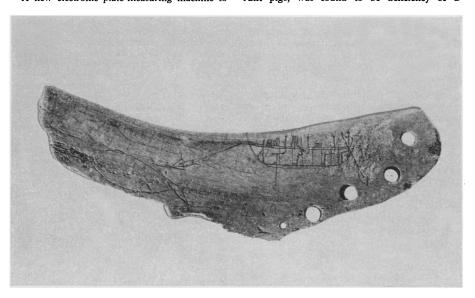
Virgin heifers and barren cows were induced to give milk by burying tablets of the synthetic female hormone diethylstilbestrol under their skins.

Treatment with a female sex hormone, stilbestrol, with iodinated casein or thyroxin, made pigs into bigger porkers on less feed.

A blood group in dogs, which, like Rh in humans, may cause jaundice in the young through incompatibility with the mother, was found and named Do.

Early-stage embryos of mice with cells containing three times the basic number of chromosomes were obtained, the first ever reported in mammals.

The cause of swine enteritis, which produces runt pigs, was found to be deficiency of B



CLUE TO VANISHED PEOPLE—The drawing made on a snow knife shows five men in a typical Eskimo boat on a whale hunt. The drawing was made by an unknown artist some 500 years ago and points to the fact that once a vanished people lived on Cornwallis Island in the Canadian Arctic Archipelago.