

Word came from unoccupied France that a magnificent 30,000-year-old gallery of prehistoric cave art was discovered near Montignac, south-west France.

Soviet archaeologists opened tombs in the great mausoleum of Tamerlane and his descendants at Samarkand, and examined the kneecap damage causing Tamerlane's lameness.

The first full account was published of the flying explorations which Americans undertook in 1935 to 1937, surveying Iran archaeologically from the air.

That Iraq's earliest people, the Sumerians, ate pork, mutton, beef, and some game and fish was determined by a study of animal bones from ruins of Tell Osmar near the Tigris.

Jesus Christ was not 33 but a middle-aged man nearly 50 years old when He died, an American scholar concluded from new studies of the Babylonian calendar.

A remarkably large tower of the famed Third Wall fortifications built by King Herod Agrippa came to light during excavations in northern Jerusalem.

New light on evolution of architecture of Jewish synagogues was gained from a report on ruins at Dura, Syria, where early synagogues had living quarters attached.

Older than America's Folsom Man type, Sandia Man emerged as a type that lived in caves, hunted now extinct animals, built fires, cooked his food and wore clothes, probably more than 25,000 years ago, according to geologists, and revealed through 5 seasons of excavation in Sandia Cave, New Mexico.

Rough stone knives and other tools used in the beach life of Canadians apparently more than 10,000 years ago were discovered near Lake Huron in Ontario.

A very large collection of 500 skeletons was unearthed at Point Hope, Alaska, where previous digging had unearthed a well-planned town of the prehistoric Arctic, abandoned about 2,000 years ago.

First detected by a schoolboy, cliff shelters at Bear Mountain, N. Y., yielded quantities of pottery and artifacts left by the Algonquian Indians who preceded the Iroquois in the Hudson Valley.

Some of the Mississippi Valley's progressive Indians of the Hopewell Mound Builder culture migrated as far east as Pennsylvania was the deduction from finding there a well-preserved skeleton of Hopewell type with Hopewell objects.

A presidential proclamation authorizing addition of five acres to the Ocmulgee National Monument near Macon, Georgia, made it possible for CCC boys to excavate an Indian stockade and provide data for reconstructing an old Creek Indian town.

Resembling previous discoveries in Texas caves, skeletons and artifacts of a primitive type of cave-dwelling Indian were found in northern Mexico, indicating that several thousand years ago this culture was spread over a considerable area.

Homes of plain citizens of the Mayan Indian world were examined in the ruined "City of the stone lady" in British Honduras, showing a wide social gap between lower and upper classes.

As a good neighbor project, the United States launched ten archaeology expeditions in Latin American countries, joining hands with scientists of these lands to fill in missing data regarding America's prehistoric past.

Explorers found two lost Incan cities 12,000 feet high in the Peruvian Andes, and evidence that Indians occupied a network of high altitude cities in what is now rank wilderness.

The opportunity to unearth stratified burials in Peru's northern coast aided archaeologists in

fitting little-known peoples of pre-Incan times into Peru's prehistory.

For the first time, an anthropologist measured bare bones of some of Peru's gorgeously wrapped mummies from Paracas, as a step toward understanding their relationship to other ancient Indians of Peru.

ASTRONOMY

Brilliant Aurora Display Seen in United States

One of the most brilliant displays of aurora observed in the United States occurred Sept. 18 in connection with large sunspot groups, accompanied by magnetic storms and interrupted radio and wire communications.

Due to the war the total solar eclipse of Sept. 21 went unobserved by American astronomers, with only curtailed Russian, Chinese and Japanese expeditions in the field.

The presence of the chemical element thulium in the sun's atmosphere was demonstrated.

The temperature in the sun's core was computed to be 25,700,000 degrees Centigrade.

"Coronium" causing mysterious solar spectral lines, was ascribed to "broken atoms" or ionized iron, calcium, and nickel, especially Fe XIV with loss of 13 electrons.

Temperatures in excess of 1,000,000 degrees Centigrade just above the sun's surface, instead of 10,000 degrees previously measured, were proposed to accord with the new ideas about the origin of the sun's "coronium" lines.

A more accurate solar parallax was determined from observations of the 1931 opposition of Eros, corresponding to a mean sun-earth distance of 93,003,000 miles, with the small probable error of only 8,000 miles.

Actual motion of solar prominences was made possible of determination by a new instrument that gives radial velocity.

A brilliant eruption of hydrogen gas from sunspots was associated with severe radio disturbances on July 4.

The sun sweeps up about 110,000,000 tons of hydrogen from space each second and uses it as fuel, according to a new theory.

Stars were calculated to change shape while revolving in elongated orbits around their companions, stretching to egg-shape and at other times being more round.

The star Sheliak (beta Lyrae) was described as involving a gigantic pinwheel of red, yellow and green gases, spiralling outwards for 50,000,000 miles from a double star.

Star 26 in Draco was found to be a triple system like alpha Centauri.

The Andromeda galaxy was shown to be about as big as our own galaxy or Milky Way.

Spectra of supernovae were interpreted without the assumption of an excessively high temperature, indicating they are similar fundamentally to ordinary novae.

A force 200 times gravity, caused by light pressure and acting on dust particles between the stars, was discovered.

Planets may be born of a triple star constantly picking up matter from cosmic clouds in space, according to a new theory that would make planetary systems less rare than previously thought.

Because meteors passing through the atmosphere many miles above the ground leave behind for many minutes a mirror for radio waves, consisting of broken atoms, experiments show the possibility of counting meteors in daylight or cloudy weather by radio echoes.

Some of the glow of the night sky was shown



FOURTEENTH CENTURY MADONNA

The museum science of dating an art work by clues and expert knowledge is nicely illustrated by this medieval Madonna sculpture just presented to the Cleveland Museum of Art, and featured at its Christmas-tide exhibition. The verdict is that the image was carved at the beginning of the fourteenth century. Reasons given by Director William Milliken include: Twelfth century sculptors usually portrayed the Virgin seated exactly facing front, with the highly stylized Christ Child on her knee. In the thirteenth century she was usually shown standing, still facing due front. Gradually, the body was shown with a side-sway, which in the fourteenth century almost disfigured some statues. The grave twelfth century Christ Child in the fourteenth century became playful, worldly, overly realistic. The statue "stands at that happy moment in the beginning of the fourteenth century when some of the noble traditions of the thirteenth century still held," says Mr. Milliken. "There is new elegance which pointed forward but none of the emphasis on worldliness and affectation."

to be due to the magnetic activity of the earth and its atmosphere.

Atmospheric pressure causes meteors to fly apart as they plunge to earth, studies of their trails showed.

A vanishing kind of matter, contraterrene, which explodes devastatingly in contact with ordinary matter, was postulated to account for meteor craters in which meteorites are not found.

New comets discovered included: Friend-Reese, Paraskevopoulos, Van Gent, du Toit-Neujmin.

Cunningham's comet, dis- (Turn to page 395)