

REVIEW OF THE YEAR

# Science Progress in 1937

## New Particle Within the Atom; Bright Novae Far Away in Space; Cure of "Living Dead" Gifts of Year

By SCIENCE SERVICE STAFF

ON a wide frontier that extends from the interior of the atom to the farthest reaches of astronomical space, science forged forward during 1937. Some of the discoveries in the world's thousands of laboratories will bear fruit only in years to come. Others will be more speedily transformed into new industries, new cures for human ills, new gadgets for easier, better and more intelligent living.

Within the once indivisible atom was found still another fundamental particle. Pigmy telescopes found exploding stars, extraordinary in brilliance and distance. "Living dead" in mental hospitals walked forth to active life thanks to the shocking qualities of diabetes-conquering insulin. More and more is being learned about life itself, the way it is passed on from generation to generation and how the brain acts.

Scientists viewed with apprehension the growing war madness of nations. They wondered how their great gifts to humanity can be preserved for constructive peaceful purposes instead of used for destruction. Psychologists urged that relations between peoples and nations be guided by scientific methods into paths of sanity.

Bigger bridges, larger dams, more tunnels, faster and more efficient airplanes quickened the world's material tempo and compressed its geography.

Research presses onward, into 1938, motivated by the inquisitiveness of mankind and the urge for a better future.

ANTHROPOLOGY—ARCHAEOLOGY

### New-Found Fossils Prove Java Ape-Man Was Human

NEWLY discovered fossil remains of the Java Ape-Man, *Pithecanthropus erectus*, definitely proved that this primitive being was a human being, not an ape. Associated fossils indicate that this ancient race is not as old as was once supposed.

Other notable researches included:

Homo sapiens has something new to be proud of, since anthropologists in 1937 dug up evidence that our own species of mankind was

on earth much earlier than supposed. Skeletons in Palestine caves reveal Homo sapiens present among other, less enduring types of Old Stone Age man as early as 60,000 years ago.

Peking Man, who inhabited a China cave more than half a million years ago and whose remains have amazed modern science, became a more vivid figure from the past with discovery of a skull showing more clearly what his face was like. The new skull includes eye socket, nose bones and other previously unknown features.

Definite proof that man reached the Straits of Magellan just after the most recent ice age was unearthed in caves where firescarred bones of extinct ground sloths and horses were found under four other culture layers and a bed of volcanic ash.

America acquired new evidence of early inhabitants when Utah caves yielded flint and bone tools unlike those of Folsom Man and an infant's skeleton 5,000 to 10,000 years old.

Flints from southern California and Nevada afforded evidence of ancient men who camped on the shores of lakes which long since have dried up.

Folsom hunters of ancient America were more definitely assigned to the late Ice Age, when geologists in Colorado dated an earth

layer containing Folsom tools as belonging to that era.

The biggest human skull ever found was unearthed among Indian remains in Virginia.

Excavating Plains Indian sites took on a practical angle, when archaeologists reported these Indians apparently found certain areas undependable for farming.

Villages of Indians who met Columbus were excavated in the Bahamas.

Ruins of a pyramid near Guatemala City revealed Mayan Indians rebuilt the pyramid eight times.

Shattered thrones unearthed in Piedras Negras, Guatemala, inspired a new theory that social revolt helped destroy the Old Mayan Empire.

Chemical analysis demonstrated Ecuador's Indians actually achieved an alloy of platinum.

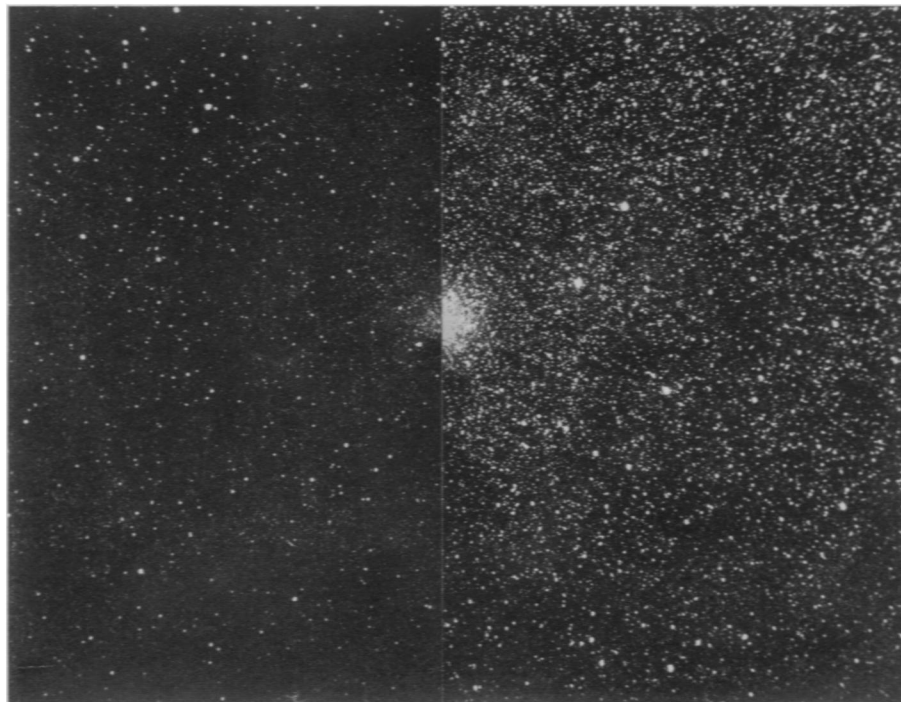
A new type of Stone Age man was unearthed at Steinheim, Germany, with skull older, yet partly more modern in type, than Neandertal Man.

The long-sought Temple of Ares, god of war, was unearthed in the Athenian Agora.

Flint tools found near Bethlehem revealed man's existence in Palestine, at the dawn of the Stone Age.

Help for understanding politics in the Bible era was provided by finding several thousand letters to a Syrian king, about 1900 B. C.

A prince's palace occupied in five historic eras was unearthed at Megiddo, Palestine, and



NEW RETINA FOR TELESCOPES

New-type red-sensitive photographic plates show vast numbers of stars and star-clusters that old plates missed. Set edge to edge are two halves of the same sky region photographed by Carnegie Institution astronomers; left, with the old, right, with the new.