

## ARCHAEOLOGY

# Egypt's Garden of Eden Invaded by Archaeologists

**E**GYPT believed that the first living creatures of the earth appeared on a bit of high dry land in the midst of a primordial ocean.

It was also said that when the sun god rose for the first time, he rested on a high place.

Like human beings of all times, the Egyptians liked to point to historic spots and see for themselves where important events happened. They associated their "book of genesis" with Hermopolis, which was certainly a very old place, as all Egyptians knew.

With pomp and ceremony the dramatic events of creation were remembered on great days in Hermopolis.

Now this Hermopolis, unique even among Egypt's remarkable cities, is being excavated. A German expedition is working from season to season under Dr. Gunther Roeder, director of the Pelizaeus Museum of Hildesheim.

Lecturing before the Archaeological Society of Washington, Dr. Roeder told how the scenes of Egypt's genesis are being restored to the light of day.

"When we trenched into the ruins of the buried town," he explained, "we found a district 1500 by 1800 feet. It was surrounded by a great wall, and within it there were no human dwellings. We knew that this was the religious center of Hermopolis, where we should have to look for the scenes of the appearance of light and life."

The expedition identified the temple built by Pharaoh Seti II as the temple of the eight primordial gods. Four of these gods were snakes and four were frogs. In the perplexing Egyptian theology, these eight gods were fused as a total in the great god Thoth who spoke the words which brought heaven and earth into being.

"Everywhere we begin to dig, we make interesting finds," declared Dr. Roeder. "The ground is filled with monuments."

The latest discovery is a temple dating back to 2000 B. C. and having a great gateway of the pylon type. This is believed to be one of the very early appearances of the pylon which became so important a feature of Egyptian ar-

chitecture. This temple may even point to the time of its invention.

A temple still being sought is one that Queen Hatshepsut is known to have built at Hermopolis. There is hope of finding this temple in coming seasons of exploration, Dr. Roeder declared.

Other great names of Egypt are appearing from the ruins in the city of the creation ceremonies. Even the Pharaoh Ikhnoton, who is known today as Tutenkhamon's father-in-law, but who was more famous in his own career as a heretic king who overthrew old gods and worshipped a supreme deity, is represented by carvings at old Hermopolis.

*Science News Letter, January 27, 1934*

## CHEMISTRY

## Heated Gypsum Becomes Useful, Thirsty Chemical

**C**ALCIUM sulfate, specially prepared by a simple process, joins the ranks of thirsty substances known to chemists as "drying agents." The new preparation is called "soluble anhydrite." It is thus contrasted with common or insoluble anhydrite, a mineral of apparently the same chemical composition, but different behavior.

Prof. W. A. Hammond of Antioch College, Yellow Springs, Ohio, and Prof. J. R. Withrow of Ohio State University, report that calcium, or lime, sulfate, cheaply available and known for hundreds of years, has surprising powers of taking water away from other material. Common distillery alcohol, normally containing several per cent. of water, at once becomes absolute, or practically 100 per cent., by merely being shaken with the new soluble anhydrite. Numerous other liquids which must be thoroughly dried, or freed from water, before use in chemical processes, may now be desiccated.

Most drying agents are either expensive, corrosive or not thorough in action. Soluble anhydrite escapes these three evils, but does have one drawback—it will absorb only six per cent. of its own weight in water. It does not do much, but does that little well. Other agents, such as calcium chloride, absorb greater quantities under favorable

circumstances, but will not strip a liquid of water so thoroughly.

Apparently the virtues of anhydrite were overlooked for generations, after plaster-of-Paris chemists had reported that neither the mineral anhydrite nor its artificial imitation made in a furnace would absorb water. Profs. Hammond and Withrow now find that the cautious heating of ordinary gypsum, a compound of calcium sulfate with water, for three hours in an oven at 460 degrees Fahrenheit yields a reactive form of the sulfate which drinks in water with great avidity.

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## PHYSIOLOGY

## Frog Tadpole Tails Successfully Transplanted

**M**AKING frog tadpole tails grow on the bodies of young salamanders (distant zoological cousins of the frog) was the feat reported to the American Society of Zoologists by Eli D. Goldsmith of Harvard University. The tail-buds were cut off the frog embryos while they were very young, and planted almost anywhere on the salamander larvae. The tails grew.

When the gills of the salamanders began to disappear, indicating approaching maturity, the tadpole tails decreased in size and vanished, as though they were on maturing frogs.

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## RADIO

## Tests of Radio During Eclipse of Sun Urged

**R**ADIO experts are urging observations of the "radio roof" of the world during the coming St. Valentine's Day total solar eclipse that will darken a narrow strip of the Pacific stretching

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