



#### TROY'S HEROES BURIED IN URNS

*An American expedition has discovered the long-sought cemetery where the Trojans lie buried. Paris, who kidnaped and fought for the beautiful Helen, his brother Hector, his step-father King Priam, or other heroes made famous by Homer may be among the unmarked remains in the rows of funeral urns. The jars contain only ashes and remnants of burnt bones and a few small pottery objects and ornaments that survived the funeral pyres.*

tances from the central stove of the planetary household, that life would not be possible.

However, the discovery of methane has set a lower limit to possible surface temperatures. Dr. Henry Norris Russell of Princeton University pointed out that at a temperature of 161.4 degrees below zero Centigrade, this gas becomes a liquid, unable to betray its presence through reflected rays. Of course, under the different gravity and atmospheric-density conditions on the great planets this low boiling point of methane might be different. Nevertheless, methane's existence as a gas on the outer planets is at least some indication that their surfaces are not absolutely frigid.

If the absence of any of the familiar life-gases on the outer planets, and their replacement by death-gases, set a puzzle to the speculative science of "astrobiology," the presence of a great deal too much of one of them, carbon dioxide, has recently upset the claims of one of the inner planets, Venus, to be the most probable extra-terrestrial abode of life.

On earth, green plants find the fraction of one per cent. of carbon dioxide in the atmosphere sufficient to supply raw materials for food-making. The most recent of the Lowell Observatory-University of Michigan studies indi-

cates that the atmosphere of this brightest-shining of all the planets contains a concentration of carbon dioxide about ten thousand times greater than that in the earth's!

That looks very like much too much of a good thing. At too-high concentrations, carbon dioxide is not an inert gas but an active poison to animal tissue. If plants exist on Venus, they must find their work exceedingly easy. If animals (or men) live there, it can be only because they have evolved a super-earthly tolerance to this waste-product of respiration. Besides, there has been no evidence yet that free oxygen and water vapor are found on Venus; and you cannot have life without these things.

Mercury, the innermost of the planets, and newly-discovered Pluto, remote on the frontier of the solar system, are given short shrift as homes for life, and partly for the same reason. They are both quite small, so that their force of gravity has not sufficed to hold any atmosphere at all. They are as dry and breathless as our own moon. Furthermore, Mercury is so close to the sun that it was burned crisp ages ago, while Pluto suffers from the opposite ill of too great remoteness from the central source of light and heat.

There remains Mars, old reliable

mysterious planet of the "canals." Oxygen is known there, and what may be clouds of water vapor sometimes appear on its face. White polar caps, that may be snow, appear and vanish with the proper seasons.

All this looks promising. But the planet's small mass suffices to hold only a thin blanket of atmosphere over its surface. Oxygen may be insufficient for full breathing, water may be lacking for full slaking of thirst. Through the thin air the sun beats down without mercy by day, making things very hot indeed. Through the same thin air the day's captured hoard of heat quickly escapes at night. Daily temperature ranges from the Equator to the South Pole are not encouraging to the higher life.

Life on Mars? Perhaps—lichens, mosses, bacteria and such small fry. But a race of super-braintrusters, constructing mazes of titanic canals? Highly dubious, to say the least.

So far as we have any real scientific knowledge, the earth is the only one of the planets with life on it. And we do not know, we cannot even guess, whether any of the uncountable millions of suns visible in our share of space has so much as a single planetary offspring.

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*Science News Letter, December 15, 1934*

#### MARINE BIOLOGY

### Barnacles are Crustacea Not Mollusca

**T**HROUGH error, the photograph on the cover of last week's SCIENCE NEWS LETTER (SNL, Dec. 8) was captioned "Maligned Molluscs." These interesting creatures belong to the division of *Crustacea*, which also includes the lobster and the crab.

*Science News Letter, December 15, 1934*

## ● RADIO

Tuesday, December 18, 4:30 p. m.

**PREVENTION OF FOOD POISONING,**  
By Dr. Karl F. Meyer, Director, George  
Williams Hooper Foundation for Medi-  
cal Research, University of California.

In the Science Service series of radio ad-  
dresses given by eminent scientists over the  
Columbia Broadcasting System.

ARCHAEOLOGY

### Stone Age Skeletons Add Chapter to Troy's History

**T**HE long-sought cemetery of the Trojans and the skeletons of some of the pioneers who first settled Troy are two notable discoveries announced at Cincinnati recently by Dr. Carl Blegen of the University of Cincinnati.

Summing up results of the third Trojan expedition of the University, Dr. Blegen told of finding a hitherto unknown place of settlement at Troy. It lies three and a half miles from the hill of the Trojan citadel, where Greeks and Trojans battled. At this marginal point around the much-tramped country, Dr. Blegen unearthed four graves containing skeletons about 5,000 years old and apparently belonging to people who had not emerged from the New Stone Age. These he pronounced to be some of the first settlers of Troy, and a people older than any who built the nine-layered citadel. At the same settlement, less deeply buried, are later remains dating from the fourth and fifth layers of the citadel at Troy.

The citadel, Dr. Blegen explains, is often called the city of Troy. It was, however, more like a medieval castle where the king and his garrison lived and where the populace, who lived around the countryside, took refuge in time of danger.

Outside the citadel, Dr. Blegen's expedition made its second big discovery. This is the cemetery of Troy, long hunted by archaeological parties. It consists of a series of urn burials containing ashes, remnants of burned bones and traces of ornaments not entirely consumed on the ancient funeral pyres.

This cemetery belongs to the sixth level of Troy, which is the Troy of the War period. Hence, it now seems unlikely that the bones of Hector, Priam or other mighty Trojans will ever be recovered. Cremation was the custom of their day, the urns testify.

While probing Trojan house ruins, the excavators discovered a buried floor well preserved. This will give them the first opportunity at Troy to hunt around on the floor of a home of Trojan War days for the lost and discarded objects that show the life of the period.

What the Trojans left in the floor of their house remain to be investigated when the expedition takes the field for its fourth expedition to Troy, next spring.

*Science News Letter, December 15, 1934*

#### MEMORANDUM ABOUT CHRISTMAS:

What a friendly thing it is to say "MERRY CHRISTMAS."

We all say it in many ways--with gifts of as many kinds as there are personalities to be given to, as well as to give.

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*Watson Davis*

WD/TR

Editor.

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