

ARCHAEOLOGY

The well-preserved camel (above) may be a bear, but three blackened grape pips (top right) are a known find; a truncated pyramid (middle) and pottery (bottom) support links between the Balkans and ancient Greece.

The grapes of antiquity

Man's oldest known use of grapes is but one of the exciting revelations from a Macedonian dig that has turned out to be a historian's dream

by F. C. Livingstone
(SCIENCE NEWS Correspondent in England)

Grapes have been man's companion, and his solace, through all of recorded history. And the record now extends to 4,000 B.C., to Photolivos in the province of Drama in eastern Macedonia. There archaeologists have unearthed three tiny black pips that represent the earliest known traces of the use of the grape, and possibly the world's most ancient known wine.

The pips are grape seeds, carbonized perhaps by having been charred after they were squeezed from the grapes. They were found in an excavation that has turned out to be an archaeological treasure trove, a digging more than 300 feet long and containing at least 35 vertical feet of house floors and artifacts dating as far back as the Middle Neolithic period some 70 centuries ago.

The excavations were directed in the field by Dr. Colin Renfrew of the Uni-

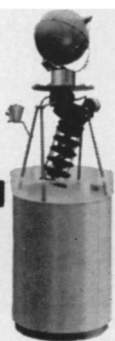
versity of Sheffield, England, and jointly organized by the university and by Prof. Marija Gimbutas of the University of California at Los Angeles. They began last summer, sponsored by the British School of Archaeology in Athens and by the U.S. National Science Foundation, with the approval of the Greek Archaeological Service.

Even without the grape pips, the discoveries made at the site, which include well-preserved pottery objects and what are believed to be the earliest metal objects so far found in Greece, would excite archaeologists. But the pips have fascinating implications: "Since the worship of Dionysos, the Greek god of wine, is supposed to have originated in Thrace," Dr. Renfrew says, "you might think this is a strong hint that Greek mythology could have a factual basis 3,000 years before Hom-



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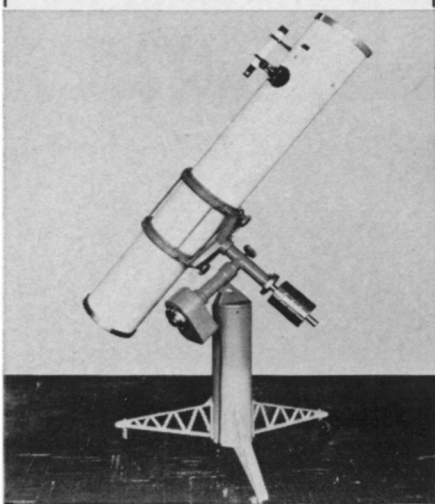
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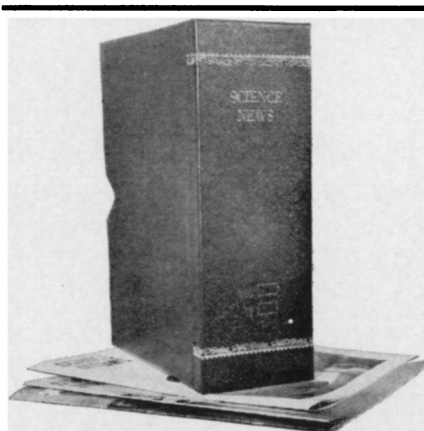
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... ancient grapes

er." Homer's time is variously estimated between the 12th and 7th centuries B.C., and his writings are a convenient catalogue of the inhabitants of the Greek pantheon of his time. Although Dionysos is mentioned in the Iliad, he is nowhere described as the inventor of wine; that came later.

Historically interesting as the pips are, however, perhaps the most valuable contributions of the site to science are some simple copper pins, fishhooks, beads and other objects. Because of the accuracy with which the Photolivos site has been dated—it has been divided into five layers ranging from the Middle Neolithic to the Early Bronze Age at about 500-year intervals—"it is crucial in establishing links and contacts between the Aegean and the Balkans," Dr. Renfrew says.

Findings at the site have apparently done just that. Pieces of slag found along with the metalwork show that the copper was extracted locally from ore. The designed objects, however, closely resemble material from the culture of Bulgaria and Rumania. This adds weight not only to the likelihood of contact between ancient Greece and its northern neighbors, but also to the theory that the Balkan countries were the wellspring of European copper metallurgy.

Several finely wrought pottery objects also support the Aegean-Balkan link. One such is part of a pottery pyramid decorated with graphite paint. This kind of pottery, Dr. Renfrew says, was common in Balkan areas during the same period, about 3,500 B.C.

The site itself, with its well-dated finds, will give a rare opportunity for researchers to study in detail the changes in the economy and subsistence patterns of the village farmers in the plain of Drama over the 2,500-year span. More than 200 samples of prehistoric grain and seeds have been recovered, along with the unique grape pips.

One unusual find, however, is testimony to the uncertainty in which archaeologists conduct their researches, even at the best-dated sites. A curious four-legged animal, decorated with black paint on a red background, possesses a hump on its back that apparently once supported a dish, possibly for some sort of ritual. Dr. Renfrew calls the creature "one of the most impressive animal figurines yet recovered in Greece," yet so limited is the corroborative evidence that the object remains unidentifiable to the archaeologist.

"We call it the 'camel' for obvious reasons," he says, "although it may be in fact a bear." ◇