ARCHAEOLOGY

Feet Give Clue to Statue

THE MISSING FEET of a Greek marble victory statue has helped identify it as the life-size copy of one which once stood poised on the hand of the giant statue of the goddess Athena in the Parthenon.

The statue, called a Victory, or Nike, because of its now missing wings, is a mere fragment, consisting of a body draped in the typical, Greek loose garment known as a peplos. The head, wings, arms and feet that had once been made separately and attached are all missing.

The Nike had been on display in the University Museum, University of Pennsylvania, Philadelphia, for several years without ever having been exactly identified. When it was removed from its mounting for a new arrangement in the Classical Gallery of the Museum, a previously unnoticed detail was discovered: a hollowed out space on the bottom of the centerblock under the missing feet of the statue. Apparently the statue originally had not been mounted in the ordinary manner but elevated on some sort of support. It might have been lifted aloft as if the Nike were flying or floating in the air. This was also indicated by the statue's flowing robes, yet, examination of the statue showed that the wings had not been spread for flight but folded.

It was also evident that the left arm had been raised and the right arm lowered. In addition, since so little of the missing feet would have shown from under the robe because of the supporting block, it was puzzling that they had been attached and not cut directly out of the marble block itself. The answer had to be that they were made of a material other than marble.

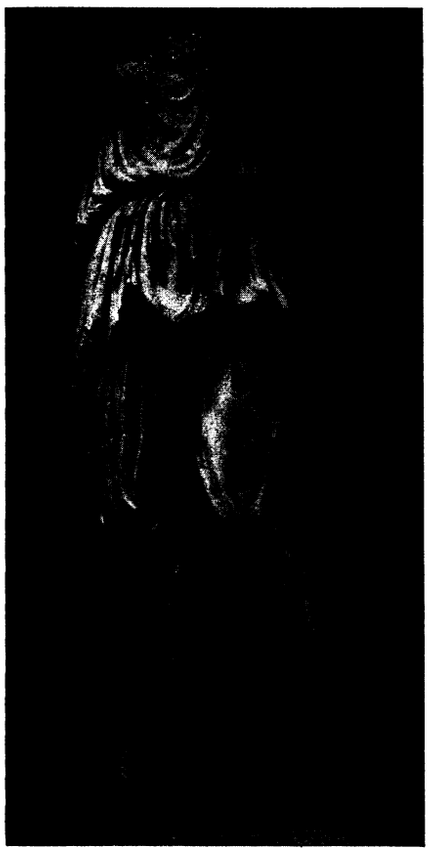
Traces of vermillion color noticeable on the figure of the Nike established she was at one time gilded, a much-used practice in ancient times. The vermillion traces are actually cinnabar, or red sulfide of mercury, used in antiquity as a binding medium in gilding.

The gilded gown hinted that the Nike had been a copy of a gold statue, one most likely having ivory head, arms and feet. This combination was commonly used in Golden Age Greece in the fifth and fourth centuries B.C. for statues of Greek gods and goddesses.

It was also a common practice to copy the most famous and costly statuary in cheaper materials such as marble. The missing limbs of the copy could very likely have been made of alabaster and the wings of wooden sheets or plaster instead of ivory.

The Nike has for a long time been associated with the Elgin marble sculptures from the Parthenon, temple of Athena, due to the similarity of style. According to Dr. Rhys Carpenter, professor emeritus of classical archaeology at Bryn Mawr College, who made the identification of the Nike and reports it in *Expedition* (**2,** 34, Fall, 1959), the close similarity of the Nike with the Parthenon sculptures dates it at about the same time, around 440 B.C.

Dr. Carpenter concludes that the only possible source for a Nike of this period is the gold and ivory Nike on the outstretched hand of the 40-foot Athena in the Parthenon on the Acropolis, the religious city of ancient Greece. This is also substantiated by a coin of the fourth century B.C. from the city Aphrodisia in Asia Minor. The coin depicts a miniature version of the statue of Athena, holding on her outstretched hand the symbolic figure of a Victory statue with wings closed on the back and an olive branch suspended between her raised left and her lowered right hand.



NIKE AND COIN—The marble Nike, or victory statue, above, is a copy of the one the goddess Athena holds in her hand on the coin to the right. The missing feet of the statue led to its identification with the original Athena victory in the Parthenon temple on the ancient Acropolis, or religious high city, of the Greeks.

Science News Letter, January 16, 1960

ASTRONOMY

Comet Found in Southern Sky

A NEW COMET, the first to be reported in 1960, has been discovered in the southern sky. The object has been named Comet Burnham after its discoverer, Robert Burnham of Prescott, Ariz., who found it while working at Lowell Observatory, Flagstaff, Ariz. Mr. Burnham also spotted the first comet of 1958.

Mr. Burnham discovered the comet on Dec. 30, then photographed it again on Jan. 2. It is too faint to be seen directly, even with telescopic aid.

News of the comet's discovery was reported to astronomers by Harvard College Observatory, Cambridge, Mass., clearing house for astronomical information in the Western Hemisphere. Comet Burnham's position in the constellation of Pisces, the fishes, was calculated by H. L. Giclas at Lowell Observatory.

Science News Letter, January 16, 1960

ENGINEERING

Powdered Cores Reduced More Than 200 Times

See Front Cover

CORES for filters used in transmitting information from missiles, satellites and other electronic equipment are getting smaller and more efficient at the same time.

These cores are made of molybdenum permalloy powder compressed under high pressure and subjected to high temperatures.

Over a period of years, the weight of the cores, as shown in the photograph on the cover of this week's SCIENCE NEWS LETTER, have been reduced from four and a quarter pounds to one-third of an ounce.

Systems using these core filters, can relay information as to altitude, direction, pressure, radiation and presence of gases in the stratosphere or ionosphere, and several messages can be received over the same wire. As each system requires 23 filters, the weight saving with the reduction in core sizes has been very great.

The cores are the working parts of the filters. They are made by Arnold Engineering Company, a subsidiary of the Allegheny Ludlum Steel Corporation, Pittsburgh, Pa.

Science News Letter, January 16, 1960