

ARCHAEOLOGY

Sardis Excavated Further

A recently discovered bone plaque with the design of a griffin gives evidence that the city of Sardis, Turkey, was invaded by Scythians from South Russia about 2,600 years ago.

► A RECENTLY DISCOVERED bone plaque with a twisted eagle-beaked griffin gives evidence that the great city of Sardis in Turkey was invaded by nomads from South Russia about 2,600 years ago.

The plaque with the fabled half-eagle half-lion griffin was dug up by Harvard and Cornell archaeologists in their recent expedition to Sardis, once the capital of the powerful kingdom of Lydia in the 8th century B.C.

The design of the griffin twisted in a circle is typical of the "animal style" of the Scythians of South Russia and confirms the nomadic invasion that destroyed Sardis early in the 7th century B.C., according to Drs. George M. A. Hanfmann of Harvard University and A. Henry Detweiler of Cornell University.

Archaeologists of the Sardis excavations, sponsored by the American Schools of Oriental Research, Cornell University and the Fogg Art Museum of Harvard, have been uncovering other remarkable artifacts and remains of the great waves of civilization that poured over the city, situated in the middle Hermus valley at the foot of the steep Mt. Tmolus.

One of the most important cities of Asia Minor until the late Byzantine period, Sardis was captured by the Cimmerians in the 7th century B.C., by the Persians and Athenians in the 6th century B.C., and by Antiochus the Great at the end of the 3rd century B.C. During the Roman Empire, it was a thriving metropolis, and during the 13th century A.D., the country was frequently ravaged by Christians and Turks.

Each one of these powerful conquerors left its mark on the city, often building on top of relics of other civilizations.

Archaeologists have uncovered imposing houses of the early Lydians, with projecting fronts and split-level arrangements. An area of shops and industries, forerunner of the great Oriental bazaars, was once enclosed by a wall which was unearthed for more than 100 feet. The Lydians built the half-acre of shops and industries as a self-contained unit within the city. The area was planned as early as the mid-seventh century B.C. making it an important discovery for the history of city planning.

Efforts are being made to dig careful tunnels under a great mound, probably the burial tomb of King Gyges, founder of the Lydian kingdom.

The Greeks left remains of pottery and painted reliefs in their wake, and the Romans left a remarkable marble court of a gymnasium, one of the most luxurious and monumental structures built in Asia Minor. Two 30-foot marble columns are being re-erected on the great arched portal on the western side of the court, which is

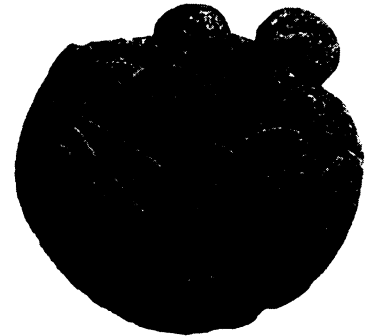
being restored by the expedition and the Turkish Government.

A huge 4th century B.C. synagogue is also being restored. This once included a grand hall 150 feet long with piers 40 feet high, decorated with marble panels depicting birds, arches and camel heads.

In clearing the colonnaded entrance porch which led into the synagogue from the east, the excavators found traces of fierce burning, probably evidence of the buildings destruction by the army of the Persian King Chosroes II in 615 A.D. The final blow to the synagogue and neighboring buildings was a tremendous earthquake.

Archaeologists also unearthed a Christian relic—a small terra-cotta flask that shows in relief what may be one of the earliest representations of an apostle writing the Gospel. On the other side of the flask a bearded figure with wings probably represents St. John who addressed himself to the Church of Sardis in the Revelation.

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Harvard University

GRIFFIN FROM RUSSIA—This eagle-beaked griffin, found in Sardis, Turkey, is twisted in a circle in a way typical of the "animal style" of the Scythians of South Russia, giving evidence of contacts between Sardis and Scythian nomads about 2,600 years ago. It was dug up by archaeologists of Harvard and Cornell Universities.

OCEANOGRAPHY

Navy Hunts Test Debris

► THE U.S. NAVY is going fishing, using a 2,000-pound "hook" that can see underwater.

The hook is actually an aluminum framework called CURV (Cable-controlled Underwater Research Vehicle), fitted out with four ballast tanks, three motors, a depthometer, sonar, a marker buoy, a 35-mm still camera, and even a transistorized television camera.

The missile branch of the Navy's Underwater Weapons Laboratory in Pasadena, Calif., has given CURV a set of interchangeable hands, including a grasping claw, a clamshell scoop and a snare like a lasso.

The Navy is searching for several hundred thousand dollars worth of torpedoes and other hardware that is accumulating on the ocean floor as a result of various weapons test programs. At a going rate of \$75,000 or more per torpedo, there are considerable savings rusting away beneath the sea.

Although underwater photographs have been made far below the surface, actual recovery of anything from great depths has been practically impossible. CURV, however, attached to 2,300 feet of one-inch cable, has already plumbed depths below 2,000 feet.

This cable, the Navy's fishing line, is really an "umbilical cord" similar to the ones that connect spacecraft with their launch towers. CURV's cable carries, among other things, power from a 30-kilowatt

generator, photo transmissions from the cameras below, signals to control the movements of the camera mountings, depth readings, and more signals to move CURV's mechanical arm, which carries the claw or other retrieval tool.

Surprisingly enough, this elaborate vehicle, shown publicly for the first time in February but not rigged for really deep diving until about six weeks ago, is not handled by any huge hydraulic winch, but by two sailors.

By passing the cable in a figure-eight around two large steel drums on the fantail of the 120-foot tugboat from which CURV is launched, the sailors are able to raise and lower the fishhook by hand.

Chief prey of the Navy fishermen are the relatively lightweight (10-15 pounds after use) torpedoes carried by fighter aircraft. They are designed to be "positively buoyant," says the Navy, but they sometimes fail.

CURV can lift about 40 pounds, but if a torpedo has wedged itself under a rock or half-buried itself in silt, this is not always enough. In that event, the crew above send down a signal telling CURV to release its buoy, attached to a three-eighths-inch steel cable. A device called a Go-Getter, formerly used for hauling in mines, is attached to the cable and sent downward, towing a much stronger cable which in turn is attached to CURV's frame and used to haul up the desired items.

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