

Bronze Age Cemetery Emerges in Syria

What began as a muddy chasm in a farmer's field in 1993 has now become a source of unexpected insights into the Early Bronze Age people who once flourished in what is now northern Syria.

Excavations in April at Tell es-Sweyhat, on the banks of the Euphrates River, uncovered a group tomb dating to between 2500 B.C. and 2250 B.C., according to initial estimates. Discoveries in the tomb, which may have been a family burial, set the stage for exploration of a surrounding cemetery that contains as many as 150 similar tombs, according to project director Richard L. Zettler, an archaeologist at the University of Pennsylvania Museum in Philadelphia.

"This ancient cemetery covers at least 2 acres and hasn't been looted," Zettler says. "It has great research potential."

Until now, knowledge of Early Bronze Age life in northern Mesopotamia, the land between the Tigris and Euphrates Rivers, came largely from prior finds at Ebla, Zettler notes. That ancient Syrian site includes a royal palace and thousands of tablets bearing written administrative records. Urban civilization first arose in southern Mesopotamia around 3400 B.C. (SN: 3/3/90, p.136).

The number and quality of goods in the Tell es-Sweyhat tomb suggest that people buried there were not royalty, Zettler asserts. They may have lived at a nearby town now being excavated by his team.

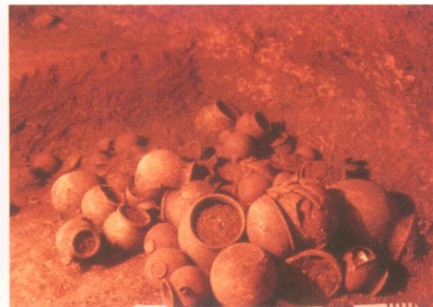
Work at the settlement began in 1989. Irrigation of a nearby field by a farmer 2 years ago caused the collapse of a sinkhole, offering the first peek at the tombs. This year, researchers dug about 10 feet through soil that had filled in a tomb shaft. There they found an oval burial chamber about 12 feet long and 15 feet wide.

Inside rested the bones of at least 10 people. One intact female skeleton and the partial remains of another person lay near the entrance to the chamber. Most of the rest of the bones were piled against a rear wall or scattered nearby. Bodies were probably thrown there "with apparent callous disregard," Zettler contends.

Various objects were buried with the bodies. These include pottery vessels, beads, shells, copper or bronze daggers, axes, javelin points, and a model chariot with wheels.

The tomb also yielded the bones of a whole pig and other animals.

The inclusion of what appear to be offerings to the dead signifies belief in an afterlife, Zettler says. For that reason, he finds it puzzling that most of the bodies were unceremoniously thrown together



Bronze Age tomb yielded several daggers (left) and a pile of pots.

in a heap.

A survey of other sinkholes that have opened up in the field indicates the presence of another 100 to 150 burials of similar size, he adds.

Ongoing work at other Early Bronze Age sites in Syria has unearthed monumental tombs built for royalty, suggest-

ing that a range of burial types existed at that time, says Glenn M. Schwartz, an archaeologist at Johns Hopkins University in Baltimore.

"But Zettler's site is very promising because, unlike so many others in this region, none of the graves has been looted," he asserts. — B. Bower

How climate perturbations can plague us

Two years ago, a deadly respiratory syndrome emerged in New Mexico and radiated to 19 other states. The culprit—a new strain of hantavirus spread by symptom-free rodents—eventually claimed the lives of nearly half of the 94 people stricken.

Now, researchers report that this deadly outbreak appears to have been triggered by climate irregularities associated with the most recent El Niño, that occasional warming of waters in the tropical Pacific.

If true, says Paul R. Epstein of Harvard Medical School in Boston, the episode illustrates the infectious fallout that extreme regional climate perturbations can spawn.

In fact, it may provide a useful analog of the sort of health consequences that can be anticipated under any global warming, Epstein and other scientists argued last week at the Conference on Human Health and Global Climate Change. The Institute of Medicine and the President's National Science and Technology Council sponsored the meeting in

Washington, D.C.

Until 1993, hantaviruses around the world had been linked to the development of hemorrhagic fever. But the variant that rose to infamy in the Four Corners area of New Mexico, Arizona, Colorado, and Utah provoked a new disease with quickly debilitating flulike symptoms, then respiratory failure.

This hantavirus undoubtedly resided in deer mice, its primary carrier, for a long time—and probably even caused isolated cases of human disease, suspects virologist Steven Morse of Rockefeller University in New York City. It went unrecognized until May 1993, he says, "because there hadn't been a critical mass of cases."

But early that year, area mice were experiencing a population boomlet, notes ecologist Robert R. Parmenter. He now suspects that spring cleaning may have jump-started the outbreak by exposing humans to urine-laced dust and droppings from infected mice that had spent the winter indoors.

Parmenter and his coworkers at the University of New Mexico in Albuquerque had been counting populations of rodents at Sevilleta National Wildlife Refuge, some 50 miles south of Albuquerque, since 1989. In the fall of 1992, deer mouse populations exploded. Where normally researchers would have found just one to three mice per hectare, they now saw up to 30. "Certainly," Parmenter told SCIENCE NEWS, "we saw a typical expansion in all



Deer mouse that can carry hantavirus.