

*One of the great islands of the world
in midsea, in the winedark sea, is Crete...*

—HOMER, *THE ODYSSEY*

CRETE HAS SEDUCED ARCHAEOLOGISTS for more than a century, luring them to its rocky shores with fantastic tales of legendary kings, cunning deities, and mythical creatures. The largest of the Greek islands, Crete was the land of the Minoans (3100–1050 B.C.), a Bronze Age civilization named after its first ruler, King Minos, the “master of the seas” who is said to have rid the waters of pirates. According to Thucydides, he also established the first thalassocracy, or maritime empire. The Minoans were renowned for their seafaring prowess, which opened trade routes with the powerful kingdoms of Egypt, Anatolia, and the Levant.

First Minoan Shipwreck

by ETI BONN-MULLER

Depictions of ships abound on Minoan seals and frescoes. They are detailed enough to show that the vessels were impressive: generally, they had 15 oars on each side and square sails, and were probably about 50 feet long. But little more was known about actual Minoan seafaring—until Greek archaeologist Elpida Hadjidaki became the first to discover a Minoan shipwreck.

HADJIDAKI, A SELF-DESCRIBED “HARBOR GIRL,” was born and grew up in the Cretan seaside town of Chania. An experienced and passionate diver trained in classical archaeology, she received funding from the Institute for Aegean Prehistory in 2003 to search for early ships near Crete. “I always wanted to find a Minoan shipwreck,” she says, “so I started looking for one.”

For nearly a month, she and a team of three sponge and coral divers aboard a 20-foot-long wooden fishing boat trolled up and down the island’s shores. Together with George Athanasakis of Athens Polytechnic University, they used side-scanning sonar and detected some 20 “targets,” or anomalies, that Hadjidaki sent her divers to investigate, often reaching depths of 400 feet. One by one, they turned out to be a depressing array of natural geological formations and portions of the seafloor ripped up by the nets of deep-sea trawlers, as well as a World War II airplane, a 19th-century shipwreck, and several pairs of shoes.

On the second-to-last day of the survey, Hadjidaki decided to ditch the technology and go on gut instinct. She knew that in 1976, Jacques Cousteau had brought a team to the small island of Pseira, a Bronze Age port about one and a half miles from the northeastern coast of Crete in the Gulf of Mirabello. He was in search of Atlantis, thought by some to be associated with the nearby island of Thera. Cousteau had found Minoan pottery underwater near the shore, and suggested it came from ships sunk in the harbor by the volcanic eruption that destroyed Thera in 1650 or 1520 B.C. (The finds are now believed to be from houses on Pseira that fell into the sea during an earthquake.)





Archaeologist Elpida Hadjidaki plots the location of ceramic artifacts on the floor of the Mediterranean. They were lost when a Minoan ship likely transporting wine and olive oil in hundreds of large vessels like these (right) sank between 1800 and 1675 B.C.



Intrigued, Hadjidaki and the team headed to a spot about 300 feet off Pseira, near where Cousteau had been. “I thought, why don’t I go there and check it out myself?” she recalls. “But I said, I’m not going to go where Jacques Cousteau dived. I’m going to go to the deeper part.” First, she asked team member Giorgos Klontzas to venture down. Hadjidaki anxiously prepared to wait on the boat for five hours, the average total time of a single dive plus stops to decompress. But Klontzas returned only half an hour later. “He came up

with his hands *full* of ancient pots,” she beams. “And he said to me, ‘There’s a whole *world* of them down there.’ So I jumped into the sea and said, ‘Let’s go!’” Sure enough, cups, jugs, and amphoras lined the seafloor, and over the next couple of days the team brought several more samples to the surface.

In 2004, she expanded the team and mapped the site. The following year, large-scale excavation got underway. “Everything was buried in sand between rocks,” Hadjidaki says. “As we excavated, we found more and more and more.”

Who Were the Minoans?

THE GREAT BRONZE AGE civilization of the Minoans peaked during the middle of the second millennium B.C. By that time, they had started building multistory complexes—initially misnamed but still referred to as “palaces”—that were administrative and distribution centers for massive quantities of goods, including olive oil, wine, and grains, as listed on clay tablets in extensive archives. The interior walls of the buildings were decorated with colorful paintings of birds, dolphins, and monkeys, as well as craggy landscapes filled with flowers, and men and women engaged in rituals such as bull-leaping, which involved grabbing the beast’s horns to catapult over its back.

Palatial architecture was extraordinary, featuring colonnaded courtyards, sliding doors, running water, external staircases, and wooden beams that helped brace the monumental stone buildings from the shock of earthquakes. The largest and most famous Minoan palace is Knossos, located in the middle of the island. Its labyrinthine storage areas inspired the site’s early-20th-century British excavator, Sir Arthur Evans, to

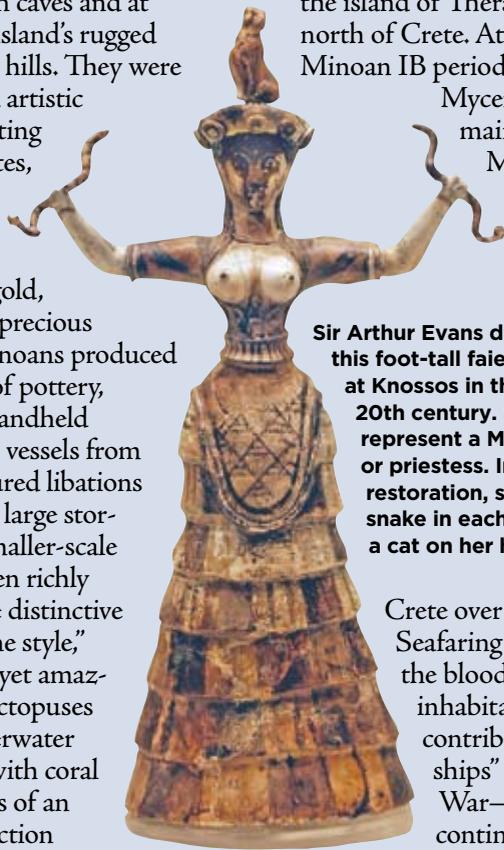
claim he had discovered the lair of the Minotaur, the mythical creature that devoured Athenian children sent as tribute to King Minos.

The Minoans worshiped mostly female deities in caves and at shrines on the island’s rugged mountains and hills. They were also skilled and artistic craftsmen, creating jewelry, statuettes, and religious symbols, such as double axes, from gold, silver, and semiprecious stones. The Minoans produced a wide variety of pottery, ranging from handheld conical cups, to vessels from which they poured libations for the gods, to large storage jars. The smaller-scale pieces were often richly decorated. One distinctive type, the “marine style,” depicts playful yet amazingly realistic octopuses and other underwater critters, along with coral and shells, signs of an intimate connection with the sea.

The Minoans were relatively at peace with their island neighbors, but life was not carefree—the main palaces at Knossos, Mallia, Phaistos,

and Gournia, among others, were rocked several times by earthquakes. Eventually, they suffered a devastating tsunami that followed the 1650 or 1520 B.C. eruption of a volcano on the island of Thera, about 75 miles north of Crete. At the end of the Late Minoan IB period (1450 B.C.), the

Mycenaeans invaded from mainland Greece, but Minoan traditions were preserved in the art and architecture of



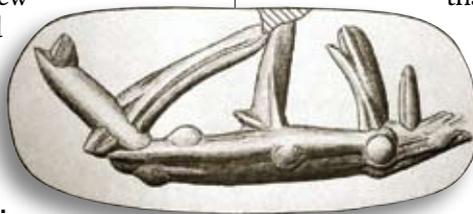
Sir Arthur Evans discovered this foot-tall faience statuette at Knossos in the early 20th century. She may represent a Minoan deity or priestess. In the modern restoration, she holds a snake in each hand and has a cat on her headdress.

Crete over the next 250 years. Seafaring also remained in the blood of the island’s inhabitants. The Cretans contributed “80 black ships” to the Trojan War—one of the largest contingents—as noted in the *Iliad*.

The Minoan-Mycenaean civilization declined with the arrival of the Dorians, warriors from the mainland that settled on Crete between 1100 and 900 B.C.

TO DATE, HADJIDAKI’S TEAM has raised some 209 ceramic vessels, about 80 of which are nearly whole and clearly identifiable as types of amphoras and large jars that would have transported liquids, possibly wine and olive oil, though no residues remain. A handful of artifacts, including cooking pots, jugs, a few cups, and fishing weights, likely belonged to the ship’s crew.

This illustration of a ship depicted on a second-millennium B.C. seal stone found at Pseira in 1991 may provide clues to how the wrecked vessel looked.



Philip Betancourt, a Minoan pottery expert who codirected excavations at Pseira from 1986 to 1996, has examined the finds from the site. Even though no wood from the ship survives, he is convinced they belong to a wreck because they

are an unusually large group of ceramic vessels that all date to the same period (Middle Minoan IIB, 1800–1700/1675 B.C.) and were all made on east Crete. “One doesn’t get an assemblage like that,” he says, “except from a very specialized context—in this case, a shipwreck.” Furthermore, the pottery that was still in place was found upside down, which seems to indicate the ship completely capsized and wound up with the hull uppermost and the cargo down. “This may help explain why no wood was preserved,” he says.

Hadjidaki has closely studied the arrangement of the finds, working with team architect Dimitri Timologos who drew underwater maps based on the artifacts’ location. On the maps, she can trace a narrow trail of pottery about 100 feet long at the northern end of the wreck, where she believes the ship started to founder. The trail broadens into a roughly

With the island of Pseira in the background, Hadjidaki proudly displays an intact, oval-mouth amphora she has just excavated at a depth of 131 feet.

oval-shaped concentration that extends over an area 50 by 65 feet, from which she estimates—by the distribution of objects—the ship to have been between 32 and 50 feet long. Hadjidaki thinks it was similar to, but larger than, one depicted on a serpentinite seal stone excavated at Pseira in 1991. It shows a ship with a beak-shaped prow, high stern, and single mast connected to the vessel by ropes (but no oars, as in earlier representations of Minoan ships).

Alexander MacGillivray, director of excavations at Palaiakastro, a Minoan town on the easternmost shore of Crete, has also looked at some of the finds. “It’s fantastic to get a glimpse of the cargo from a vessel that plied the eastern Mediterranean when the Minoans first started building their palaces,” he says (see facing page). “At that time, the Cretans were importing many of the raw materials required to fuel their development into one of Europe’s first great civilizations. This was all done by sea—and the Pseira ship is our first example of a Minoan vessel of that time.”

PSEIRA HAD TWO HARBORS on its southern side facing Crete, both of which were protected by peninsulas where ships anchored. From the main harbor, a grand stone staircase led up to a town that consisted of about 60 buildings. “We don’t know whether the ship was headed from the island, toward the island, or anchored there, accidentally floating out and sinking,” says Betancourt. “But presumably, it had something to do with Pseira, of course, because it’s very nearby.”

The type of clay from which the pottery was made suggests the ship took on cargo from at least two locations on

Fresh from a successful dive, team members Kostas Kirsanov (holding an oval-mouth amphora) and Ioanna Roussia (in wetsuit) examine their finds with conservator Stefi Chlouveraki (far left) of the Institute for Aegean Prehistory.



east Crete. Based on the pottery, Hadjidaki and Betancourt believe this ship was not destined for a voyage abroad, but rather was making local stops. “This was probably a very common sight—these relatively small coastal vessels that dealt with local trade east and west along points of the island,” says Betancourt. “The wreck gives us a lot of information on what was likely the normal trade practice of seafaring people.” Jan Driessen, director of excavations at the Minoan settlement of Sissi on east Crete, agrees. “We

know from frescoes and other iconographic material throughout Crete that the Minoans were good seamen, that they had large ships of different types,” he says. “The Pseira wreck seems to represent a coast-hopping activity, short trajectories with specific ‘clients.’ It helps us visualize that process of distribution.”

Hadjidaki completed the final season of excavations at the end of September 2009, recovering 60 more ceramic vessels. At press time, the finds were still soaking in fresh water to remove crusty layers of sea deposits. Next, they will be cleaned by conservators, studied by experts, including Betancourt, and join other artifacts from the site at the archaeological museum in Siteia on east Crete. But Hadjidaki already feels a sense of accomplishment. “It’s the *only* Minoan shipwreck that has ever been found and excavated,” she says with a broad smile. “Period.” ■

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