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Is the Legend of Romulus True?

Istanbul’s Big Dig
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Our Crumbling Past
A new AIA mission to conserve ancient sites

When I first arrived at Troy, nearly 20 years ago, what immediately struck me was the extent to which the excavated monuments were crumbling. Foundations exposed by earlier archaeologists had been left unprotected, and the tree roots growing through them were destroying what was left of the buildings. Visitors made the damage even worse by attempting to scale the remaining walls in imitation of Achilles and Menelaus. It was nearly impossible to read any kind of narrative from the ruins of the site, other than one of devastation. Troy is not unique; in their zeal for sensational discoveries, earlier archaeologists dug quickly and often abandoned their trenches without refilling them, or at least stabilizing the foundations of the buildings they had unearthed.

In addition to those not properly cared for after excavation, many more sites and monuments have been destroyed or destabilized as a result of warfare and looting, especially in the Middle East. Yet the funds to protect and conserve damaged sites and monuments have become increasingly limited. If we do not act quickly to reverse this damage, the remains of ancient societies will disappear, as will our memory of them.

The Archaeological Institute of America is therefore developing a new Site Preservation Grant Program intended to support the conservation of ancient monuments and the preparation of management plans for long-term maintenance of the cultural and physical landscape of sites. Sharing the responsibility for safeguarding the world’s archaeological heritage is now more important than ever, and a generous challenge grant from a member of our Governing Board has now set that goal within our reach.

But we cannot undertake this mission effectively without your support. The impact of your membership in the AIA will be felt around the world, in that you will play a role in stabilizing endangered sites whose remains are at risk of crumbling. You will be preserving the histories of cities not so different from ours, and of people whose lives would otherwise have been forgotten.

See www.archaeological.org/preservation for more on the AIA’s new Site Preservation Grant Program.

C. Brian Rose
President, Archaeological Institute of America
IN THIS ISSUE

Window on Constantinople
A dig for the record books

It's a rare site that deserves the superlatives being used to describe the ongoing dig on the south side of Istanbul's historic peninsula. Excavations in advance of a tunnel project have uncovered the earliest city wall of Constantinople, much of the old city's harbor, and enough ancient ships and their cargoes to warrant being called the greatest nautical archaeology discovery of all time.

"I've seen large-scale excavations, interstate highway projects with dozens of excavators working side-by-side with heavy earthmoving equipment, but nothing like the Yenikapi project," notes Mark Rose, the AIA's online editorial director. Rose toured the site this past April and coauthored our story on page 34. "It's not just the scale of the dig, involving more than 10 city blocks and a small army of archaeologists and workers, it's what's being found there—pottery, amphorae, lamps, bricks, animal-bone buttons, dice, combs, sandals, and even a basket of cherries preserved for a millennium. Then there are the boats and ships—22 and still counting. The site is a superb window on the lives of people in ancient Constantinople," says Rose. "It presents a whole new perspective on the city's economic history from its early days as capital of the Eastern Roman Empire onward."

As superlatives go, that's hard to top.

Peter A. Young
Editor in Chief

CONTRIBUTORS

"Being the youngest of a family with older sisters who are all painters, I grew up with plenty of art books around," says Şengül Aydingin, coauthor of "Under Istanbul" (page 34). "I was especially impressed by ancient sculptures and frescoes, so I studied art history and archaeology."

Beginning in 1983, she joined excavations and surveys throughout Turkey as a team member or government representative. She's also worked as a curator at the Istanbul Archaeological Museums, Hagia Sophia, and Great Palace Mosaic Museum. More recently, she helped establish the Kocaeli University Archaeology Department, where she now teaches. In addition to scholarly publications, Aydingin writes a weekly museum review column for the Turkish newspaper Cumhuriyet.

Jonathon Reynolds discovered a fascination with rock art during wilderness expeditions in Ontario, Canada. While canoeing, climbing, and sea kayaking, he often traveled days out of his way to see Native American rock paintings. This time, he went even farther out of his way—to southern Africa ("Letter from Malawi," page 55)—to see how rock art relates to ancient traditions that are still practiced today.

Reynolds is as much a writer as he is an explorer—for the last 20 years he has traveled the world paddling, climbing, and cycling. He is the author of two books on kayaking and paddling. His travel writing and photography have appeared in various magazines, including Canoe & Kayak and Real Travel.
Under

One of the largest urban excavations in history exposes a massive Byzantine port.

by Mark Rose and Şengül Aydingün

Welcome to Yeşikapı, on the south side of Istanbul's historic peninsula. It's one of the biggest digs in recent years, with 50 archaeologists and 750 workers excavating in shifts 24 hours a day, 7 days a week, in an area the size of 10 city blocks. It's also an excavation that has turned up one superlative after another... the earliest, the first, the most. So far, the site has yielded the oldest settlement in Istanbul, the earliest known city wall of Constantinople, and at last count 22 shipwrecks, including the first Byzantine galleys ever found. It may, some say, be the greatest nautical archaeological site of all time.

Overseen by archaeologists wearing heavy clothing to ward off the cold, early-
Istanbul

April wind, an army of workers in orange vests is in constant motion with shovels and wheelbarrows, giving the expansive dig the look of a nineteenth-century expedition. In some places they're down 25 feet or more, and the lowest areas of the vast trenches are water-filled. Wood frames covered with plastic, like so many greenhouses, shelter important finds, as well as the excavation and conservation teams working there. White shipping containers, converted into field offices and on-site conservation labs, are scattered about the site. Hundreds of stacked milk crates at the central container-office complex are filled with pottery fragments, animal bones, and other remains awaiting study.

Once a lower-class neighborhood, Yenikapi will be Istanbul's most important ground transportation hub two years from now, assuming the archaeology is completed. A new east-west rail line will emerge from below ground, connecting with the city's subways, light rail system, and buses. But nearly 1,700 years ago another transportation hub was built here, the first port of Constantinople, the harbor that allowed the city to become the new capital of the Roman Empire. Wine and oil in jars and amphorae, cargoes of grain from Alexandria—all moved through this port.

Istanbul desperately needs to improve its transit system. A major metropolitan area with some 12 million residents, it is divided by the Bosphorus, the long channel that leads south out of the Black Sea and divides Europe and Asia. Two suspension bridges have been built across the
Bosphorus, but both are overcrowded, as are the car and passenger ferries that ply the strait. Traffic congestion and auto exhaust are choking the city.

Feasibility studies for an underground link between Europe and Asia in the late 1980s established the tunnel's route. It runs under the city's historic area — site of the Ottoman sultans' Topkapi Palace, the Byzantine cathedral Hagia Sophia, and the Blue Mosque — but deep enough to avoid any archaeological or architectural remains. After a second, more detailed round of studies a decade later, the project was funded and in May 2004 work began on the tunnel. Archaeological excavations at Yenikapi, where the tunnel emerges, began that November.

The procedure for dealing with any discoveries was to have been simple, according to the tunnel project's website: If an important find were made, it would be reported to the Archaeological Museum of Istanbul, and museum staff would go to the site and decide what should be done to preserve it. Three years and a host of ancient shipwrecks later, it is clear that this approach was far too simplistic for such a rich and challenging site.

Salvage archaeology in Turkey is administered by the General Directorate of Cultural Heritage and Museums of the Ministry of Culture and Tourism. For Yenikapi, that means Ismail Karamut, head of the Istanbul Archaeological Museum, is in charge, with the museum's Metin Gokcay serving as field manager. Because of the complexity and size of the project, the museum is also coordinating outside help — archaeologists and scientists sent in by the ministry, as well as teams from Istanbul University and the Institute of Nautical Archaeology at Texas A&M University.

Karamut, in business attire at his desk in the museum, carries himself like a diplomat. He blends hospitality with business, and we have tea and talk about the excavation for an hour. He is, by turns, excited about the discoveries and reflective about his responsibility and the
need to be pragmatic. Would project engineers, contractors, and archaeologists have agreed to the original plan had they known what would be discovered? “We knew from the ancient sources that there was a port around there, but not exactly where,” says Karamut. And the pressure to get the excavation completed as soon as possible? Istanbul, he says, is 2,800 years old but it’s also a living city. “Every construction site, be it for a small building or a multibillion dollar mega-project like this one, is a window on the past that is opened briefly. And a window of this size may not be open for Istanbul for many decades to come. So we have to do the best we can.”

Karamut undoubtedly feels the pressure to complete the work as soon as possible but at the same time refuses to cut corners for the sake of maintaining a deadline, and he’s not giving the engineers and contractors a final completion date for the archaeological excavation.

Mein Gökcay—wearing mustache, stocking cap, and heavy jacket—looks every bit the field archaeologist as we walk along a muddy roadway. Having had a hearty lunch of kofte (meatballs), rice, and vegetables at a traditional local restaurant, we’re now heading across the length of the site to start our tour at its western end. The excavations at Yenikapi began here and immediately ran into a warren of ancient walls and chambers spanning many centuries. Gökcay unravels the snarl of ancient masonry, interpreting it for us. One of the most important discoveries was a line of massive limestone blocks. It is, says Gökcay, part of the breakwater that protected the city’s first harbor. The breakwater extended from the original shoreline south, into deeper water, then turned at a right angle and ran west-east, sheltering a long stretch of coast where the Lykos River, today called the Bayrampasa, emptied into the sea.

Discovering this corner of the harbor was crucial to understanding the whole site. Everything at Yenikapi east of this line of blocks is former harbor. The area to the west is much smaller, but within it is a length of early wall, nearly 170 feet of it. It’s possible that this is part of the original city wall of Constantinople, but no other part of that wall has ever been found, so there’s nothing to compare it to, and the dating is not entirely certain. Centuries later, the area was used for a Byzantine charnel house and, later, for a tannery, the lined masonry ovens of which are still preserved. The most enigmatic find here, and easily the most macabre, was 15 human skulls thrown into a well. Criminals who were executed, suggests Gökcay with a shrug.

Heading eastward, we return to the harbor area. Gökcay points out one of the “greenhouses” standing in a flooded section of a deeply excavated trench. It’s set over a seventh-century A.D. shipwreck on what was once the harbor bottom. But there’s no one in sight and no sign of activity. When such finds are made, they are allowed to flood again—much of the site has already been dug down to the water table. It’s better for fragile, waterlogged organic remains to stay immersed until special excavation and conservation teams are available to work on them.

Back at the central headquarters complex of shipping containers, we have a look at some of the artifacts that are soaking in freshwater in a conservation lab. Yenikapi has all of the artifacts usually found on ancient Mediterranean sites—pottery, amphorae, lamps, bricks, animal and fish bones, and small objects ranging from buttons to dice. But because it’s a waterlogged site, it also has leather sandals, wooden combs, and other objects that are seldom preserved. One of the shoes bears a long inscription in Greek, which Feza Demirkol of the Istanbul Archaeological Museum has translated: “Use it in health, lady, be in beauty and happiness and wear it.”

Much of the debris recovered from the harbor floor is, unsurprisingly, nautical gear. Stone anchors are known from many sites, but how they were rigged has long been
At the western end of the Yenikapi excavations, archaeologists found a maze of ruins, including a multichamber late Byzantine channel house, above, and a portion of early city wall, right. The inscription on the shoe sole, below, wishes the wearer health and happiness.

decluded. No longer, thanks to the extraordinary preservation at Yenikapi. Here, for the first time, they’ve been found with wooden poles and ropes still in place.

Continuing eastward, we thread along walkways and ramps used by excavators shuttling wheelbarrows filled with the fine, light, gray-brown soil from the dig. In one “greenhouse” we see a ninth-century harbor vessel. A “lighter” used for ferrying cargo from the shore or piers to merchant vessels in deeper water, it was found full of amphorae for transporting wine and oil. Most have been removed to reveal the wooden hull. This ship also carried a basket of cherries—still preserved, though somewhat worse for having been buried for a millennium—now in the conservation lab. As we leave, the archaeologist in charge of this particular wreck turns back on the overhead water line, which sprays a constant mist over the exposed wood.

Gökçay points out two more “greenhouses” in a low, flooded area that mark the locations of two wattle-and-daub structures discovered by archaeologist Mehmet Ali Polat. Awaiting excavation, they date from the end of the sixth millennium B.C. (Late Neolithic). Before now, the oldest known settlement in the European side of Istanbul was from the seventh century B.C.

But it’s the ships at Yenikapi that have caught the media’s attention. When we visited the site in April, archaeologists had uncovered some 22 boats and ships, from small craft of the sort used by fishermen, to a brick transport vessel, harbor boats (like the lighter filled with amphorae), and cargo ships. No other site has ever produced so many ancient wrecks. In fact, thanks to the Yenikapi excavation, we’ll now have a full view of the range of ancient ships used in a major harbor like this. It will also fill in our knowledge of how shipbuilding practices developed from ancient to medieval times.

Things like that excite Cemal Pulak of the Institute of Nautical Archaeology at Texas A&M. Gökçay drops us off at a large “greenhouse” complex where Pulak and a small team are excavating several wrecks, some piled atop one another.

One, he points out, was a sturdy merchant vessel about 45 feet long that sank with a cargo of wine amphorae. Another is too long, perhaps more than 70 feet, and too narrow for a merchant vessel. Equipped with oars, the ports of which are still preserved, it’s likely that this is a galley, possibly the first Byzantine naval ship ever discovered.
Headquarters of the Yenikapi dig consists of shipping containers converted into offices and conservation labs. Stacks of crated artifacts await.

Near the eastern end of the harbor, there is evidence of an ancient catastrophe: 15 ships, including Pulak's merchantman and galleys, that all sank at the same time, about A.D. 1000. What could have caused the simultaneous sinking of all those ships? The harbor faces south and the North Anatolian Fault—known for its powerful quakes, including a 7.6-magnitude one in 1999—lies only about 12 miles in that direction. Could it have been a tsunami? While that's possible, there's no record of an earthquake at that date, and quakes in Constantinople/Istanbul are well documented both in archives and repairs made to the city's ancient and historic structures.

More likely, says Pulak, a powerful storm sank the ships. He backs this up by explaining the layout of the harbor and what we know from the distribution of wrecks in it. The earliest wreck, from the fourth or fifth century, is near the western end of the harbor (toward where Gökçe found the breakwater wall). From there, the wrecks are increasingly more recent in date as one moves to the east: seventh century, ninth, and then the pile-up of ships from A.D. 1000. Pulak believes that almost as soon as the breakwater was constructed across the front of the harbor, silt from the Lykos River began accumulating, filling in the harbor beginning at the western end, which was stagnant because of the breakwater's configuration. The harbor mouth was on the east, and the water remained deeper there longer, but there was little protection. Perhaps, he says, a storm came up and ships tried to shelter as best they could—but the more protected western end of the harbor was simply too shallow. Caught in the exposed eastern end, the ships were driven aground by wind and waves.

No such drama accompanied the last few centuries of the Yenikapi district. Choked by silt from the Lykos River and completely filled in, the area was occupied by farm plots.

At the shipping container that serves as the office of the Istanbul University team, directed by Sait Başaran, we talk to one of the lead conservators, Ufuk Kocabas. The university's conservation program is young and has expanded exponentially to deal with the finds from Yenikapi. But it seems to be meeting the challenge, developing techniques to lift ship hulls from the site rapidly. Now they're building the large tanks in which ships' timbers will be desalinated and then preserved. The warmth of the office is a relief and Kocabas shows us videos of the Istanbul team at work recording and extracting ship remains. By putting removal at the beginning and detailed study afterward, they've sped up the process of excavating and clearing the site. We then return to the excavation headquarters, grateful for more tea.

Will the Yenikapi excavation be judged a complete success when all is said and done? It's a complex question, balancing archaeology—which involves not just excavation, but also archaeology.
analysis, publication, and public presentation—and infrastructure needs.

Istanbul needs its new transportation system. Consider that, in Tokyo, 60 percent of all trips by motorized transport are by rail. New York manages 31 percent. But today in Istanbul it is a mere 3.6 percent. Once the tunnel and rail lines are completed, that percentage may jump to nearly 28. The historic structures of Istanbul—from mosques and churches to ancient aqueducts and walls—are as endangered from air pollution as the city’s inhabitants. But salvage projects involve compromises because of time and budget limits. Within those constraints, the Yenikapi excavation will have yielded immense returns, many discoveries that can be legitimately called the earliest, the first, or the most—and ones that are changing our knowledge of ancient Constantinople and the Byzantine-era nautical world.

It’s not that anybody doubts the importance of the site. “Few were expecting that such a big harbor would come to daylight,” says Istanbul University’s Basaran. The students he directs at Yenikapi, he notes, “are working on the type of site that might be excavated once in a lifetime.” Jim Delgado, executive director of the Institute of Nautical Archaeology at Texas A&M, agrees. “Thanks to Yenikapi, we have an opportunity to learn more about Byzantine ships than we’d ever thought possible,” he says. “I believe the site will prove to be one of the greatest nautical archaeological discoveries of all time.”

Archaeology, however, is more than just uncovering and preserving ancient remains. That’s only the first step. From the boxes of pottery to the shipwrecks, the material all has yet to be studied. That will take lifetimes of effort by scholars, and it will probably be five to ten years before we start seeing published results from the analyses.

And the public? Istanbul is today as much a nexus of trade routes and cultural links between Europe and Asia as it was when the city was known as Constantinople. The discoveries at Yenikapi are important for both tourists and Istanbul’s residents. The western end of the excavation, with the early city wall, will be made into an archaeological park, and plans for the Yenikapi station—a gleaming, light and airy structure in architects’ renderings—have been altered. It will now have a museum, says Ismail Karamür, displaying not only artifacts but also ships from the city’s first harbor.

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