I have spent the better part of my professional life studying the lowly Roman amphora—a two-handed clay jar used by the Canaanites, Phoenicians, Greeks and Romans to ship goods. What would Harvard professor Charles Eliot Norton, who founded the Archaeological Institute of America in 1879, have thought about my archaeological tastes? Norton wanted archaeology, especially Greek archaeology, to uplift Americans morally and aesthetically through the study of elegant ancient artifacts. Yet, paradoxically, near the top of his headstone in the Mount Auburn Cemetery in Cambridge,
On the preceding pages, winged infants mimic their elders by acting as winemakers and wine-sellers. This fresco is from Pompeii’s House of the Vettii, named for the wealthy freedman Augustulus Veritus Cornivus, who owned the house when it was painted by the 79 A.D. master of Mount Vesuvius. Other frescoes in the house show similar infants, also called cherubs or cupids, engaged in various adult tasks, such as forging iron and selling medicine. The little victors in the “Cupids as Wine Dealers” fresco depict their wine from amphorae—like the actual amphorae in which Pompeians shipped wine around the Mediterranean and as far as India.

Roman ships entered the Port of Ctesis, just outside Raenovia, Italy, in the late-fifth-century A.D. mosaic of the church of Sant’Apollinare Nuovo in Ravenna. The holds of Roman ships were tightly packed with amphorae, stacked head-to-toe (as in the little-boy drawing at right) and filled with wine, fish sauce, olive oil, fruit, paint, unguents or whatever the market demanded.

The holds of Roman ships were tightly packed with amphorae, stacked head-to-toe (as in the little-boy drawing at right) and filled with wine, fish sauce, olive oil, fruit, paint, unguents or whatever the market demanded. Adapting the advice of a federal judge in the Microsoft case: “When you are riding a donkey, the best strategy is to dismount.” Free of theoretical blunders, we can now see that Roman amphorae—like the actual amphorae in which Pompeians shipped wine around the Mediterranean and as far as India—entered the Port of Ctesis, just outside Raenovia, Italy, in the late-fifth-century A.D. mosaic of the church of Sant’Apollinare Nuovo in Ravenna. The holds of Roman ships were tightly packed with amphorae, stacked head-to-toe (as in the little-boy drawing at right) and filled with wine, fish sauce, olive oil, fruit, paint, unguents or whatever the market demanded.

From about the third century B.C. to the fifth century A.D., energetic Roman traders sailed huge cargo ships to the ends of the known earth, as we can tell from shipwrecks and excavations. They ventured out into the Atlantic, as far as the west coast of Scotland and to the Canary Islands; they traveled by river deep into western and eastern Europe; and they sailed to India and, probably, beyond. This was large-scale trade by sea and river, not the more limited land trade along such routes as the Silk Road, over which small objects were transported to and from Rome. Land trade was much more expensive, and there were no storage facilities for land trade. The Maritima romana, or Roman mariners, had few facilities for storing their goods, even as the excavations at Pompeii and Herculanum indicate, so amphorae served to store and keep cool (as thick clay walls do) whatever one wished to put in them: wine, oil or vegetables—though jars that had contained merely fish sauce might not have been the best choice.

For example, in June 1999 the underwater explorer Robert Ballard and archaeologist Ann Marie Cunningham discovered several wrecks in deep water off St. Kitts Bank, between St. Lucia and Trinidad. One ship was a first-century B.C. Roman vessel with amphorae from the Seleucia factory at Gaza.
Perhaps the chief secondary use of amphorae was in construction. Broken amphora fragments were cemented together and used in walls, foundations, piers and breakwaters. The Romans also discovered that empty amphorae, when embedded in ceilings or placed under floorer stages or speaker's platforms, improved acoustics. Amphorae were also reused as ballast missiles, children's coffins, ash urns and decoration for tombs (see photo, p. 33). Their similarity to the human figure had connotations of immortality—as is suggested by amphorae used as ancient cinerary urns and amphorae placed in ancient graves. Even today, tombs in the Protestant Cemetery in Rome are decored with amphorae—as is Charles Eliot Norton's mausoleum.

Shipping amphorae are generally the chief finds on once-inhabited Roman sites, accounting by some estimates for 80 percent of the material, not including the amphorae reused in construction. And the percentage rises even higher under water, since most Roman levies that plowed the deep—the ancient equivalents of modern oil tankers—had cargoes of hundreds, even thousands, of amphorae. When they were wrecked, their cargoes came to rest on the sea bottoms.

In the not too distant past, the Greeks and Phoenicians were identified as sailors, whereas the Romans, before Hollywood decided that they spent all their time in brutality and self-indulgence, were thought to have been primarily farmers. Roman trade was believed to have taken place on the famous network of Roman roads, all of which led to Rome. But that was before 1943, when Jacques-Yves Cousteau's invention of the aquaplane launched the era of underwater archeology. In 1950, Cousteau bought the boat Calypso, a former British minesweeper, two years later he agreed to help the French archaeologist Fernand Benoist explore a wreck filled with hundreds of amphorae that had foundered on the Grand Conglout rock off Marseilles. At the time, Virginia Grace and I were working at the Agora Excavations (which have provided precise contextual information allowing us to date most types of Roman amphorae). We were consulted by the French archaeologists, who thought they had found a large Greek ship from the third century B.C. But we knew that the amphorae were Roman and that they dated from two distinctively different periods, about 200 B.C. and about 100 B.C.; therefore, the find must have consisted of two different ships. At dangerous headlands, multiple wrecks often occur over time. That's what happened at the Grand Conglout.

The Grand Conglout wrecks, along with other evidence from beneath the deep blue sea, have filled in our knowledge of Roman enterprise. After Rome wrested control of the Mediterranean from the Carthaginians at the end of the First Punic War in 241 B.C., she began to package her surplus agricultural products in amphorae, load them on ships and sell them in western Mediterranean markets that had been served by the Etruscans and later by Phoenician Carthage. The earliest known Roman amphorae, dating to the last half of the third century B.C., were used for wine; they were somewhat smaller (about 2.5 feet high) than their later counterparts (generally over 3 feet high). These so-called Roman Greek-Italic amphorae took their shape from fourth- and early third-century B.C. amphorae that probably originated in the Greek colonies of Sicily and southern Italy, or perhaps in Greece itself.

We even know, from studies of the clay, where early Greek-Italic amphorae were manufactured: in the area of Campania close to Mount Vesuvius; in Etruria, about 200 miles north of Pompeii; in far southeastern Italy; and in the fertile lands and islands around the northern coast of the Adriatic Sea. Each of these regions also had a principal export harbor: Pompeii, in Campania; Cosa, in Etruria; Brindisi, on the heel of Italy's boot; and Aquileia, in the northern Adriatic. Only the ports at Aquileia and Cosa have been thoroughly explored, though some work has also been done at Pompeii.

The Roman geographer Strabo (6.64 B.C.–A.D.) tells us in his Geography (5.48.4) that Pompeii was an export-import harbor in his day. Although only a fraction of the silted-up Port of Pompeii has been explored, we now know that it was located on the southeastern side of the city, outside the Sarno Gate. (The painting shown above, which depicts the fall of Vesuvius and was discovered in the House of Sacerdos Amanus, may well show this part of Pompeii.)

Excavations at Pompeii have uncovered a large porticoed building of the early first century B.C. outside the Sarno Gate. Among the finds in the building were dozens of wax tablets recording loans to individuals of Pompeii, the local import harbor serving Rome, a short distance up the coast. And just a few years ago, the Pompeii excavators uncovered Greek-Italic wine amphorae made of local clay. This archaeological evidence suggests that Pompeii served not only as an amphora-manufacturing center but also as a major port—just as Strabo said.

For years I have maintained (though most scholars in Europe disagreed with me) that Pompeii was a manufacturing and distribution center for wine in the Roman Republic and for gramin (fish sauce) in the Roman Empire, right up until the city was destroyed by the eruption of Mount Vesuvius in 79 A.D. My evidence consisted of amphora stamps with the names of known Pompeians—stamps found not
This photo was taken in January 1954, while marine explorer Jacques Cousteau was assisting in the excavation of two Roman ships that had been destroyed on the Grand Canal in Italy. Although the ships were separated by several centuries, they were of similar size and length. The archaeologists were able to recover a large number of artifacts, including amphorae, which are used in the production of oil and wine.

The largest amphora was discovered on the bottom of the ship. It was made of red clay, and its diameter was approximately 1.5 meters. The amphora was filled with olive oil, which was a valuable commodity in ancient times.

Amphorae were used extensively in the Roman Empire for transporting goods. They were made of clay and baked in kilns, which allowed them to withstand the rough sea conditions. The Roman amphorae were used to transport olive oil, wine, and other goods across the Mediterranean.

The excavation of these ships has provided valuable insight into the trade and commerce of the Roman Empire. The discovery of these amphorae has allowed archaeologists to study the trade routes and the economies of the time.

Overall, the excavation of these ships has been an important contribution to our understanding of the ancient world. The amphorae, in particular, have provided a window into the past and allowed us to glimpse the daily lives of the people who lived in the Roman Empire.
to Delos and Athens—just as Caesar sent its wine mainly to Gaul, while Pompellini exported its wine chiefly to the East? What part did the Roman empire play in the distribution of its wine and oil throughout the Mediterranean region? Although this aspect of Roman economic history is far from certain, my feeling is that while production was primarily private, there was very likely state interference in the distribution process.

During the Roman Empire, the provinces began to supply Italy as the major suppliers of the world's markets. But did it matter, since the whole Mediterranean was controlled by Rome? Olive oil and garum from Spain, wine from Gaul and olive oil from Africa found their way to Spain. A Roman amphora (from the Greek word amfora, meaning "vessel"), and the "Sextus" was a prominent Roman family, frequently mentioned in ancient sources. The Roman writer Cicero (106-43 B.C.) wrote that his friend Publius Sextius had an estate on a coast—probably the one that supplied much of the Roman world with wine amphorae and their contents. Publius Sextius's son, Lucius Sextius, was a friend of the poet Horace. Lucius and Horace fought with Brutus, Julius Caesar's assassin, at the Battle of Philippi (42 B.C.), where Brutus was defeated, and put to death, by Mark Antony. Lucius and Horace were proscribed (their property confiscated) for choosing the wrong side in the civil war. The Greek amphora factory, which the Sexti had been operating for more than a century, was probably destroyed at this time as punishment for Lucius's treason.

In 39 B.C., Lucius Sextius was granted amnesty and the factory at Cori went back to business. Lucius also started a brick factory near Rome, becoming one of the first commercial manufacturers of faced bricks. Despite his political feelings (he kept a little statue of Brutus in his home), he was appointed consul in 22 B.C. by Augustus. It was to Lucius Sextius that Horace dedicated his fourth ode (right). A meditation on change—the quickening of life after a long winter, the unpredictability of death—the poet recalls Lucius's own reversals of fortune. Horace also makes veiled references to the Sextius business. He calls Velleius's workshop an "off-fish" (line 1), a word that appears as "off-fish" in pottery traditions. In line 18, Horace mentions regno vivi, "realms of wine," probably referring to the wine industry of the Sexti. Horace included such phrases to honor his friend, but he hid them in the poem so as not to remind Augustus of the Sextius family's notorious history—E.L.W.

To Sextus

Harsh winter is breaking up, with pleasant change
Of spring and the west wind.
And machines are drawing dried keels to the sea,
And seaweed no longer stalks nor the plowman his
Fire,
And meadows are no longer white with glistening frost.
Now Venus of Cythera leads her chariot,
While the moon looks back,
And lovely Graces hand in hand with Nymphs
Shake the earth with alternating steps, while glowing Vulcan
Visits the mighty workshops of the Cyclops.
Who shall the shining head with green myrtle
Carry or with flowers the softened earth brings forth,
And nay, the trees in shady groves to Faunus,
Whether he wants a lamb or prefers a kid.
Thus death
Knocks impatiently at the huts of the poor.
And the trees of the rich. O wealthy Sextius,
Life's shortness forbids us to harbor long hopes.
Soon night will press upon us, and the mythic shades,
And the dark house of Pluto. When you go there,
You will not wish wines of wine with a lively breath.
Not eye young Lucius, whom all the youths now want.
And soon the girls will feel the warmth of love.
(Translated by Elizabeth Lindsay Will)

For more information, see Elizabeth Lindsay Will, "Dedicating the Region of the Sextius," in Natasha Goldsmith, ed., Nine Lives: Recent Great Sculptures in Honor of Luis Richthofen Park (New York: Pace, 1994).