

1996 Excavation Summary

Excavations in 1994 and 1995 in the Athenian Agora shed light on numerous aspects of Athenian life, including the destruction of the city at the hands of the Persians in 479, the form of the great cult statue of Athena Parthenos which adorned the Parthenon, the composition of the Athenian cavalry in the 3rd century B.C. and the terracotta figurine industry in early Roman times. The 1996 season has been no less varied, in terms of both the material recovered and the chronological range represented: an early Iron Age burial, an eighth century well, a glimpse into the politics of Athens at the start of the 5th century, further evidence of the Persian destruction, and important evidence for the spread of technology in the Hellenistic period. Excavations in 1996 were carried out from June 10 to August 2, with a team of 35 students and four supervisors. The results reported here are the product of their hard work and good will. Primary funding was generously provided by the David and Lucile Packard Foundation. Work was concentrated in two areas: in early levels underneath the west end of the Middle Stoa and in and around the Classical commercial building north of the Stoa Poikile (Fig. 1). In both areas our understanding of the topography of the Agora in various periods has been greatly enhanced.

SOUTHWEST AREA

In the southwest area we excavated in the Agora square low down within the foundations of the Middle Stoa, a few meters to the east of the boundary stone found in 1967. Here successive layers of deep gravelly fill indicated periods when the floor of the Agora was raised significantly. One such period was late in the 5th century B.C., when the construction of South Stoa I to the southeast and the New Bouleuterion to the northwest both produced large amounts of quarried bedrock fill. A second major raising of the levels occurred in the third quarter of the 4th century B.C., when the southwest fountainhouse was constructed at the southwest corner of the square.

A terracotta pipeline found running in a northerly direction through the excavations proved to be of considerable interest. A total of nineteen sections were found in situ, each segment measuring 0.65 m. long and 0.15 m. in diameter. Unusual is the careful sealing of the joints, using bands of molten lead (Figs. 2 and 3). The thickness of the pipes (0.02 m.) together with the care with which the joints

were sealed are largely unparalleled among the dozens of pipelines excavated in the Agora and indicate that the pipe was built to carry fresh water, under pressure. Pottery from associated levels suggests that this pressure line should be dated no later than the early 3rd century B.C., making it the earliest known from Athens and among the earliest in the Greek world. For centuries Athenian aqueducts were all gravity-flow, requiring a continuous slight decline from source to terminus. The technology of pressure lines - which led eventually to the great aqueducts of the Roman world - was apparently developed early in the Hellenistic period. The great citadel of Pergamon, capital of the Attalid dynasty, was supplied with pressure lines as early as the third century B.C. and it would be a reasonable assumption that the technology was introduced to Athens from Pergamon as the Attalid kings were great admirers and benefactors of the Athenians in the 3rd and 2nd centuries B.C. The new pipeline, however, points to another source of inspiration. It is now clear that it began at the late Classical waterclock or klepsydra which lies some ten meters to the south. This monumental timepiece, built originally in the 2nd half of the 4th century B.C., was extensively remodelled in the early 3rd century to reflect advances made in timekeeping technology. The original overflow line, built of reused well-tiles set edge to edge has been known for years (Fig. 2). The newly discovered pipeline - in use after the remodelling - runs parallel to it and apparently carried off the overflow, which will have been good clean water, suitable for reuse elsewhere in the Agora. The use of a pressure pipe in this particular system is less surprising and perhaps more significant than were it to be found elsewhere. It is less surprising in that the waterclock represents the absolute cutting edge of hydraulic technology and a sophisticated new development such as the pressure line might well be expected to make its first appearance in Athens in just such a milieu. The increased significance comes from the fact that the invention of the inflow clock is attributed to Ktesibios, who flourished in Alexandria in the 3rd century B.C., just the time when the Agora clock was remodelled. The new technology, in short, was developed in Ptolemaic Egypt and we must now consider whether the new pressure line was imported with related advances in hydraulics from Alexandria rather than Pergamon. Our new pipeline, despite its modest, utilitarian appearance, may in fact have much to tell us about the spread of technology in the Hellenistic Mediterranean.

A second, much earlier, hydraulic installation was also uncovered deep under the Middle Stoa. This was a well driven through bedrock to a depth of 9.25 m. (30 feet). It was oval, measuring 0.90 by 1.00 m., unlined, with footholes cut at intervals

on opposite sides all the way down the shaft. The fill consisted of large numbers of rocks, mud, and a few pieces of pottery ('Phaleron cup', SOS amphora, water jar) which allow us to date the abandonment of the well to the years around 700 B.C. (Fig. 4) There was no obvious sign of a period-of-use fill at the very bottom, suggesting that the well saw little, if any, use. The well dates from a time long before the area was given over to public use and presumably reflects the position of a private house now completely gone. Its abandonment close to 700 puts it in a group of 16 other such wells which all go out of use toward the end of the eighth century. This simultaneous abandonment of all the wells in use in the area at the same time has led to the hypothesis that Athens and the rest of Greece suffered from the effects of a severe drought in the second half of the 8th century B.C. The great depth of over 9 meters as opposed to an average depth of 5.50 m. for the period suggests we have here a serious effort to find water, while the lack of a period-of-use perhaps indicates that this extra effort proved futile. The new well would seem to be a welcome addition to the considerable body of evidence which suggests a period of drought and a resultant famine in Athens late in the 8th century B.C.

NORTHWEST AREA

Excavations were continued in and around the Classical commercial building which lies north of the west end of the Painted Stoa. The earliest remains encountered thus far lay deep under the foundations of the Temple of Aphrodite. Here we came upon a simple cist grave cut into the bedrock, oriented east-west, and measuring 1.63 m. long, 0.35 m. wide, and 0.35 m. deep. Within was the extended skeleton of a man, with the head toward the west (Fig. 5). The burial is paralleled by five cist graves found under the Royal Stoa and indicates that both banks of the Eridanos river were used as a cemetery in the early Iron Age.

East of the commercial building we explored a layer of crushed bedrock fill which produced numerous ostraka, several dozen in all. They almost exclusively carry the name of either Themistokles son of Neokles or Xanthippos son of Arriphron, and would seem to confirm the hypothesis that these two men contended for control of the democratic elements of the city before attention was turned to the aristocratic faction. Xanthippos, the father of Perikles, is known from Aristotle's *Constitution of the Athenians* to have been ostracized in 484/3 B.C., though hitherto his main opponent had not been known. The large number bearing Xanthippos' name (ca. 20) suggests that the deposit dates from the very year of his

ostracism (Fig. 9). Several of the Xanthippos ostraka seem to have been written by the same hand, suggesting the sort of organized political activity which led to the ostracism of Themistokles himself in the late 470's.

Found nearby was a shallow pit, 1.10 m. in diameter and 1.36 m. deep, containing a small deposit of black-glazed pottery which seems to date to the time of the Persian sack of 479 B.C. and its immediate aftermath. Made up of a variety of standard household shapes, the group would seem to be domestic in character, with one cup carrying the incised name of the owner, Xenon, on the bottom (Figs. 6 and 7). This pit, together with the well excavated last year, suggests that the area north of the Eridanos was given over largely to private houses in the late Archaic period.

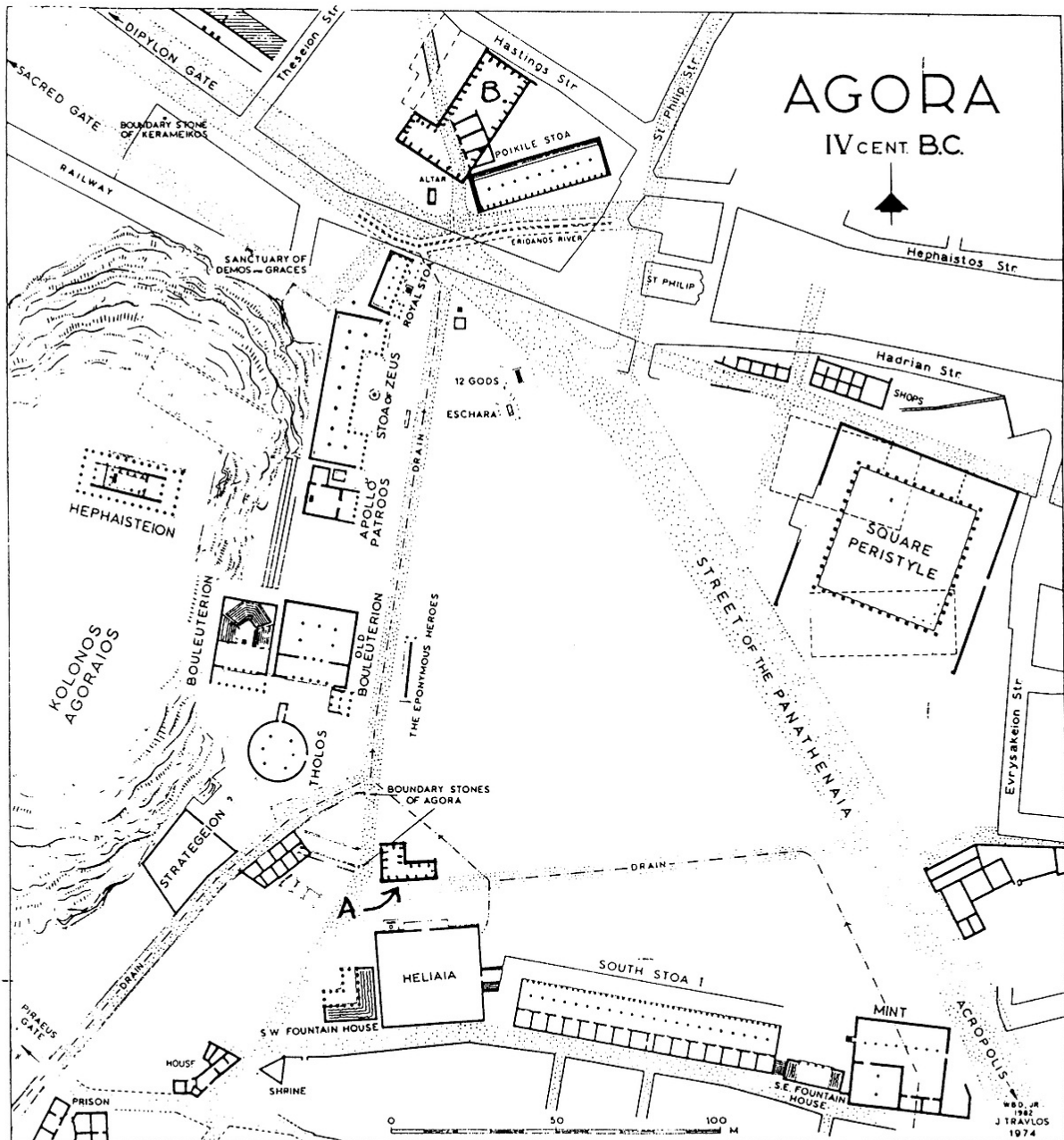
Within the Classical commercial building we exposed more of the walls -some bearing plaster - and several of the ancient floors. In a disturbed area under the floor we recovered an exquisite small head of a youth of the Classical period (Fig. 10). Most interesting, perhaps, was the recovery of a well-preserved "pyre", with some 15 vases (Figs. 11 and 12). The term "pyre" is something of a misnomer which refers to the remains of some Athenian ritual known only from archaeological excavation. A typical pyre has an area of burning or charcoal and a group of anywhere from 3 to 36 pots, with certain shapes commonly represented: a drinking cup, small saucers, a lidded pyxis, and miniature casseroles and cooking pots (chytras). A few bones, - sheep or goat or chicken - along with the cooking pots and burning suggest that the pyres reflect some form of ritual dining. Elsewhere in the Agora these pyres are commonly found in private houses or shops, often carefully buried under the floor. Five such pyres have now come to light in and around the Classical commercial building, making this the largest single concentration of pyres among the 36 excavated in the area of the Agora. Whatever ritual they reflect, it was practiced by the Athenians for a limited time, roughly from 350 to 250 B.C.

Further to the north, behind the Classical building, we continued to recover debris from the coroplast's factory, first encountered last season. Dozens of fragments of terracotta figurines and molds of the late 1st century A.D. were found, mostly worn and in fragmentary condition, including two incised with the name of the fabricant, Markos.

Above the material from the coroplast's factory we found evidence of activity in the 4th and 5th centuries A.D., in the form of walls and pottery. A deep pit or well was partially excavated this year and produced large amounts of household material

of the 2nd half of the 4th century A.D.: pottery, lamps, coins, glass, and a handsome terracotta figurine of Aphrodite (Fig. 8). This group is similar in date and composition to groups of debris (I-J 2-3: 1) found just west of the temple of Aphrodite, apparently reflecting the destruction of Athens by Alaric and his Visigoths in A.D. 396. Higher up we encountered debris from the devastation of the area at the hands of the Slavs late in the 6th century A.D., a destruction which marks the end of ancient Athens.

John McK. Camp II
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1. Plan of the Agora showing areas excavated in 1996.
 - A. Southwest area, with pressure pipeline and early well.
 - B. Northwest area, with Iron Age burial, ostraka, pyre and terracotta shop.



2. Overflow channels from the waterclock (klepsydra).
On left, the pressure line of the early 3rd century B.C.;
on the right, the original overflow of the late 4th century B.C.



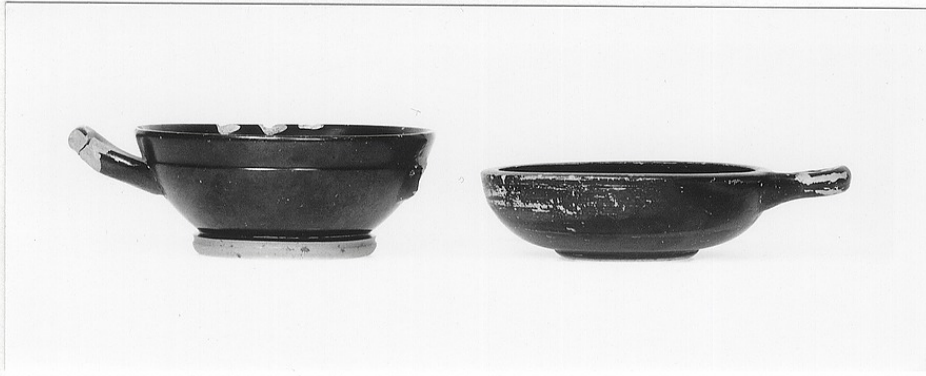
3. Detail of early Hellenistic pressure line (1st half 3rd century B.C.)



4. Pottery from early well, ca 700 B.C.
From left to right: neck of 'SOS'
amphora, water jar, 'Phaleron Cup'.



5. Early Iron Age burial under Temple
of Aphrodite. Male, extended position,
head to west (ca. 1100-1000 B.C.)



6. Black-glazed cups from pit of first half 5th century B.C.



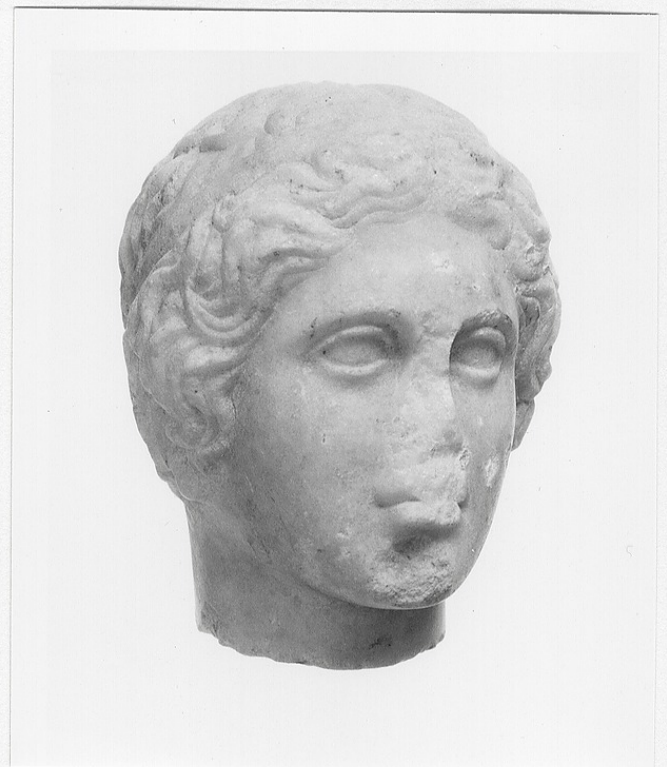
7. Owner's mark "Xenon" on bottom of left cup in fig. 5.



8. Terracotta figurine of Aphrodite from late Roman pit, 2nd half 4th century A.D.



9. Two ostraka of Xanthippos, father of Perikles, perhaps both written by a single individual. Xanthippos was ostracized in 484/3 B.C.



10. Marble head of a youth, 5th century B.C.



11. 'Pyre' as found, ca 300 B.C.



12. Selection of pottery from the Hellenistic pyre, ca 300 B.C.