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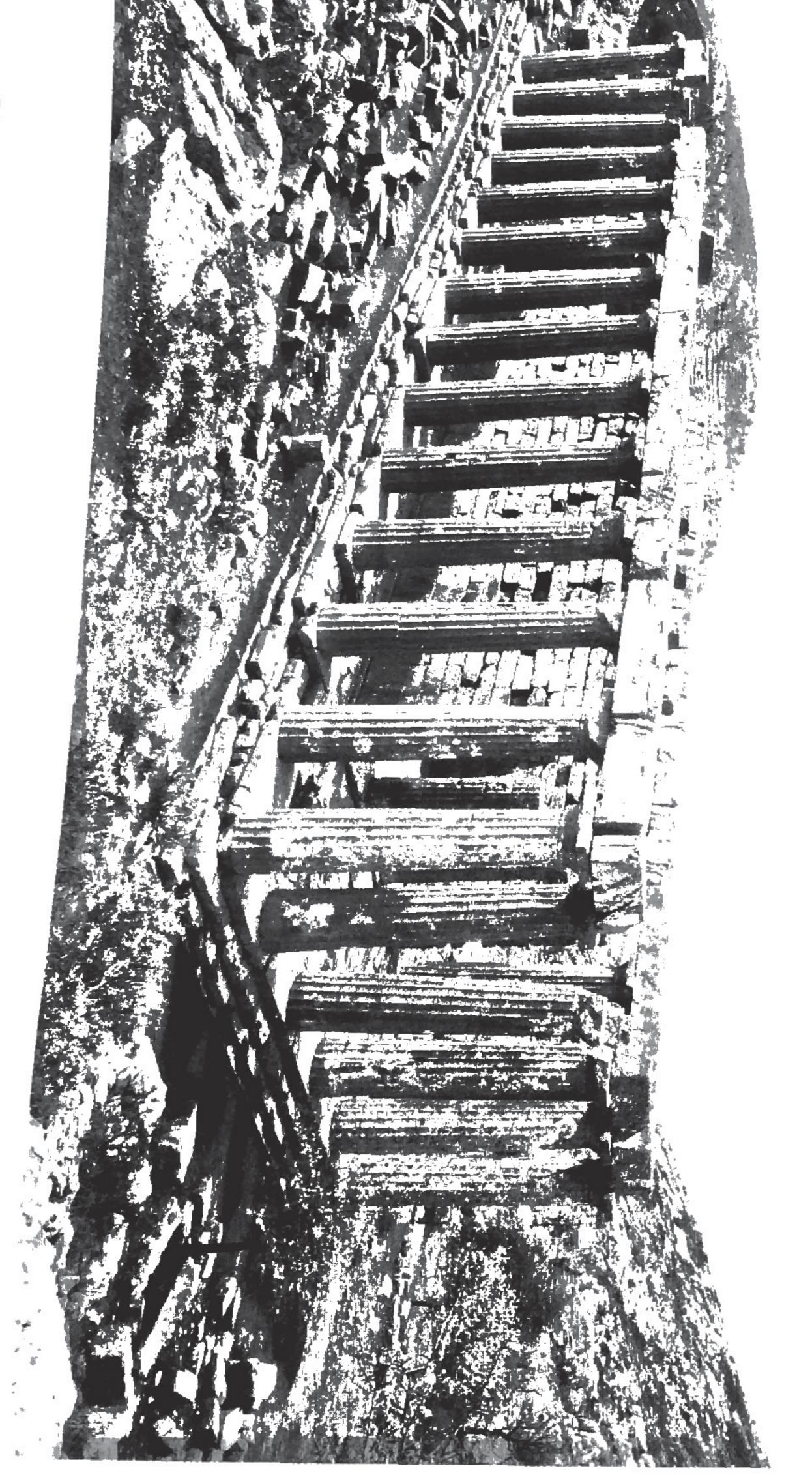
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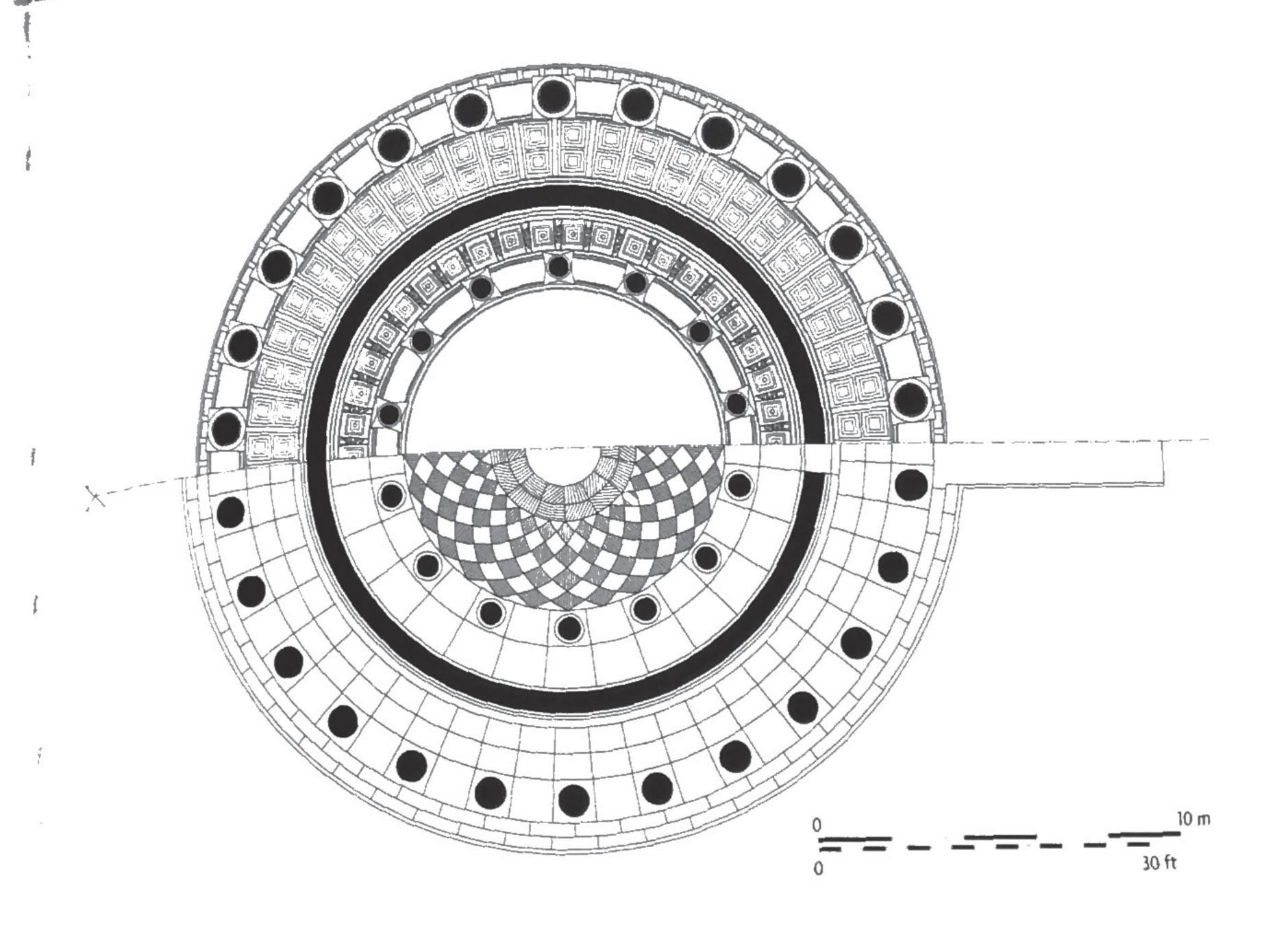
NISTIC PERIOD

today are Afghanistan, Pakistan, ander died at the age of thirtyapplied to the nsula to te ectural glory, epitomized by the ueror, ively nded empire of Alexander and ty-states 1d n of his son, known as Alexan-nce of Greek culture continued s, came to an end in 431-404 ind ultimately disastrous Pelo. ılture far beyond the Aegean. irt accelerated the assimilation xander's conquests. From 336 Ilassical age in Greece is genernselves Seleucids, Minor, Egypt, his the and his adoption of orienthrough much of the civiannexed all of Greece in Philip of Macedon, came vast territories, Indus s in the process and opportunistic external quarreled with who ruled the area art River, Mesopotamia, and architecand but 404

rom staid traditions associated nd Athens in favor of showier ound along the western coast liffers from that of the Classi-Greece, its use diminished in order Was intimately CON-



2.31 Temple of Apollo Epicurius, Bassai, ca. 450–425 BCE.
This is one of the few Greek temples on which one can look down, perhaps a function of the site conditions, perhaps a result of greater artistic freedom in the Hellenistic period.



2.32 Floor plan (lower half) and reflected ceiling plan (upper half), tholos, Epidauros, ca. 360–330 BCE.

Parts of the beautifully detailed ceiling coffers have survived as indications of the exquisite Hellenistic detailing.

favor of the more ornate Ionic order, which reflected an oriental exuberance typical of the Ionian colonies. The meticulous sculptural ornamentation and coordination of column spacing required by the Doric were not part of either the Ionic or Corinthian orders, which overcame the Doric's limitations by eliminating the troublesome features. Their column flutes are jointed by flat **fillets** to simplify the carving, and the frieze runs continuously without metopes or triglyphs.

Even in the Classical period, the use of a particular order on the exterior of a building did not preclude the use of others within, as has already been seen in the Parthenon and the Propylaea. The Temple of Apollo Epicurius at Bassai (ca. 450-425 BCE) (Fig. 2.31), designed by Iktinos, employs all three orders: the Doric for the external colonnade, the Ionic for the cella side columns (which are connected to the cella wall by extended buttress-shaped piers), and the Corinthian for the single axial column placed at the end of the cella. A statue of Apollo was set adjacent to this column so that it faced to the east through an opening in the cella wall. Among Greek temples, this one is unusual for its orientation; the main entrance faces north, rather than east. The temple at Bassai is the first known use of the Corinthian order, and also marks the first time the Ionic was used for a cella interior. These forward-looking features are counterbalanced by some seemingly old-fashioned ones which must have been included for positive reasons, for the architect was thoroughly familiar with what was being built contemporaneously on the Athenian Acropolis. The temple's elongated plan and narrow cella have been explained as deliberate references to history (the cult of Apollo had long existed on the site, and there had been three predecessor temples here), and the earlier temples may also be the source of



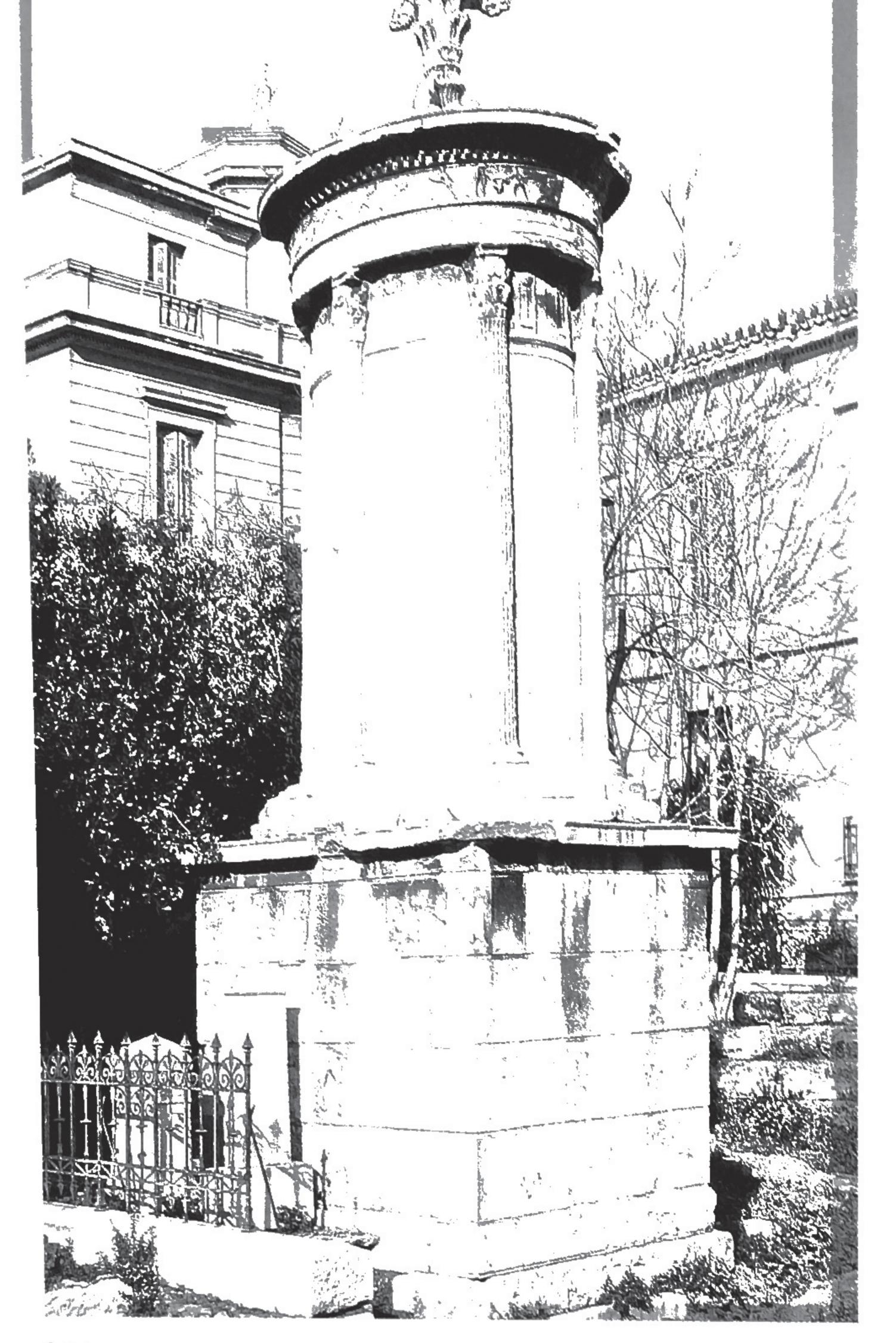
2.33 Corinthian capital, tholos, Epidauros, ca. 360–330 BCE.

Lavish Corinthian capitals like this one combined Ionic volutes with the leaves of the acanthus plant, which is still commonly found in the Mediterranean area. Only Pentelic marble or another stone with so fine a grain allows for the carving of such fine detail.

the spur walls connected to the Ionic columns. It has been proposed that the single Corinthian column likewise made reference to the distant past, when wooden columns were sacred symbols of the gods. The temple may thus be interpreted as a fusion of historical references with innovative design.

The Corinthian order was employed on a substantial scale in the tholos at the Sanctuary of Asklepios at Epidauros (ca. 360-330 BCE), a circular building approximately seventy-two feet in diameter, known now from its foundations and reassembled fragments preserved on the site (Fig. 2.32). Epidauros was dedicated to the god Asklepios, the son of Apollo, and both gods were venerated here in a large complex dedicated to healing through exercise, diet, and medical care. The tholos is but a small part of a site that included a stadium, gymnasia, a theatre, altars, fountains and baths, temples, and accommodation for patients. Its external colonnade was composed of twentysix Doric columns, and there were fourteen freestanding Corinthian columns in the inner circular colonnade fitted into a black-and-white rhomboidal flooring pattern. The ceiling had ornate coffers with floral decorations. An unused Corinthian capital found buried at the site shows the delicacy and grace achieved by Polykleitos, architect of the tholos (Fig. 2.33). The corner volutes, derived from Ionic models, are small, and their scroll form is complemented by the stylized curls of acanthus leaves that enrich the bell of the capital. How exactly this building was used is unknown. It has been suggested that its form at the upper story matches that of a shelter for a tomb (a baldachin) and that the circular corridors evident from the foundation remains were evocative of passages through the underworld to the tomb of Asklepios.

In a better state of preservation is the Choragic Monument of Lysikrates (ca. 335 BCE) in Athens (Fig. 2.34). This small cylindrical structure was erected to display the prize awarded to Lysikrates for the entry he sponsored in a



2.34 Elevation of the Choragic Monument of Lysikrates, Athens, ca. 335 BCE.

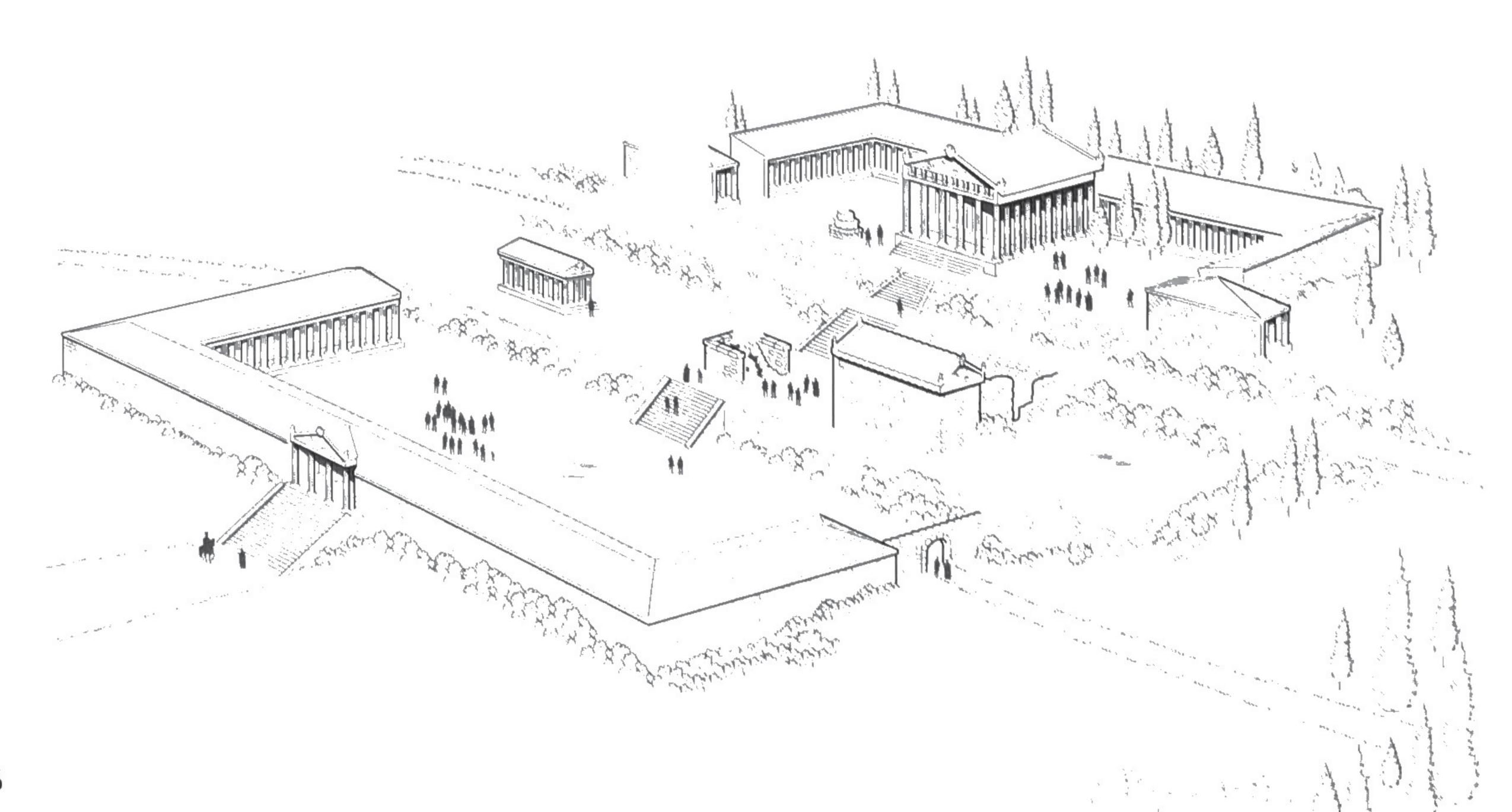
Engaged Corinthian columns ornament this small structure. William Strickland, a nineteenth-century Greek Revival architect in America, used this monument in his design for the Tennessee State Capitol.

2.35 Reconstruction view of the Sanctuary of Asklepios, Kos, ca. 300–150 BCE.

Compare the axial, hierarchical organization of this Hellenistic shrine with the angular, non-hierarchical, Hellenic distribution of buildings on the Athenian Acropolis, as seen in Fig. 2.22. While the results are dramatically different, the means for achieving them were much the same: column files, cella walls, and strategic topographic change.

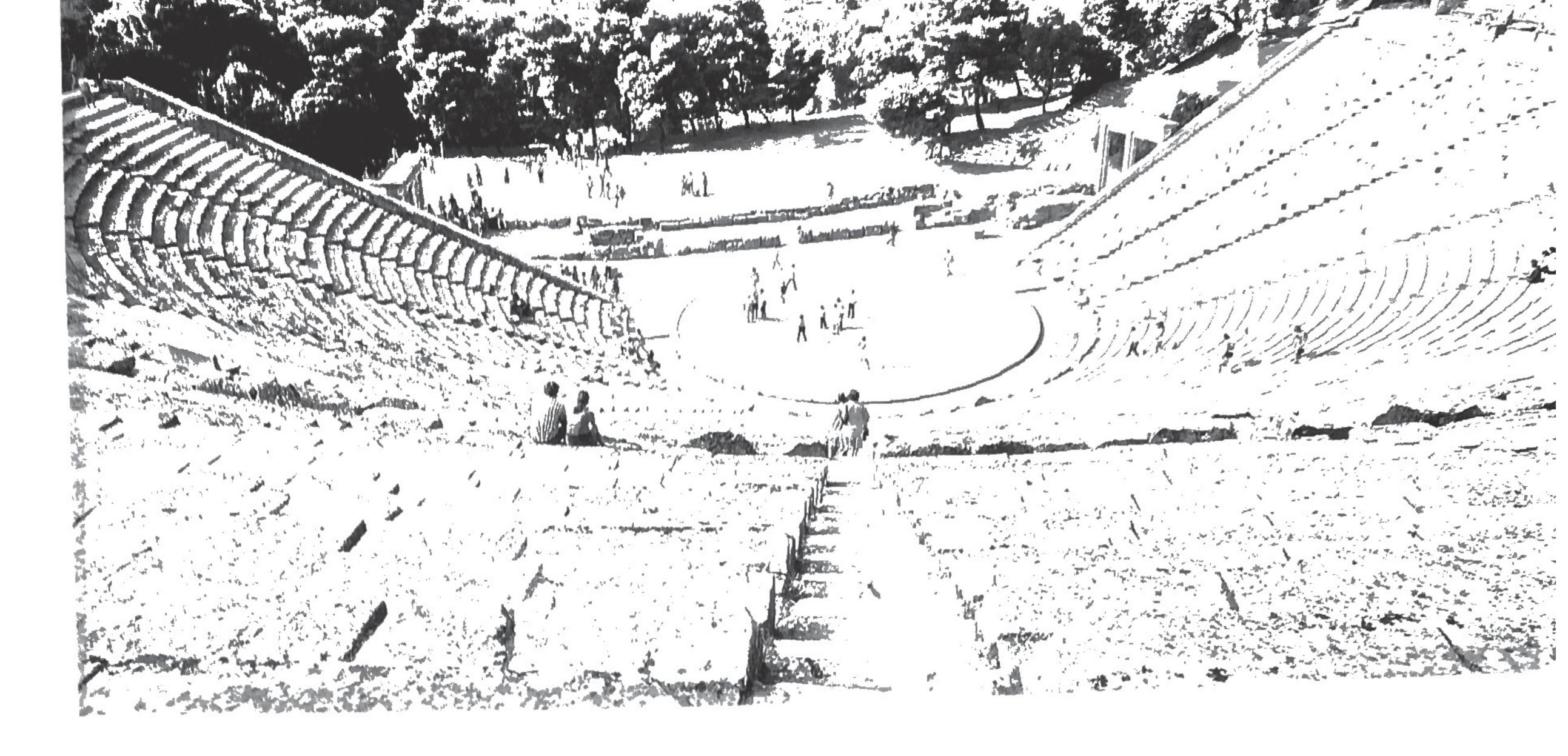
thespian contest honoring the god Dionysos. Here the Corinthian order is used on the exterior of a building, with six columns being built into the cylinder so that they appear as half-columns. (Recall that the Erechtheion like wise had engaged columns on its western elevation. The decorative possibilities of the orders as wall articulation were exploited in Hellenistic and later Roman work.) The frieze they support illustrates the mythological story of Dionysos and the pirates of the Tyrrhenian Sea. There is no accessible interior space. Nineteenth-century American architects adapted the form of the Choragic Monument for quite varied purposes. It inspired the form of the Philadelphia Exchange and the **cupola** atop the Tennessee State Capitol in Nashville, both by William Strickland.

The introduction of multiple-building ensembles like the Sanctuary of Asklepios (ca.300-150 BCE), arranged on the sloping ground of the Aegean Island of Kos (Fig. 2.35), illustrates the change in design attitudes among Hellenistic architects. With its ascending terraces and files of columns, Kos's layout brings to mind the Egyptian mortuary complexes of Queen Hatshepsut (see Fig. 1.29) and Mentuhotep (see Fig. 1.27). At Kos, however, there is something new: a conscious definition of exterior space using stoas bent at right angles to become enveloping arms. Within these envelopments, temple buildings were then embedded (as at the lower-level entry), set in axial relationships with one another (as on the middle level), and treated as freestanding objects within an architectural precinct (as on the upper level). A single, central axis of movement runs through the embedded portico and up consciously aligned stairs to terminate at the freestanding Temple of Asklepios on the highest ground. Some scholars have associated the hierarchical rigidity of this type of planning with the change from Classical democracy to the autocracy of Alexander's empire.



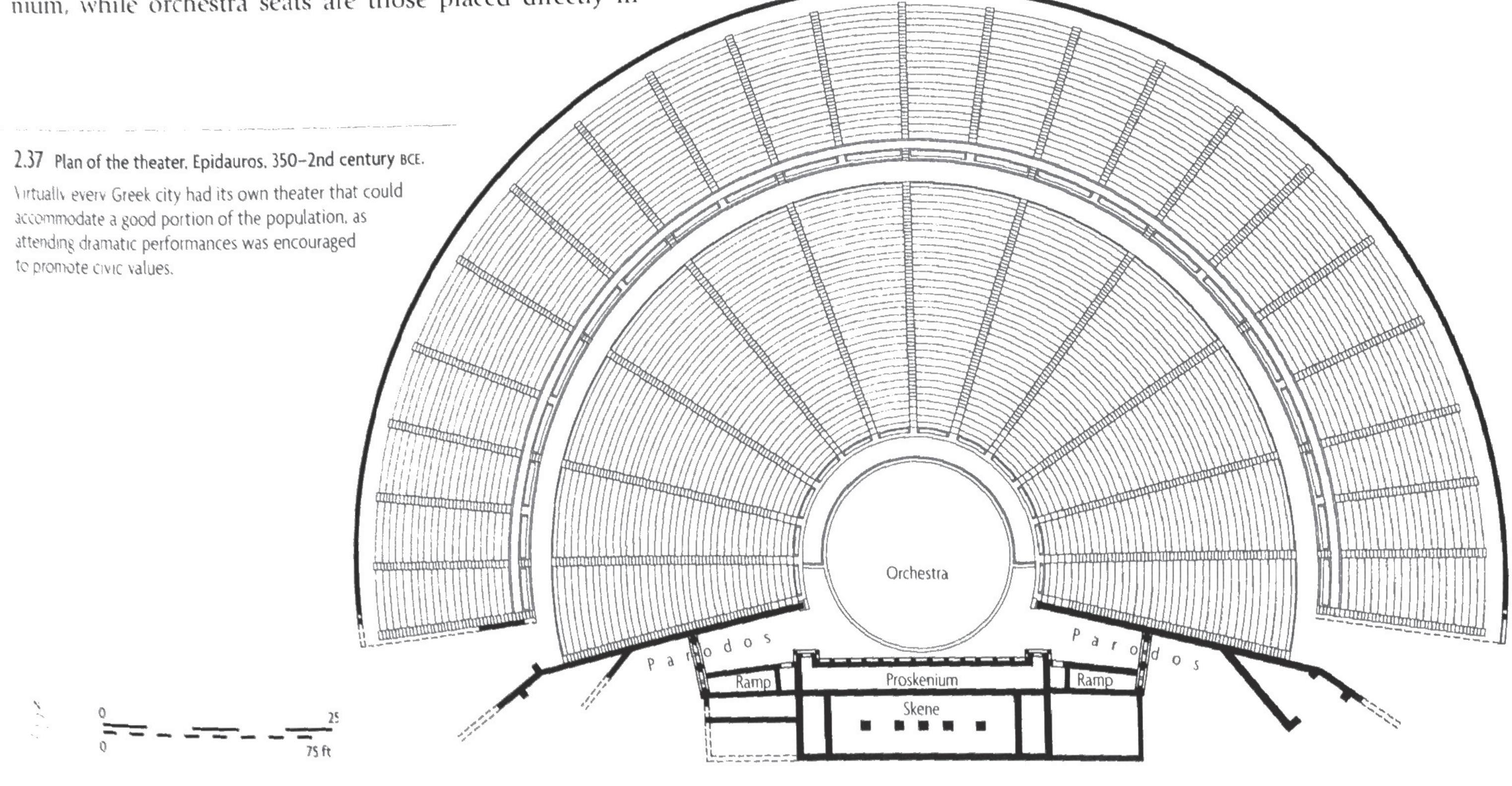
2.36 Theater, Epidauros, 350-2nd century BCL.

this shows the rows of seating. The plants shown in the plants no longer extant.



During the Hellenistic period, permanent buildings for theatrical performances were constructed in many of the outlying cities. Many of these elegant designs postdate the plays by Euripides, Sophocles, and Aristophanes that were originally presented from carts to audiences grouped on wooden benches in public open areas. Fifth-century Athenians constructed the Theater of Dionysos on the south side of the Acropolis hill, using the rising embankment to provide support for a concentric seating focused on the circular orchestra, a flat area for dancing. Behind the orchestra was a backdrop structure, the skene, and the area directly in front, the proskenion, was a raised platform from which actors declaimed their lines. (Note how this terminology continues to be used today: the framing arch over the stage of today's theaters is known as the proscenium, while orchestra seats are those placed directly in front of the stage.) Several doors set in the skene served as entrances and exits as needed in the drama, and actors spoke lines from the gods from the roof of the building.

Although the theater in Athens has been modified, surviving auditoria at Delphi, Dodona, Ephesus, Epidauros, Megalopolis, Pergamon, and Priene give a clear image of what Greek theaters originally looked like. The theater at Epidauros is exceptionally well preserved and beautifully sited in the landscape, looking out to distant hills (Figs. 2.36–2.37). Tradition assigns its design to Polykleitos, architect of the tholos, but not all scholars agree with this attribution. The theater was built in two stages, the lower 5000 seats in thirty-four tiers dating from 350 BCE, with the upper twenty-one tiers being added in the second



century BCE, extending the total capacity to about 14,000 seats. The ring of seats closest to the orchestra were provided with backs and used by dignitaries, while everyone else sat on continuous benches raised slightly above the row in front of them. An efficient system of radial and cross aisles provided circulation from entrances at multiple levels. Most remarkably, the acoustical design worked so well that words spoken in a normal voice from the orchestra projected intelligibly to all seats. The theater is still used for performances.

GREEK CITY PLANNING

THE ATHENIAN AGORA

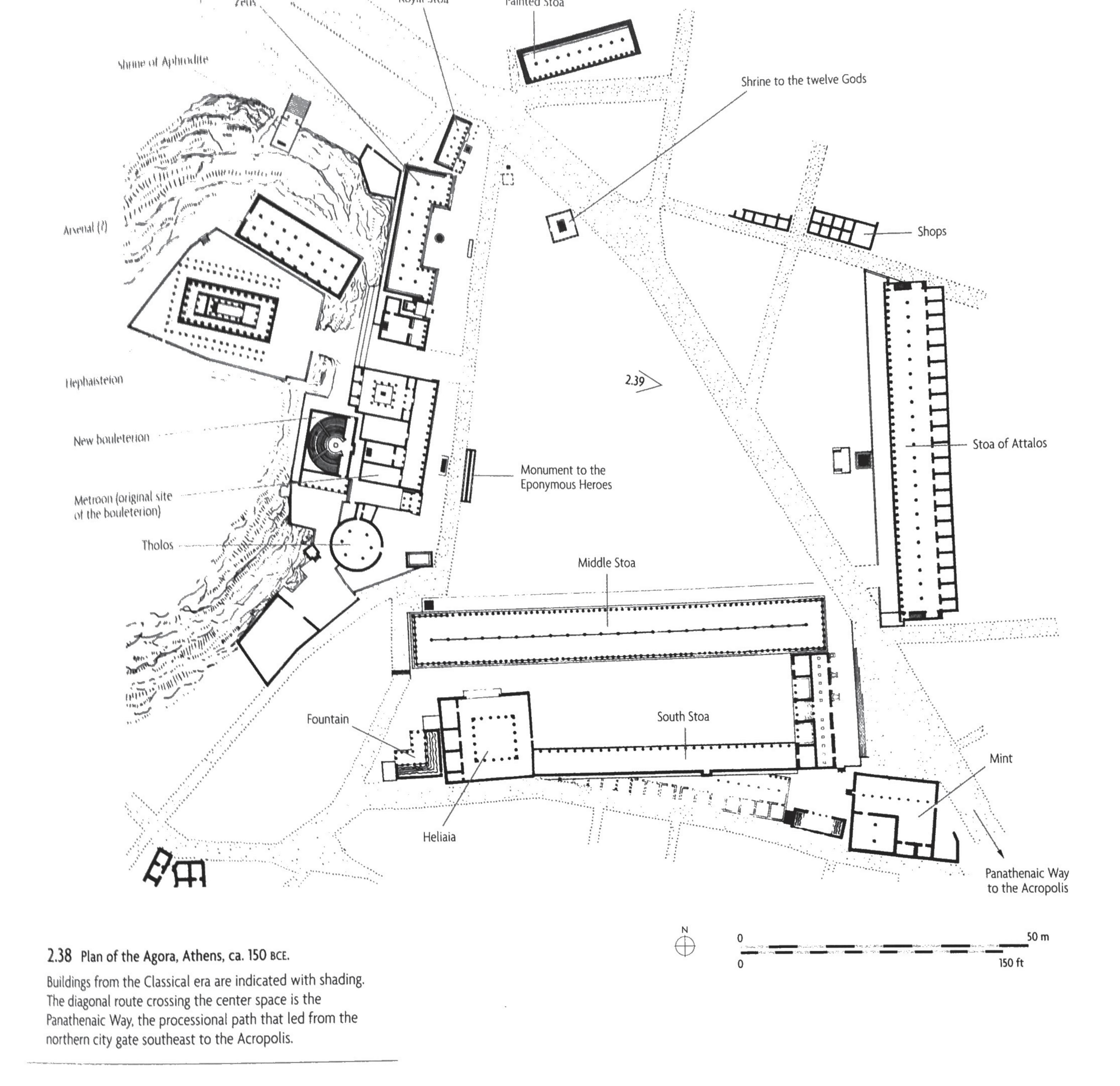
We have seen how the spatial experience of buildings on the Acropolis in Athens affected the placement and design of temples on the site, so that what appears on plan to be a haphazard arrangement unfolds before the visitor as a logical sequence in an ordered and balanced universe. The static poise of a colonnaded temple is enhanced by the subtle arts of the site planner, who has used surprise and a changing perspective to reveal the full drama of the architectural forms. A similar spatial approach was taken in the layout of the Athenian Agora, the civic and commercial heart of the city, which developed around the ancient track of the Panathenaic Way entering the city from the northwest and leading to the Acropolis (Fig. 2.38). Development of the public structures in the Agora began in about 600 BCE, and by the end of the Archaic period its boundaries were defined. A group of civic buildings, including temples, a shrine to Zeus, and a senate house (bouleterion), had been built on the western side at the base of the Agora Hill (Kolonos Agoraios). The bouleterion was an ambitious project, built on a nearly square plan to accommodate the 500 senators who comprised the elected government of Athens. A columned porch led directly to the senate chamber, with seats in rows along three sides of the rectangular space. The roof was supported on the exterior walls and four intermediate columns. Another government building was the Royal Stoa, erected on the northwest corner beside the Panathenaic Way for the city's chief religious magistrate, who was responsible for official sacrifices, administration of the city's festivals, and adjudication of priestly disputes. The Royal Stoa was a small rectangular building with a colonnade and steps along the long side facing the Agora, the first of a type that would be constructed on a larger scale for various purposes in the

After the Persian Wars, when the Acropolis was being reconstructed with its famous temples, new works were undertaken as well in the Agora. On top of the hill to of the forge) and Athena (goddess of the arts), was

constructed in about 449-444 BCE. This Doric temple, still remarkably intact, was enriched with relief sculpture and an elaborate ceiling of stone coffers. A gap in the buildings at the base of the hill allowed for the extension of the eastern axis of the temple across the Agora to the Stoa of Attalos. Within the Agora, war damage to the Royal Stoa was repaired and the building slightly enlarged, while new stoas were built. The Painted Stoa (so named because it displayed paintings of military triumphs, mythical and real, of the Athenians) had an external Doric colonnade and Ionic columns within. It was used for informal meet. ings (the Stoic philosophers were fond of meeting there and eventually took their name from it) as well as jury trials. The Stoa of Zeus replaced the earlier shrine and was used as an informal meeting place. The first South Stoa, whose small rooms behind a double colonnade were used for commercial activities and perhaps also for dining, was constructed adjacent to the Heliaia, which was probably the main law court. A new bouleterion was constructed ca. 415-406 BCE directly behind the existing building (which was renamed the Metroon to honor Rhea, mother of the gods of Olympus, and used for city archives). Its internal arrangements are not clear from the excavations, but archaeologists believe it had a curved configuration of seats like a theater. Adjacent was a circular building, the tholos, that was used for meals served to the fifty senators who happened to be on duty. The open spaces of the Agora were used both as a racetrack and as a setting for dramatic performances and dancing.

Building in the Athenian Agora continued after the conquests of Alexander the Great. In the Hellenistic period, some Classical buildings were modified, and new ones were constructed to create a more complete sense of spatial order and closure. The dominant Temple of Hephaistos and its axial approach remained. The old Metroon was replaced by a more elaborate building serving the same functions, with an external colonnade fronting onto the open civic space. The South Stoa was rebuilt on a shifted orientation, with an additional Middle Stoa extending parallel to it on what had originally been open land. Across the Panathenaic Way, which remained unchanged, the Stoa of Attalos (Fig. 2.39) was erected at right angles to the Middle Stoa, and its southern end Worked with the eastern terminus of the Middle Stoa to establish a narrow point of entry, in contrast to the openness of the Agora beyond. In the colonnaded walkways of the stoas, one had a sense of shelter while at the same time being connected to the larger open space. The stoas were thoroughly urban buildings, providing space for merchants to trade in and inviting citizens to participate in the Public life of the city, an important aspect of Greek society.

The con-The concept of a colonnaded or arcaded space containing shops and colonnaded or arcaded space containing shops and facing major public open spaces will reappear in later urban designs.



HELLENISTIC CITIES

Greek city planning was not always as asymmetrical and evolutionary in form as the Agora in Athens. The Greeks were perfectly capable of producing regular, orthogonal town plans and frequently employed them for colonial cities, as may be seen at Paestum (Poseidonia), which had a street pattern from the mid-seventh century BCE that produced huge, elongated, rectangular blocks (Fig. 2.40). While many cities grew organically over time, others were rebuilt, often after suffering war damage, according to the new, more regular town-planning principles. Such was the case in the fifth and fourth centuries BCE, when a number of towns were provided with grid blocks and carefully considered open spaces according to the theories of a fifth-

century pupil of Pythagoras, Hippodamus of Miletus, who is often regarded as the father of city planning. This label is misapplied if taken to mean that he "invented" the grid plan, for orthogonal plans existed long before Hippodamus. More properly viewed, his contribution seems to have involved consolidating and articulating the religious, social, and commercial elements of the city center with regular blocks of houses adjusted to fit the particular circumstances of the topography. Hippodamus's birthplace, Miletus, a harbor town on the coast of Asia Minor, was in its day the leading city of Ionia. After its destruction by the Persians in 494 BCE, the city was rebuilt in the period following 479 BCE with a plan of rectangular residential blocks and an orthogonal agora. Hippodamus's design