Perfumery in Ancient Greek and Roman Societies

Perfumery dates back at least 5,000 years, with origins in ancient Mesopotamia, Egypt, and Indus Valley culture. The techniques were further refined in the Bronze Age Mediterranean: Minoan records detail oil deliveries for perfumers while Mycenaean tablets also mention perfume manufacture. Later Greek and Roman sources are more specific about perfumes, though the terminology can be somewhat confusing, if not contradictory. Theophrastos (ca. 270–285 BCE; *On Odors*), Pliny the Elder (23–79 CE; *Natural History*), and Dioskourides (ca. 40–90 CE; *On Medical Material*) all covered the subject, in some capacity. Archaeology reveals further evidence, and both religious and funerary contexts can be rich in perfume bottles. The perfume workshop at Pyrgos on Cyprus, excavated in 2003, is among the oldest, dating to ca. 1850 BCE.

—Text by Benton Kidd
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I. Uses

All evidence indicates that perfumery was a thriving industry in antiquity, and one integral to many aspects of ancient culture. Purchases and donations of perfumes for religious sanctuaries were not uncommon, and literary references imply that temples were kept fragrant to placate the gods. Perfumed oils and tree saps, such as myrrh and balsam, could also burn like incense. A temple to Athena at Elis, near Olympia, was said to have had saffron mixed into its wall plaster, and thus the temple’s interior was still fragrant 500 years later. In addition to fragrance, some perfumes also had medicinal properties, such as the celebrated “Balm of Gilead,” a balsam that ostensibly remedied a multitude of ailments and even functioned as an abortifacient. Cedar oil was used as an antibacterial fungicide and insect repellent, and thus inhibited decomposition of the dead while funerals were prepared. Finally, the ancient perfume industry was driven by the quest for social status, and a citizen’s personal scent was surely indicative of wealth and rank.
II. Ingredients

A wide variety of ingredients were used in the production of ancient perfumes. Flowers, woods, seeds, roots, saps, gums, animal secretions, etc., were all potential components, with various oils used as the carrier. Like today’s fragrances, the best ancient perfumes were not just “one note,” but composed from layering scents to create top notes, “heart” (mid) notes, and base notes. The most expensive perfumes for Greeks and Romans were the exotic oriental scents, such as balsam, myrrh, cassia, and cinnamon, all of which came from the Near East, Arabia, and sub-Saharan Africa. Rose oil, mentioned as early as Homer’s Iliad, was the costliest in the Mediterranean proper, with the finest roses coming from Campanian Italy and the Libyan coast. Iris, made from the rhizome rather than the flower, was also highly coveted, as were various species of lilies. Saffron was used as both a single note perfume, or combined with other scents. Romans were fond of using it as a powder, and dusting bedclothes and interiors with it. Pliny notes that powdered saffron was mixed with water and misted spectators at theaters. The best base notes, which stabilized and accentuated the heart and top notes, were musk and civet, secretions from the male musk deer and the African civet (a cat-like mammal). On the other end of the spectrum, common and inexpensive scents may have been perfumes made from the saps of indigenous coniferous trees such as pine and fir (see study below), or native wild plants such as verbena, marjoram, and sage.
Similar to modern perfume bottles, ancient perfume vessels are usually small with constricted spouts, which prevented large amounts of the precious oil from spilling out at once. Some vessels, however, such as Mycenaean “stirrup jars,” are larger, but still have narrow spouts. Materials include a range of mediums such as pottery, glass, metal, and stone. Both Pliny and Theophrastos recommended stone or metal for perfume storage, since these mediums are not porous. (Glass should not be porous either, but it is not mentioned.) Despite the authors’ advice, pottery bottles seem to be the most common, and this may be an indicant of the quality of perfume used by the average population. Oil containers known as “aryballoi” were used by athletes, and though these vessels can be glass or metal, the majority preserved are pottery. Pliny claimed that the perfumed oils use by athletes was of poor quality. For the most expensive perfumes, even precious metals were used for the containers. A silver perfume casket, which held several individual containers, was discovered in Rome with the “Esquiline Treasure” in 1793 (today in the British Museum, London). The fanciest glass bottles, such as the Museum’s mosaic glass example, must have also contained costlier fragrances. Some perfumes were made in semi-solid form from animal fat, and small pots rather than bottles were used as containers. The Museum’s Minoan “bird’s nest” bowl may have held such a perfume. Scholars suggest that perfume containers were probably sold by perfume vendors, who had contracts with local artisans and importers. This allowed customers to choose a vessel, have it filled, and pay for a given amount of product (by weight?). When empty, the vessel could be refilled. These theories preclude the idea that vessels were shipped full (though vessels themselves could be imported).
"Bird’s Nest" Bowl with Lid
Minoan, ca. 2600–2000 BCE
From Crete
Breccia
Museum Purchase (61.13 A & B)

Stirrup Jar
Mycenaean, Late Helladic IIIA2–IIIB1
Ca. 1375–1225 BCE
Allegedly from Tel Eton (Israel)
Pottery
Museum Purchase (68.243.1)
**Aryballos**
Greek, 500–465 BCE
From Turkey
Glass
Weinberg Fund (85.42)

**Aryballos**
Greek, 5th century BCE
Perhaps from Naukratis (Egypt)
Faience
Museum Purchase (60.43)

**Aryballos**
Greek, 550–500 BCE
Probably from Rhodes (Greece) or Naukratis (Egypt)
Found at Cerveteri (Italy)
Faience
Museum Purchase (67.46)
Mosaic Glass Perfume Bottle
Roman, 1st century BCE–1st century CE
Perhaps from Italy
Glass
Gladys D. Weinberg Memorial Fund
and Weinberg Fund (2002.11)

Perfume Juglet with Olive Wreath
Roman, 1st century CE
From Syro-Palestine region
Glass
Museum Purchase (61.20)
Perfume Bottle with Cut Bands
Roman, 1st–2nd century CE
From Palestine
Glass
Museum Purchase (68.156)

Perfume Bottle in the Form of a Date
Roman, 1st–2nd century CE
Perhaps from Sidon (Lebanon)
Glass
Museum Purchase (62.3)
Perfume Bottle with Scale Pattern  
Roman, 1st–3rd century CE  
Bronze  
Museum Purchase (68.199 A)

Perfume Bottle with Human Head Base  
Roman, 3rd century CE  
Glass  
Museum Purchase (62.5)
Perfume Bottle with Spiral Thread
Roman, 3rd–4th century CE
From Palestine
Glass
Museum Purchase (74.108)

Perfume Bottle
Roman, 3rd–4th century CE
Probably from Palestine
Glass
Museum Purchase (70.189)
Perfume Bottle with Trails
Roman, 3rd–4th century CE
Glass
Museum Purchase (62.2)

Perfume Bottle with Blue Threads
Roman, 4th century CE
Glass
Museum Purchase (62.6)
Three-Footed Perfume Bottle
Roman, 5th century CE
From Palestine
Glass
Museum Purchase (68.160)
IV. Analyses of Residual Contents from Perfume Bottles in the Museum’s Collection

In the 1990s, seven perfume bottles (below) from the Museum’s collection (and seventeen others from national collections) were sampled for residual contents by gas-chromatography and mass spectrometry. While numerous compounds were discovered remaining in the interior walls of the vessels, many of the compounds were common to a wide variety of plants, making precise interpretation difficult. Additionally, some vessels contained sizeable amounts of terpenoids (organic chemicals known for their aromas), whereas others contained only a few. It is possible that some of the original perfumes may have been less complex in their ingredients, but exposure in the soil and post-excavation cleaning might account for terpenoid depletion in some vessels. Researchers concluded that most of the Museum’s vessels in the study probably contained olive oil scented by saps from coniferous trees such as pine, fir, or juniper. One vessel, the gorgon-bird, may have contained cedar oil, a more costly option. Another, the vessel in the form of a goose, probably contained verbena oil, which is citrusy in fragrance. The alabastron (a shape that imitated Egyptian alabaster perfume vessels) perhaps held a fragrance combining both verbena and a coniferous evergreen sap. More broadly, these conclusions may indicate that the ingredients identified in the vessels were among the more common perfumes, and scents such as balsam, myrrh, rose, and iris were reserved for the wealthiest consumers.

Perfume Bottle in the Form of a Ram
Greek, early 6th century BCE
From Corinth
Pottery
Weinberg Fund (91.307)

Perfume Bottle in the Form of a Gorgon-Headed Bird
Greek, early 6th century BCE
From Corinth
Pottery
Weinberg Fund (87.106)
Aryballos
Greek, early 6th century BCE
From Corinth
Pottery
Museum Purchase (61.30)

Aryballos
Greek, early 6th century BCE
From Corinth
Pottery
Museum Purchase (59.30)
Alab astron
Greek, early 6th century BCE
From Corinth, but allegedly found in Etruria (Italy)
Pottery
Museum Purchase (61.8)
Perfume Bottle in the Form of a Helmeted Head
Greek, early 6th century BCE
From Rhodes
Pottery
Gift of the Charles Ulrick Bay and Josephine Bay Foundation (79.79)

Perfume Bottle in the Form of a Resting Duck
Greek, early 6th century BCE
From the Greek East
Pottery
Gift of Columbia Clinic (82.424)