# Perfumery in Ancient Greek and Roman Societies

erfumery 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.



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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.

#### **III. Vessels**

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, 6<sup>th</sup> century BCE Perhaps from Naukratis (Egypt) Faience Museum Purchase (60.43)



Aryballos Greek, 500–465 BCE From Turkey Glass Weinberg Fund (85.42)



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, 1<sup>st</sup> century BCE–1<sup>st</sup> century CE Perhaps from Italy Glass Gladys D. Weinberg Memorial Fund and Weinberg Fund (2002.11)



**Perfume Juglet with Olive Wreath** Roman, 1<sup>st</sup> century CE From Syro-Palestine region Glass Museum Purchase (61.20)



**Perfume Bottle with Cut Bands** Roman, 1<sup>st</sup>-2<sup>nd</sup> century CE From Palestine Glass Museum Purchase (68.156)



**Perfume Bottle in the Form of a Date** Roman, 1<sup>st</sup>-2<sup>nd</sup> century CE Perhaps from Sidon (Lebanon) Glass Museum Purchase (62.3)



#### **Perfume Bottle with Scale Pattern** Roman, 1<sup>st</sup>–3<sup>rd</sup> century CE Bronze Museum Purchase (68.199 A)



**Perfume Bottle with Human Head Base** Roman, 3<sup>rd</sup> century CE Glass Museum Purchase (62.5)



**Perfume Bottle with Spiral Thread** Roman, 3<sup>rd</sup>-4<sup>th</sup> century CE From Palestine Glass Museum Purchase (74.108)



**Perfume Bottle** Roman, 3<sup>rd</sup>-4<sup>th</sup> century CE Probably from Palestine Glass Museum Purchase (70.189)



#### **Perfume Bottle with Trails**

Roman, 3<sup>rd</sup>–4<sup>th</sup> century CE Glass Museum Purchase (62.2)



**Perfume Bottle with Blue Threads** Roman, 4<sup>th</sup> century CE Glass Museum Purchase (62.6)



**Three-Footed Perfume Bottle** Roman, 5<sup>th</sup> 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 postexcavation 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.

See William R. Biers, Klaus O. Gerhardt, and Rebecca A. Braniff, *Lost Scents: Investigations of Corinthian "Plastic" Vases by Gas Chromatography-Mass Spectrometry (MASCA Research Papers in Science and Archaeology 11)*, Philadelphia 1994.



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



Perfume Bottle in the Form of a Gorgon-Headed Bird Greek, early 6<sup>th</sup> century BCE From Corinth Pottery Weinberg Fund (87.106)



Aryballos Greek, early 6<sup>th</sup> century BCE From Corinth Pottery Museum Purchase (61.30)



Aryballos Greek, early 6<sup>th</sup> century BCE From Corinth Pottery Museum Purchase (59.30)



Alabastron Greek, early 6<sup>th</sup> 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 6<sup>th</sup> 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 6<sup>th</sup> century BCE From the Greek East Pottery Gift of Columbia Clinic (82.424)