

Evidence of Food Plants of Ancient Pompeii and other Vesuvian Sites

The carbonized remains and other visual materials in wall paintings from the sites destroyed by the catastrophic eruption of Mount Vesuvius in A.D. 79 have furnished invaluable evidence on many of the staple food plants in use by the Campanians at the time of the eruption. Wittmack lists 24 species of carbonized food plants from sites at Pompeii. However, some of the materials listed by him are no longer available in the Naples Museum and for this reason Wittmack's identifications have not been confirmed on the coriander (*Coriandrum sativum*) and the garden pea (*Pisum sativum*), both of which have not been found in more recent excavations.

Important new material has been found *in situ* for the first time by Dr. Wilhelmina F. Jashemski, including ancient pollen, spores, and food plant remains from various sites at Pompeii, the villas at Oplontis, and at Boscoreale. Including these recent discoveries, we now have carbonized materials of 26 food plants, evidence of 6 represented only in wall paintings, and 4 known only from graffiti and electoral notices, 36 food plants in all.

The antiquity of the carbonized food plants in the various Vesuvian sites contributes information of value on the history and origin of a number of major and minor crop plants known since prehistoric times. It is clear that most of the important crop plants of ancient Italy were alien in origin, mainly from the near East and the Orient in prehistoric times, some as far back as the Neolithic. Only 8 food plants in the list below are of European origin.

Carbonized Food Plants

1. *Allium cepa* L., Common onion ; Italian *cipolla* – Tunicated bulbs from various sites at Herculaneum and the National Museum in Naples.
2. *Allium sativum* L., Garlic ; Italian *aglio* – Flattened bulblets, called « loves » or « toes » from Herculaneum and the National Museum at Naples.

3. *Avena sativa* L., Oat; Italian *avena* — Caryopses and florets from Herculaneum.
4. *Castanea sativa* Miller, European chestnut; Italian *castagno* — Nuts (cotyledons) without endocarp from Oplontis, Herculaneum, and the National Museum in Naples.
5. *Ceratonia siliqua* L., Carob, St. John's bread; Italian *carrubo* — broken legumes from Herculaneum and the National Museum in Naples.
6. *Cicer arietinum* L., Chickpea, garbanzo; Italian *cece* — Broken and whole chickpeas from Herculaneum.
7. *Corylus avellana* L., Filbert, hazelnut; Italian *avellano*, *nocciolo* — Pieces of nut shell from Herculaneum and casts of filbert nuts at the *Villa rustica* of L. Crassus Tertius at Oplontis.
8. *Ficus carica* L., Fig; Italian *fico* — Fruit fragments and whole figs from various sites at Pompeii, Herculaneum, the National Museum in Naples, and the antiquarium at Boscoreale.
9. *Hordeum vulgare* L., Six-rowed barley; Italian *orzo* — Whole and broken grains from various sites at Pompeii, Herculaneum and the National Museum in Naples.
10. *Juglans regia* L., English or Persian Walnut; Italian *noce* — Whole and broken nuts and shell fragments from Herculaneum, the *Villa rustica* of L. Crassus Tertius at Oplontis, the National Museum in Naples, and the antiquarium at Boscoreale. Occurs also in wall paintings at Pompeii and Herculaneum.
11. *Lens culinaris* Medikus, Lentil; Italian *lente*, *lenticchia* — Hulled seeds from Pompeii, Herculaneum, and the National Museum in Naples.
12. *Malus* sp., Crabapple; Italiano *melo* — A solitary small pomaceous fruit *in situ* in the north garden of the Villa Poppaea at Oplontis is unique to the Vesuvian sites.
13. *Olea europaea* L., Olive; Italian *olivo* — Olive stones and whole fruit from various sites at Pompeii, Herculaneum, Boscoreale, and the National Museum in Naples. Leaves from the *Villa rustica* of L. Crassus Tertius at Oplontis.
14. *Panicum miliaceum* L., Common or broomcorn millet; Italian *miglio* — Several hundred grams of mature grain from Herculaneum.
15. *Phoenix dactylifera* L., Date; Italian *dattero* — Seeds with fragmentary mesocarp and whole fruit from various sites at Pompeii, Herculaneum, and the National Museum in Naples.
16. *Pinus pinea* L., Stone pine; Italian *Pino domestica*, *Pino da pinoli* — Cone scales, seeds, and nearly intact whole cones from various sites at Pompeii, Herculaneum, the Villa of Poppaea at Oplontis, the National Museum in Naples, and the antiquarium at Boscoreale. Cones are figured in wall paintings, in sculpture, and in mosaics at Pompeii and Herculaneum and in household altars and lararium paintings at Pompeii.

17. *Prunus cerasus* L., Sour cherry; Italian *ciliegio* — Fragments of cherry stones (endocarp) with carmelized mesocarp in the Garden of Hercules at Pompeii. Fruiting trees in wall paintings in the House of the Fruit Orchard at Pompeii.
18. *Prunus dulcis* (Miller) D.A. Webb, Almond; Italian *mandolo* — Fragments and whole shells, sometimes with the outer husk (exocarp) from various sites at Pompeii, Herculaneum, Boscoreale, and the National Museum in Naples.
19. *Prunus persica* (L.) Batsch, Peach; Italian *pesca* — A peach stone in the antiquarium at Boscoreale, originally from Pompeii, is unique to the Vesuvian sites. Also a fine wall painting of the peach, originally from Pompeii, is now in the National Museum in Naples.
20. *Punica granatum* L., Pomegranate; Italian *melograno, granato* — A large cache of immature fruit from the *Villa rustica* of L. Crassus Tertius at Oplontis is unique to the Vesuvian sites. The pomegranate is one of the fruits frequently found in wall paintings and mosaics in the Vesuvian area.
21. *Pyrus communis* L., Common pear; Italian *pera* — Whole fruit in the National Museum in Naples, originally from Pompeii.
22. *Setaria italica* (L.) Beauvois, Italian or foxtail millet; Italian *panico* — Whole grain kernels from Pompeii and the National Museum in Naples. A wall painting in the National Museum in Naples, originally from Pompeii, depicts complete inflorescences of Italian millet with quail.
23. *Triticum dicoccum* Schrank, Emmer wheat; Italian *farro* — Whole grain kernels from 2 sites at Herculaneum and the National Museum in Naples.
24. *Vicia ervilia* (L.) Willd., Bitter vetch; Italian *veccioli* — Whole and broken seeds from sites at Pompeii and Herculaneum.
25. *Vicia faba* L. var. *minor* (Petterm. and Harz) Beck, Broadbean; Italian *fava*. Numerous samples of whole and broken seeds at Pompeii, Herculaneum, the National Museum in Naples, and at Oplontis.
26. *Vitis vinifera* L. subsp. *vinifera*, Grape; Italian *vite* - Whole fruit, seeds and fragments from Pompeii, the National Museum in Naples, and the *Villa rustica* at Boscoreale. Leaves, tendrils, and twig fragments from the *Villa rustica* of L. Crassus Tertius at Oplontis. Wall paintings frequently depict the grape vine with or without fruit.

Food Plants Represented only in Wall Paintings

27. *Asparagus officinalis* L., Asparagus; Italian *asparago* — A bundle of asparagus can be identified on several still life paintings on walls at Pompeii and Herculaneum.
28. *Citrus limon* (L.) Burm. f., Lemon; Italian *limone* — The lemon is depicted in wall paintings at Pompeii in the House of Fruit Orchard.

This confirms the existence of the lemon in Italy in the 1st century A.D. and refutes the report by some authorities that the lemon was not imported into the Mediterranean area until the 10th century.

29. *Cydonia oblonga* Miller, Quince ; Italian *cotogna* – A still life wall painting at Oplontis and one from Boscoreale, now in the Metropolitan Museum in New York, confirms the existence of this fruit in the Vesuvian area.
30. *Lagenaria siceraria* (Molina) Standley, Bottle gourd ; Italian *zucca* – A wall painting of a whole fruit inside a glass container at Herculaneum. Pliny speaks of the gourd as an article of food in antiquity.
31. Mushroom ; Italian *fungo* – Mushrooms have been identified in 3 wall paintings in the National Museum in Naples, originally from Pompeii. These have been provisionally identified by Dr. K.H. McKnight of the Beltsville Agricultural Research Center, Beltsville, Maryland as : 1) Probably one of the stipitate Hydnaceae, such as *Dentinum repandum* (Fr.) S. F. Gray (possibly also a chanterelle, such as *Chantarellus cibarius* Fr) ; 2) very likely a member of the Boletaceae, possibly a species of *Boletus* or *Leccinum* ; 3) possibly a species of *Boletus*, although this is highly speculative.
32. *Prunus domestica* L., Common plum ; Italian *prugna* – The purple and yellow fruited forms of the plum are depicted in several wall paintings at Pompeii, Oplontis, and from Boscoreale (now in the Metropolitan Museum in New York).

Food Plants known only from Graffiti and Electoral Notices

33. *Allium porrum* L., Leek ; Italian *porro* – The leek (*porrum*) occurs twice in a long graffito which lists the items in a bill on the wall of an inn at Pompeii.
34. *Beta vulgaris* L., Beet ; Italian *bietola*, *bieta* – The beet (*beta*) appears in two graffiti at Pompeii recording the purchase or sale of various vegetables ; also found in one other graffito at Pompeii.
35. *Brassica oleracea* L., Cabbage ; Italian *cavalo* – Two graffiti found at Pompeii mention cabbage (*coliculum* = *cauliculus*). Cabbage (*Brassica*) appears in another graffito.
36. *Lupinus albus* L., Lupin ; Italian *lupino* – In an election notice at Pompeii a *lupinarius*, or dealer in lupins, supports a candidate.

(For references to 33-36 above, see under these plants in the volume *The Natural History of Pompeii and the other Vesuvian Sites*, in prep.)

REFERENCES

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