Explosive eruptions from Mount Vesuvius in AD 79 ejected hot gas and particles of ash and rock, burying the ancient city of Pompeii under layers of volcanic debris. Studies of preserved plant material, art, and writings by ancient authors have contributed greatly to our understanding of plants that were growing in the city.

Before modern scientific methods, identification of plant remains relied on artistic representations of plants. Wall paintings, mosaics, and sculpture sometimes depicted leaves, fruit, or flowers. However, artistic interpretations do not always provide enough evidence for exact identification. Another source of information that greatly contributed to plant identification is the written work of Pliny the Elder (AD 23–79). Pliny’s book, *Natural History*, covers topics including botany and horticulture and provides information about what names the plants went by in ancient times.

Although Vesuvius debris was hot enough to burn material, the lack of oxygen caused by a thick layer of gas, smoke, and ash meant that plant material was not burned, but rather carbonized. The analysis of carbonized fruit, seeds, and nuts, and the examination of pollen found in volcanic rock material provided additional information about plants in ancient Pompeii. Another technique, plaster casting, also contributed to the body of knowledge. Under certain conditions, cavities and associated carbonized plant material remained where plants buried by volcanic ash had once been. Casts are made by pouring plaster mixture into these voids, resulting in intricately detailed reconstructions of the shape of the material that originally filled the voids.

Currently, the combination of information gleaned from written and artistic works with archaeological findings and scientific analysis of plant remains has resulted in a much clearer picture of how ancient Pompeians cultivated and used plants for food, medicine, and decoration.