

NEW PERSPECTIVES ABOUT THE HISTORY OF *CITRUS* IN THE WESTERN MEDITERRANEAN: A MULTIDISCIPLINARY INVESTIGATION IN THE CAMPANIA REGION (ITALY)

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Recent discoveries of archaeobotanical macro-remains (seeds and fruits) and the pollen record can be used to shed new light on the history of hesperids spread in western Mediterranean regions. Fresh evidence comes from the island of Ischia (6th century BC) and from the cities of Cumae (6th century BC) and Pompeii (1st century BC-AD). In this context, while few doubts exist about its belonging to the *Citrus* subtribe, the specific identification of a carbonized fruit from Ischia remains problematic. Besides classical morphology, we used micro-CT and MEB to characterize its subtle outer and inner structural morphology.

By relying on complete inter-fertility and apomixis (offspring being genetically identical to the parent plant), the classification of this specimen within the genus *Citrus* (or its close relatives) appears quite complicated. In fact, the “classical” classifications based on anatomical and morphological criteria have proved inadequate in appropriately assessing past “species”. Recent phylogenetic work based on SSRs molecular and AFLP markers supports the original suggestions that only *Citrus medica*, *C. maxima* and *C. reticulata* should be considered to be true species, while *C. limon*, *C. aurantium* and *C. aurantiifolia* are more likely represent hybrids occurring from cross-breeding or natural events.

While some consensus exists about the role of southwest China and northeastern India in the origin and diversification of the genus *Citrus*, the material reported so far is still too sparse to trace a reliable history of the date and mode of spread of hesperids towards other areas, notably the Mediterranean. Commercial routes which could have facilitated this trade have been extensively examined and classical sources carefully searched. However, the scarcity of the archaeobotanical remains, as well as some methodological limits in assessing taxa unequivocally, leaves this problem unsolved. Nonetheless, our investigations on the specimen from Ischia have also taken into account the iconographic evidence and classical sources.

Together with the evidence from Pompeii, the original material presented here is part of the extremely rare archaeobotanical record directly available on *Citrus* and may significantly contribute towards our understanding of its history and human use in antiquity.

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