



The domestication of the vine and the olive in the Aegean and Cyprus

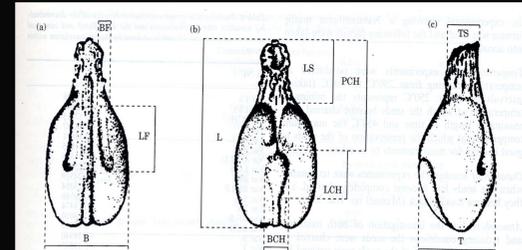


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Research in the Aegean and Cyprus

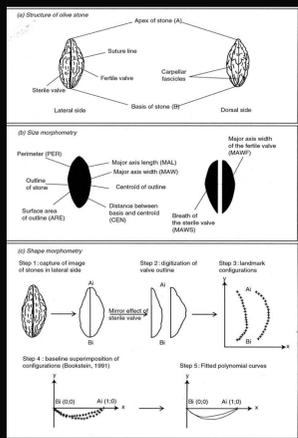
- The intensive cultivation of the vine and the olive has been connected with the emergence of complex societies in the Aegean Bronze Age
- The time frame of intensive cultivation of both grape and olive in Greece has been a matter of continuous debate
- In order to establish the point in time when domesticated vine and olive were first known in Greece, much attention has been given to the residues of the agricultural activity, the charred archaeobotanical remains
- Recent work on Cyprus has offered new evidence for the early domestication of crops on the island, crucial for the investigation of the routes and timing of their introduction or possible indigenous development, as Cyprus is now seen as a key stepping-stone between the Levant and the Aegean. Because of the crucial economic and socio-political implications, the timeframe of the initial intensive cultivation of both grapes and olives in Greece is a second cornerstone of the debate.

Current research on distinction of wild and domesticated forms of *Vitis* in the archaeobotanical record



Most advanced and promising study was done by Mangafa & Kotsakis (1996), applied to material from Greece. Based on modern populations of wild and cultivated vines, they used laboratory experiments to develop better methods for the reliable metrical identification of archaeological carbonised grape seeds to subspecies. With this work, the distinction of wild and domesticated grapes was taken forward and their model has been applied to various archaeobotanical materials around the Mediterranean.

Current research on distinction of wild and domesticated forms of *Olea* in the archaeobotanical record



Terral *et al.*'s (2004 & 2006) recent research has focused on the issue of the distinction of wild and domesticated olive stones retrieved from archaeological sites. Their study focused on the description of the stones from wild and domesticated modern populations in the north-western region of the Mediterranean basin. The study was used as a means to identify morphological changes that occurred at olive stones during the domestication process.



Pitfalls of current research

- Sufficient descriptions lack of modern wild and domesticated populations from the Mediterranean region
- The analysed archaeobotanical assemblages are very small (*valid arguments must be based on rich archaeobotanical assemblages, constituting a range of shapes and sizes*).
- For the olives, only shape is used as an analytical variable.

The proposed project

The assemblages are unique in a Mediterranean context because of the vast quantities (several thousands) of both grape pits and olive stones. The archaeobotanical remains come from a range of sites in the Aegean and cover a broad time-span.

Sites included in the project to test the validity of the current models are Athenian Agora, Corinth, Komboloi and Platania at Pieria, which are dated to the Classical period.

If the validity of the existing models is secure, they will then be applied to the collected archaeobotanical material of earlier sites.

If the current models are insufficient the following steps will be pursued next:

Detailed survey of biogeographical variation (gathering, description and measurement in detail of wild, feral and domesticated populations of olive and vines in Greece and Eastern Mediterranean)

Detailed sampling for experimental charring (charring of sufficient material from wild, feral and domesticated population in order to examine alterations in shape/size and morphology)



Aims of the project

To establish archaeobotanical correlates for olive and vine domestication, management and varietal history

To establish where and when the olives and vines were introduced or intentionally cultivated in different geographical areas and which varieties were selected

Collate and review existing archaeobotanical Old World database

Extraction of DNA from the modern gathered material for the creation of an extensive data base that would be used for comparison from different geographical areas