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**THESE**

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**Exploitation des ressources végétales et impact  
environnemental des premiers peuplements humains à  
Chypre : approches anthracologique et carpologique**

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## Summary in English

### **Exploitation of plant resources and environmental impact of the early human populations in Cyprus: anthracological and carpological approaches**

**Keywords:** anthracology; archaeobotany; palaeoenvironment; wild woody fruit resources; Pre-Pottery Neolithic; Cyprus

Archaeological research in Cyprus over the last decades has revealed the existence of settlements of hunters/early farmers since the 9th millennium BC (Initial Pre-Pottery Neolithic), followed by other sites, in which hunting progressively gives way to farming, and agricultural practices are confirmed (Early Pre-Pottery Neolithic). The Late Pre-Pottery Neolithic (7th-6th millennia BC) in Cyprus is marked by the development of a locally developed island culture (also known as the '*Khirokitia Culture*'), independent of continental influences, as indicated by villages, sometimes large in size, populated by farmer-breeders and craftsmen.

These early settlements in Cyprus developed and exploited the resources of the local ecosystems in an island environment previously little influenced by man. This study aims to localize the plant resources and to reconstruct the plant formations and evolution over time (9th-6th millennium BC), as resulted with human interaction, through the study of the anthracological remains (charcoal) recovered in the sites of Ayios Tychonas-*Klimonas* (8800 cal. BC), Parekklishia-*Shillourokambos* (8500-6900 cal. BC) and Khirokitia-*Vounoi* (6800-5500 cal. BC). A thorough analysis of the fruit remains targeting the exploitation of wild woody fruit taxa, completes the anthracological study and make possible to approach the question of purposeful fruit gathering. The reference collections of modern botanical material, established within the framework of this research, enabled the study of the above archaeobotanical material and led to the enrichment of the collections of the National Museum of Natural History in Paris, and to the creation of the first reference collections in Cyprus (University of Cyprus). This study also provides a detailed identification of the fruit remains of *Pistacia* spp.

The results obtained, show the exploitation of a wide range of local woody resource by the inhabitants in the direct environment of the aforementioned sites, that was probably much richer and more diversified in woody taxa (Mediterranean maquis, forest formations) than today. Moreover, they allow us to outline the evolution of the vegetation dynamics over a period of nearly 3400 years and the degradation of the vegetation cover. A major change is observed at the time of the reorganisation of the recent village of Khirokitia (levels A, III-I). Within this framework, the role of natural (climatic) factors versus anthropogenic impact on the plant communities is assessed, with a particular focus on the role of fire. This study also concludes for the use of woody resources for fuel, in architecture, for fodder, medical use, as well as in human diet. Besides, the biogeography and indigeneity of certain woody taxa, such as carob and almond are investigated.

This study complements previous palaeoenvironmental studies and highlights human-environment interactions over the long term during the Pre-Pottery Neolithic. Finally, it opens up new research directions concerning human-environment interactions, exploitation, management, and use of woody plants on the island environment of Cyprus and in the Mediterranean in general.