

## **Stable Isotope Analysis of Faunal Remains of Ancient Kythnos Island for Paleoenvironmental Reconstruction**

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**Abstract :** The Kythnos Island in Greece is of particular archaeological interest, as it has been inhabited from the 12th BC until the 7th AD. From island excavations, numerous faunal and human skeletal remains have been recovered. This work is the first attempt at the paleoenvironmental reconstruction of the island via stable isotope analysis. Specifically, we perform  $^{13}\text{C}$  and  $^{18}\text{O}$  isotope analysis in faunal bone apatite in order to investigate the climate conditions that prevailed in the area. Additionally, we conduct  $^{13}\text{C}$  and  $^{15}\text{N}$  isotope analysis in faunal bone collagen, which will constitute the baseline for the subsequent diet reconstruction of the ancient Kythnos population.

**Keywords :** stable isotopes analysis, bone collagen stable isotope analysis, bone apatite stable isotope analysis, paleodiet, palaeoclimate

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