
The Late Pleistocene mollusk sample from Contrebandiers Cave (Temara, Morocco): marine resource exploitation and personal ornaments

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Résumé

Increasingly, researchers have considered the role of coastal marine resource exploitation in influencing the trajectory of human behavioral and biological evolution, specifically relating to modern human origins. However, these models have focused almost exclusively on the relatively rich and well-documented record from the Middle Stone Age (MSA) of coastal South Africa. Here, we present data on coastal marine resource exploitation and ornamentation during the Late Pleistocene at Contrebandiers Cave [La Grotte des Contrebandiers, Smugglers' Cave] (Temara, Morocco). Contrebandiers' sequence includes the MSA, which spans ~126,000-90,000 years ago at the site, and the Iberomaurusian, which elsewhere is ~23,500-12,500 years ago. Today the site is only 270 m from the Atlantic shore; during the MSA and Iberomaurusian, inhabitants appeared to have had consistent access to a nearby rocky coast, where they gathered mainly marine mollusks (limpets, mussels, and marine snails) for subsistence, but also other marine fauna in small proportions (birds, fish, crabs, goose barnacles, and sea urchins). The Contrebandiers occupants also collected during both the MSA and Iberomaurusian shells for non-dietary reasons; these include triton (*Charonia*

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lampas), but above all tick shells (n=154). Most of the tick shells belong to two different species of the Nassariidae Family: *Tritia gibbosulus* and *Tritia circumcinctus*. Neither of these two gastropods lives along the Moroccan coasts today, but they can be found in local fossilized beaches. We analyze the Contrebandiers sample in comparison to a sample of shells from these geological settings. The large majority of the archaeological tick shells preserve perforations, inviting us to ask if they had been used as personal ornaments, as has been argued for similar shells found elsewhere in northern Africa, as well as in South Africa. Each archaeological and geological tick shell was subject to a macroscopic and microscopic taphonomic analysis, including measuring and recording surface preservation, use-wear, and residues. Here we discuss the Contrebandiers tick shells through a taphonomic and morphometric approach that is integrated with the analysis of the mollusks exploited for subsistence and the geological sample, focusing on their potential use as ornaments.

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