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# Palaeoenvironmental changes and Meso-Neolithic human-landscape interaction in the Caspian coast

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## Abstract

The south Caspian Sea coast not only underwent deep climatic changes at the Late Pleistocene-Holocene transition, but also its narrow coastal plain at the foot of the Elburz Mountains changed its width according to important water level changes. The area is known for its large biodiversity and the occurrence of glacial refugia for plants, which were also used by animals and humans. Mesolithic and early Neolithic populations are known to have lived there and their diet, according to the archaeological investigations of two cave infills, changed widely according to the availability of resources. N Iran with SE Azerbaijan have a diverse environment owing to the Talysh-Elburz Range that is north facing and catches precipitation from air masses coming from the Caspian Sea. The humid area represents a pocket of life in an otherwise dry Middle-East.

This study examines palynological remains in two 17 m long sediment cores obtained in palaeo-lagoons, located between the caves and the coast and dated by radiocarbon. In particular, pollen grains and charcoal provide information on vegetation; parasite eggs and fungal spores on the presence of large herbivores; and small aquatic organisms (such as dinocysts) on water level and changes in Pontocaspian biodiversity.

Preliminary results indicate the continuous presence of a diverse woodland over the last 30,000 years, significant changes in the fire regime, in the climate (eg the Last Glacial Maximum and the Younger Dryas) and in water level and quality (eg the early Holocene lowstand of the Mangyshlak).

**Keywords:** palynology, palaeoenvironment, human, landscape interaction, biodiversity, water level changes, climatic changes

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