

Interpreting Neolithic building and activity areas through combined ethnographic, phytolith and geochemical investigation

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Neolithic WF16, Wadi Faynan

The INEA project (Identifying activity areas in Neolithic sites through Ethnographic Analysis of phytoliths and geochemical residues) is developing a method which combines the analysis of phytoliths and geochemical residues, to inform on construction methods and the use of space in recently abandoned historical villages and Neolithic settlements.

The Neolithic in south-west Asia (ca. 11,700-7,800 cal BP) is the period that saw the advent of agriculture and other new practices such as the use of sophisticated architectural forms within settlements.

The abandoned historical village of Al Ma'tan near Tafileh was chosen because the building materials used in its construction were local clays and stones, and subsistence was based on small-scale agriculture and animal husbandry. We are working with members of the Baqee'a Tourism Cooperative Society to record, document and promote their village.

We are comparing the geochemical and phytolith results from Al Ma'tan to samples from similar contexts at the Neolithic sites of WF16 and 'Ain Ghazal. Initial analyses show that the ethnographic results from Al Ma'tan are comparable with the much more ancient Neolithic settlements.

Sampling at Neolithic Ain Ghazal



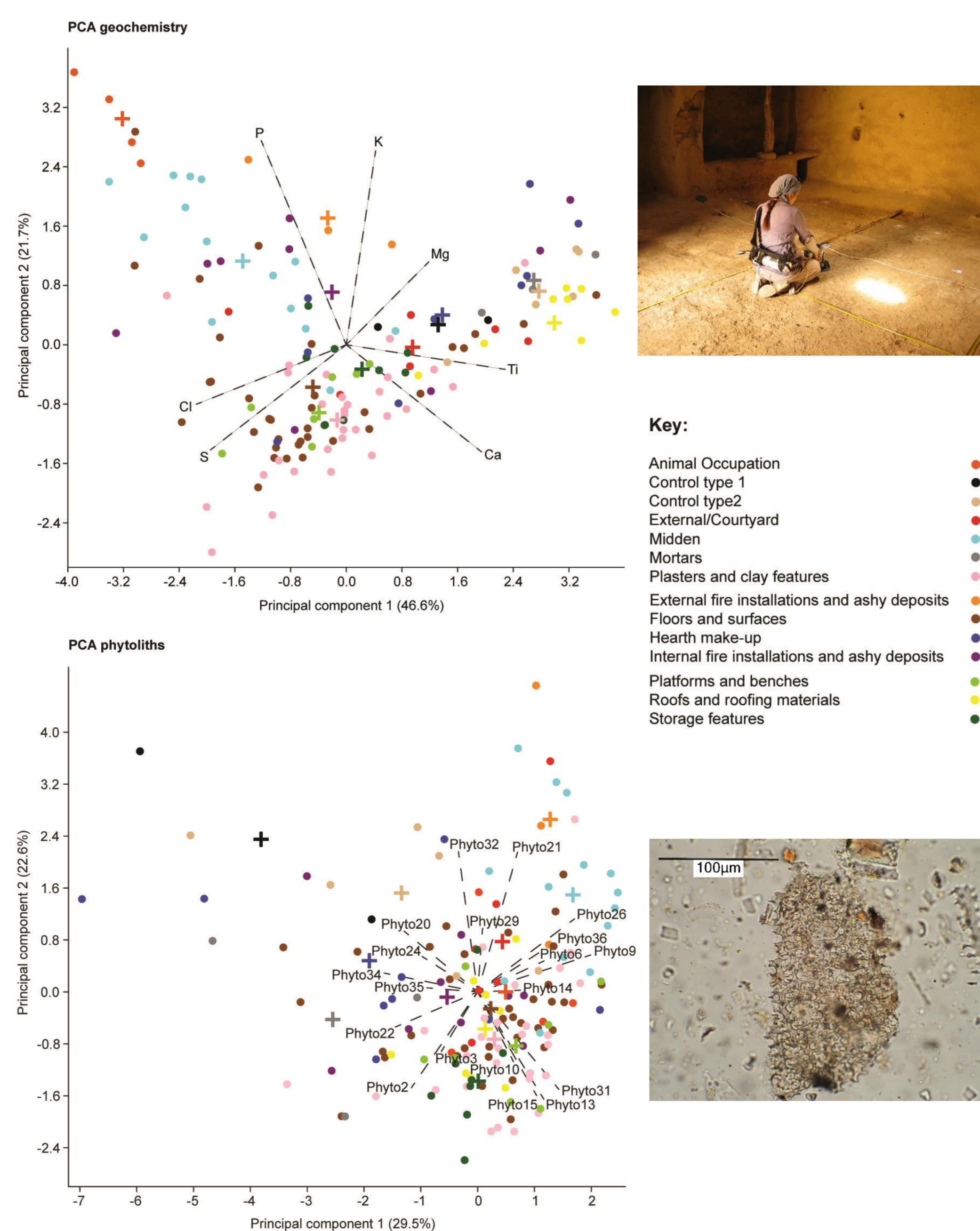
Community engagement



Village houses at Al Ma'tan, near Tafileh

A range of context types were sampled including: plasters, roofs, floors, middens, fire installations, platforms and external spaces.

The PCAs clearly indicate that certain context types have distinctive signatures, especially for the geochemical data. The phytolith data is good but less clear due to the high number of variables considered.



Principle Component Analyses (PCA) from Al Ma'tan

Phytoliths form in and around plant cells and are composed of amorphous silica and preserve in a wide range of environments. Key geochemical elements are potassium, phosphorus, magnesium, titanium, calcium, silica, and chlorine.



Making promotional films

We have produced two films to promote Jordan's diverse heritage to tourists and archaeology as a subject to aspiring students.

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