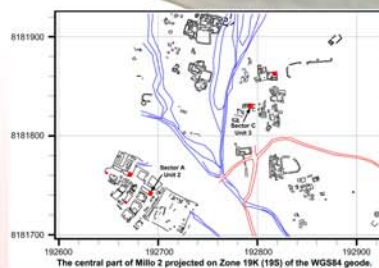


The Development of a Chemical Analytical Method to Identify Molecular Residues of *Schinus molle*

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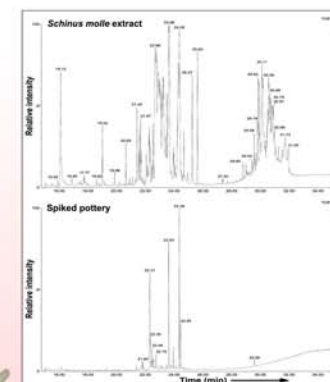
Cotsen Institute of Archaeology, Pasarow Mass Spectrometry Laboratory, UCLA



Plan of the central part of Millo 2 with the positions of excavation Unit 2 in Sector A and Unit 3 in Sector C indicated.



Panorama photograph of Millo 2 (near Arequipa in southern Peru) with the Vitor Valley and Chachani in the background; the positions of excavation Unit 2 in Sector A and Unit 3 in Sector C are indicated.



Initial analysis by GC/MS of *Schinus molle* extract and naive pottery spiked with this revealed many molecules that could be instrumental in the future analysis of ancient residues.

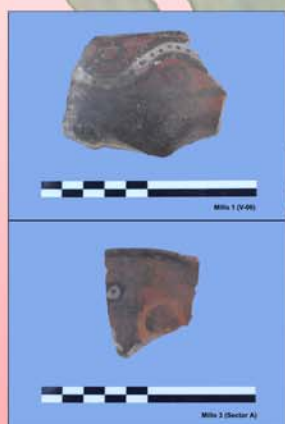


In July 2010 large amounts of desiccated *Schinus molle* remains were excavated in Sectors A and C of Millo 2.



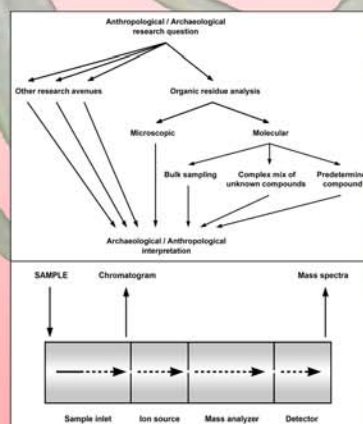
The *Schinus molle* tree in the Vitor Valley which supplied the ripe fruits of which the extract used in this project was prepared.

Material



Excavated pottery like these Wari sherds, which were found on the surfaces of Millo 1 and Millo 3, will eventually be tested for molecular residues of *Schinus molle*.

Methods



Analysis of organic residues, by mass spectrometry or otherwise, can yield valuable data when addressing archaeological and anthropological research questions.

Instrumentation



Modern and ancient samples are first separated into their components by gas or liquid chromatography, after which individual molecules are identified by mass spectrometry.

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