



# Smithsonian *Museum Conservation Institute*

## *Topics in Conservation Science Lecture*

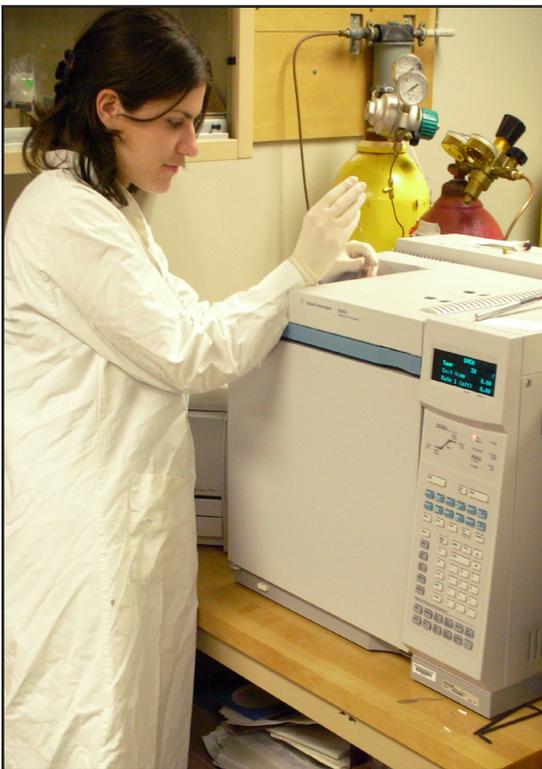
### *Methodologies for the analysis of archeological food residues: application to the diet of Arctic people*

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Artifacts from archaeological sites in Alaska and Canada were selected at the National Museum of Natural History and residues were analyzed to determine their lipid and protein composition. Cooking residues are analyzed to determine and understand the diet and cooking practices of past cultures: food consumed, cooking methods, evolution of a diet through time and geographical particularities. They are found absorbed in the clay matrix of ceramics or trapped as a charred layer of residues adhering on the surface of pots. Methods to analyze proteins on archaeological artifacts have in the past given few reliable results, especially because proteins are denatured and modified when they are processed. An original methodology developed in this study and derived from new developments in proteomics offers promising perspectives to identify species-specific proteins.

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