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# There are not only pots: organic residues analysis applied to prehistoric hearths

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## Résumé

Cooking practices are a complex mixture of technical, social and cultural behaviours; yet little is known about them. Recently, research into cooking has been re-invigorated by chemical analysis of artefacts used in food preparation. These studies have largely focused on pottery, which are known to preserve organic signals related to their use for many millennia. While the success of these studies has changed our understanding of prehistoric cuisine, it is clearly biased towards those societies that had ceramic technology. Other forms of cooking have existed among non-pottery producing (aceramic) societies and these likely continued after the adoption of pottery.

Among the potential proxies for cooking activity are the thermally altered stones associated with hearth features, oftentimes overlooked as a source of information. Probably adopted during the Upper Palaeolithic, the use of rocks as heating elements represents a fundamental step in the evolution of culinary techniques. Indeed, stones have allowed the control and transfer of heat while offering the opportunity to develop various cooking methods (boiling, grilling, steaming). Stone cooking also enables an increase in the scale of food preparation that can enhance and conserve resources as well as facilitate feasting as part of social gatherings. Far from being anecdotal, stone cooking has a long history of use in many societies and is still practiced today in traditional cuisines in Mongolia, Oceania, and South America. From experimental data and archaeological cases of study, we will explore the potential of organic residues analysis applied on thermally altered stones and hearth sediment to yield direct evidence of stone cooking technology and to inform us on the foodstuffs prepared and the cooking process.

**Mots-Clés:** Cuisine, Organic Residues Analysis, Hearths, Isotopes, Thermally Altered Stones

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