Millets in Bronze Age agriculture and food consumption in Northeastern France

Françoise Toulemonde[1], Julian Wiethold[2] *et alii*

[1] Independent researcher, AASPE National Museum for Natural History/CNRS, Paris, France
Francoise.toulemonde@gmail.com

[2]Institut national de recherches archéologiques préventives (Inrap), Direction régionale Grand Est, Laboratoire archéobotanique, 12, rue de Méric, 57063 Metz cedex 2, France
julian.wiethold@inrap.fr

Early and Middle Bronze Age (EBA/MBA) are poorly known in Northeastern France, in archeology as well as in archaeobotany. Settlement evidence is scarce, and necropolis remains hardly more numerous. Important changes occur in societies at the transition between the MBA and the Late Bronze Age (LBA), from the 14th century onwards. We can observe a major demographic increase coupled with the extension of human occupations into previously unexploited environments. The agriculture that accompanies these changes is very different from the agriculture of the Neolithic. It has integrated many new plants and become a much more diversified polyculture system, characterized by a vegetal production based on a wide range of cereals including millets. Additionally, pulse and oil plant production has increased a lot. Dynamic exchange networks linking Northeastern France to North-alpine Central Europe may partly explain the rather quick and massive adoption of new plants, broomcorn millet being one of the most important.

Weakness of archaeobotanical data prior to LBA makes it difficult to state exactly when these changes took place, what was precisely the diet of the populations before the introduction of millets, and therefore to explore a possible "millet effect". Nevertheless, a synthesis of archaebotanical data on cultivated plants in northeastern France was undertaken for this workshop, aiming to record the very first millet evidences (and possible dating problems), and the rise of this cereal in the LBA. The results of this survey will be presented, as well as evidence of other changes in plant food, f.e. the place of wild plants gathering in the diet (importance of acorns during EBA/MBA age versus LBA, frequency of gathered species during LBA versus Neolithic).

Concerning the consumption of millet, archaeological context of archaeobotanical findings suggest that this cereal was a daily food as well as a festive food. Some findings raise questions about its transformation: was millet consumed dehusked or still with glumes? Isotopic analyzes confirm the consumption of millet by human during the LBA in northeastern France, and probably by animal too (Goude *et al*., 2016). Isotopic analyzes on human remains of the MBA are planned as part of a new project focusing on the Seine Valley. Considering the absence of archaeobotanical data for this period, they will help determine when millet has become a significant element of human diet.

GOUDE G., REY L., TOULEMONDE F., CERVEL M. & ROTTIER S. (2016) – Dietary changes and millet consumption in northern France at the end of Prehistory: evidence from archaeobotanical and stable isotope data, *Environmental Archaeology,* DOI: 10.1080/14614103.2016.1215799