

# The trajectory towards complexity: approaching the social value of copper at Bauma del Serrat del Pont Bell Beaker site (Northeast Iberia)

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## Abstract

Ascertaining the social value of copper (utilitarian vs. symbolic) and its purported role in the emergence and consolidation of hierarchies has been a topic of debate when dealing with early Western Europe metallurgy. Recent research shows that generalisations are increasingly untenable and highlights the need for comparative regional studies. The early metallurgy of Northeast Iberia allows us to explore the interaction between the well-characterised traditions of southern Iberia and southern France during the 3<sup>rd</sup> and 2<sup>nd</sup> millennia BC, given its location in an intermediate area. pXRF, metallography and SEM-EDS were used to study seven Bell Beaker (decorated and undecorated) crucibles from Bauma del Serrat del Pont (Tortellà, Girona). The results show evidence for smelting of different copper sources that differ in the presence of Ca-rich gangue. All crucibles were manufactured using a similar clay that contained mineral and organic inclusions. Contextualising this data with reference to the metallurgical evidence available for the Northeast, makes possible (1) to sustain that copper metallurgy played a predominantly utilitarian role in Bell Beaker societies, and (2) to characterise idiosyncratic aspects of the metallurgical trajectory in the Northeast in relation to the consolidation of social complexity. This trajectory differs from the ones seen in the neighbour and contemporaneous traditions of Southern Iberia and Southern France. Differences between territories challenge unilinear explanations of technological and social development after the introduction of metallurgy.

**Keywords:** Chalcolithic, copper, smelting, crucibles, Northeast Iberia.