

Copper ornaments in Iberian Chalcolithic. Technology 'versus' Social Demand.

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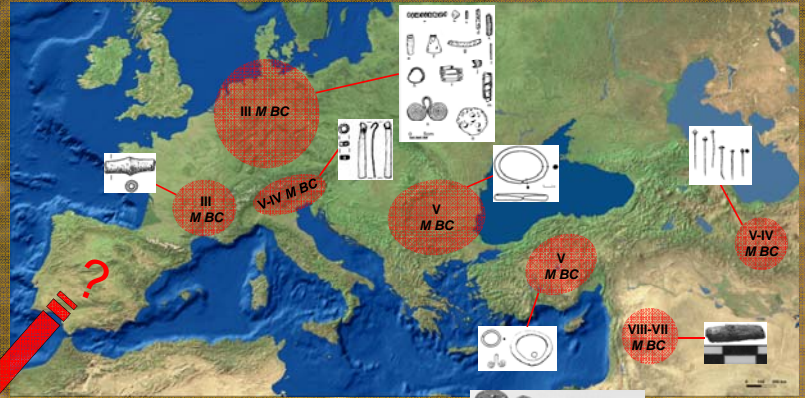
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ABSTRACT

A general feature of the first metal productions in the old world is the manufacture of personal ornaments, either of copper or noble metals. However, the outlook we have of copper ornaments in the Iberian Chalcolithic differs substantially from that known in other regions due to its almost total absence before the Bronze Age. Why did not copper enjoyed a preference in the manufacture of these personal ornaments? We try to asses this question by analyzing technological issues and socio-economic aspects of social demand of copper ornaments during the Chalcolithic.

COPPER ORNAMENTS IN MEDITERRANEAN EUROPE AND NEAR EAST.

A general feature of early metallurgy is the manufacture of personal ornaments. Some examples are the beads of Çayönü Tepe in Turkey and more recent discoveries at Tell Halula, Syria, whose studies show that native copper is probably worked by cold working and annealing. In the area of the Balkans, although gold plays a key role in the first stages of metallurgy (eg. the necropolis of Varna in Bulgaria), the manufacture of ornaments in copper is also notable. In other European regions such as Holland, Germany, Denmark, Poland, Bohemia or Switzerland, copper ornaments have been widely documented. Due to its proximity to the Iberian Peninsula should be noted the data from the Languedoc, where biconical copper and lead beads are quite common elements

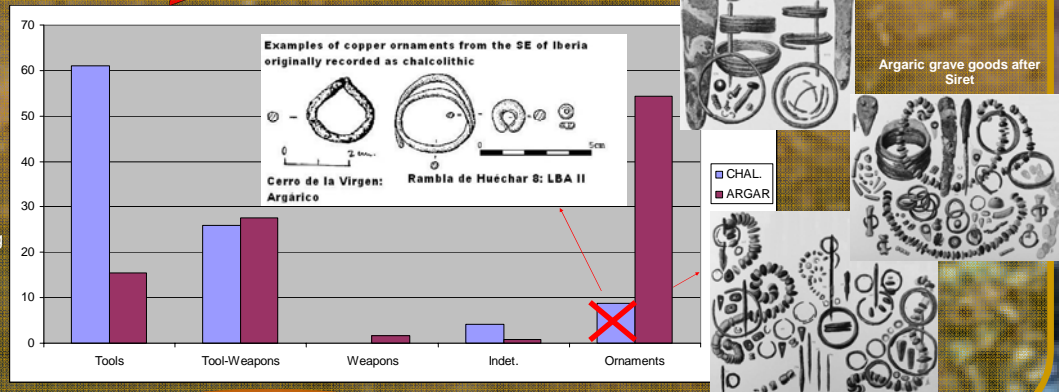


COPPER ORNAMENTS IN IBERIA

The scene of the Iberian Peninsula differs substantially from the situation outlined above. First, the general lack of metal artifacts during the Chalcolithic and its depositional and typological pattern highlight:
→ There is a similar frequency of metal artefacts in funerary contexts and habitats.
→ Ornaments are made of ivory, bone, amber, stone, jet, ostrich eggshells or gold, being copper reduced to weapons or tools.

Although the thesis of Montero (1992 and 1994) on the Southeast noted a small percentage of ornaments (8%), the detailed review of these artifacts reveals that none of them had a chalcolithic context. The only item with a reliable context is a ring found in the Pijotilla dated on 3860 ±70 BP

During the Bronze Age copper ornaments are widespread documented and the majority material in the SE or in Valencia but in other areas like Aragon or Madrid is hardly significant.

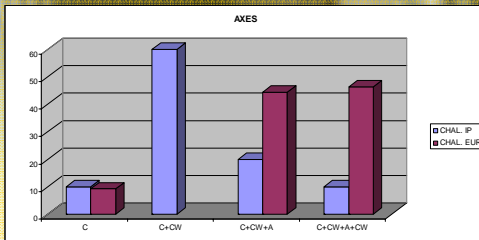


Why?

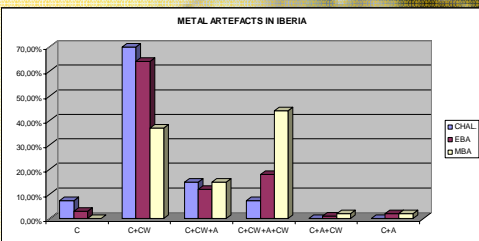
TECHNOLOGY 'VERSUS' SOCIAL DEMAND

DIFFERENT TECHNOLOGICAL TRADITIONS:

THE EXAMPLE OF AXES



CHANGE IN THE TECHNOLOGICAL TENDENCY IN IBERIA



Most of Iberian artifacts show, unlike Europeans, a **simple operational sequence**. **Annealing**, required for the elaboration of thin copper plates, is well known in Europe and rarely used in Iberia until the **Middle Bronze Age**. Although there are some artifacts which present a more complex operational sequence with cold working and annealing, these annealing sequences are quite precarious and those pieces are merely testimonial. That more complex technology is not widespread in Iberia until the Middle Bronze Age when it is used in most artifacts. This later technological evolution could result from an absence or scarcity of previous use of native copper

CHANGE IN THE IDEOLOGY / SIMBOLISM IN THE IBERIAN BRONZE AGE

CHALCOLITHIC	VS	BRONZE AGE
Comunalism and parental relationships	VS	Nuclear families and individualization
Simbology: ideological coercion?	VS	Weapons: physical coercion?
Grave goods: personification	VS	Grave goods: individualization
Lower Social Stratification	VS	Higher Social Stratification
No need to display. Ornaments less common. Valued for their exotism. (ivory, ostrich eggs, amber... vs copper: abundant and easy to produce)		Need to display: abundance of all kind of ornaments and weapons.
Scarce social demand → Scarce technological innovation		Social Demand → Technological Innovation

DISCUSSION:

It seems that the absence of copper ornaments during the Chalcolithic in Iberia responds to a combination of a low technical innovation which would have allowed the elaboration of copper ornaments, and a scarce social demand that could have enhanced this technological innovation. It does not seem that during the Chalcolithic, in contrast to the Bronze Age, there is a need for individualization. The ornaments of the Chalcolithic seem to respond to an embodiment: people are buried with their personal items both functional and decorative in a context where the idea of collectivism is dominant without implying that these objects have a hierarchical value. On the other hand, in the Bronze Age there is a greater need for 'individualization': the elite is more consolidated, its status is not based as much on ancestral aspects, and there is therefore a need for greater ostentation. Certain artifacts, mostly ornaments and weapons acquire a stratifying value.