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# From Copper to Bronze: changes in the metallic production at Dikili Tash (Eastern Macedonia, Greece) in the transition from the Neolithic to the Bronze Age

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## Changes in the metallic production at Dikili Tash (Eastern Macedonia, Greece) in the transition from the Neolithic to the Bronze Age

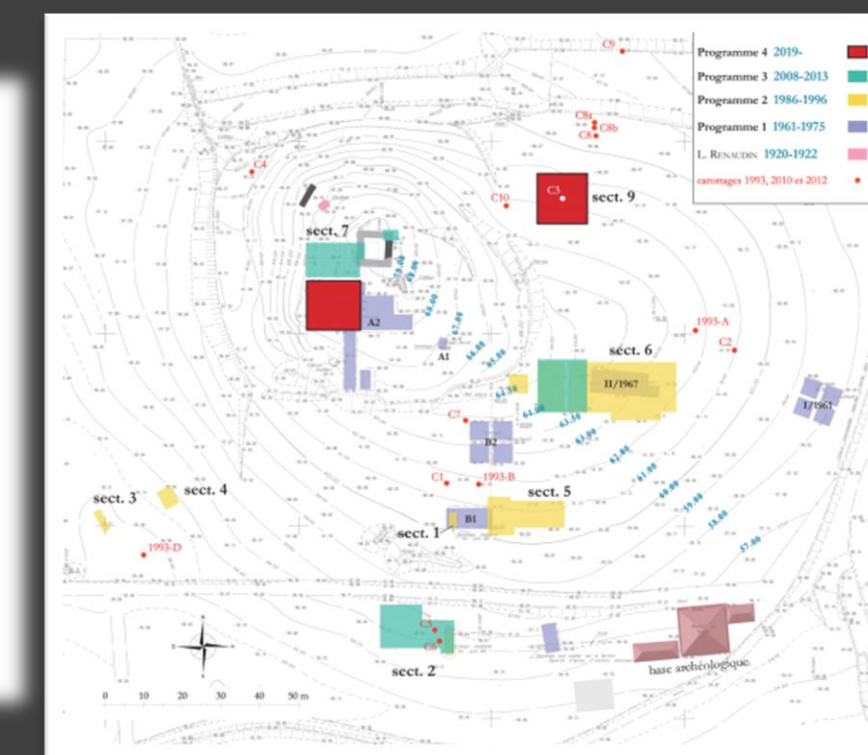
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The prehistoric site of Dikili Tash, located in the plain of Drama, has been excavated over the past 60 years. More than 50 metal products have been collected from the Late Neolithic (also known as Chalcolithic) and Bronze Age levels. Significant changes can be observed in this production over time, reflecting the transformations of metalwork activities in Northern Greece during the Aegean Prehistory.

Areas excavated during the successive research programs (1961-2019). Darcque et al. 2020



### Late Neolithic II (late 5<sup>th</sup> millennium BC)

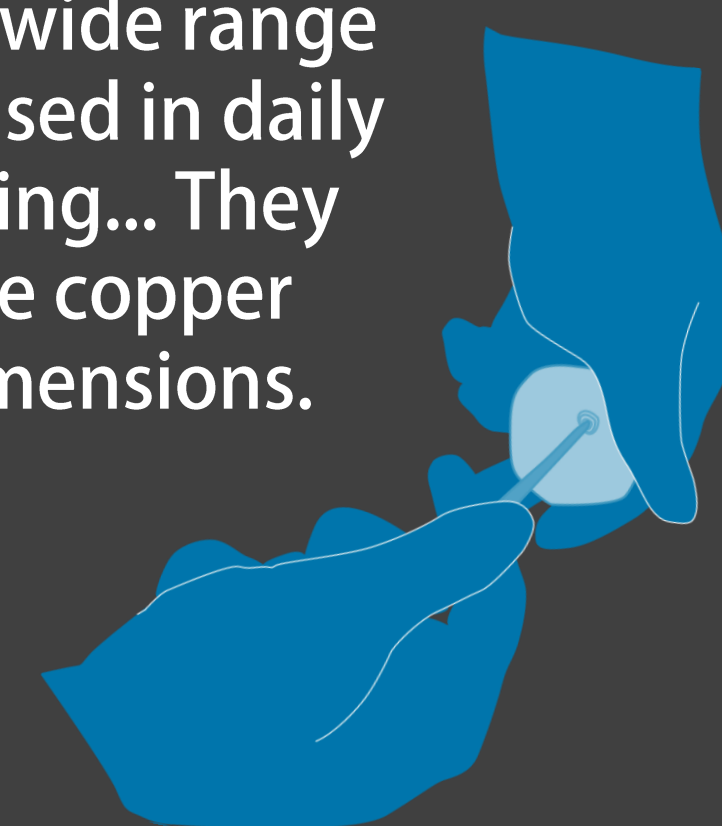
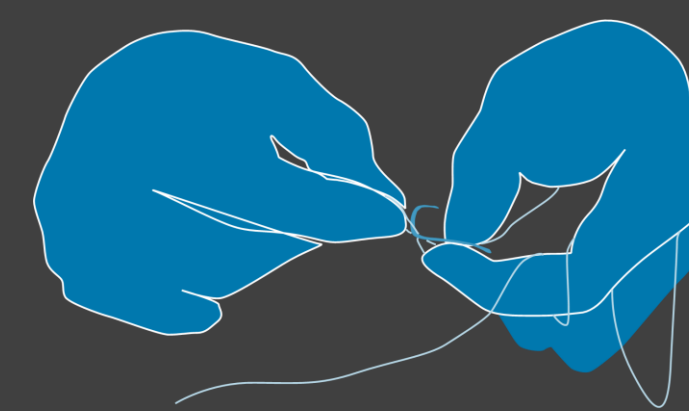
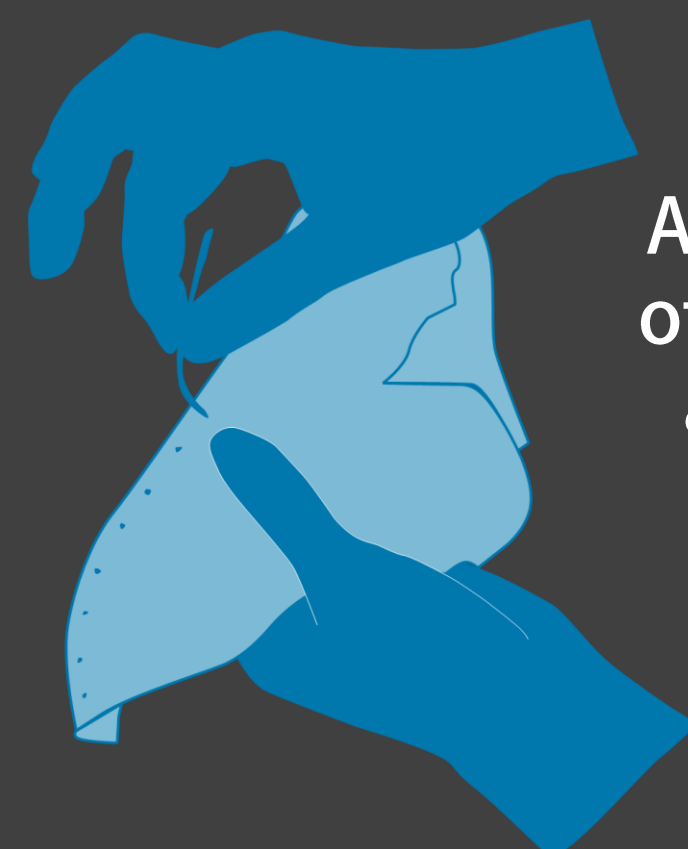
« Adorning yourself with copper »

Beads of various shapes (discoidal, cylindrical, or made from rolled copper foil) and rings are made from pure copper. The manufacturing process of those small ornaments is simple, involving cold hammering and shaping of copper wires or sheets.



« Working tools for everyday life »

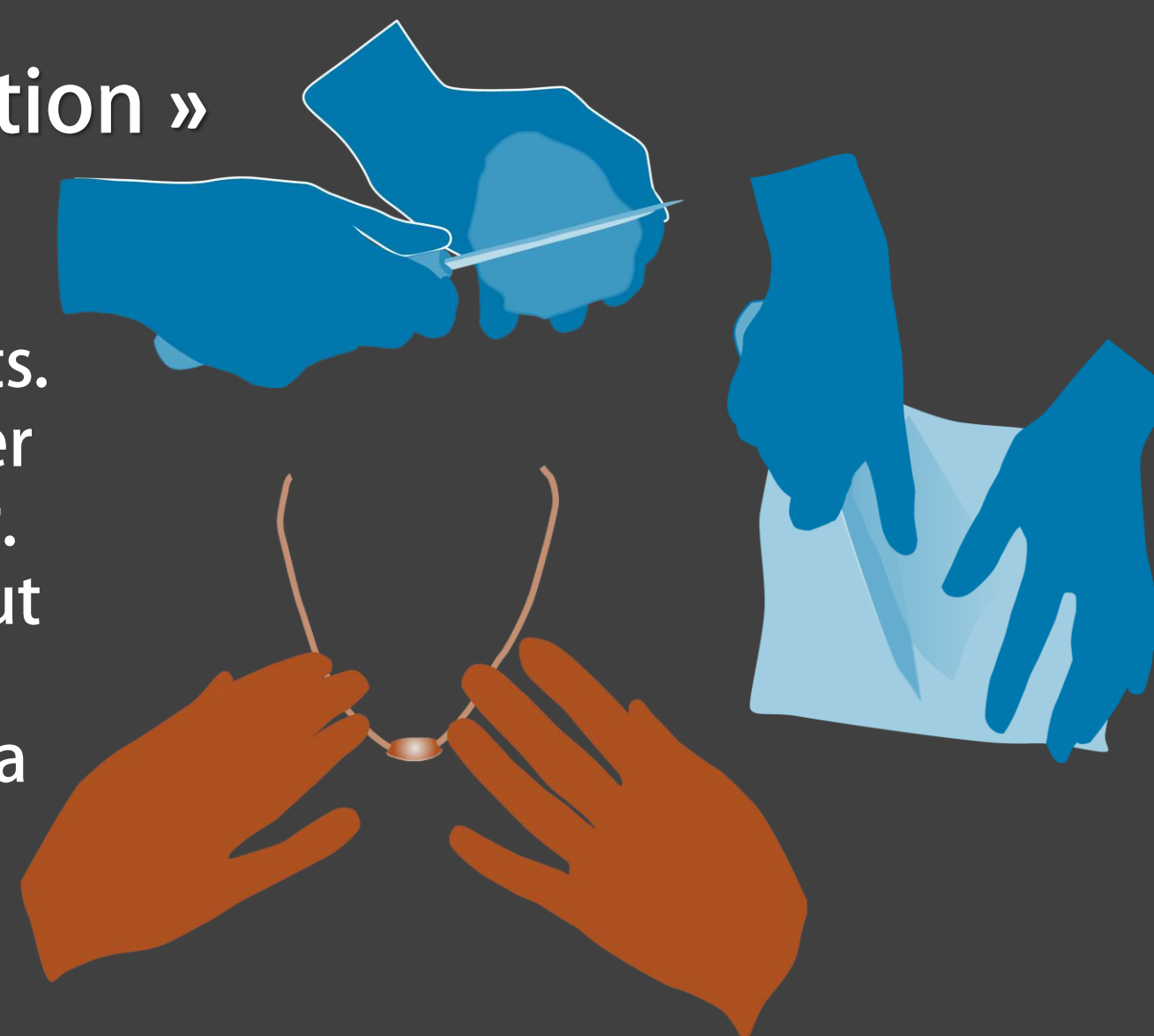
Awls, needles, drills, hooks and a wide range of other tools are produced and used in daily activities : piercing, drilling, sewing... They seem to be produced from pure copper pieces allowing rather small dimensions.



### Early Bronze Age (late 4<sup>th</sup> – early 3<sup>rd</sup> millennium BC)

« Individualising the metal production »

Individual pieces of jewelry seem to be gradually preferred to assembled ornaments. Tools, now made from alloyed copper, either hammered or casted, are larger and heavier. Bronze blades feature a new type of item but still for domestic use. While the diversity of the production may be decreasing, there is a search for greater durability.



### Late Bronze Age (late 2<sup>nd</sup> millennium BC)

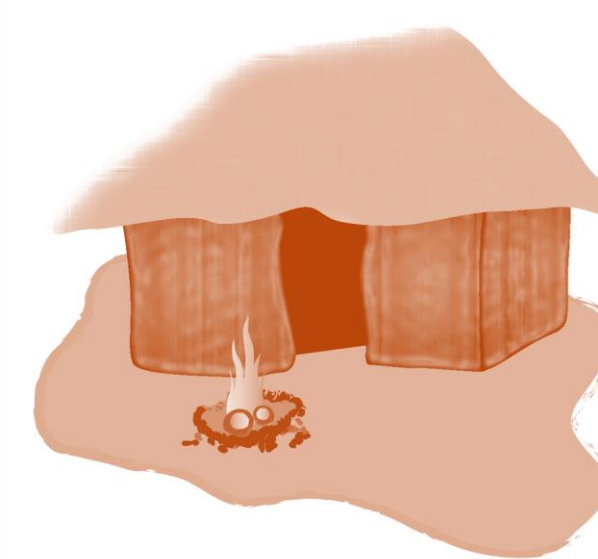
« Rethinking bronze toolmaking »

The metalwork stands out from that of the earlier periods, with greater regularity in manufacturing and bronze as a common alloy. However, significantly fewer bronze items have been found in the LBA layers, and the absence of metal ornaments is particularly striking. Although metal production and use persisted elsewhere in Greece, they both seem to have declined in this settlement.



To conclude...

From the house...



...to specialised production in regional workshops ?



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