

Enkomi: a site at the forefront of technological innovation in metallurgy and artistic excellence in metalwork

Project Team:

George Papasavvas (Coordinator), Vasiliki Kassianidou, Andreas Charalambous, Dimitrios Ioannides, Athos Agapiou, Vasiliki Lysandrou

Description

The driving force behind cultural evolution in Cyprus, throughout the island's long history, was the exploitation of the abundant copper deposits located around the foothills of the Troodos Mountain range. Metallurgy and metalwork are, thus, the most important aspects of the ancient Cypriot economy. Particularly the study of metallurgy and metalwork in the Late Bronze Age (LBA, ca. 1650-1050 BC) is of vital importance in understanding ancient societies of this period and the gradual formation of the first states in Cyprus. It is during the LBA that a number of coastal settlements began to be urbanised, developed monumental architecture and acquired an active role in local and overseas trade networks. These cultural changes are closely associated with the development of the local metal industry and the involvement of Cyprus in the international trading networks that are established at this time. Thanks to this industry, the island became an equal member in economic alliances established between the Great powers of this period.

Although the importance of the LBA metal industry in Cyprus is acknowledged by modern scholarship, there is at the same time a lack of knowledge and factual information regarding its mechanisms, structure, organisation and impact on people. The intensification of copper production on the island, and the resulting exposure of Cypriots to the foreign cultures importing Cypriot copper, transformed not only the metal industry of the island, but the Cypriot society *per se*.

This project is a novel, fresh attempt to approach LBA metallurgy and metalwork in Cyprus, focusing on archaeometallurgical material and metal artefacts from one of the most important, if not the most important, site dating to this period, that is Enkomi. This was a cosmopolitan urban settlement located at the east coast of

the island, facing the Syropalestinian coast, that was perhaps the main port of export of Cypriot copper. The site covers an extensive chronological span, from the initial stages of the LBA until its end, enabling the diachronic study of Cypriot LBA metallurgy and the recording of possible changes in metalworking technologies. In addition to many finds associated with metallurgy, such as metallurgical installations, slag, tools, crucibles, moulds, etc, Enkomi has delivered a large number of bronze artefacts, larger than any other site of the island, that are of an exceptional quantity and of original types, and often denote a technological excellence that cannot be paralleled elsewhere, not only on the island itself, but in the ancient Mediterranean in general. The typology of the metal artefacts, their sources of inspiration and their technological achievement will be discussed in detail, as well as the patterns of distribution of specific types within and beyond the island. In addition, the patterns of deposition of these artefacts in various contexts, and issues regarding their function in secular, ritual or sacred occasions, such as mortuary display or cult rituals, will be further evaluated.

This is the first time that the metallurgical and metalworking assemblages from this site will be extensively studied in detail, using a combination of interdisciplinary methods of analysis for the compositional and technological characterisation of the artefacts, such as petrography, Scanning Electron Microscopy, and physico-chemical characterisation. The site of Enkomi is characterised by a large number of metallurgical finds, which can only be processed through innovative technologies and analytical tools such as the Geographical Information Systems (GIS). A large number of these finds have already been recorded as part of the research of the team of this project. Since we now have a good knowledge of the excavated material, these technologies will enable us to move on to the analysis and interpretation of the relevant finds. This will lead to a more comprehensive and concrete picture of the organization of the Cypriot metal industry during the Late Bronze Age and of the involvement of the island in international trade and industrial networks. Archaeometallurgical remains, such as tuyères, crucibles, bellows, slag, and moulds, as well as metal artefacts from Enkomi will be introduced in a digital database, which will be linked to a GIS platform with spatial information of each find location. The end target is to produce a scientific and comprehensive publication, a key reference for this very important and still very promising material from Enkomi.

We believe that one of the strengths of this interdisciplinary project is that it will provide access to the history of an inaccessible site. Since 1974 Enkomi lies in the occupied territory of the island, and is therefore not under the effective control of the Republic of Cyprus. As we do not have any access to the site, our only choice for studying its past is to re-approach the published material through the new technologies used by archaeometry and digital archaeology. The GIS platform can also be used to monitor the current state of the site and to identify any kinds of interventions such as illegal excavations which may lead to the destruction or alteration of the site.