

Summary

The subject of the present study, which presents the results of my doctoral dissertation at the University of Heidelberg, is the local pottery of the province of Rethymnon, Crete in the Late Minoan III period. The primary aim is to pinpoint the exact location of the regional workshop, and to explore its relation to other ceramic workshops in Crete. Furthermore, the study contributes to a better understanding of Cretan pottery in the period roughly between 1350 and 1200 BC.

At the core of this study is a problem which has rarely been addressed in the past; namely, which morphological and stylistic traits set the products of the various regional Late Minoan potter's workshops apart from one another. While the degree of ceramic variability of Mycenaean pottery on the Greek mainland has been the subject of intense research over the last decades, comparatively few attempts have been made to define regional groups of pottery in Late Minoan III Crete.

The basic questions tackled in the present study are the following:

- Can this regional ceramic group be characterized as a ceramic workshop?
- What influences are detectable in this regional group as regards to shape and decoration?
- What was the function of these vessels?
- What was the distribution of products of this local group and what influence did it have on the ceramic production of the period?

Following the decline of the palatial ceramic workshops at Knossos, Minoan ceramic production increasingly conforms to what is called “the Mycenaean koine”, which develops in all regions of Crete during the LM III A2 and LM III B periods. Despite the prevalence of this common ceramic “language”, however, local ceramic trends never cease to exist. In fact, towards the end of LM III A2 and during the LM III B period, many Cretan provinces witness the emergence of local ceramic styles, indicating the existence of distinct local ceramic workshops. At present, workshops at Chania, Knossos, Palaikastro and the Messara region are recognizable only by their products, and not by their premises. Each workshop uses clay of different chemical composition and produces wares of different shapes and with different decorative motifs.

The study of the ceramic material of the Late Minoan cemetery of Armenoi reveals the existence of a unique group of closely related vessels which has quite distinctive local characteristics. Careful analysis of the ornamental and morphological peculiarities, supplemented by scientific studies on the provenance of the clay used to make the vessels, has allowed this study to define those features that are typical of the regional group of Armenoi-Rethymnon.

This regional ceramic group appears to be active from LM III A2 to LM III B. However, the bulk of the workshop's production is stylistically classified as belonging to the sub-phase LM III A2. The chronological differentiation of the pottery groups is based on the shapes of the vessels, on the frequency in which various types appear, on the decorative motifs and also on associated pottery deposited in the graves. In the instances where it is possible to distinguish between the burials within the tombs, it may be said that the vessels of the LM III A2 phase reflect grave offerings for earlier burials, while the vessels dating to the LM III B phase can be considered as offerings for the more recent burials.

In order to source the clay used to manufacture the pottery of this group, 50 vessels from the cemeteries of Armenoi, Mastabas, Maroulas, Pigi, Stavromenos, Pagalochori, Apostoli and Apodoulou were analyzed using Neutron Activation Analysis by Dr. B. Kilikoglou and Dr. Anno Hein at the Laboratory of Archaeometry of the National Center for Scientific Research "Demokritos". The aim of this study was to attempt an initial determination of the chemical components of the ceramics and to locate the workshop responsible for their manufacture. The data of the chemical analysis, when statistically classified, point to the existence of a homogenous group, consisting of vases from the same workshop mainly coming from the cemetery of Armenoi. The results of the neutron activation analysis show a large chemical group that included almost a third of the data samples studied.

In technical terms, the manufacturing quality of the local ware of the Armenoi group could be characterized as fairly good. All specimens studied so far are wheel-made. Moreover, the clay that is used is of relatively good quality and very fine. In some instances, the clay was found to contain very little admixtures. Depending on firing temperature, the surface of the vessels can be classified as follows: light brown, yellowish and ash-gray clay. The slip is of the same color as the clay, or slightly lighter.

Studying the typology of the vessels, it is noteworthy that there seems to be a special preference for closed shapes in the Armenoi cemetery. The range of shapes is restricted, since the potters reproduced one particular closed shape in just five closely related varieties. This specific shape is based on the well-known Mycenaean alabastron, while at the same time borrowing elements from other shapes. Thus, the most characteristic products of the regional group are the three-handled, straight-sided alabastron with short neck (FS: 94), or tall neck (FS: 95), the two-handled, straight-sided alabastron with tall neck (FS: 95), the three-handled globular jar (FS: 85/94), and the small amphora with flat splaying rim (FS: 59/85). Of these, the most frequent is the straight-sided alabastron followed by, in descending order, the amphoriskos and the three-handled globular jar. All the above shapes of the local group share common features. In addition

to these basic shapes, there exist others as well, including the stirrup jar and the jug, quite popular in Crete at the time, which find similarities in the products of other workshops.

As regards to surface treatment, two distinct groups of vases can easily be discerned. The first group, in which paint is better preserved, comprises vases with dull paint which, in places, rubs off easily. In some instances the paint is more lustrous. The second group, of equal size, comprises vases with unburnished surface and decoration quite often completely effaced; occasionally, only the imprint of the decoration has been preserved.

For the most part, the decoration consists of brown, red-brown, dark brown or black paint and is non-uniform due to variations in firing. In some instances, the decoration is not even careful, as one may note a relative roughness in the decorative motifs, specifically in the bands of paint around the body of the vase. The most common motifs used in this local group are wavy lines, zigzags, bivalve shell patterns, isolated semicircles in different variations, Minoan flowers in different variations, and lozenges. Other local elements found in the motifs are also worth mentioning: grouped wavy lines, tongue patterns and rock patterns. In addition to these, some other motifs appear to be adopted from the repertoire of other regional ceramic workshops.

In general, the decorative scheme of the local ceramic group is linear without much variety. Only a minority of the motifs employed belongs to the Mycenaean repertoire. The majority is mainly of Minoan origin, while some constitute local variations. It is notable that during the LM III A2 and LM III B periods, decorative motifs are increasingly rendered schematically.

In summary, a typological and stylistic investigation, in combination with clay analysis, leads to the conclusion that the vessels under study constitute a uniform assemblage made by one or two local potters and belong to the same ceramic workshop. This conclusion is further confirmed by the comparative archaeological and archaeometrical study of Rethymnon ware in relation to the other Cretan workshops of the Late Minoan period.

Undoubtedly, the increase in the number of settlements in various regions of Crete during the LM III A2 period promoted the development of new ceramic workshops to meet increasing local demand. The existence of such a workshop in the region of Rethymnon is justified by the settlement data, and would serve the needs of at least a portion of the population. Furthermore, the fact that the vessels under study fulfilled a specific burial purpose, indicates that this workshop had to adjust its production to satisfy a particular need. It seems, then, that the ceramic workshop of Armenoi-Rethymnon has a provincial character with local scope. In keeping with this, current research shows that the pottery of the workshop does not appear to be distributed to other areas of Crete. Moreover, the limited repertoire of shapes demonstrates that this is a ceramic group for limited consumption, created to serve specific needs associated with the burial

practices of the community of Armenoi. It must be noted, however, that the excavation of the settlement of Armenoi, located near the necropolis in the village of Kastellos, is only just beginning under the direction of G. Tzedakis. As we do not have a full understanding of its ceramic assemblage, we should not exclude the possibility that vessels from the Armenoi workshop may have also fulfilled everyday needs.

As previously mentioned, following the destruction of the palatial complex at Knossos in the sub-phase LM III A2, more centers of habitation, with larger or smaller spheres of influence, were established. Archaeological evidence from sites such as Chania, Kommos, Agia Triada, Palaikastro and Knossos, indicates that these new centers controlled their surroundings. The local ceramic workshops of Chania, Knossos, Gouves and Palaikastro appear to dominate, as their products do not only serve local needs, but are also exported to other parts of the island and abroad. At the same time, evidence exists that other minor ceramic groups, such as Kalochorafitis, Mesara and Armenoi, were simply the products of small regional workshops.

Numerous indications, however, based on stylistic similarities in the ceramics, demonstrate a fertile exchange of contacts between Armenoi-Rethymnon and the rest of Crete. Similar decorative motifs and vessel shapes were adopted by many Cretan ceramic workshops, and a trend of utilizing a particular decorative repertoire spread. Within this trend, differentiation is due to variations in the rendition of common decorative elements. For example, a comparison of the Armenoi group to that of Knossos, reveals a close relation evident in the decorative repertoire. Comparisons between the group of Armenoi and that of Chania, also manifest a number of shared similarities, not only in decorative patterns but also in ceramic shapes. Contacts between Armenoi and other Cretan workshops, such as Palaikastro and Mochlos, are rare, while contacts with the supposed workshop of Archanes cannot be established with any certainty, although Archanes is located close to Knossos.

Evidence of communication between the regional workshop of Armenoi-Rethymnon and the Greek mainland is indicated not only by the shape of the straight-sided alabastron, mentioned above, but also by some decorative motifs. However, a comparative study reveals that the shapes and the decorative motifs deriving from Mycenaean patterns are not blindly copied, but creatively appropriated. The use of both the base and the stem of the kylix as a stopper for certain vessels of the Armenoi-Rethymnon group, constitutes one more clue of Mycenaean influence; a similar pattern of re-use of kylix stems occurs in the Peloponnese and mainly in the regions of Elis, Achaia and Argolis during the LH III A2 to LH III B phases. This is the same period in which a strong influx of Mycenaean elements into the Minoan repertoire is visible on Crete. The port of

Chania, on the north coast of Crete facing the Peloponnese, seems to have been the gateway for communication between Crete and mainland Greece.

In conclusion, the present study of local and regional ceramic production contributes to our understanding, not only of local manufacturing techniques, but of the broader context of the economic history of Minoan Crete. It is now clear that the variety of pottery produced during the LM III A2 to LM III B periods, permits a reconstruction of the particular cultural needs unique to each of the geographical locales, while at the same time, paints a picture of the relations between regions of Late Minoan Crete. In the future, excavation of the settlement to which the Armenoi cemetery belongs will present an opportunity for a more complete study of the ceramics from the Armenoi necropolis.