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CHAPTER TWO

DEVELOPMENT IN BUILDING ACTIVITY, MATERIALS AND TECHNIQUES OF THE EARLY TO MIDDLE CYPRIOTE ARCHITECTURE: THE CASE OF THE WORKSHOP COMPLEX AT ERIMI- LAONIN TOU PORAKOU

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1. Introduction

The site area of Erimi-Laonin tou Porakou was first identified in 2007 during a survey of Kouris Valley and has been investigated in greater detail since 2008 by the Italian Mission, as a joint project of the universities of Torino and Florence and in collaboration with the Department of Antiquities, Cyprus.

The settlement lies on a high plateau on the eastern riverbank just facing the modern Kouris Dam, on the border between the villages of Ypsonas and Erimi. Its position allows an open view on the river valley as well as the sea fringe, suggesting a possible function as sightseeing point for the road network system within the valley (fig. 1).\(^1\)

The last fieldwork seasons confirmed the Bronze Age settlement sequence, which hints at an occupation throughout two main phases (phases A and B), ranging from the end of the Early to the very beginning of Late Bronze Age period (EC II/III–LC IA).\(^2\)

\(^1\) Bombardieri et al. 2009a; 2009b; Bombardieri 2010, 38–43.
The Bronze Age settlement was spatially organized in two main areas, each with a different use and function, located on natural limestone sloping terraces. A workshop complex is located on the top-hill (Area A), while domestic units are placed in the first lower terrace (Area B). Two distinct clusters of tombs, extending respectively south- and eastwards of the workshop and domestic quarters, correspond to the coeval cemetery area (Area E–Southern and Eastern Cemetery).³

³ Bombardieri et al. 2011, 90–97; Bombardieri 2012b, 49–62.
This paper is aimed at analysing two important inter-related aspects, which characterize the development of Workshop Complex throughout the two phases. They are the gradual functional specialization of spaces, and the improvement and changes in building techniques.

2. Functional specialization

The excavation of Area A on the top mound revealed an important productive area, organized in a Workshop Complex, which extends over the 20 x 20m area currently investigated. As to the use and function, the actual evidence, comprising artefacts assemblage, work devices and palaeobotanical residues, hints at an interpretation of the Complex, as a whole, as possibly intended for textiles processing.\(^4\)

The workshop space is functionally organized into eleven areas (currently outlined): five open-air Working Areas (WA I–V), three wide roofed Storage Areas (SA I–SA III) and three other rooms, flanking east and westward SA I–III rooms (fig. 2).

Both the roofed spaces and working devices were built by carving the natural limestone bedrock. In the open working areas natural limestone bedrock was carefully hewn to construct a combined system of rock-cut deep basins with variable depths, connected to each other by a series of flow channels. The Storage Areas are characterized by rectangular rooms carved into the limestone bedrock.\(^5\).

The definition of “working” and “storing” areas is based on the occurrence of meaningful functional and distinctive elements identified within the complex. At this point, these functional markers connected to the two activities can be detected and analysed to verify their spatial distribution within the complex itself.

We initially divided the functional markers into two macro-groups: those related with working activities and those pertinent to storing activities. Within each of these groups we identified two sub-groups of markers: structural markers, i.e. features (installations and working devices) and material markers, i.e. residual artefacts (work tools, containers, vessels with specific uses).

The functional markers related to working activities are:

\(^4\) Bombardieri et al. forthcoming.

\(^5\) Bombardieri 2012a, 51–53; Bombardieri et al. forthcoming.
- As structural markers: hearths/ovens/kilns, basins, benches, channels.
- As material markers: grinding tools, chipped stone tools, spindle-whorls and weights.

The functional markers pertinent to storing activity are:

- As structural markers: emplacements, bins.
- As material markers: pithoi and large closed vessels.

Figure 2. Erimi-Laonin tou Porakou. General aerial view of the Workshop Complex (taken in April 2012)

It is particularly interesting to observe the distribution of different functional markers within different areas of Workshop Complex. From an analysis of the distribution it can be argued that functional markers of working and storage activities appear to be dispersed in both the Working Areas and in Storage Areas, but with differing attestation (fig. 3).
Moreover, the distribution analysis of functional markers reveals even more interesting results from a diachronic point of view. The evidence for Phase A and Phase B leads to a strongly different picture. The trends of this change will be analysed focusing on the specific case of Storage Area I, whose stratigraphic deposit has been investigated thoroughly.

Figure 3. Workshop Complex. Scheme of the identified functional markers

A significant number of functional markers related to working activities are evident during the earlier Phase B. One of the most relevant features is the circular hearth 42, located in the south-eastern corner of SA I.

Regarding the material assemblage, a Red Polished (henceforth, RP) decorated spindle-whorl (A. 459.1), a diabase cylindrical pounder (A.460.6) and a limestone ovoid anvil (A.460.7) can be related to this context. The whole assemblage includes standard types, commonly documented in EC–MC contexts in Cyprus on the south coast as well as in regions in the West.6

On the other hand, the only functional marker related to storing activities is the circular emplacement 44, located along the eastern basement of the room: it is coated with plaster and was probably used to set a pot, as similarly revealed in coeval contexts.7

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6 Crewe 1998; Swiny 1986, fig. 6; Frankel and Webb 2006, fig. 6.20; Crewe and Hill 2012, fig. 7.2.
As to the more recent Phase A, the quantitative relation between functional markers associated with working and storing activities clearly changes. The only evidence connected with a working activity is the kiln/oven 4, located in the basement of the room: this rectangular shaped kiln was built with limestone slabs, vertically arranged. The material assemblage from this level include a fragmentary RP spindle whorl (A.394.1), a limestone weight (A.391.18) and two diabase grinders (A.391.10, A.394.29). Both the spinning and weaving assemblage and the stone tools find close counterparts in coeval MC contexts.

On the other hand, the functional markers associated with storing activities emerge more clearly during the more recent Phase A. Among the latter, the emplacements 1 and 3, located at the northern limit of the room, differ totally from the previous ones of Phase B: they were built up as a circle of medium/large-size stones aiming at fixing the large RP and Drab Polished (henceforth, DP) storage pithoi and guaranteeing them better stability. Two pithoi (KVP09.354.SA. 1, 3) were found in situ in direct association with these emplacements. A further pithos (KVP09.354.SA. 4), larger than the others, was found almost at the center of SA I, set directly upon the floor without any surrounding structure.

Hence, the evidence of such an apparent development from Phase A to Phase B suggests that during the earlier Phase B functional markers related to working and storing activities are mixed up within a limited space. From this point of view, Storage Area I definitely appears as a multifunctional room.

However, during the more recent Phase A a clear prevalence of functional markers related to storing activities seems to emerge. The growing number of emplacements and the concentration of several large storing vessels within the same room testify the gradual functional specialization of the Storage Area I in the Phase A. This is a clear trend that does not come to a definite end, as the presence of the kiln suggests (fig. 4).

3. Development in building materials and technique

The process of gradual specialization is connected to a parallel development in building techniques. These two contemporary phenomena are apparently not related to each other, but are in fact closely connected. An overall analysis of this aspect revealed interesting results to be cross-checked with the evidence of the functional survey of the Workshop Complex.
In this view, a homogeneous body of evidence coming from Storage Areas I and II has been analysed. In fact, an evident development trend from Phase A to Phase B can be outlined both regarding the raw materials used, and the building methods and techniques.

Figure 4. Workshop Complex. Location and distribution of the identified functional markers during Phase A.

3.1. Raw materials

With respect to the first aspect, the analysis of the features which characterize SA I shows how the materials used are totally different between the two phases. While clay and plaster appear as the most common building materials during earlier Phase B, dressed limestone is definitely the most prevalent material during the more recent Phase A.
Two particular features exemplify better the development trends in building materials and techniques over time.

**Fire places**

The first evidence comes from fire places. There is a significant difference between hearth 42, located in the south-eastern corner of SA I, concerning Phase B, and the kiln/oven 4, which replaces the hearth during Phase A.

The hearth 42 of Phase B is a clay-made fire place, characterized by a circular kerb made with yellowish friable plaster. Similar hearths have been found at Marki-Alonia phases D and E, respectively dating back to EC I–II and EC III8 (fig. 6).

Differently, the more recent kiln/oven 4 of Phase A, which lies on the eastern limit of SAI, is built up with several vertical limestone slabs bound with mortar. It is characterized by a rectangular shape and is divided in two spaces: the southern space, filled with burnt debris, was presumably the combustion chamber, while the other space may have been used as a firing chamber (fig. 5). Stone-built structures analogous to kiln/oven 4 are diversely documented at Sotira-Kaminoudhia9 as well as at Alambra-Mouttes.10

**Emplacements/pot-stands**

The second evidence concerns the so-called emplacements, already mentioned above.

During the Phase B the emplacements used to set pots, were carved directly into the plaster floor, sometimes coated with a thick layer of lime plaster in order to allow a better steadiness to the vessels. This is the case of emplacement 44, located in the eastern basement of the room. Its oblique profile was cut into the plaster layer, and its bottom was set by carving beneath the bedrock surface (fig. 6).

Similar emplacements used as pot-stands have been found at Sotira-Kaminoudhia, Alambra-Mouttes, Marki-Alonia and Kissonerga-Skalia.11

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8 Frankel and Webb 2006, pl. 6, e, f.
9 Swiny et al. 2003, 18, fig. 2.4.
10 Coleman et al. 1996, pl. 6, fig. 16.
11 Coleman et al. 1996; Swiny et al. 2003, pl. 2.3a; Frankel and Webb 2006: pl. 4; pl. 12.b; Crewe and Hill 2012, 214: 400, 497; Crewe et al. Forthcoming.
As already noted, during the more recent Phase A, three emplacements, placed at the back of SA I (features 3 and 1), were built by a circle of medium/large-size field stones and diabase blocks (fig. 5).

Figure 5. Workshop complex. SA I – Phase A. Specialized structures and materials for storing and working activities

Figure 6. Workshop Complex. SA I – Phase B. Specialized structures for working activities
3.2. Dressing and masonry’s techniques

As stated above, the changes in raw building materials between the two phases run parallel to the development of building method and technique.

Walls and thresholds

Basically the spatial organization of SA I remains the same through time. The most relevant addition to the original plan is marked by the addition –during Phase A– of wall W1 with its relative threshold 5, which separate the inner space of SA I from the external area WA V (fig. 7).

W1 is a double-curtain partition wall built in dry-stone masonry with squared limestone blocks and slabs arranged in three rows, while the wall core is made of pebbles and chocks mixed with soil and mud. Most of the limestone blocks of the masonry were apparently dressed in order to result as squared and roughly similar in size.

Nevertheless the best example of dressing is represented by the threshold 5. The stone block was carefully carved in order to create a step and to guarantee an easier entrance to the room. It is characterized by a setting for the door-socket cut on the step and two rounded settings in the upper part of the block probably used as looking-door. In addition, the threshold shows other two circular carvings, one on the long southern side, and the second one on the western short side, presumably concerning the two hooks used to position the threshold (fig. 8). A similar feature, smaller in size, characterizes the space of SA II, permitting the access to a sort of atrium, SA IIb (fig. 9).

These thresholds are of great importance in the MCII–III contexts, considering the lack in the coeval sites of similar carefully dressed features. In fact, generally lower courses of masonry from demolished walls or benches of lime-concrete were used as thresholds, as in Marki-Alonia\textsuperscript{12} or Alambra-Asproyi.\textsuperscript{13} Although only few monolithic thresholds have been found at Sotira-Kaminoudhia (Area C, Unit 25) and Alambra-Mouttes (Building I, rooms 7 and 3),\textsuperscript{14} they indicate the re-use of stones, which were created for another purpose, and exploited as a doorway at a later date.

\textsuperscript{12} Frankel and Webb 2006, 11.
\textsuperscript{13} Gjerstad 1926, 22.
\textsuperscript{14} Swiny et al. 2003, 40; 87, fig. 2. 11; Coleman et al. 1996, pl. 5: c; Bombardieri et al. forthcoming.
A further relevant evidence for the development in stone-dressing techniques is represented by feature 12 in SA II. This structure, pertinent to Phase A, leans directly on the eastern limit wall of ‘Room A’. It refers to a line of large carefully squared limestone slabs, vertically arranged and bound to the limestone basement with a layer of plaster mixed to mud (fig. 9).

The function of these sort of “orthostats” was presumably to reinforce the limestone basement in order to guarantee better steadiness to the over- standing wall.

The attempt to regularize the architectonic aspect of the limestone slabs, making them, at the same time, functional elements to support the upper part of the wall, renders a rather “proto-ashlar” appearance to the orthostats.

In Cyprus the use of regular orthostats set on plinths is connected to the most ancient, coursed masonry system introduced during the Late Bronze Age. This technique of using orthostats was applied at a high level of development since its first appearance on the island, and several similarities have been noted with orthostats technique used on the Syro-Palestine coast\textsuperscript{15} and in Proto- and Neopalatial Crete.\textsuperscript{16}

\textsuperscript{15} Shiloh 1979; Reich 1992; Niemeier 1991.
The extensive presence of this technique and its use during later periods, when the method of building in successive courses is largely attested both in the Levant, Near East and the Aegean, has been interpreted as evidence of “conservatism” in Cyprus.\textsuperscript{17}

From this point of view, a possible long-term tradition with the tentative application of this technique by the end of MC period is not surprising, even considering that ashlar masonry appears as a phenomenon acquired slowly, rather than a sudden introduction across the island. While the use of irregular orthostats to support shelves is already documented at Sotira-\textit{Kaminoudhia}\textsuperscript{18} during the Philia phase, the earliest evidence of regular (isodomic) ashlar masonries is commonly related to funerary architecture at Enkomi, and it appears in LC IIC (Kalavassos-\textit{Ayios Dhimitrios}, Maroni-\textit{Vournes}) and later in LC IIIA settlement contexts at Enkomi and Kition.\textsuperscript{19}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image.png}
\caption{Workshop Complex. SA I. Phase A. Threshold 5 and wall W1}
\end{figure}

\textsuperscript{16} Hult 1983; Rehak and Younger 1998.
\textsuperscript{17} Phylokyprou 2011, 48.
\textsuperscript{18} Swiny 2008, 49.
\textsuperscript{19} Graziadio 2006, with references.
4. Conclusions

It is important to consider that all of the aspects discussed in this paper, as evidence for a gradual functional specialization within the Workshop Complex and an architectonical re-interpretation and requalification of the structures during the Phase A, are the result of several coincidental factors.

The improvement of technological know-how possibly due to a socio-economic growth holds just a part of the overall picture. In fact, the basic technological knowledge of the community appears to have been already advanced in some way during the earlier phase of occupation, from EC III onward, as attested by the quarrying and dressing procedures employed to create an organized (and formalized) working space.²⁰

Among the factors the economic development surely played the most important role. At the same time, the gradual specialization of activities within the Workshop Complex is evidence for a progressive development from a subsistence economy to a wider medium-scale economy, possibly based also on a regional trade network.

The final result was a renovation of the working spaces, which were rebuilt with more durable structures. This renovation has a double significance. From one side it was accomplished to emphasizing the value of the product or products, which were the actual base of an increase

²⁰Bombardieri et al. forthcoming; Amadio and Chelazzi 2013.
within the community wealth; form the other to hoarding within locked rooms these products, thanks to whom the community, could have been involved within the regional economic network.

However, through the analysis of the body of evidence presented above, we can argue that this progressive development came to an end during the late MC period, before ultimately achieving its possible last target.

In fact, Erimi-Laonin tou Porakou basically remains at the level of a semi-specialized industrial centre, as clearly attested by the fundamental aspects discussed above. Neither, from the functional point of view, did the Workshop Complex reach a complete distinction between productive areas and storage areas. Nor, as far as the architecture is concerned, did the emphasis on architectonic features, manage to acquire a definite ashlar. Although an “attempt” to adopt a sort of “proto-ashlar” technique is visible in the carefully dressing of some blocks for orthostats and thresholds, this technique does not appear as having been definitively developed. Many scholars observed that the use of ashlar in Cyprus involved high costs and the availability of appropriate tools and labour necessary for the quarrying, transportation, processing and installation.\(^{21}\)

Thus, the appearance of ashlar stone building in Cyprus during the Late Bronze Age has been associated with two coincidental aspects (urbanization and promotion of international trade networks) of the same complex phenomenon of a progressive enhancement of the island.\(^{22}\)

Therefore, the functional distinction between and within the Workshop Complex and the domestic units as well as the greater development in the architectonic know-how make Erimi-Laonin tou Porakou an interesting standpoint for viewing the formative socio-economic dynamics interacting within the complex phenomenon of Bronze Age urbanization in Cyprus.

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\(^{21}\) Hadjisavvas 2000.

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Bibliography


Peltenburg 1996: E. Peltenburg, From isolation to state formation in Cyprus, c. 3500–1500 B.C., in V. Karageorghis, D. Michaelides (eds.), The development of the Cypriot economy from the prehistoric period to the present day (Nicosia 1996) p. 17–44.


