**What kind of archives? Script and its uses in the late Bronze and Early Iron Ages (1)**

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**Introduction**

According to archaeological theory, writing was the vehicle through which social complexity developed. It was the catalyst for the creation of social differentiation, [social?] control and the maintenance of direct authority. In most ancient societies, writing seems to have been the role of a ruler or a king, an administrative tool for maintaining close control.

 Through the years, many materials have been associated with writing in antiquity. Some of them, like fired clay, stone, metal and bone, were durable; others were not. Materials such as wood, papyrus, leather, textiles and wax did not survive, except under extreme conditions. Consequently, the archaeological record and our knowledge on the matter are far from complete. Indirect evidence may sometimes, however, suggest that some of these materials were used for writing, even if they have not survived for us to study in detail.

Another important aspect for the study of script and its uses in antiquity is the frequent lack of archaeological context of inscribed objects. In order to make sense of the material, its use, function and meaning - whether social or ideological - we largely depend on information regarding the context in which the objects were found. Nevertheless, archaeological context, particularly of objects found a long time ago, has not always been preserved, placing yet another obstacle to interpretation.

**The Cypro-Minoan Script (2)**

However, in spite of these limitations, it is clear that the Cypro-Minoan script, the earliest known script in Cyprus, was important since at least 1550-1050B B.C. and it is the only script used for the whole length of the Late Bronze Age on the island. It was coined Cypro-Minoan by Sir Arthur Evans on account of its visual likeness with the Linear A inscriptions he found atKnossos**.**

 At the same time, a wide range of languages seem to have been in use in Cyprus, as indicated by a small number of albeit significant short inscriptions on different media. A gold Hittite stamp seal found at Politiko-*Lambertis,* a cylinder seal from Nicosia*-Agia Paraskevi* with a possible Luwian signas well as a stamp seal in Luwian script from Hala Sultan Tekke **(3)**, indicate that these languages must have been part of the fabric of communication throughout the Mediterranean and the Near East.

As the Cypro-Minoan has not been deciphered, we cannot fully reconstruct all the details of the system of recording and communication. Most researchers, however, agree that it represents an amalgamation of the cuneiform scripts of the East with the linear scripts of the Aegean. This once again seems to confirm the role of Cyprus as the meeting point of East and West, where all forms of art and ideas merged to form a uniquely Cypriot product. Although its origin remains unknown, once adopted, writing spread throughout the island. Its continued use and the expansion of literacy on the island aided Cypriote participation in economic and social development in the Eastern Mediterranean world. How and where it was adopted [and adapted?] from Linear A is a matter still under investigation.

The language or languages denoted are unknown. The corpus of the material is relatively limited and consists of 9 clay tablets **(4)**, 83 clay spherical balls **(5)**, 6 clay cylinder seals **(6)** and another 220 objects such as seals, gold or silver rings **(7)**, ivory **(8)**, copper objects **(9)** and pottery **(10)** indicating that the script was applied to a varied body of materials and that its use was not confined to administrative uses. Thus literacy must have been widespread, a hypothesis also supported by the longevity of the script and the fact that, unlike Linear B, it survived the catastrophe that occurred in the Mediterranean at the end of the Bronze Age, which caused the collapse of the various palace systems. After the arrival of the Aegean settlers, the signs of the Cypro-Minoan were used, at the beginning of the Iron Age, to write Greek and thus a new script, heavily dependent upon the old, known as the Cypro-syllabic was formed **(11)** and continued in useuntil the end of the 3rd c. B.C. when Greek alphabetic writing almost completely supplanted the native script. At the same time, it seems that the old language, referred to as the Eteo-Cypriot, was also written in Cypriot syllabic and seems to have been the continuation of the indigenous Late Bronze Age language and writing system**(12)**.

Most of the inscriptions are short, with 1-10 signs, although there are lengthier ones with 20, 50, 100, 200 signs and one having more than 400 (?).The lengthiest documents are the clay tablets and cylinder seals found at Enkomi **(13)**, Kalavasos and Ugarit in Syria.

The Cypro-Minoan script, like other Late Bronze Age scripts, represents a series of syllables. Traditional approaches to decipherment of scripts focus on cryptographic methods or solutions based on the aid of bilingual texts. As the number of inscriptions is not large enough to satisfy the statistical needs of the first method, and a bilingual text has not been found, the script remains undeciphered. The inscriptions found have geographical, chronological and contextual differences and hence do not seem to form an archive; in fact no true archive dating to the Late Bronze Age has been found as yet in Cyprus. Short inscriptions on objects made of precious materials were meant to increase the value of the object, whereas longer inscriptions on clay, which was a readily available material, were significant because of the writing itself.

Although the scarcity of Cypro-Minoan inscriptions can be attributed to the vagaries of discovery or excavation as well as to the possibility of the use of organic materials, we cannot infer with any certainty that any scripts found form part of a structured archive. The archives of Linear A and Linear B meet different requirements as administrative and ceremonial tools respectively and differ from the apparently erratic and marginal use of the Cypro-Minoan in Cyprus for these purposes. It is thus deduced that either writing was not extensively used in economic administration or other materials were used for archival records. Having failed to decipher the Cypro-Minoan script for the reasons outlined above (namely the relatively small number of inscriptions and signs and the absence of a digraphic inscription), archaeologists adopted a different method which involved the creation of a corpus and the use of a contextual approach. The greatest number of inscriptions occurs at Enkomi **(14)**, with 55% of the total number, followed by Kition with 11%. Enkomi, in its emergence as an urban centre, is the earliest producer and user of writing. This bears a direct implication on the settlement’s role and significance in political strategy and the establishment of early state organization in the LCIA/B period. The cumulative effect of control over copper resources and interregional trade, as testified by the occurrence of exotic or prestige goods in the tombs of Enkomi, together with other indicators such as large scale architecture, was taken to imply the rapid emergence of an elite group, who invented writing for their own administrative purposes. Writing may have developed as the necessary product of an expanding economy, as Cypro-Minoan inscriptions have been found in all the most important coastal centres of the Late Bronze Age **(15)**. The occurrence of albeit a single sign on a seal from the mining village of Apliki-*Karamallos*, and its possible industrial function, has given rise to various interesting hypotheses regarding the script’s possible uses. A small number of inscriptions were found at inland settlements such as Athienou, Myrtou-*Pigadhes* and Katydata. Most of the inscriptions are short and may indicate ownership, dedication or commodity labeling.

At Kalavasos-*Ayios Dhimitrios*, inscribed clay cylinders seem to have been used as written records for administrative purposes, on account of their depositional location and the presence of clear numerical notations. A recent study of the Kalavasos inscriptions has shed some light on their content. They were found in Building X, where the well-known pithos hall **(16)** was located dating to the 14th century B.C., a storage centre for olive-oil, where five cylinder seals each containing from 10 to over 100 Cypro-Minoan signs were found **(17)**, in a step-like ashlar feature under a flight of stairs leading to the upper storey, while another was found amongst collapsed material possibly from a piece of furnishing in the upper storey. They were initially interpreted as foundation deposits, but their function as administrative tools related to the production of olive-oil is now regarded as more likely, because of the identification of two palimpsests. The texts seem to contain our first well-attested set of economic records in Cypro-Minoan. Two inscribed pithos lids from the same site enhance the idea that writing was in use in connection with administrative control. Tomb 11, obviously of local elites, displays their wealth and international contacts. Amongst the rich array of funerary gifts, 2 signet rings **(18)** inscribed with Cypro-Minoan signs, possibly indicate the name of the proprietor. Apart from the impressive jewellery, the three young women buried in Tomb 11 had access to a great amount of wealth as well the power of literacy, through which they manifested and underpinned their status. Emerging elite groups, responsible for sponsoring the highly specialized production, had the cylinder seals marked with writing to enhance ascribed privilege and promote identity through emblems. Utilitarian usage of the script is also observed at Toumba tou Skourou (**19)**, for instance, where pithoi were incised with Cypro-Minoan signs before firing.

Having established that scripts of the period had an administrative function, the relatively limited number of inscriptions in administrative contexts remains to be accounted for. This leads to the conclusion that wooden writing boards may have been used besides clay tablets, perhaps because of the distinct advantages of using waxed writing boards: they were lighter, less fragile, easily updated and reusable. Despite their many advantages, waxed writing boards did have their drawbacks: they were relatively expensive and could be easily falsified. Evidence that writing boards were sealed is provided by a wooden diptych recovered from the Late Bronze Age shipwreck of Ulu Burun **(20, 21),** found off the coast of SW Turkey. Hittite sources indicate two different techniques for writing, with the use of a different verb to describe writing on wooden boards, (inscribe or incise), a term not used in connection with clay tablets. The Hittites seem to have even used different scripts in each case. Hieroglyphics, the traditional script of monumental inscriptions and seals, may have been used on wooden tablets for palace and provincial administration, as well as in communication documents accompanying goods and envoys on foreign journeys.

**The Cypro-Minoan script outside Cyprus (22)**

The maritime texts from Ugarit contain information on international shipping in the Late Bonze Age; one document was interpreted as a bill of lading; issued by the harbor master it lists large quantities of oil destined for Alashiya , generally accepted to have designated Cyprus, Egypt and other places **(23)**.

 The correspondence of Alashiya with Ugarit indicates that letters were sent to Ugarit in Akkadian, possibly representing translations from Cypro-Minoan. It also seems possible, however, that Cypriots did learn the cuneiform script and communicated with it through a language that was not their own.

The nine Tell el Amarna letters referring to Alashiya, indicate that there was a centralized political authority. NAA analysis performed on these tablets attributes their clay to the SW slopes of the Troodos Mountains, confirming their Cypriot origin.

As far as the Ugarit archives are concerned, the Cypro-Minoan texts come from the private archives of Ugarit, in the residences of high officials and administrators rather than from the royal archives. Most of the cuneiform inscriptions found in concentration were public accounts and expenditures. Several refer to transactions with foreign towns. In such a context, the Cypro-Minoan documents may have played a similar role but their particular status is emphasized by the fact that the script used was the Cypro-Minoan instead of the official script, syllabic cuneiform, which the Cypriots seemed to know sufficiently well as to use it in international correspondence. It is possible that these were written in situ to keep track of imported products or by Cypriots residing in Ugarit. In the residence of Rap’anu about 200 tablets were found containing the royal correspondence with Alasia, Karkhemish and the Egyptian Pharaoh. There is evidence that Rap’anu was a counsellor of the king and a versatile scribe, as a large part of the correspondence is housed in his archive and not in the palace. Alashiya is mentioned as a sender in 4 instances in cuneiform and in one tablet in Cypro-Minoan. The tablet in Cypro-Minoan has been interpreted as a nominal list, probably drawn by Rap’anu or an assistant of his with a census of Cypriot individuals, indicating their occupation within the state. Why this was retained in the Cypro-Minoan script is a matter of conjecture.

The largest archive was in the house of Urtenu, consisting of 500 tablets, amongst which 4 refer to Alashiya. Two of these make a reference to the king of Alashiya as the sender, and the dispatch of a ton of copper ingots, providing the earliest attestation to a king as well as evidence that copper trade was still flourishing in the 13th century B.C.

In conclusion, it seems that writing in Cyprus was not operative in supporting the complexities of an organized homogeneous administration, in the same way that the linear scripts of Linear A and B were in the Minoan and Mycenaean palace economies. Unless further progress is made on the decipherment of the Cypro-Minoan script, the conclusion drawn from archaeological evidence available to date is that writing could not have been used as sporadically as the surviving inscriptions indicate for keeping records of transaction. It is, therefore, possible that the Cypriot bureaucratic machine may have been run through the aid of perishable materials - it is equally possible that clay may have been used and re-used, as administrative records may have not been intended to be permanent.

 In the later periods, evidence is more forthcoming. As we have seen, the Cypriot syllabic script has been deciphered and provides information on the use of the script for official transactions, commercial purposes as well as in funerary and votive contexts, much as we suspect the Cypro-Minoan was used as well. Archives are much more clearly defined in the city- kingdoms of the Iron Age, particularly those ruled by Phoenician kings. The increased precision and archival nature of scripts used in palace administration during this period may be viewed as the continuation of a deep-rooted tradition from the East.