

1 Introduction to the Cypro-Minoan Script

The Cypro-Minoan script is an undeciphered Late Bronze Age (1650–1050 BCE) script from Cyprus, a relatively unimposing but beautiful island located in the northeast corner of the Mediterranean. It is perhaps surprising that a script we cannot yet even read, from an island with limited name recognition outside of Europe, can help us understand the spread of the alphabet you are reading right now, but it's true. The Roman alphabet is ultimately derived from the Proto-Canaanite or Phoenician alphabet, as it is better known, which is one of the few Mediterranean scripts that survived the “Bronze Age collapse” (c. 1200 BCE; sometimes the date “1177” is used as a shorthand, Cline, 2021). The term “collapse” dramatizes a complicated process during which the administrative palatial centers, integrated into an international diplomatic and economic network, fell apart to be replaced by small-scale networks of overseas trade. Many of the scripts used in the administrative centers disappeared. Scripts apparently used by overseas traders, such as the Phoenician alphabet or the Cypro-Minoan script, often survived, but the use of these scripts during the collapse period is poorly documented in all cases except for Cypro-Minoan. A study of Cypro-Minoan reveals how people and traders on and off the island retained a dynamic script tradition that is interesting both on its own terms and as a proxy for imagining how the Phoenician alphabet survived and thrived in the post-collapse Mediterranean. Only through Cypro-Minoan can we reconstruct how traders used and disseminated writing, including the early form of our own alphabet, during the volatile collapse period.

Cyprus has always been a place of geopolitical significance. Throughout recorded history, the island has sporadically served as a battleground between larger powers, especially ones to its east and west, and sometimes was ruled by them. Today, it is the easternmost country in the European Union and the only European Union country that is technically located in the Middle East, perched atop the meeting point of the Eurasian and Anatolian Plates, just below the Türkiye–Syria border. It is also the only divided country and capital in Europe. The northern third of the country has been occupied by Türkiye since 1974. Though divided, Cyprus is also and always has been a linchpin, a place where European, Anatolian, and Middle Eastern cultures and interests mix and converge.

The significant role Cyprus played in the history of writing during the Late Bronze Age is often overlooked. Its writing practices are unusual compared to its neighbors and therefore hard to understand. The best-known scripts of the Late Bronze Age Mediterranean are the syllabic cuneiform writing tradition of Mesopotamia, famous for its clay tablets, and Egyptian hieroglyphs and

hieratic, written on iconic stone monuments and papyrus scrolls. In third place, at a considerable distance depending on which country you were educated in, are the Aegean scripts of Linear A and Linear B, both notable for their clay tablets.

Writers of Cypro-Minoan did not care much for clay tablets. Nor did they write on stone monuments. If they wrote on papyrus, none survives. Instead, writers of Cypro-Minoan wrote on an assortment of objects, chief among them clay and metal vessels, clay balls, and bronze tools. Many were objects not originally created to serve as writing surfaces and would have been visible in daily life. Despite the apparent visibility of Cypro-Minoan writing, the number of Cypro-Minoan inscriptions, strictly defined as script signs used to record a word, is unexpectedly small, only around 300. But, as I hope to show in this Element, writers of Cypro-Minoan did not adhere to a strict definition of writing. Instead, they wrote on lots of different objects in different social settings, often writing texts with only single signs.

Exactly what they were doing with the single-sign texts is one of the themes of this Element. Are they simple abbreviations of words, meant to convey information, or are they similar to brands like the “B” on a Boston Red Sox baseball cap, ubiquitous in New England where I am from, meant to be recognized but not necessarily read? Or perhaps they are more like a graffiti tag, advertising the person or association responsible for the text’s creation to an audience in the know. Whatever the case, should we consider the single signs writing, even if they do not record words and may not even be abbreviations? To a certain extent, the definition of writing depends on what we are trying to learn through its study.

1.1 What We Can Learn from the Study of Script

For the purposes of this Element, writing is comprised of two elements: script and language. Script is the material manifestation of a written communication mode, and language is the verbal manifestation of a spoken communication mode. Script and language can often overlap, but they are not the same (Vlachek, 1973). Think of how script can convey a change of meaning that is not spoken: It is conveyed through language but communicated solely through the manipulation of the material properties of writing, that is, the script. *When I italicize words*, for instance, I signal to the reader to pay *very close attention to the words I’ve just written* without using a change in language to do so.

The present Element is about *script*, not language. After all, Cypro-Minoan is undeciphered, which means we do not know the language or languages that the Cypro-Minoan script records; for that matter, we do not even know the language

or languages spoken on Late Bronze Age Cyprus. Script is a material thing that takes on shape and form when people write it. In that sense, script is like any object of archaeological study. The inscribed object's material features – its archaeological context, its script, the materials used to write it, and what it is written on – become clues through which we can understand the social lives of the people who wrote the text.

There are certain things we cannot learn from the study of a script. For instance, a script is not an indicator of the ethnicity of its writers. Ethnic identity is a dynamic concept, which changes according to different social settings and historical time periods (Jones, 1997). Today, many people define their ethnic identity based on the languages they speak or the script that they write, but there is no inherent trait that links script to ethnicity. The problem of associating ethnic identity with script choice becomes immediately apparent when we think about the many different languages a single script can record, including ones geographically, historically, or culturally removed from the script's source. The Roman alphabet, itself derived from the Phoenician alphabet, is an example of a script that records a surfeit of languages unrelated by language family, region, or chronology.

The text you are reading uses the Roman alphabetic script to record the language American English. This same script can also be used to record, with small modifications, the languages of Polish (*Polski*), Basque (*Euskara*), Vietnamese (*Tiếng Việt*), Latin (*lingua Latīna*), and more. The speakers of these different languages or their political representatives chose the Roman alphabet as the script to represent their languages for a variety of sociohistorical and political reasons not often or always tied to ethnicity. The study of script is therefore most fruitful when it is a study of social and political history, which is the approach taken in this Element: The Cypro-Minoan script and the material features of the inscribed object and its text are a gateway for learning about its writers.

1.1.1 Document Forms

To focus our attention on the script and its writers, I have adopted the concept of “document form” as an analytical framework from the study of archival documents, a discipline called “diplomats.” A document form is defined as any text whose external physical features, such as the materials it is made of and written with, its formatting, and so on, conform to “rules of representation” (see Table 1; Duranti, 1989, p. 15). Rules of representation come into existence by virtue of being taught and reproduced in specific institutional settings, either formal or informal ones, from one generation to

Table 1 List of external material features of document forms

(1) Writing medium	Includes object type, material, size, shape
(2) Text placement	Where text is positioned on surface
(3) Text orientation	Writing direction (sinistroverse, dextroverse, boustrophedon) and writing position (e.g., vertical, horizontal)
(4) Writing instrument	Includes instrument material, shape of implement and tip, size, etc., but also whether inscription is made on hard or soft surface
(5) Punctuation	Includes word dividers, intra- and extratextual punctuation, abbreviations, etc.
(6) Sign sequences	Do the same sign sequences recur? If so, on one document form or several?
(7) Paleography and ductus	Includes sign shapes (paleography) but also shape and size of individual elements that comprise the signs
(8) Archaeological findspot	Are similar texts found in similar findspots, such as mercantile, ritual, funerary, administrative, etc.?

the next. A study of document forms is therefore also a study of the institutional settings in which writers produced texts. Unlike most archival documents, which were written on objects designed to be written upon, Cypro-Minoan often appears on objects produced for other purposes. In such instances, instruction and text production probably occurred outside of institutions like scribal schools, whose primary purpose was instruction in the production of texts.

A document form is not the same as writing medium. Writing medium refers to the type and material of the object on which writing appears. The clay tablet is one example of a writing medium. It encompasses a wide range of document forms, some quite dissimilar from each other. Compare the cuneiform culture clay tablet and Linear B clay tablet pictured in Figure 1. The cuneiform tablet has a “pillow” shape, compact rule lines, and tightly packed wedge-shaped sign components produced with a triangular or square-tipped stylus. The Linear B tablet is flat and rectangular with clear, wide rule lines



Figure 1 Comparison between Linear B and cuneiform tablets. Linear B Tablet PY Vn 10, cuneiform tablet from Anatolia, probably Kanesh, Met. 66.245.10. Photograph of PY Vn 10 courtesy of the Pylos Digital Tablet Project, Palace of Nestor Excavations, the Department of Classics, University of Cincinnati.

and “linear” sign forms drawn with a bladed stylus. Both are examples of the clay tablet writing medium but different document forms. Their material features, from their shapes, line ruling, and writing implements to their formatting, are distinctive.

Institutional contexts play a defining role in dictating the rules of representation of a document form. In the cuneiform cultural world, instruction in the production of clay tablets was transmitted primarily in scribal schools. Surviving school texts indicate that scribal schools maintained similar curricula over a 3,000-year lifespan, spreading eventually from Mesopotamia to Anatolia. Scribes received training in how to construct clay tablets, which writing implement to use, and how to use it, with the result that cuneiform clay tablets show remarkable uniformity in construction, script, and formatting. Only experts can readily distinguish regional and chronological differences among tablets made in different times and places. How signs are drawn remains extremely stable throughout time (Taylor, 2015). Cypro-Minoan document forms, in contrast, are more varied, but their variations seem to occur within a rather narrow range. In other words, its writers followed rules of representation when constructing document forms, even on objects not purpose-made for writing. Take, for instance, the example of the vessel text document form (see Figure 2). Writers selected a rather narrow range of vessels to write on, often preferring to incise texts onto handles post firing (Hirschfeld, 2008). Formatting is restricted to horizontal or vertical placement along the handle axis, and most texts begin at the top of the handle before it bends. Variation is expressed in sign shape and the width, depth, and shape of incision lines. The adherence to a broad set of rules seems to indicate that writers of

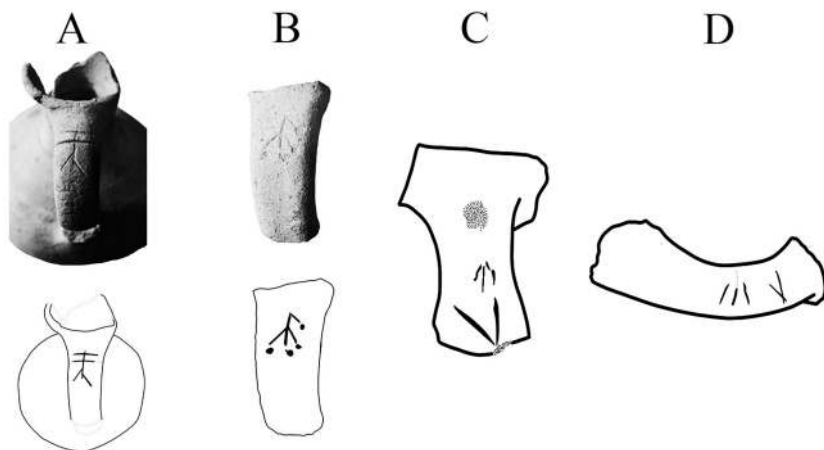


Figure 2 Examples of the vessel text document form. A. CM 20.199/T1907_193; B. CM 1962_99; C. #115 ENKO Avas 008, D. Melos inscription. Photographs and drawings by author, courtesy of the Cyprus Museum and the Department of Antiquities, Cyprus.

Cypro-Minoan received instruction in how to write and how to make document forms but not the strict training characteristic of scribal school education. One aim of this Element is to describe the nonschool institutional settings where writers of Cypro-Minoan practiced writing and to think about how writing can be transmitted outside of the school setting.

1.1.2 How We Define Writing Shapes What We See

The study of script can change the way we think about writing. Writing is often conceived of as a tool whose value derives from its ability to convey language in written form. Writers of Cypro-Minoan had a more nuanced practice of writing. Take the vessel text document form, once again. It includes around 100 texts labeled “inscriptions” by scholars of Cypro-Minoan because they contain multiple script signs in a row and therefore likely record a word in a language. In addition to the 100 inscriptions, there are over 1,500 single-sign texts. The single-sign texts comprise a mix of script and nonscript signs. Some texts with script signs probably record abbreviations of words, like the “B” on a Boston Red Sox cap mentioned above, but others were probably more similar to McDonald’s golden arches, sharing the shape of a script sign but able to convey meaning regardless of whether its viewer could read its script. The nonscript signs, for their part, were perhaps more akin to the Nike swoosh, capable of evoking a clear association in their viewer without the use of

writing. The writers of the vessel document form apparently did not erect strict barriers between script signs that record language and other signs. They used script signs to communicate something besides language and nonscript signs in a manner similar to script signs.

But what can writing be used for if not to convey language? Several East Asian countries have long-standing calligraphic traditions that appreciate writing for its aesthetic qualities, like any other branch of the arts. Brands and graffiti employ a mix of script and nonscript elements to convey extralinguistic information. While Cypro-Minoan texts have a certain beauty, it is not apparent that their writers cultivated an art of calligraphic writing. Branding and graffiti may be a better fit for explaining Cypro-Minoan's mix of script and script signs, but how do these very contemporary concepts translate into the world of the Late Bronze Age?

1.2 The Late Bronze Age (c. 1650–1050 BCE): Cyprus in Context

1.2.1 The 17–15th Centuries

The first Cypro-Minoan text appears long before the Bronze Age collapse, in the Late Cypriot I (LCI) period beginning roughly in 1650 if not earlier (see Figure 3). The 17th century on Cyprus marks renewed contact with eastern and western neighbors after a prolonged period of insularity. Increased extraction of agricultural and copper resources translated into increased social stratification and the concentration of population-dense towns, especially on the island's coasts. Enkomi, which plays a central role in the use of writing on the island, may have been the main power center on the island, controlling copper extraction in the interior of the island from the coast, or one among several regional powers. Trade with the Levant and Egypt was brisk, while mercantile connections with Crete and Cilicia may have been limited to the trade of precious oils or perfume (Webb, 2022).

The decision to begin to write may have been in response to renewed contact with neighbors, to internal social changes, or for no particular reason at all. There are no hard-and-fast rules for determining the circumstances under which people decide to invent or adopt a script. "Script transfer" is the process wherein a script is deployed to write a different language in a new context. Script transfer can come at the hands of an inspired individual/group or result from a cumulative process called "script diffusion" where adjustments and additions to a script happen slowly over decades or centuries (Salomon, 2021, pp. 153, 167). Often, script transfer results from a combination of a singular, conscious act of creativity followed by a long period of diffusion and reforms. The

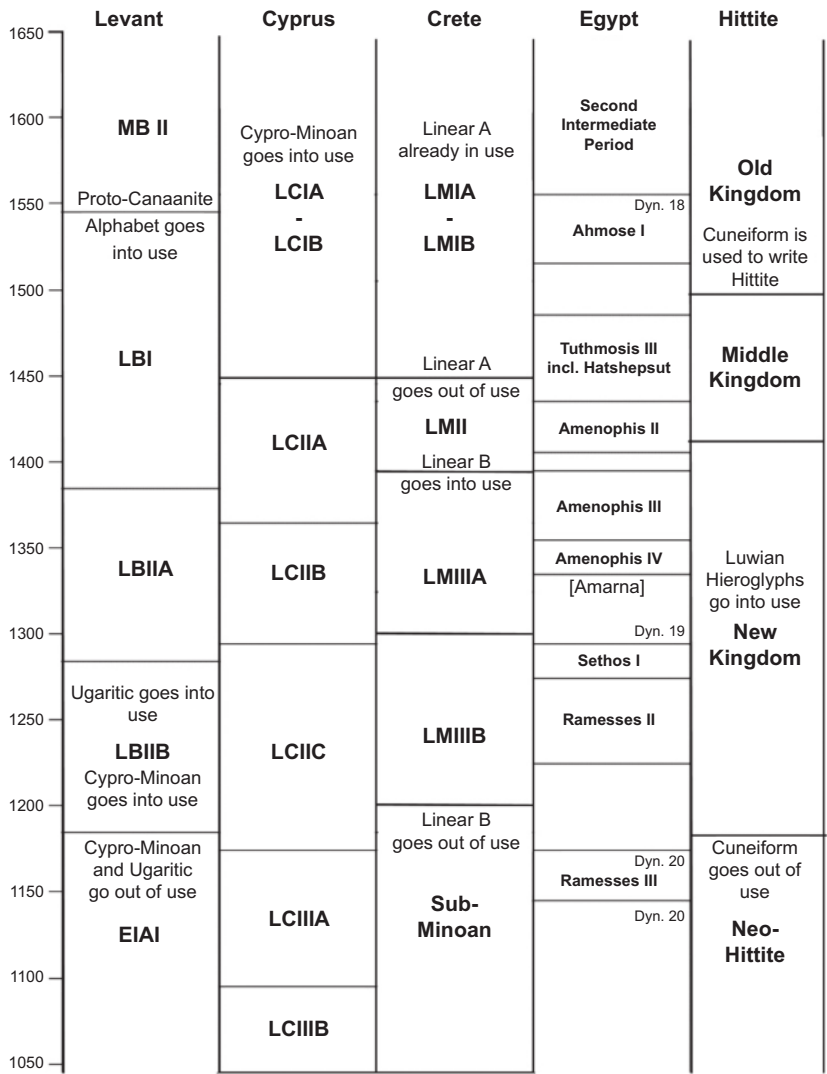


Figure 3 Approximate synchronized chronological chart of the Late Bronze Age eastern Mediterranean.

processes involved in script transfer are rarely transparent in the historical record and are highly variable. Script transfer can be conservative, wherein the shapes, sounds, and document forms of one script are retained and applied to writing a new language, or it can be selective. A script can be borrowed without its document forms, and sign shapes can be borrowed without their sound values, as was done by the inventor of the Cherokee syllabary, Sequoyia, who adopted shapes of some letters from the Roman alphabet to represent entirely different sound values in his syllabary (Scancarelli, 1996). Script transfer can

also be combinatory, adapting signs from multiple scripts or even nonscript sources to create a new script.

The invention of the Cypro-Minoan script is believed to have involved script transfer from Linear A, one of the main scripts used on Crete and, to a lesser extent, the Cyclades from c. 1800–1450 BCE. Linear A was also the source script for the Linear B script used on Crete and the Greek mainland to write an early form of Greek called Mycenaean Greek from c. 1400–1190 BCE. Though Linear B and Cypro-Minoan were contemporaries, there is no evidence that the two scripts influenced one another at all. Some form of script transfer from Linear A to Cypro-Minoan is almost certainly assured, but its nature and extent are debated. Linear A may be one of several sources for Cypro-Minoan script signs. The small number of Cypro-Minoan texts from the 17th and 16th centuries, no more than four inscriptions and around fifty vessel texts, make reconstructing the circumstances of script transfer difficult.

Possible evidence for the setting of script transfer is a single-sign text on a discoid loom weight text from a small site in north-central Crete, Kalo Chorafí, dated broadly from 1800–1600 BCE. The discoid loom weight bears a single sign similar in shape to Cypro-Minoan script sign CM 061 (for a list of signs, see Section 2, Figure 7). The sign is definitely not a Linear A script sign, but neither is it incontrovertibly Cypro-Minoan. It is a sign of a simple shape that could also be a decorative motif. Until there is other evidence for Cypro-Minoan writing on Crete during the 17th century, the significance of the loom weight text is hard to interpret. Its presence could but does not necessarily indicate that Cypro-Minoan was invented on Crete. Alternatively, the sign could be a decoration or nonscript mark that later made its way into the Cypro-Minoan repertoire, or its similarity to a script sign could be coincidental.

The earliest certain Cypro-Minoan inscription, on a discoid loom weight from Enkomi, ##095 ENKO Apes 001, is datable to the LCI (see Figure 4). A second LCI inscription is on a clay tablet, also from Enkomi, ##001 ENKO Atab 001, but its script is not clearly related to Cypro-Minoan, only to (for an opposing view, Valério, 2018). Tablet ##001 has received a lot of attention from Cypro-Minoan scholars (see Steele, 2019, pp. 19–25 for an overview), but ##095 is just as, if not more, interesting. The object's function had previously been a matter of debate, with some proposing it is an economic label (Ferrara, 2012, pp. 53–56). Its identification as a discoid loom weight was confirmed only recently when the first study of LCI weaving technology was conducted by Giulia Muti in 2024.

Discoid loom weights were a technology associated with a particular form of textile production that began in Crete and spread throughout the Aegean, including to the Cyclades. Women likely played an important role in its spread, and therefore possibly that of Cypro-Minoan (Muti, 2024). Caution is needed.