

Divine metamorphoses of Apollo and Artemis

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Introduction

Do you remember how Homer introduces the god Apollo? In the first book of the *Iliad*, the god descends from Olympus with his formidable silver bow. He is furious with the Achaeans: resembling the night, Apollo hurls his arrows against men and animals, sowing the plague. His rage terrifies the Danaans.

Truly a spectacular entrance! Then the scene changes. The god is appeased and we meet him at the feast on Olympus, where he plays the “wonderful lyre” among the gods, accompanied by the Muses who sing with sweet voices. (*Iliad* I, 44-52; 603s)

Apollo is one of the most important and complex of the Greek gods; he is the god of oracles, healing, archery, music and arts, embodying the ideals of youth and beauty to such an extent that Walter F. Otto called Apollo the “most Greek of gods”.

But was Apollo really Greek? The same question can be asked for his sister Artemis, equally famous and revered among the Greeks: goddess of animals, hunting and fertility.

Their birth is an enigma. Myth considers them the children of Zeus and Leto; they would have been born on the island of Delos, an almost imaginary moving island. This reveals that the Greeks had forgotten what the origin of the divine twins had been. Even modern scholars show a certain embarrassment. Some argue for the Indo-European essence of Apollo (Burkert 1975, Watkins 1995); others claim that he could be a pre-Greek or Semitic god adopted by the Greeks (Beekes 2003, Schretter 1974, Lipiński 1995); Burkert (1987) even connects the archer Apollo to Reshep. Thus the two gods most beloved by the Greeks might not be Greek.

I believe there is some truth in each of these hypotheses.

Apollo and Artemis are complex figures resulting from the syncretism of different deities assimilated at different times. We know their mature representation, that of classical Greek religion, but we do not see the process of their formation. There are traces of the existence of the two gods already among the Mycenaean Greeks of the Bronze Age; on an offering tablet to the gods, you can read *A-PE-RO2-N* (*Apollo?*); and for Artemis, *Atemito*; there is also the inscription of the god Paeon, later an epithet of Apollo. Moreover, in Hittite

religious texts from the 2nd millennium BC, there are mentioned deities called Appaliunas and Appaluwa. This shows that between the Aegean and Anatolia, there was the worship of a deity with the characteristics of the Apollo we know; we know there were contacts and borrowings between Greek and Near Eastern epic, and this may have occurred in festival contexts (Bachvarova 2016).

This essay represents an investigation into the historical origins of the god Apollo and the goddess Artemis; we will try to identify that common pre-Greek deity at the foundation of Greek and Anatolian cults, but we will follow a different path. Specialists have focused on the cultural relations between mainland Greece and Anatolia, or they have indicated the island of Cyprus as a place of contact and cultural exchange. But even the supposed Mycenaean colonization of Late Bronze Age Cyprus has been downsized (Voskos 2008).

Apollo is a sophisticated god: god of medicine, arts, wisdom, and oracle divination, all qualities that presuppose an advanced society and an urban culture. All of this is not compatible with the level of development in Greece during the 2nd millennium BC. Only the civilizations of the Near East could provide elements of an advanced culture: Sumerians, Akkadians, then Assyrians and Babylonians, just to name the oldest and most important. But how can we explain the cultural influence of the Middle East on Mycenaean Greece?

Every theory that connects the development of Greek civilization to Mesopotamian cultures faces an obstacle: how did cultural transmission occur from East to West? We are talking about writing, techniques, and religious beliefs that must migrate from the East to the Aegean Sea. Some recent studies attempt to provide solutions based on a literary and linguistic perspective (West 1997, Burkert 2003), but a credible historical framework is lacking.

We need a place, a time, and a vehicle.

The place is the Island of Crete, where in the 2nd millennium BC, the Minoan civilization flourished.

During the Bronze Age, Crete dominated the seas, and its central position in the Mediterranean allowed for economic and political relations from mainland Greece to the Middle East and even Egypt.

Around 2000 BC, there was a first phase of development, probably due to the migration of people from the Middle East. From then on, the protopalatial phase began in Crete, marked by the emergence of large palaces, a writing system, and a complex society comparable to those of the Near East. I believe that the Cretans are also responsible for the cultural colonization that led to the birth of Mycenaean civilization.

During the Bronze Age, cultural and commercial exchanges in the eastern Mediterranean were flourishing, and we can hypothesize different phases of migrations of people and ideas. A second phase occurred around the 15th century BC; this is the time.

What happened during that period? The kingdom of Mitanni emerged. Around the 16th century BC, the Hurrian tribes and their city-states in Upper Mesopotamia were unified under a single kingdom called Mitanni. After the crisis of the Hittite kingdom, King Barattarna expanded the kingdom westward to Aleppo and Alalakh, reaching the Mediterranean. The state of Kizzuwatna to the west also became an ally of Mitanni, and by the mid-15th century BC, even Arrapha and Assyria to the east became vassals of Mitanni.

This way, the kingdom of Mitanni became a regional power at the same level of the Hittites, Egyptians, Babylonians, and Cretans, and they operated within the large economic and political system of the Eastern Mediterranean (Cline 2014).

Mitanni is our vehicle of cultural transmission. We know that the Hurrians assimilated Sumerian-Babylonian culture, art, and religion into their religious system; the religious culture of the Hurrians had a significant influence in the conquered territories, exerting a notable impact on the religions of the Hittites and the Cretans.

As I argued in the first essay of this series (*Greek Gods from the East* N. 1, May 2023), the kingdom of Mitanni served as a mediator between East and West: people from the Hurrian culture, probably from the Syrian area of Aleppo and Alalakh, exported the Hurrian deities to the island of Crete. Here, the eastern beliefs were elaborated and assimilated into a new religious system that was shared with Mycenaean Greece.

The Olympian gods are the result of this process of cultural elaboration, through which ancient Middle Eastern deities underwent a metamorphosis; they were reborn as new divine figures: Zeus, Poseidon, and Hephaestus were born from Teshub; from Nergal, Ares; from Hebat, Hera; from Simige, Helios; from Kushuh, Selene.

However, the course of history does not stop there. Later in the 1st millennium BC, the Greeks came into direct contact with Middle Eastern cultures, following the colonization of Asia Minor during the Dark Age. It is possible that the direct contact between Greeks and Eastern Mediterranean populations such as Luwians, Arameans, and Phoenicians led to new exchanges and reciprocal borrowings between Greece and Asia Minor.

But let's return to the divine twins: Apollo and Artemis. When we compare them, they seem to have little in common: Apollo, the god of wisdom, arts, and oracles; Artemis, the goddess of animals, hunting, and birth. Yet, in Greek mythology, they are considered brother and sister. This was not a whim of the poets. There is a theological reason that is clear when we consider the two Mesopotamian deities that are at the origin of Apollo and Artemis.

The model for Apollo is the Sumerian god Enki, known as Ea to the Babylonians; Enki/Ea is an ancient god attested since the 3rd millennium BC and represented the abyss of waters, medicine, arts, wisdom, and divination. The model for Artemis is the goddess Ninhursag; she was the consort of Enki/Ea and represented

mountains, wild animals, and fertility; her symbol was the deer, just like Artemis. And this cannot be a coincidence.

We know that Enki/Ea was present in the Hurrian pantheon and had been assimilated directly, with the same name and functions (Archi 2013). When the Hurrian people migrated to Crete around the 15th century BC, they also brought the Ea-Ninhursag pair with them; between Crete and Mycenaean Greece, the new religious pantheon was elaborated according to Aegean culture, and the two Babylonian deities were assimilated and used as models for the new Greek gods.

I am aware that the thesis presented here contradicts common knowledge and understanding of Greek civilization. For this reason, I will provide an alternative historical scenario based on real data: this is the story of a semantic and linguistic evolution based on historical evidence; fortunately for us, we possess extensive historical documentation, both written and archaeological, from ancient civilizations of the Middle East, such as the Sumerians, Babylonians, Assyrians, and others.

Disclaimer:

I am not a linguist. My background is in philosophy, and I have delved into research in history and linguistics, especially ancient history. I aim to elucidate the mysteries of the past using a multidisciplinary perspective.

My research is inspired by the work of Giovanni Semerano, the Italian philologist who pointed to the origin of European culture in the ancient civilizations of Mesopotamia. I share his vision, but I will adhere to a scientific method, so I will not assert anything that is not supported by verified and public data and facts.

Apollo, a single god with many enigmas

Apollo is a complex deity, difficult to interpret. He has many functions and attributes, but to uncover his origin, we must first determine his nature. The first step is to analyze his main characteristics. Analysis means distinguishing, dividing a complex reality into its simple parts. In the case of Apollo, it's about defining the essential elements of his figure, without being confused by the poets' imagination. The myths surrounding

Apollo are numerous; the truth they reveal is often distorted or hidden, partly because they were crafted from distant and now incomprehensible memories.

The first element is that of youth. Apollo represents the ideal of the young, the *kouros*, and this lends his peculiar character to Greek culture as a whole (Burkert 1987). He is the protector of the young and presided over their transition into adulthood during the family festivals called *apellai*. And *Apéllon* is the youth still with long hair; in the *Iliad*, Apollo is described as “with uncut hair” (*Iliad* XX, 39). He embodies the young deities of the Greek pantheon alongside Artemis, Dionysus, Athena, Hermes.

Despite being a young god, Apollo was also the god of wisdom and knowledge. As Zeus' favorite son, Apollo had direct access to the mind of Zeus and was willing to reveal this knowledge to humans through oracles. As a wise god, he was the male counterpart of Athena.

In the Trojan War, Apollo carried out Zeus' orders, and his decisions were usually approved by his sister Athena; both worked to establish the law and order set by Zeus.

Another element is the nature of a healing god and medicine. In the classical era, Apollo had many epithets related to his healing function, for example *paeon* (healer, savior); his primary function in popular religion was to ward off evil.

He is connected to a deity from the Mycenaean Age called *Paeon*. He acts as the healer of the gods in the *Iliad*, and even Hesiod identifies *Paeon* as an individual deity. Later, however, Apollo and *Paeon* became identified. I believe that from the Mycenaean Age, Apollo and *Paeon* were two different names to indicate the same god, but the Greeks later lost the memory of this; hence they alternated between using the two terms as deities or epithets.

The same linguistic root also belongs to the noun *paeon*, which is a choral song in honor of Apollo, or other gods like Dionysus or Helios. The *paeon* is a song or lyric poem made to invoke protection or express thanksgiving: “And all day long, with their singing, they propitiated the god, singing a beautiful *paeon*, the sons of the Achaeans, singing mighty Apollo: and he took pleasure, listening” (*Iliad* I, 457; 474).

The connection between Apollo, the god *Paeon*, and the *paeon* song is an enigma that will be resolved in the etymological section.

The god of oracles is another defining role of Apollo. He was known for the two oracles of Delphi and Delos, but oracles were widespread in many places in Asia Minor, from Daphne near Antioch to Mallos and Mopsuestia in Cilicia, Patara in Lycia, Telmessos in Caria, to Didyma and Claro. We know that the cult of Apollo was very popular and widespread with scattered times and sanctuaries, not only on Greek territory but also in colonies along the African coasts of the Mediterranean, in the Doric Hexapolis in Caria, in Sicily, and in

Magna Graecia. The importance attributed to the god is also attested by theophoric names like Apollonius or Apollodorus, common in ancient Greece, and by the many cities that carried the name of Apollonia.

I find this geographical spread quite surprising. Often, the cult of Apollo replaced older cults, as in the case of Delos, where the myth tells of the struggle with the serpent Python and the subsequent establishment of his oracle; or in the case of the Delphic oracle; before Apollo, the sanctuary had its ancient chthonic religion, connected to the cult of the Earth Goddess. Even Aeschylus tells of Apollo receiving the sanctuary from Gaia, Phoebe, and Themis.

The widespread presence of the oracle god could be due to representing a new religious cult; alternatively, the Apollonian cult may have addressed the same religious needs as the older cults and simply replaced them. The relationship between Apollo and Dionysus also appears unclear; we remember, for example, that there was a tomb of Dionysus in Delphi. What connection did this god have with the oracle?

One of Apollo's most well-known symbols is the lyre. As a god of music, poetry, and divine singing himself: "May the lyre be dear to me and the curved bow, and in the oracle, I shall reveal to men the infallible will of Zeus" (*Hymn to Apollo* 13 15).

Apollo is often found delighting the immortal gods with his songs and music, accompanied by the Muses of whom he is the protector. Apollo's music is present in all his festivals, and at the Pythian festival, the musical contest, the singing competition accompanied by the lyre or the flute, always takes place.

The myth tells that Apollo received the lyre from Hermes and then passed it on to his son Orpheus. But the lyre was not a Greek invention. As is known, many musical instruments like the lyre, harp, drum, and flute were used as early as the 3rd millennium BC by the Sumerians and were widely spread throughout the Middle East (Farmer 1957, Galpin 1970); instrumental music accompanied the recitation of sacred texts that were written to be presented during public ceremonies.

Finally, some considerations about another characteristic attribute of Apollo: the bow and arrows. In literature and depictions, he appears as a fearsome archer; epithets like "lord of the bow" and "god with the silver bow" are well-known. He enters battle and fatally strikes the Achaeans besieging Troy; he drives Paris's arrow towards Achilles' heel causing his death. These actions reveal a second nature of Apollo, a bloodthirsty, violent nature; he is a healer but can also spread plagues and diseases. He can also order Orestes, through the oracle of Delphi, to avenge his father by killing his mother Clytemnestra and Aegisthus.

It's the dark side of Apollo, shared by his sister Artemis as well. Artemis is armed with a bow, quiver, and arrows, and she brings plagues and death to men and animals: just as Apollo was responsible for the deaths of men, Artemis was responsible for the deaths of women.

The quality of the archer god seems somewhat incongruent with the poetic and joyful character that Apollo's figure expresses. If we compare the two figures present in the *Iliad*, the warrior god and the poet god, it seems like we're facing two different deities. This dual nature is likely due to syncretism with another deity that we will try to uncover later.

Enki, the Lord of the Abyss

When the Sumerian theologians organized the universe, they assigned the heavens to the god An, the earth to Enlil, and the domain of the apsu, the freshwater sea located beneath the earth, to the god Enki. Originally, the god Enki was the protector of the city of Eridu, but his cult spread throughout Mesopotamia, reaching the regions of Canaan, the Hittites, and the Hurrians. His fundamental nature is linked to freshwater; his grand temple E'engurra was built in the abyss:

“Temple, built from precious metal and lapis lazuli; whose foundation pegs are driven into the abzu; which has been cared for by the prince in the abzu! Like the Tigris and the Euphrates, it is mighty and awe-inspiring. Joy has been brought into Enki's abzu”.

(Enki's journey to Nippur 21-25”

Among the Semites, he was called Ea. Enki/Ea was a complex deity: god of water, medicine, wisdom, arts, and music, he was the wisest of all gods. I will analyze his figure by determining the constitutive elements of his identity. At the same time, I will compare him to the god Apollo, highlighting the common correspondences between the two. I believe that Apollo is the Greek version of Enki/Ea; this means that Apollo's original nature was tied to water, which is evidenced in both myth and linguistics.

A first characteristic element of the god Enki/Ea is that of being a young god. In the Babylonian creation poem, there is an epic clash between the generation of young gods and the generation of primordial gods. Abzu, the generator of the gods, is inert and asleep, but his peace is disturbed by the younger gods. He decides to annihilate them; his nephew Enki, chosen to represent the young gods, casts a spell on Abzu, putting him into a long slumber, and then kills him to take his place:

“Surpassing in wisdom, ingenious, resourceful, Ea was aware of it all, was privy to their plans. He worked it out, he set it up, a master plan, He contrived it to be surpassing, his incorruptible magic spell. He recited it and brought calm into the waters, He put him in deep slumber, he lay fast asleep, He made Apsu sleep, he

was put into deep slumber. Mummu the advisor was in a daze, as if robbed of sleep. He untied his sash, he stripped off his tiara, He took away his glory, he himself put it on. He tied him up, he killed him, Apsu”.

(*Enuma elish* I, 55-69)

The epic clash continues with Tiamat, but the outcome of the story is known: the young gods emerged victorious. This was thanks to the advice of Enki/Ea, who suggested choosing the god Marduk for the final battle. Marduk became the supreme god of Babylon. Marduk was the son of Enki, embodying his intelligence.

This clash between divine generations represents the model of the titanomachy narrated in Hesiod's *Theogony*, where the Olympian gods victoriously face the Titans.

The cited passage provides two more constitutive attributes of Enki/Ea's nature: wisdom and the power of spells. He is considered the civilizing god of Sumer and later of the entire Mesopotamia, as he bestowed upon humans the means and techniques to master nature and generate well-being. In the poem *Enki and the Organization of the World*, the reordering of the earthly world is described at the behest of Enlil; Enki organizes every aspect of Sumer's cultural, economic, and social life, assigning a particular deity to each activity, from agriculture to exorcisms and writing. Moreover, besides being wise, he is also intelligent, as he addresses and solves practical problems with ingenious solutions. For example, to alleviate the toil of the working gods, he created humans to labor in their place (see the poems *Enki and Ninmah*, *Atrahasis Epic*).

Apollo is also depicted as a young god, indeed, he is the idealization of the young Greek. Furthermore, he is considered a wise and intelligent like Enki/Ea. But the most significant correspondence between Enki/Ea and Apollo lies in the religious sphere, particularly in sacramental worship.

“Sacramental worship” is a type of worship celebrated not solely for the glory of the gods, but for the benefit of the faithful. The two main areas in which this sought-after benefit was realized in ancient Mesopotamia were the abolition of evil and the prediction of the future. The former was achieved through exorcism, and the latter through divination (Bottéro 1952).

Exorcism or spell is based on the idea that all evil, whether individual or collective, is caused by sin and is executed by demons or their agents (witches and sorcerers). Exorcism aims to "appease the heart" of the gods and obtain the removal of malevolent forces and the nullification of evil. Exorcisms consisted of prayers and practical rituals: water was used to wash away or ingest the cause of evil; fire to burn it; certain plants, minerals, or animals, believed to be purifying, were used to ward off malevolent and demonic causes. All accompanied by recited formulas to placate the gods. The literature on exorcisms is vast, especially in the Akkadian language. Individual exorcisms are documented, but often extensive collections of spells and incantations are found.

Divination responds to the desire, particularly strong among the Babylonians, to know the future, undoubtedly for the purpose of averting evil and ensuring a favorable outcome for one's actions. Only a superior being can know the future and reveal an individual's destiny.

The first method is prophetic divination through seers or prophets, involving a direct revelation of the future. However, the more widespread method was deductive divination: starting from an omen, which could be observed or provoked, the future was deduced. The underlying idea was that there was a link between the observed data and the will of the gods. Thus, the history of humanity was reflected in a multitude of phenomena, whose observation and interpretation constituted various divinatory processes: the motion of celestial bodies (astrology), the behavior of animals, the configuration of entrails and especially the liver of certain animals, particularly sheep (haruspication), omens from dreams (oneiromancy), etc. Or explicitly provoked phenomena, such as the shapes formed by drops of oil thrown into water or drops of water thrown into oil. Extensive literature on these omens exists, particularly among the Babylonians. The gods revealed their will to priests, diviners, during special ceremonies that included rituals and prayers. Often, in the ritual, the question was addressed directly to the deity; thus, the oracle provided an answer, advice, or omen.

Enki/Ea also gave to humans the arts of exorcism and divination. As a deity of exorcisms, Enki/Ea was considered a healing god, and his actions were realized through purification rituals involving water. In an arid and desert-like land like Mesopotamia, freshwater was considered precious and sacred. The realm of Enki/Ea was the *apsu*, the expanse of freshwater upon which the inhabited land floated; the *apsu* was the subterranean source of all water that emerged on the surface through springs, rivers, lakes, and wells. Adjacent to the temple of Enki/Ea in Eridu was a cistern used in purification and healing rituals. Every form of water revealed the presence of the god.

When the god Ea arrived in Crete and Mycenaean Greece, he was assimilated as a healing god. He was called Paeon, later an epithet of Apollo. This is why Apollo presents himself as a healing god. The etymology of the term Paeon clarifies the connection with water (see later).

The correspondence between Enki/Ea and Apollo is evident when considering their nature as gods of the waters. We know that all sanctuaries and oracles of Apollo had a water source or were situated near a river; the oracle of Delphi had three springs and cisterns for water collection. In Delos, there were no springs, but there was a sacred lake.

Water was a fundamental element not only in healing rituals but also in fertility cults of the land. These cults were ancient and widespread from the Mediterranean to the Middle East.

Therefore, it is not surprising to find a tomb of Dionysus in Delphi. Dionysus is the Greek god who represents the flourishing of life in his cycles of rebirth. Dionysus is reborn each spring and celebrates the

strength of nature, thus being connected to fertility cults of the land. The connection between Apollo and Dionysus is precisely the water, the vital element that unites the land and healing rituals.

Traces of archaic earth-bound cults are also found in Greek mythology. As recounted by Aeschylus, the sanctuary of Delphi had an ancient chthonic religion, linked to the worship of the Mother Goddess. Apollo is said to have received the sanctuary from Gaia, Phoebe, and Themis.

This might have occurred for other sanctuaries and places of worship spread throughout the Mediterranean as well. After 1500 BC between Crete and Mycenaean Greece the cult of Apollo was developed and rapidly spread throughout the Mediterranean. Apollo replaced the older earth-bound cults with the new cult linked to healing water. And the cult of the oracular god also spread.

Among the Greeks and Romans, an oracle was a place where a god “gives an answer” to those seeking advice. The oracles of Apollo at Delphi and Delos were well-known, as oracles of other gods such as Zeus at Dodona. Private citizens sought answers to their daily problems at these sanctuaries, and communities often sought omens for risky decisions such as war or the founding of a colony. Typically, the god communicated with humans through an interpreter; the Pythia at Delphi or the Roman sibyl are well-known examples. Scholars agree that oracular divination has its origins in the Middle East, and these cults were assimilated by the Greeks (Burkert 1987). We can date the arrival of these cults in the Aegean to the 15th century BC when Hurrian culture arrived in Crete and then on the Greek mainland. With them, they brought the god Enki/Ea, the creator of divination and therefore the patron of oracles. The Babylonian god assumed the name Apollo, and with this new appellation he spread the oracles, namely the interpretation of divine signs.

My hypothesis can also explain the myth of Apollo as a dolphin. The god Apollo often transforms into a dolphin... Researchers are puzzled, but this myth is not so extravagant. First, we can note that a marine creature like a dolphin does not contradict Apollo's watery nature; he is the Greek version of Enki/Ea.

But if we refer to the iconography of Enki/Ea, we find more significant elements. He is depicted with two rivers flowing from his shoulders; or he is shown pouring water from a vessel.

Enki and later Ea were sometimes depicted as a man covered with the skin of a fish, thus represented as a fish-man; this recalls the mythical Oannes, the being who emerged from the waters of the Persian Gulf to bring civilization to Sumer. Thus, a marine being. Ea was also known as Oannes, the first of the Seven Sages. So Apollo as a dolphin could be the Greek version of Enki/Ea in the form of Oannes.

Lastly, the sublime arts of culture. In addition to providing humans with the techniques to build an advanced society, Enki/Ea also gave the arts such as music, singing, and writing. In the previously mentioned poem, it is described the music chamber of Enki/Ea's palace:

“He made the lyre, the aljar instrument, the balaj drum with the drumsticks the harhar, the sabitum, and the miritum instruments offer their best for his holy temple. The resounded by themselves with a sweet sound. The holy aljar instrument of Enki played for him on his own and seven singers sang”.

(Enki's journey to Nippur 62-67)

The arts and musical instruments accompanied Enki/Ea to Crete. We can imagine that the palaces of Crete and Mycenae resonated with songs accompanied by music during religious ceremonies or rulers' celebrations. And this is not just my supposition; we know that the Hurrians had assimilated Babylonian arts; they knew music and musical notation, as the oldest examples of musical notation are found in Hurrian texts discovered in Ugarit. They date back to 1400 BC (West 1994).

Thus, it was not the Greeks who invented the lyre or the art of the Muses; it was Mesopotamian art that reached the Aegean and then spread throughout the Mediterranean from Magna Graecia to the shores of Asia Minor, along with the new cult of Apollo.

Etymological proposals

Today scholars acknowledge that the language spoken in Bronze Age Crete was not an Indo-European language. This language was expressed in Linear A script, a mixed script of ideograms and syllabograms, simplified compared to the cuneiform scripts of the neighboring Near East. According to Cyrus H. Gordon, the language of the texts in Linear A is a Semitic dialect from the shores of the East Mediterranean (Gordon 1957, 1958); recent studies support the hypothesis that Minoan Linear A script is a form of Semitic language, closely related to Ugaritic (Best 1989). This is not surprising since in the 2nd millennium BC the Akkadian language was the most widely spoken language in the Middle East and was used as the language of diplomacy and trade from Egypt to Anatolia, as evidenced by the *Amarna letters*.

When Hurrians expanded the Mitanni kingdom to the Mediterranean, they adopted the widely spoken Babylonian version of the Akkadian language, both as a means of communication with other empires in the region and as a natural assimilation of the more advanced culture of that time.

As it is known, Minoan civilization is also responsible for the development of Mycenaean civilization. During the 2nd millennium BC the mainland Greeks adopted the art, religion, and even the Cretan script. In fact, Linear B script is an adaptation of Linear A script. For this reason, I expect that both scripts, Linear A and B, can be interpreted as Semitic scripts, particularly based on the Babylonian language of the mid-2nd

millennium. Therefore, in the following etymological analysis, I will refer to the Akkadian language, which is the most widely documented language available to us.

I believe that we can find linguistic traces that support my thesis, namely that the cults of Aegean civilizations are the result of the elaboration of Babylonian cults imported around the 15th century BC by people of Hurrian culture. Unfortunately, the evidence for Linear A script is scarce and sometimes unclear; moreover, Hurrian terms are present (Van Soesbergen 2016); this is not surprising, as the medium of cultural transmission was the Mitanni kingdom.

Inscriptions in Linear B script are more numerous. Some elements can be found. However, we must remember that the Hurrians tended to give deities not a name, but an epithet that functions as a name. This epithet could consist of a noun, a geographical origin, or an adjective that indicated a characteristic or attribute of the divinity.

There are no references to Enki/Ea in the Linear A tablets. In Mycenaean Linear B inscriptions there are several references to the god Paeon (*PA-JA-WO-NE*), linked to numerous ancient sanctuaries of Apollo. We know that Paeon (Παιών, Παιήων) was a healing god and later also an epithet of Apollo. In his name, there must be a trace of the god Enki/Ea. If my thesis is correct, Paeon is an epithet of the god -ea, meaning "source of water"; the ancients identified deities with the tangible elements that represented them.

The name is composed of two Akkadian terms: *pā'u* (*pû*), meaning mouth; and *īnu*, *ēnu*, meaning spring, river. Therefore, the god Paeon means "mouth of the spring", "source water" = *pā + īnu = Paeon*.

First metamorphosis: from Enki/Ea to Paeon. Among the Mycenaean Greeks, the god Enki/Ea assumes the name Paeon; he was the purifying water, the healing god.

The debate among scholars about the name of Apollo has been more extensive. Apollo, in ancient Greek Ἀπόλλων (*Apollōn*); Doric Ἀπέλλων (*Apellōn*); Arcadocypriot Ἀπειλῶν (*Apeilōn*); Anatolian *Appaliuna*. In this case, Emmanuel Laroche suggests that there might be a common origin between the two deities; however, *Appaliuna* would not be a Hittite god (Laroche 1947).

In Mycenaean Linear B inscriptions, it is found the term *A-PE-RO2-N* in an offering list; if the phonetic value of *RO2 = LYO*, then we are facing the citation of the god *A-PE-LYO-N* – Apelyon. With a similar method, we can interpret an inscription in Linear A script that includes the term *A-PA-RA-NE* (HT 96a.1-2); this word appears in a heading of a tablet that seems to record a supply of spices jars for the god *A-PA-RA-NE* (Was he Apollo?).

I think that the name of Apollo is connected to the attribute of the archer god. A recent proposal by Vaclav Blažek seems consistent with the thesis argued in this essay, that is, the non-Greek origin of Apollo. His name would have its origins in the Hurrian word indicating "arrow", borrowed into Akkadian of Nuzi as *apellu* "arrowhead" (Blažek 2017). Nuzi was an important ancient city in the Mitanni period (15th-14th centuries

BC); tablets from Nuzi with Hurrian populations reveal Hurrian cultural features even though they were written in Akkadian.

We have no evidence of Hurrians in western Anatolia; the way to Greece passed through the Minoan Crete. Here the new god Apollo was born and his name expresses the essence of his warrior nature: the arrow. With his arrows, he strikes men and animals to death and spreads plague. This etymology is consistent with tradition; as is known, there are numerous epithets of Apollo connected with archery (Oettinger 2015), and the image that Homer offers us in the *Iliad* is precisely that of the formidable archer. All the variants of the name Apollo that we find in various Greek dialects and Anatolian documents are local adaptations of the Hurrian/Akkadian voice *apellu*.

During religious rituals, prayers were recited to invoke the listening and grace of the god. At first these prayers were perhaps called paeon *παῖάν*, and then they became "song" or "lyric poem," choral chants to invoke protection or express thanksgiving. Sometimes the Paeon song is associated with the god Paeon, but the meaning is different. The concept of paeon song expresses the idea of a mercy or grace discourse. The Akkadian language can help clarify its meaning; the noun paeon is composed of two components: *pā'u* (*pû*) which means mouth but also instructions, advice, instigation; and *annu*, (*ennu*) meaning grace, mercy.

Thus, the paeon is a discourse, a thanksgiving song dedicated to a god.

Finally a clarification about the most famous epithet of Apollo: phoebus *Φοῖβος*. Phoebus Apollo is usually interpreted as the shining, brilliant god, also in reference to his supposed solar nature. However, the nature of Apollo is not tied to the sun. Moreover, the feminine epithet *Φοίβη* is shared by his sister Artemis; and Phoebe was also the name of Leto's mother; and phoebe can be translated as "pure."

I also think that the basis of the epithet phoebus is the concept of brilliance, splendor; however, this concept applies not only to the sun but also to the moon; it can be used with water when it is clean, clear, and pure. If we refer to the Babylonian language of the time, we can clarify its meaning: by adaptation of the Akkadian term *ebbu*, *eb-bu*, which means polished, shining, lustrous, clean, pure (in a cultic sense). See also the Akkadian *ebēbu* (to clean) in a ritual sense, said of persons: purify, cleanse this man by means of the pure holy water of the Apsu.

Thus Phoebus Apollo is the pure and clear god, like the water of the spring, the sacred water that purifies and heals.

Artemis, a Beloved Goddess

Artemis was one of the most revered Greek deities; her cult was widespread throughout ancient Greece, with its numerous temples, sanctuaries, and local rituals. She was the daughter of Latona and the twin sister of Apollo, but when we compare the two gods, we notice they have little in common.

Apollo was a refined god: the god of medicine, oracles, arts, and music, characteristics of a complex society, a civic god. On the contrary, Artemis was the goddess of the wild, animals, hunting, protector of maidens and maternity. She is described accompanied by nymphs, hunting, dancing, and playing in the mountains and countryside. In fact, Walter Burkert defines Artemis as the goddess of the “outside”, of what is outside cities and villages, outside the works of men, plowed fields (Burkert 1987).

In the Trojan War, both fought alongside Ilium against the Achaeans. However, Artemis had little success as a fighter; among the warriors, she seemed out of place and was relegated to an inexperienced maiden.

Homer called her *potnia theron*, which can be translated as Lady of the animals. In iconography, she was often depicted surrounded by wild animals like panthers, deer, dogs, wearing a short skirt, hunting boots, a quiver with arrows, and a bow.

Thus, specialists have sought correspondences with the ancient Mycenaean goddess of nature; there are many affinities also with the Minoan lady of the animals, later traceable in local cults (Dietrich 1974). We will start from Bronze Age Crete too.

As previously mentioned, the Babylonian god Enki/Ea served as the model for the god Apollo. Alongside the god Enki/Ea, his consort Ninhursag also arrived in Crete, also known as Ninmah “Great Queen” and among the Babylonians as Belet Ili (Mistress of the gods). She was the ancient Sumerian mother goddess of the mountains, fertility, and had a connection to wild animals, particularly deer, who dwell on or around the mountains. Her various names also appeared in ritual incantations for healing and birth-related incantations.

I believe that the goddess Ninhursag represents the model for the Greek Artemis. When she arrived in Crete with the god Enki/Ea, Ninhursag was assimilated as the goddess of animals; this is the well-known image preserved in Minoan art. The goddess of animals also appears alongside a lord of animals; he is the god Ninurta, who in Sumerian theology is the son of Ninhursag.

The parallels are evident. Enki/Ea was a complex god, the god of wisdom, arts, divination, and healing, of all the techniques that allow humans to support civilization. On the other hand, Ninhursag was the goddess of animals, of the wild nature, and maternity. They divided the existing world into two separate spheres, the civilized world of humans and the natural and wild world outside human society.

The same division is reflected in Apollo and Artemis. Another correspondence is in their degree of relationship. In Sumerian literature, Ninhursag appears as the wife of god Enlil; in some myths she is the consort of Enki/Ea, but in the poem titled *Enki and Ninmah*, Enki refers to Ninmah as his sister. Thus, the Greek myth reproduced the same pattern with Apollo and Artemis, the divine twins.

I am almost certain that the scribes working in Crete and Mycenae knew the poem *Enki and Ninmah*. The myth was Sumerian, but it was widespread throughout Mesopotamia; there was also a bilingual (Sumerian and Akkadian) version in the library of Assurbanipal.

Enki and Ninmah as a narrative can be separated into two distinct parts: the birth of mankind in the first half, and a competition between the two spouses in the second half. In the second part, Ninmah creates seven humans with illnesses and disabilities, which Enki finds roles for in society.

One of the imperfect men is blind, and Enki/Ea assigns him the role of the singer:

“Second, she fashioned one who turned back the light, a man with constantly opened eyes. Enki looked at the one who turned back the light, the man with constantly opened eyes, and decreed his fate, allotting to him the musical arts, making him the chief in the king's presence”.

(*“Enki and Ninmah,”* lines 62-65)

The blind singer created by Enki/Ea might be the model that inspired the Greek tradition of blind poets and singers like Homer and Tiresias. Maybe it's just a coincidence.

In the next passage, Ninmah creates a man with deformed or lame feet, and Enki/Ea assigns him to work with precious metals:

“Third, she fashioned one with both feet broken, one with paralyzed feet. Enki looked at the one with both feet broken, the one with paralyzed feet, and him for the work of and the silversmith”.

(*“Enki and Ninmah,”* lines 66-68)

This seems like the model for the god Hephaestus. So, it's not a coincidence.

Another parallel between Ninhursag and Artemis is at the iconographic level. Ninhursag was commonly depicted seated upon or near mountains, and Artemis is portrayed among valleys and mountains; the Sumerian goddess is accompanied by wild animals, just like the Greek goddess. One of Ninhursag's main symbols was the deer, as it was for Artemis (Steinkeller 2019).

This analogy can explain the epithet of *Potnia theron*, Greek Πότνια Θηρῶν, Lady of the animals, a well-known epithet used by Homer in the *Iliad* as an attribute of Artemis. The expression consists of two terms. *Potnia* is an honorific title also used for other goddesses like Athena; it appears on Mycenaean tablets in Linear B as *PO-TI-NI-JA*. *Potnia* has the same value as the Sumerian *nin* (lady, queen) or the Babylonian *belet* (mistress, lady); to clarify its etymology, we can refer to the Akkadian term *patnu* “strong”, from the verb *patānu* “to become strong, to make strong, to strengthen”; see also the Latin verb *possum*, *potui*, *posse*.

The term *theron* has the same root as the Greek θήρ θηρός (animal); the word probably evolved from the Akkadian *ba’āru*, meaning to hunt, to catch animals; see also the Latin *ferus* (animal, adj. wild).

Finally, Artemis and Ninhursag are both birth goddesses. In Mesopotamia there were various goddesses dedicated to fertility; Ninhursag was also one of the most important ones for her role as consort of Enlil or Enki/Ea. She was also called Nintu “Lady of Birth” and Mami “mother goddess”. In the Babylonian epic *Atrahasis* Ninhursag was involved in the creation of humankind from clay and blood.

Mami broke off fourteen pieces of clay and arranged seven on the left and seven on the right with a brick between them, thus forming the first seven pairs of human embryos. Then she waited:

“The birth-goddesses were assembled. And Nintu sat reckoning the months.

At the destined time, they summoned the tenth month. The tenth month arrived;

She opened the womb. Her face beaming and joyful.

With covered head. She performed the midwifery.

She girded (the mother’s) middle

As she pronounced a blessing. She drew a circle with meal and placed the brick,

-I am the one who created, my hands have made it!-”

(*Atrahasis*, Tablet I, 277-289)

Thus Ninhursag conceives the man, assists the gestation and finally accompanies the birth, also acting as a midwife. The cult of Nintu/Mami was widespread and her offerings included umbilical cord cutters (Asher-Greve & Westenholz 2013).

Artemis was traditionally linked to marriage and childbirth. She was the leader of the nymphs, they appeared during the festival of the marriage, and they were invoked by the pregnant women. The cult of Artemis of Ephesus is well known, which tradition considers an image of fertility and abundance. In this case the goddess appears different from the young huntress of the mountains.

The etymology of the name can reveal her nature as a fertility goddess. Artemis, ancient Greek Ἄρτεμις (Doric *Artamis*); the name was already present in Mycenaean in the genitive form *A-TE-MI-TO*, perhaps in the

dative *A-TI-MI-TE*. I think the name Artemis is the Greekized form of Akkadian *arītum* meaning “pregnant woman”.

This is the metamorphosis: from Ninhursag to Artemis. Artemis is the goddess who helps conception, who protects pregnant women and who assists during childbirth = mother goddess. The version of the myth of the birth of the divine twins in which Artemis was born first to help her mother Leto is consistent with this her nature.

The Lords of the Bow, Sun and Moon

Apollo and Artemis are known to be skilled archers. According to myth, the god Hephaestus would have forged their weapons, the bows and arrows. This attribute was already present in the Archaic period, as in the *Iliad*, they are already depicted armed and involved in warfare. Some scholars have suggested that their warrior character is the result of syncretism with another deity, such as the archer god Reshep; others propose analogies with the Anatolian deity *dKAL* (Bachvarova 2022).

I begin by observing that the attribute of the warrior deity, armed with bow and arrows, capable of striking with plague, was not a characteristic of Enki/Ea or his consort Ninhursag. Therefore, originally, Apollo and Artemis could not have possessed such a quality. Furthermore, the menacing and violent demeanor of a warrior was not easily reconcilable with other aspects of their personalities. So I also believe that this is a case of syncretism with other deities.

Which divine figure could have provided the weapons to the twin deities? And for what reason would the Greeks have elaborated such a characteristic?

First I think we should distinguish between Apollo and Artemis. In the *Iliad*, Apollo appears as a warrior god engaged in warfare; his arrows are deadly to both humans and animals, and he is capable of striking with plague. On the other hand, Artemis seems like a misplaced huntress; as a warrior, she is ineffective and has a secondary role. Rather, Artemis had taught Scamander the art of hunting; she sent a fierce boar against Oeneus; and Homer repeatedly defines her as the goddess of hunting and wild beasts. Therefore, it's a case of a double syncretism.

Apollo has taken on the attributes of the god Nergal. As I argued in a previous essay, Nergal was present in the Hurrian pantheon and arrived in Crete and then in Mycenaean Greece around the 15th century BC (*Greek gods from the East* n. 2, June 2023). War god Ares was born from Nergal. His attributes as a warrior

and a god of plague were later assumed by Apollo as well. The god Apollo appears in the *Iliad* already formed as a warrior god, so the syncretism must precede the Trojan War. As we know, the *Iliad* collects the oral tradition of events that occurred in different periods and cultural contexts. The *Iliad* probably narrates various episodes that took place during the conflict between the Assuwa Confederation and the Hittite kingdom from 1400 to 1200 BC, in which the Achaeans fought on the side of Assuwa. The proposed analogies with the god Reshep and other Anatolian deities can be explained by the fact that they are local versions of the god Nergal.

On the other hand, The arrow-shooting Artemis reveals the nature of a huntress. As I argued earlier, the model for Artemis was the goddess Ninhursag, who was the goddess of the wild nature, but had no aggressive aspect. However, Ninhursag's son was the Mesopotamian god Ninurta: the God of agriculture, hunting, and war, known for his battles against monstrous beings and fierce animals.

Therefore, I believe that Artemis assumed the attribute of a huntress from Ninurta, along with the corresponding weaponry.

Finally, an observation on the narrative model that inspired Homer when composing the *Iliad*. The deities enter into human affairs, participate in the events and clashes among heroes and contenders. Some gods are in favor of the Achaeans like Athena, Poseidon, Hera, Hephaestus; some are in favor of the Trojans like Aphrodite, Apollo, Ares, Artemis; others are neutral like Zeus and Paeon. The action of the gods in the lives of mortals seems quite remarkable. Perhaps there is a model that inspired Homer, namely the *Epic of Erra*.

Composed around the 1st millennium BC by Babylonian scribes, this work was well-known and widespread throughout the Middle East during the Neo-Assyrian period. Dozens of copies and fragments have been found everywhere, along with inscriptions on amulets used for exorcism and as a prophylaxis against the plague. Erra, in fact, was the god of plague and destruction, manifesting during periods of political turmoil. He is a later version of Nergal, with whom he is identified.

The Epic of Erra reflects a period of political turmoil in the Babylonian region. The myth narrates that foreign peoples invade Babylon; then Erra is called to action by his advisors and begins his work by striking the invaders with the plague; after Babylon, Erra confronts Mesopotamia and the whole world until his rage subsides.

The *Epic of Erra* was known to the Greeks. Walter Burkert highlights the correspondences of this work with the tragedy of Aeschylus *The Seven Against Thebes*, but I think the analogy can be extended. The Epic presents a narrative scheme in which the god Erra intervenes in the political and military affairs of humans. He fights against those who threaten Babylon and the order of the world. Together with seven fighting deities, unparalleled champions, he takes the field and begins to strike the enemy, spreading blood, destruction, and plague. This seems like the model of the god Apollo, when he appears with his invincible fury against the Achaeans who threaten Troy.

The analogy continues, as Erra eventually calms down and presents himself to the assembly of gods:

“After Erra was calmed and took up his own abode,

All the gods were gazing at his face,

All the Igigi-gods and the Anunna-gods stood in awe”.

His adviser Ishum manages to appease him and finally Erra speaks to the gods promising prosperity for Akkad:

“When Erra heard this, his face beamed, like radiant daylight his features glowed.

He entered E-meslam and took up his abode,

He called Ishum to tell him the sign, to give instructions concerning the scattered peoples of Akkad,

“Let the people of the country, who had dwindled, become numerous again”. [...]

(*Epic of Erra*, tablet V 1-25)

This image also recalls the Homeric passage in which Apollo presents himself to the assembly of the Olympian gods in his most fascinating aspect, with the lyre and song. The poetry of Homer may have been inspired by the *Epic of Erra*, which offers an evident literary model. But the Babylonian work may have also stimulated contemplation on the solar nature of Apollo. In the passage quoted above it reads that Erra, after calming down, “his face beamed, like radiant daylight his features glowed”.

As is well known, in late Greek antiquity Apollo was identified as the god of the Sun and in many cases supplanted Helios as the bearer of light and charioteer of the solar chariot. In parallel, his sister Artemis was associated with the moon. In the Archaic period, the astral aspect of the twin deities was absent; in Homeric epic, there are no elements to suggest this. Only starting from the 5th century BC did the association of Apollo with the Sun begin, as in Aeschylus' tragedy *The Suppliants*, and some traces are also found earlier in the *Hymn to Apollo*.

The association of Apollo with Erra has been proposed in the past (Faraone 1992). I believe that the identification of the two deities may have prompted the integration of the solar aspect; perhaps Orphic meditation also contributed, associating darkness with ignorance and light with knowledge. And philosophers, with Plato identifying the sun with the highest good.

Subsequently, Greek imagination and creativity did the rest.

References

- Archi, A. (2013) "The West Hurrian Pantheon and Its Background", In Collins, B. J.; Michalowski, P. (eds.) *Beyond Hatti: a tribute to Gary Beckman*. Atlanta: Lockwood Press.
- Asher Greve J. M, Westenholz J. G. (2013) *Goddesses in Context: On Divine Powers, Roles, Relationships and Gender in Mesopotamian Textual and Visual Sources*. Fribourg / Göttingen: Academic Press / Vandenhoeck Ruprecht.
- Bachvarova M. r. (2016) *From Hittite to Homer: The Anatolian Background of Ancient Greek Epic*, Cambridge University Press, Cambridge. (2022) "The origin of Apollo – again," in *Res Antiquae* 19, 1-30.
- Beekes, R. S. P. (2003) "The origin of Apollo", in *Journal of Ancient Near Eastern Religions* 3: 1–21.
- Best, J. G.P., and F. Woudhuizen, eds. (1989) *Lost Languages from the Mediterranean*, Leiden, Brill.
- Blažek, V. (2017) "Apollo the Archer", in *Ancient Greek Linguistics: New Approaches, Insights, Perspectives*, edited by Felicia Logozzo and Paolo Poccetti, Berlin, Boston: De Gruyter, , pp. 643-662.
- Bottéro, J. (1952) *La Religion babylonienne* (Collection «Mythes et Religions », n° 30) Paris, Presses Universitaires de France.
- Bottéro, J. and Kramer, S. N. (1989-1993) *Lorsque les dieux faisaient l'homme*. (rev. ed.) Éditions Gallimard.
- Burkert, W. (1975) "Apellai und Apollon", in *Rheinisches Museum für Philologie* 118: 1–21.
- Burkert, W. (1987) *Greek Religion*, Harvard University Press.
- Burkert, W. (2003) *Die Griechen und der Orient. Von Homer bis zu den Magiern*, aus dem Italienischen ins Deutsche übertragen vom Verfasser, München, Beck.
- Cline, E. H. (2014) *1177 BC. The Year Civilization Collapsed*, Princeton Univ Pr.
- Detienne, M. (1998) *Apollon le couteau à la main. Une approche expérimentale du polythéisme grec*, Paris, Gallimard.
- Dietrich, B.C. (1974), *The origins of the Greek religion*, Walter de Gruyter Berlin/New York.
- Faraone, C. A. (1992) *Talismans and Trojan Horses: Guardian Statues in Ancient Greek Myth and Ritual*, Cambridge University Press.
- Farmer, H. G. (1957) "The Music of Ancient Mesopotamia", in *NOHM I*, 1957, 228-254.

- FOSTER, B. R. (2005) *Before the Muses: An Anthology of Akkadian Literature*, Third Edition, CDL Press, Bethesda.
- Galpin, F. W. (1937) *The Music of the Sumerians*, Cambridge (reprinted N.Y. 1970)
- Gordon, C. H. (1957) "Notes on Minoan Linear A", *Antiquity*, Volume 31, Issue 123. (1958) "Minoan Linear A", *Journal of Near Eastern Studies*, Vol. 17, N. 4.
- Laroche E. (1947) *Recherches sur les noms des dieux hittites*, G. P. Maisonneuve.
- Lipiński, E. (1995) "Dieux et déesses de l'univers phénicien et punique", *Orientalia Lovaniensia Analecta* 64, Leuven.
- Oettinger, N. (2015) "Apollo: indogermanisch oder nicht-indogermanisch?", in *Münchener Studien zur Sprachwissenschaft*, 69/1, 123–143.
- Penglase, C. (1994) *Greek Myths and Mesopotamia: Parallels and Influence in the Homeric Hymns and Hesiod*. London and New York.
- Schretter, M. K. (1974) "Alter Orient und Hellas: Fragen der Beeinflussung griechischen Gedankgutes aus altorientalischen Quellen. Dargestellt an den Göttern Nergal, Rescheph, Apollon", in *Innsbrucker Beiträge zur Kulturwissenschaft*, Sonderheft 33. Innsbruck.
- Semerano, Giovanni 1984-1994. *Le origini della cultura europea*, Olschki Firenze, 4 vol. with two etymological dictionaries of Greek and Latin.
- Steinkeller, P. (2019) "Texts, art and archeology: An archaic plaque from Mari and the Sumerian birth-goddess Ninhursag", in *De l'argile au numérique. Mélanges assyriologiques en l'honneur de Dominique Charpin*, p. 977.
- van Soesbergen, P. (2016) "Part 1, Text". *Hurrians and Hurrian in Minoan Crete. Minoan Linear A*, Vol. I. Amsterdam: Brave New Books.
- Voskos, I. and Knapp, A.B. (2008) "Cyprus at the End of the Late Bronze Age. Crisis and Colonization, or Continuity and Hybridization?", in *American Journal of Archaeology*, CXII, pp. 659-84.
- Watkins, C. (1995) *How to Kill a Dragon: Aspects of Indo-European Poetics*. Oxford.
- West, M. L. (1994) "The Babylonian Musical Notation and the Hurrian Melodic Texts", in *Music and Letters* 75, no. 2 (May): 161–79; (1997) *The East Face of Helicon*. Oxford.

Compare The *Chicago Assyrian Dictionary (CAD)*, edited by the Oriental Institute of University of Chicago 1964-2010 –the digital publication is available here:

<https://oi.uchicago.edu/research/publications/assyrian-dictionary-oriental-institute-university-chicago-cad>

Packard, David W. (1974) *Minoan Linear A*, University of California press, Berkeley - Los Angeles - London.

For the English version of the Sumerian texts I have referred to The Electronic Text Corpus of Sumerian Literature *ETCSL*, University of Oxford.

<https://etcsl.orinst.ox.ac.uk/>

See also *the Linear B Lexicon*, Front-page: MY Oe 106, ed. 2011, National Archaeological Museum of Athens, n. 7671, by Chris Tselentis, Athens, Greece.

A Companion to Linear B: Mycenaean Greek Texts and their World, Vol. 1, ed. Y. Duhoux and A. Morpurgo Davies (Leuven).