

Epigraphy, archaeology, and our Uuderstanding of the Mycenaean world

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Abstract: In this paper I will examine not only how the materiality of Linear B texts – the earliest known texts written in Greek – may inform us about their use and meaning within Mycenaean society, but also how their materiality and related chances of survival may have skewed our understanding of that same society. In order to highlight such potential pitfalls, I will summarise the main characteristics of the corpus of Linear B as well as the general contexts in which these texts were, and indeed still are, found.

1 Writing in and our understanding of the Bronze Age Aegean

Unlike various regions in the Near East, writing came relatively late to the Aegean. The first scripts arrived on Crete in the second millennium BCE and include, as far as we can tell since none of these scripts have yet been deciphered, at least two hieroglyphic writing systems (of which the Phaistos disc may be the most famous example) and a, possibly, derivate linear script; now commonly known as Linear A.¹ The various Minoan scripts are known primarily from clay tablets and nodules, but other materials were also used. We have inscriptions on stone (e.g. on small offering tablets and vases),² whereas imprints on clay sealings strongly suggest the use of other, perishable materials. This appears to have included very thin animal skin (perhaps even parchment), possibly papyrus (leather string-imprints suggests a document that was folded and then secured with strings and a knot) and perhaps wood (although there is no positive proof for the latter).³ Writing in the Mycenaean world emerged even later, and was, or so it is commonly thought, first developed when a Mycenaean group took over control of the palace of Knossos at some point in the late fifteenth

¹ For an overview, see Ventris and Chadwick 1973, 37–42; Chadwick 1987, 45; Steele 2017. For the relationship between Linear A and Cretan hieroglyphic, see Ferrara, Montecchi and Valério 2022.

² Davis 2014.

³ Whittaker 2013, 112.

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century BCE. The Mycenaean script took its form after Linear A, and is, consequently, known as Linear B. From Knossos, the concept spread across the Greek mainland.5

Like the literate cultures of the ancient Near East, the Mycenaeans wrote on clay. The tablets that have been recovered come in two shapes: (1) in a format that resembles Near Eastern tablets, the so-called page-shaped tablet, and (2) the so-called palm-leaf-shaped tablets. This – the use of clay tablets – is where the comparison with the Near East really ends, for, unlike in the Near East, the scope of the extant Mycenaean texts is extremely limited. There is an explanation for this, for Mycenaean tablets were not meant to last, Indeed, most of the texts suggest that we are dealing with day-to-day records of the flow of goods, objects, and people within a given administrative region. The sole reason for the tablets' survival is that they were baked in the fire which destroyed the buildings in which they were stored. Virtually none of the tablets that have been discovered so far predate the destruction of their respective palace by more than a year, thus, providing us with a very faint and fragmentary impression of the palace administration in its final stages.

Whilst some very vague parallels in administrative praxis between Linear B and Near Eastern archives have been proposed, there is really very little to suggest anything more than superficial similarities. 6 Unlike the Near East, we have no literary texts, no treaties, no omina or religious texts. What we are left with are essentially receipts or registrations of outstanding debts to the palatial treasury, and not much more. Again, unlike the Near East, no private Linear B archives have been uncovered to date. The archives of the Mycenaean world, therefore, were inherently different from contemporary archives in the Near East.

Also unlike the Near East, our evidence for writing in the Mycenaean world is extremely limited. Archaeologists have recovered so-called archives at various sites; the largest collections were found at Knossos and at Pylos in Messenia and include some 4105 and 1056 tablets, respectively. Indeed, the tablets from this latter site played a pivotal role in the eventual decipherment of Linear B in 1952 by Michael Ventris, who established that the language behind the script was an archaic form of Greek, Apart from Knossos and Pylos, Linear B tablets have also been uncovered at Mycenae (78 tablets), Tiryns (25 tablets) and Thebes (in Boeotia; 304 tablets), Chania (on Crete; 5 tablets) and Volos (2 tab-

⁴ Karagianni 2015, 27-28.

⁵ Chadwick 1976, xiii.

⁶ Rougemont 2011, esp. 388-389.

⁷ Nakassis 2022, 5; see also Palaima 2004, 270; Nikoloudis 2006, 142.

lets):8 all of these sites were, or could be identified as, important centres known from the *Iliad*, and, consequently, it was swiftly assumed that writing in the Mycenaean world was essentially restricted to the palatial elite, and then only to cover a very limited array of activities – I will come to this below.



Fig. 1: Map of the Mycenaean world, with the centres where Linear B inscribed clay tablets have been found. 1: Dimini, 2: Thebes, 3: Mycenae, 4: Tiryns, 5: Aghios Vasileios, 6: Pylos, 7: Iklaina, 8: Chania, 9: Knossos. The fragment on the left was found at Iklaina (courtesy Michael Cosmopoulos), the clay sealing on the right comes from Aghios Vasileios (photo by Adamantia Vasilogamvrou, Athens Society of Archaeology).

Exciting discoveries have been made at a place called Aghios Vasileios in Laconia in recent years, and amongst the finds are numerous (at least one hundred) Linear B tablets. Because of this, and the apparent quality of other finds – there are, for example, indications that some of the buildings there were decorated with colourful frescoes - it is now often assumed that this site may have been ancient Lakedaimon, and that the palace during its heyday controlled much,

⁸ Nikoloudis 2006, 142; for Volos, see Skafida, Karnava and Olivier 2012.

⁹ Aravantinos and Vasilogamyrou 2012.

perhaps all, of Laconia. 10 In a way, these finds seem to confirm the supposition that writing in the Mycenaean world was essentially restricted to palace life. Indeed, the presence of Linear B tablets has by now become so firmly tied in archaeological theory to the presence of a Mycenaean palace, that such tablets have almost become a diagnostic feature: when we find tablets, we will find a palace!

2 Cracks in the paradigm

That the concept of writing being restricted to the palace may not be entirely correct, or alternatively, that we may have to widen our definition of a *palace* in the Mycenaean world, is, however, suggested by recent discoveries at the village of Iklaina, a place not too far from Pylos. Here, the remains of a village with a major central building have been discovered that must have thrived in the fifteenth and fourteenth centuries BCE, whilst it is not quite of the scale of palaces like Pylos, let alone Tiryns or Mycenae, clearly served as the local seat of power. Amongst its charred remains – the building was burnt, and though the excavator has changed his mind regarding the exact date of the destruction several times, it now seems this may have happened around 1250 BCE¹¹ – was a fragment of a Linear B tablet. This, of course, suggests that writing may not have been limited to palace administration and that it was more widespread than previously thought.

There are, indeed, various reasons to suggest that Linear B was not solely the preserve of the palace administration, and that even within the palatial spheres, it was used for a wider array of purposes than is currently thought. Examples of the latter are various (total of 140) so-called 'stirrup jars' with Linear B signs painted on them. Whilst some inscriptions clearly indicate a royal interest in the contents of these pots (they bear the sign 'wa-na-ka-te-ro', usually taken as an abbreviation for *wanakteros*, 'royal', from *wanax*, 'king'), ¹³ most other signs are generally understood to reflect either the names of the (supervisors of the) respective pottery workshops, or perhaps the producers of the olive oil that was supposedly kept in these jars. ¹⁴ Seeing that most of these pots were

¹⁰ Vasilogamvrou 2013; Hope Simpson 2018, 291.

¹¹ Cosmopoulos et al. 2019.

¹² Cosmopoulos 2019, 358.

¹³ Judson 2013, 84.

¹⁴ Judson 2013 for extensive discussion.

made (and found) on Crete, they probably served a very simple role in administering the flow of oil on and from Crete (for some of these vessels were found in Thebes and in the Argolid).¹⁵ As such, they were part of the palatial sphere of administration, but their presence seems to suggest a wider literacy of some sort that may have extended to some leaders of pottery workshops or olive oil facilities.

Some degree of literacy may be expected amongst workshop leaders, and perhaps even personnel of palatial workshops. So-called clay *labels* may testify to this, as do inscribed sealings. A fragment of a stone weight with an incised Linear B inscription ('e-qe-'?) from Dimini (found in one of the small rooms, identified as industrial areas, attached to megaron A) also suggests that writing was understood by the workmen using this particular weight. 6 Similarly, one may imagine that priests and priestesses were literate. A sherd from a kylix with an otherwise unintelligible inscription also comes from Dimini.¹⁷ Kylikes, vessels that are shaped much like a modern champagne glass, were commonly used for banquets and religious festivals, and the sherd was found near what may plausibly be described as an altar. Moreover, seven identical signs ('ka') were carved into the stone lintel of the Kazanaki tholos (a monumental, beehive-shaped tomb) at nearby Volos, whereas a grave in the cemetery of Medeon yielded a unique seal bearing a three-sign Linear B inscription. 18 The seal is now on display in the Delphi Archaeological Museum, and labelled as ivory, though it is most probably of bone. It was found in a chamber tomb (239), in a Late Helladic IIIC context (the chronological designation for the period immediately following, and perhaps coinciding with, the collapse of the palaces; that is, the twelfth century BCE). Unless one wants to propose that Linear B writing survived the collapse of the palaces, it is likely to have been a heirloom. The signs are legible and read 'e-ko-ja' or if they were meant to be read from the seal-

¹⁵ Hallager 1987; Judson 2013.

¹⁶ Adrymi-Sismani and Godart 2005, 47–69; Adrymi-Sismani 2016.

¹⁷ Adrymi-Sysmani 2016, fig. 2.23; see also Pantou 2010, 383 (whose point that neither the inscription on this sherd nor that on the nearby weight can be considered as evidence for administrative literacy at Dimini, seems to be mostly inspired by her hypothesis that the region had no single central administrative centre, but several centres; yet even if this model were correct, I can see no reason to suppose that literacy was absent at Dimini, and these inscriptions unintelligible).

¹⁸ Whitley 2005, 59-61, figs 103 and 104; Adrymi-Sismani and Alexandrou 2009; it has been proposed that the signs, of varying sizes, represent the seven cremation burials, apparently of adults and infants, within the tholos. The identification of the signs as Linear B is controversial, however, and it has been suggested they may merely have been symbols (Janko 2015, 45). For the seal from Medeon, see CMS V/2 no. 415; Younger 1989, 31–32, n. 4.

impression, 'ia-ko-e' (as it happens, all three signs are symmetrical and can thus be read both from left to right and dextroverse). Either way, the meaning of these three signs eludes us, though we could perhaps think of a personal or place name.



Fig. 2: An overview of possible Linear B writing on various different materials. Clockwise, from the upper left corner: the Uluburun diptych (courtesy Cemal Pulak), an inscribed stirrup jar found at Thebes (at the Archaeological Museum of Thebes), the bone seal from Medeon (CMS V/2 no. 415), the stone weight from Dimini, now in the Archaeological Museum of Volos (courtesy Daniel Diffendale) and a Linear B clay tablet (KN Co 903) from Knossos. Public domain.

The small number of inscribed objects other than clay tablets have led most academics to assume that the use of Linear B was extremely restricted and was only used for administrative purposes within the palatial organisation. But I would prefer to flip that line of reasoning, and suggest that the very presence of these other objects, few though they are, indicates a wider use of the script beyond the palace archives.¹⁹

Interestingly, the tablets themselves seem to support the suggestion that writing may have been more widespread than previously thought. In the first

¹⁹ Palaima (2000, 236–237) has argued along similar lines, noting that the palaeography of some sealings suggest 'the existence of non-centrist habits of writing and spelling among individuals (and related institutions) who only periodically came within the orbit of the central tablet-writers and the central administration'.

place, because the medium, clay, is a far from ideal canvas for the intricate signs of the Linear B syllabary. I am not the first to note this; in fact, both Ventris and his collaborator John Chadwick already pointed this out in their famous book Documents in Mycenaean Greek, and Chadwick was even more explicit in his book *The Decipherment of Linear B*:

The character of the script, with its fine lines and delicate curves, in striking contrast to the contemporary Cypro-Minoan script, is also an indication that clay was not the only material used for writing: the signs are much more suited to writing with pen and ink.²⁰

Chadwick then continues by suggesting that the clay tablets were, in fact, used only for rough work and temporary records which were designed to be scrapped once they had been transferred to a more permanent record - Chadwick suggested papyrus or animal skin. There may have been other media on which the Mycenaeans kept their records, and here I should highlight the work of my colleague Willemijn Waal, who has recently suggested that the very shape of the so-called palm-leaf tablets may be more than just a hint. She argues, quite convincingly I feel, that the Mycenaeans may have initially used real palm leaves for their documents, and later shaped their (additional) clay tablets after these.²¹ The use of leaves for writing is not as strange as one might think; similar practices have been observed elsewhere in the world, for example, in India and the Far East. Moreover, as Waal noted, in many languages - including my own the use of leaves for writing is still reflected in today's terminology for script bearers – think of folia, leaf, Blatt, hoja, feuille, foglio or blad. Later Greeks may even have had a (rather distorted) memory of such a practice in the Mycenaean world; Herodotos's 'phoinikeia grammata' may originally not have meant 'phoenician letters', but rather 'letters on palm leaves' – seeing that the word phoinix can refer to a palm tree, the colour purple or, indeed, to Phoenicia. By Herodotos's time, both the use of leaves for writing and Linear B script had probably been long forgotten, whereas the Phoenicians were still frequent trading partners – he may have simply misinterpreted (and countless of his readers ever since) an ancient scribal term.

I feel that Waal's suggestion is appealing, for it would in many ways make Mycenaean scribal traditions much more in line with contemporary Near Eastern and Egyptian traditions, where we do have clear evidence for a whole swathe of materials that were used to write on, including metal strips, wooden

²⁰ Chadwick 1958, 130; see also Ventris and Chadwick 1973, xxxiii.

²¹ Waal 2021, 211.

writing boards²² and papyrus. Given the close connections between the Mycenaean world and the Near East, it would be remarkable if the Mycenaean scribes behaved completely different from their counterparts in Anatolia, the Levant and Egypt. Indeed, from oblique references to Ahhiyawan (almost certainly the Hittite designation for the Mycenaean world) diplomatic correspondence, it is quite clear that the Mycenaean kings normally wrote to their vassals and foreign peers. In the so-called 'Tawagalawa letter', the Ahhiyawan king is specifically mentioned to have 'written' to his vassal Atpa (IŠ-PUR) means 'he [the king] sent'), whereas later on, the same text refers to a message to the Hittite king that was apparently conveyed orally; something so out of the ordinary that it warrants special mention in the text.²³ Though clay tablets were regularly used to convey diplomatic messages in the Near East, I would argue that a similar praxis is inherently unlikely in the case of Ahhiyawan-Hittite correspondence. The routes taken by Near Eastern messengers were mostly land-based, but unbaked clay tablets must have been less suitable for maritime travel (though I acknowledge that the king of Alashiya (Cyprus) wrote to the Egyptian king Akhenaten on clay!). It seems to me more likely that Mycenaean correspondence with the Hittites was written down on perishable but more waterproof materials (e.g. wooden tablets that were used in contemporary Anatolia). Moreover, there is no reason to suppose that such correspondence was written down in cuneiform - it may well have been in Greek (Linear B), Luwian or Hittite (hieroglyphs); scripts that lend themselves (as noted above) much more readily to writing with ink. It is abundantly clear that the ancients believed the early Greeks had written on things other than clay, such as parchment, cloth, lead strips, leaves and wood – there are clear references to this in, for example, Pliny and the Suda, the Byzantine encyclopaedia.²⁴ Indeed, Gregory Nagy has recently argued the (Iron Age) Cypriote word διφθεράλοιφος, which is usually translated as 'teacher of letters' or more generically as 'scribe' but etymologically means 'leather-painter', may reflect the survival amongst certain groups on Cyprus of, by that time already ancient, Mycenaean writing traditions.²⁵

The problem with all this is, of course, that without physical evidence it must largely remain conjecture. Whereas there are clear indications of the use of

²² See Waal 2011 for an argument that Anatolian scribes also wrote directly on wood; Symington 1991 for writing on wooden boards coated with wax.

²³ Kelder 2010, 29, esp. n. 80; Waal 2022, 244; for the text, translation and commentary of the Tawagalawa letter, see Beckman, Bryce and Cline 2011, 101–122, esp. 105.

²⁴ Waal 2021, 215; Pliny, Naturalis Historia 13.21; Suda φ 787, http://www.stoa.org/sol/> (accessed on 16 November 2022).

²⁵ Nagy 2020.

leather or other perishable materials for writing in the Minoan world, no leather or papyrus has been found from Mycenaean sites, and no larger Mycenaean texts have been found on anything other than clay tablets. As a result, we may read, even in fairly recent handbooks, that 'no evidence suggests that they [the Mycenaeans] used parchment, as the Minoans did. It follows that literacy was not widespread'. 26 Yet, a recent study by Martien Dillo now suggests that the famous diptych from the Uluburun shipwreck may yield the first Mycenaean writing on perishable material.²⁷ The diptych is made of choice boxwood and ivory hinges, and must date – with the rest of the ship – to the final years of the fourteenth century BCE.²⁸ The fields for writing were originally covered in wax to facilitate writing, but next to these fields, one can just make out a number of incised figures. These were already noted when the tablet was found in 1986, and the diptych was duly subjected to inspection by Emmett Bennett Jr., the doyen of Mycenaean studies at that time. He, however, did not recognise any of the signs. In a letter to Barry Powell (March 1989) he wrote that, as a consequence, 'it would be wiser not to claim that the diptych itself is inscribed'.²⁹ Subsequent studies have, indeed, largely ignored the presence of these signs on the wooden tablets, or, if they are mentioned, dismissed them as the marks of the diptych's owner. Dillo, however, has now proposed that these signs represent Mycenaean numerals and include the numbers 100, 3 and the hitherto unattested sign for 100,000.

Regardless of whether one is inclined to accept Dillo's identification (and I certainly am), the case of the Uluburun diptych demonstrates an unfortunate tendency amongst Aegeanists: what we do not recognise is ignored, absence of evidence is taken as evidence for absence, and whole paradigms are subsequently built on datasets that are simply incomplete. In the case of Mycenaean Greece, there is, as I hope to have demonstrated, ample evidence for a much more eclectic writing culture than was previously assumed. Hints are everywhere: the morphology of the script, the shape of the tablets, the small number of inscribed objects other than clay tablets, such as the inscribed seal at Delphi and stone weight from Dimini, later Classical traditions, and, of course, contemporary scribal practices in nearby Anatolia, Cyprus and Egypt.

²⁶ Shelmerdine 2008, 13-14.

²⁷ Dillo 2021, 222–223.

²⁸ For the fourteenth century BCE date, see Pulak 1998, 214; though Manning (2014, 109) has since questioned the reliability of this date. I thank Peter James for this reference.

²⁹ Powell 1991, 66; quoted in Dillo 2021, 221.

3 Factoids and interpretations

I will conclude my paper by highlighting how the field's reluctance to look beyond its own paradigm has had a demonstrably problematic effect on our understanding of the Mycenaean world - not just its scribal culture but also its political and societal structure. In order to do so, we will need to go back to the years immediately following Ventris's decipherment of Linear B. The small but growing corpus of Mycenaean texts had become intelligible and these demonstrated that, much like their Near Eastern contemporaries, the Mycenaeans were keen administrators.

Yet, the existence of what appeared to be a fairly extensive Mycenaean bureaucracy did not fit at all with Homer's world of heroes, cattle raiding and sackers of cities. As Oliver Dickinson already pointed out:

the world of Homer's heroes, in which wealth is essentially represented by livestock and movable treasures, and to acquire these by raiding is not thought at all reprehensible, seems completely at odds with the world of orderly taxation of territories' produce reflected in the Linear B texts.30

Moreover, new finds at other Mycenaean citadels, including Thebes and Mycenae itself, demonstrated that the palatial administration, by and large, affected only a relatively limited area around the palatial centres. Despite the fact that Ventris himself had already warned against an overreliance on the evidence provided by the Linear B texts, the limited geographical reach of the various palatial administrations was readily taken as evidence for small territorial states, whereas the relative dearth of references to other known centres or regions outside these reconstructed realms was seen as evidence for political independence. Rather than resembling the united Mycenaean world described in the *Iliad*, the Mycenaean world, thus, would have been much more like the later, Iron Age world of independent city-states (similar to the world in which Homer himself would have lived).³¹ This idea has persisted to this very day.

Indeed, although our understanding of the Mycenaean world in many ways has improved dramatically since Ventris's days, the majority of theoretical models of Mycenaean palatial society that are used in today's academic dis-

³⁰ Dickinson 1994, 81.

³¹ Dickinson 2019, 42; although Dickinson then notes that it is quite possible that Mycenae may have exercised varying degrees of influence over other palatial centres, 'some more like vassals but still technically independent, much as in the Hittite Empire' (my italics).

course are vestiges of the era in which Linear B was first deciphered. As such, these models inherited a number of flaws from earlier research, but these flaws, even though some are quite obvious and often even recognised, have never really been properly addressed.

The equation of the administrative purview of the various archives with actual political boundaries is, I think, one of the most egregious examples of this. Open a given textbook or Wikipedia, and it will inform you that each of Mycenaean palaces controlled a limited territory – usually comparable with a modern province.³² These territories are reconstructed on the basis of the Linear B texts; for example, by plotting toponyms in these lists against known modern place names or (more reliably) geographical features, such as mountain ranges. It goes beyond the scope of my paper to demonstrate exactly how problematic our understanding of all these reconstructed territories really is, though it may be illustrative to note that the realm of the palace of Thebes is often thought to have included parts of the island of Euboea, because there is a reference to cattle being sent from that island to the palace on the occasion of a religious festival. I would argue that sending a couple of cows to a given city does not necessarily indicate any kind of power relationship between the regions involved, yet even this really silly argument has permeated the paradigm to such an extent that it is hardly ever called into question.³³

Indeed, even in the case of the extremely intensively studied palace of Pylos, only *one* site – the site of Pylos ('pu-ro') itself – can be identified on a map with absolute certainty. The other identifications of places boil down to reasoned speculation at best, and sheer guesswork at worst. Despite these serious reservations, the Kingdom of Pylos has become a boilerplate for our understanding of other Mycenaean kingdoms and, thus, we read in most textbooks how Pylos controlled Messenia, Thebes, southern Boeotia, and Aghios Vasileios, probably Laconia.³⁴ In the Argolid, where we have at least three (Mycenae, Tiryns and Midea) and probably more (Argos, Nauplion) heavily fortified citadels, it is quite clear that this model does not really work, and that there, at least, the palaces must have belonged to a single polity.³⁵

³² For Pylos: Bennet 1998; most recently Hope Simpson 2014; see discussions in Galaty and Parkinson 2007 for various approaches to the economic and political reach of the palaces.

³³ But see Kelder 2008; Palaima 2011.

³⁴ Shelmerdine 2006; see also (for Knossos and Pylos) Bennet 2017, and see various discussions in Driessen and Van Wijngaarden 2022, that argue for regional and even intraregional diversity and fragmentation.

³⁵ Crouwel 2008.

This problem is usually glossed over, or the Argolid is simply accepted as an exception to the rule of 'one palace equals one kingdom'. Yet, it really ought to make us pause and wonder how these various palaces interacted with each other, and whether we can indeed equate the administrative purview (which is already a heavily reconstructed construct based on a fragmentary corpus) with political boundaries. The answer to this question is, I think, that we cannot, and I have argued in numerous studies that lots of evidence (the remarkable cultural homogeneity of the Mycenaean world, the remains of what was probably quite an extensive and extremely well-built network of roads, but, above all, a number of Hittite texts which refer to a Great King of Ahhivawa) rather suggest that most, if not all, of the palaces fell under the sway of a single peripatetic ruler.³⁶ There is even some evidence from the texts for such a scenario, and this was observed by Nicholas Postgate, who noted that, to a Near Eastern archaeologist, the uniformity of shape and size of the Linear B tablets throughout Greece appear to indicate political unification, since in the Near East, every polity was characterized not only by its own specific way of administration but also by the shapes and sizes of the tablets. Postgate noted this at a conference for Aegean prehistorians in 2001: his observations were noted, and – much like the signs on the Uluburun diptych – duly ignored.³⁷

Postgate raised his point again in his 2013 book on Bronze Age Bureaucracy, where he wrote:

by analogy with Mesopotamian parallels, specifically Assyria, the close similarities between the archives from the different mainland palaces might suggest that they all belonged to a single overarching system, making each palace more akin to an Assyrian provincial capital than an independent polity, with the written documentation as a feature of a single dispersed administrative system rather than indigenous to each separate centre.³⁸

Yet again, few if any Aegean prehistorians took notice. The apparent reluctance to question existing paradigms and an overreliance on the extant evidence have not just resulted in a very problematic understanding of Mycenaean political

³⁶ See e.g. Kelder 2005; Kelder 2010 and, most recently, Kelder 2018. Other have argued along similar lines, e.g. Lohmann 2010 and Eder and Jung 2015 (who - erroneously - seem to be under the impression that I exclude Knossos from my model, yet, at the same time, follow (albeit without references) my 2008 argument for a single, peripatetic wanax ruling over all the palatial centres).

³⁷ Postgate 2001, 160.

³⁸ Postgate 2013, 411.

geography but of Mycenaean society as a whole.³⁹ Indeed, we even have trouble understanding the very top of Mycenaean society. The Linear B texts refer to a wanax. The title is clearly the Mycenaean predecessor of Homer's anax, a designation for kings and deities, and thus it seems fair to assume that the Mycenaean wanax must also have been someone of significant importance. Yet, the same texts also refer to a number of other important figures, most notably the lawagetas. As far as the texts go - and, again, they do not go very far - the lawagetas seems to have been pretty similar to the wanax: both held a temenos - probably some sort of special, dedicated and, perhaps, sacred plot of land. Both seem to have been at the very apex of the Mycenaean social pyramid, though the texts indicate that the production of the temonos of the lawagetas was more modest than that of the *wanax*, perhaps indicating that the *lawagetas* was somehow of slightly lower status. Moreover, a single (sic) text from Pylos indicates that the wanax appointed (or perhaps buried) a specific official (a damokoro; perhaps an overseer of royal storerooms comparable to the Hittite AGRIG official, as Marco Poelwijk and I have argued in another paper). 40 Based on the *wanax*'s apparent involvement in this investment ceremony, and because the title *lawagetas* can be understood as 'leader of the people', it has been variously suggested that the wanax was a local king, or perhaps a priest-king, whereas the *lawagetas* was either a crown prince or the military commander.⁴¹ Though there may be some very vague *comparanda* in Indo-European legends, such a duality, with essentially two top dogs at the very top of Mycenaean society, would be almost unparalleled. Anywhere else in the ancient Near East, the king was at the same time the supreme military commander, a worldly autocrat and the state's principal conduit to the world of the gods. There certainly were crown princes in the ancient Near East, but they never held a function or prestige that was essentially identical to that of their father: there was never any doubt who, at any given time, was in charge. To argue that we have something wholly different going on in the Mycenaean world would, a priori, require extremely conclusive proof. But this is lacking.

The interesting thing is that, if we were to interpret the Mycenaean evidence through the prism of a Near Eastern archaeologist (as Postgate already pro-

³⁹ I should note here that simply citing the *majority's view* (if it is indeed that), does not, in my book, constitute a valid argument. In fact, one would expect the proponents of such a view, apparently shared by so many specialists, to be able to present *unequivocal* evidence to support their idea. In the case of the paradigm of multiple culturally similar yet politically independent Mycenaean states, however, no such evidence has *ever* been presented.

⁴⁰ Kelder and Poelwijk 2016.

⁴¹ Wundsam 1968, 58; Ruijgh 1985, 167; Palaima 1995.

posed), the whole problem of a *wanax* and *lawagetas* with essentially overlapping functions disappears. In such a scenario, one could easily imagine – as I argued in 2008 – that the wanax was the LUGAL.GAL (the Great King), and the lawagetas precisely what his name implied; the ruler of the people, a local, vassal king. In such a scenario, numerous previously peculiar archaeological features would now become wholly explicable. The two-partite structure of many Mycenaean palaces, for example, with two similar, adjacent throne rooms, could now be seen as the palace of a local ruler, with a larger throne room for the occasionally visiting Great King. An itinerant court would, again, be completely compatible with contemporary practice in the Near East and, indeed, with the much later European Middle Ages (where one would have the *Pfalzen* as residencies for local vassal rulers, that doubled as lodgings for the emperor on his occasional inspections). Such a scenario, moreover, would also explain why we have – admittedly very scrappy – indications of considerable investment in a system of roads. The quality of especially Mycenaean bridges – some of which continued to be in use well into modern times - only makes sense if these roads were somehow of importance to the survival of the state. It may be more than coincidence that these bridges can only be reasonably compared to later Roman roadworks, which were primarily built to facilitate the speedy deployment of troops and goods, and for speedy communication within the framework of a unified state (a useful comparison may perhaps be made to China's Grand Canal, which was similarly created at a time of unification under the Sui dynasty, or, indeed, the network of roads created under China's first emperor). 42 Similarly, we would no longer struggle to explain away the remarkable cultural uniformity of the Mycenaean world. Despite minor regional differences, the pottery production, fresco manufacture, script and administration (as we have seen) were essentially the same throughout palatial Greece, and whilst this does not necessarily indicate political unity, it is surely significant that nothing similar can be observed until Roman times: during the Classical period, for example, regional cultural and linguistic diversity was far more pronounced. However, most importantly, such a scenario would fit completely with the written Hittite evidence available, which indicates the presence, at least in the thirteenth century BCE, of a Great King, a LUGAL.GAL, of Ahhiyawa; that is Mycenaean Greece.

The problem with all of these reconstructions is, of course, that we are balancing probabilities based only on a very limited number of hard facts. Whilst we do, of course, have archaeology as a tool to reconstruct aspects of the past,

⁴² I thank Michael Friedrich for this parallel.

this tool is notoriously ill-suited to reconstruct more abstract aspects of ancient societies, such as political structures. In the ancient Near East, this shortcoming is compensated by an abundance of texts, dealing not only with mundane aspects of life, such as taxation or trade, but also with things such as religion, diplomacy and even history (of sorts). All of that is conspicuously lacking in the Linear B texts, but because they are the only written sources from the Mycenaean world itself, there has been a tendency to use them to understand aspects of that world that have no relation to their content. This is understandable because we have got to work with what we have, but, as I hope to have demonstrated, the results are predictably problematic. What is worse is that some of the factoids that have been distilled through such dubious analyses have become embedded in academic debate, and now serve to as a point of departure for subsequent research projects. An example is a recent paper in the American journal Hesperia which came uncomfortably close to circular reasoning: we know that there was no overarching larger Mycenaean state and that the Mycenaean polity was politically fragmented, therefore, as a result, all evidence that suggests otherwise, including the fairly explicit Hittite texts, must simply be wrong. And indeed, in this paper, it was argued that the Hittites simply misconstrued the political reality of the Hittite world in order to accommodate their own preconceptions of kingship - even though those very same texts indicate personal relationships and visits between the Hittite and Mycenaean courts. 43 Apparently, people who lived at the same time on either side of the Aegean, and who had regular and even personal contacts, had it wrong, whereas we, three thousand years later, know it better. It is possible but inherently unlikely, and I would like evidence for such a claim. None of that, as far as I can see, has ever been presented.

4 Looking forward

I should like to end my paper on a positive note, for not all is bad in Aegean prehistory (though, in view of all the above, we should perhaps call it Aegean protohistory instead!). In recent years, for example, we have gained a much better understanding of the scribes who were at work in the different palaces. Some 32 scribal hands have now been identified at Pylos, who were responsible

⁴³ Blackwell 2021; for personal relationships between Hittite and Ahhiyawan elites, see Waal 2019, 21,

for writing 1107 tablets, whereas 100 distinct scribes appear to have written more than 3300 tablets at Knossos. 44 Waal has already noted that the number of scribes at both places seems large compared to the modest number of texts, and suggested that this may again point to a wider range of materiality of Mycenae-an script bearers. 45 At the same time, there is a growing understanding that the Mycenaean world should not be seen as distinct, but instead very much as a part of the ancient Near East. This tendency has already led to some important new publications, and I should like to highlight here especially the recent book *The Ahhiyawa Texts* by Gary Beckman, Trevor Bryce and Eric Cline – an Assyriologist, a Hittitologist and an archaeologist – which, for the first time, brought together in an accessible way all Hittite texts pertaining to what is almost certainly the Mycenaean world (Ahhiyawa).46

I hope to have highlighted in this paper that comparing evidence from one's own field to evidence from different fields is precisely what leads to new insights. Indeed, the merit of doing so is now increasingly appreciated, and a number of recent projects (such as the CREWS and VIEWS projects headed by Pippa Steele,⁴⁷ or, indeed, the research by Willemijn Waal to which I have already referred) have begun to bridge the disciplinary divides. Similarly, the book in which this paper is published has a profoundly holistic approach, and includes chapters that focus not only on writing practices in the ancient Near East, but also on early scribal traditions in China and India. Such an approach is the way forward for gaining a better understanding of how the ancient world worked, though there are, of course, also dangers in such a comparative approach. One very real danger is an overreliance on supposed facts from one given field in order to interpret datasets from one's own field of enquiry: I have given some examples from my own field of enquiry (Aegean prehistory, particularly the political organisation of the Mycenaean world) in the lines above. Comparing data from different fields, therefore, also requires the intellectual honesty to critically examine one's own data and those of others, as well as the willingness to reassesses supposed certainties and dominant paradigms. I hope that this chapter presents some possible venues to do precisely that.

⁴⁴ Jeremy Rutter's online course, lesson 25, 'The Linear B Tablets and Mycenaean, Social, Political and Economic Organisation' https://sites.dartmouth.edu/aegean-prehistory/lessons/lesson-25-narrative/ (accessed on 4 October 2022).

⁴⁵ Waal 2021, 212.

⁴⁶ Beckman, Bryce and Cline 2011.

⁴⁷ Two large research projects funded by the European Research Council; more information can be found at https://crewsproject.wordpress.com and https://viewsproject.wordpress.com (accessed 16 November 2022).

Abbreviation

CMS V = Ingo Pini (ed.), Kleinere Griechische Sammlungen, 2 vols (Corpus der minoischen und mykenischen Siegel, 5/1-2), Berlin: Gebr. Mann Verlag.

References

- Adrymi-Sismani, Vasiliki (2016), 'Dimini: An Urban Settlement of the Late Bronze Age in the Pagasitic Gulf', in Jan Driessen (ed.), Ra-pi-ne-u: Studies on the Mycenaean World Offered to Robert Laffineur for His 70th birthday, Louvain-la-Neuve: Presses universitaires de Louvain, 39-61.
- Adrymi-Sismani, Vasiliki and Stamatia Alexandrou (2009), 'Μυκηναϊκός θολωτός τάφος στη θέση Καζανάκι', in Alexandros Mazarakis Ainian (ed.), Αρχαιολογικό έργο Θεσσαλίας και Στερεάς Ελλάδας, vol. 3, Thessaly: Ministry of Culture / University of Thessaly, 133-149.
- Adrymi-Sismani, Vasiliki and Louis Godart (2005), 'Les inscriptions en Linéaire B de Dimini / lolkos et leur contexte archéologique', Annuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente, 83: 47-69.
- Aravantinos, Vassilis and Adamantia Vasilogamvrou (2012), 'The First Linear B Documents from Ayios Vasileios (Laconia)', in Carlier et al. 2012, 41-54.
- Beckman, Gary, Trevor Bryce and Eric H. Cline (2011), The Ahhiyawa Texts, Atlanta, GA: Society of Biblical Literature.
- Bennet, John (1998), 'The Linear B Archives and the Kingdom of Pylos', in Jack Davis (ed.), Sandy Pylos: An Archaeological History from Nestor to Navarino, Austin, TX: The University of Texas Press, 111-133.
- Bennet, John (2017), 'Palaces and their Regions: Geographical Analysis of Territorial Exploitation in Late Bronze Age Crete and Greece', in Pierre Carlier, Françoise Rougemont and Julien Zurbach (eds), Palatial Economy in the Ancient Near East and in the Aegean: First Steps towards a Comprehensive Study and Analysis = Pasiphae, 11: 151-174.
- Blackwell, Nicholas (2021), 'Ahhiyawa, Hatti, and Diplomacy: Implications of Hittite Misperceptions of the Mycenaean World', Hesperia, 90/2: 191-231.
- Carlier, Pierre, Charles De Lamberterie, Markus Egetmeyer, Nicole Guilleux, Françoise Rougemont and Julien Zurbach (eds) (2012), Études mycéniennes (Biblioteca di "Pasiphae", 10), Pisa: Fabrizio Serra.
- Chadwick, John (1958), The Decipherment of Linear B, Cambridge: Cambridge University Press. Chadwick, John (1976), The Mycenaean World, Cambridge: Cambridge University Press.
- Chadwick, John (1987), Linear B and Related Scripts, London: Trustees of the British Museum.
- Cosmopoulos, Michael (2019), 'State Formation in Greece: Iklaina and the Unification of Mycenaean Pylos', American Journal of Archaeology, 123: 349-380.
- Cosmopoulos, Michael, Susan E. Allen, Danielle J. Riebe, Deborah Ruscillo, Maria Liston and China Shelton (2019), 'New Accelerator Mass Spectrometry 14C dates from the Mycenaean Site of Iklaina', Journal of Archaeological Science: Reports, 24: 888-899.
- Crouwel, Joost H. (2008), 'Ahhiyawa, Argos, and the Argive Plain', in Chrysanthi Gallou, Mercourios Georgiadis and George Muskett (eds), Dioskouroi. Studies Presented to W. G.

- Cavanagh and C. B. Mee on the Anniversary of Their 30-year Joint Contribution to Aegean Archaeology (BAR International Series, 1889), London: Archaeopress, 265-273.
- Davis, Brent (2014), Minoan Stone Vessels with Linear A Inscriptions (Aegaeum, 36), Leuven: Peeters.
- Dickinson, Oliver (1994), The Aegean Bronze Age, Cambridge: Cambridge University Press.
- Dickinson, Oliver (2019), 'What Conclusions Might Be Drawn from the Archaeology of Mycenaean Civilisation about Political Structure in the Aegean?', in Kelder and Waal 2019, 31-48.
- Dillo, Martien (2021), '(Addendum to Waal 2021). Do the Uluburun Signs Represent Mycenaean Numerals?', in Michele Bianconi (ed.), Linguistic and Cultural Interactions between Greece and Anatolia: In Search of the Golden Fleece (Culture and History of the Ancient Near East, 122), Leiden: Brill, 221-224
- Driessen, Jan and Gert-Jan van Wijngaarden (eds) (2022), Political Geographies of the Bronze Age Aegean: Proceedings of the Joint Workshop by the Belgian School at Athens (EBSA) and the Netherlands Institute at Athens (NIA), May 28-31, 2019, Louvain: Peeters.
- Eder, Brigitta and Reinhard Jung (2015), 'Unus pro omnibus, omnes pro uno: The Mycenaean Palace System', in Jörg Weilhartner and Florian Rupenstein (eds), Tradition and Innovation in the Mycenaean Palatial Polities, Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 113-140.
- Ferrara, Silvia, Barbara Montecchi and Miguel Valério (2022), 'The Relationship between Cretan Hieroglyphic and Linear A: A Palaeographic and Structural Approach', Pasiphae, 16: 81-109.
- Galaty, Michael and William Parkinson (eds) (2007), Rethinking Mycenaean Palaces, 2nd edn, Los Angeles: Cotsen Institute of Archaeology, University of California.
- Hallager, Erik (1987), 'The Inscribed Stirrup Jars: Implications for Late Minoan IIIB Crete', American Journal of Archaeology, 91/2: 171-190.
- Hope Simpson, Richard (2014), Mycenaean Messenia and the Kingdom of Pylos, Philadelphia, PA: INSTAP Academic Press.
- Hope Simpson, Richard (2018), Mycenaean Greece and Homeric Tradition, available at http://hdl.handle.net/1974/24425> (accessed on 16 November 2022).
- Janko, Richard (2015), 'Amber Inscribed in Linear B from Bernstorf in Bavaria. New Light on the Mycenaean Kingdom of Pylos', Bayerische Vorgeschichtsblätter, 80: 39-64.
- Judson, Anna (2013), 'The Linear B Inscribed Stirrup Jars', *Kadmos*, 52/1: 69–110.
- Karagianni, Angeliki (2015), 'Linear B Administration: The Communicative Aspects of Written Media and the Organisation of the Mycenaean Bureaucracy', in Susanne Enderwitz and Rebecca Sauer (eds), Communication and Materiality: Written and Unwritten Communication in Pre-modern Societies (Materiale Textkulturen, 8), Berlin: De Gruyter, 25-60.
- Kelder, Jorrit M. (2005), 'Greece during the Late Bronze Age', Jaarbericht Ex Oriente Lux, 39: 131-179.
- Kelder, Jorrit M. (2008), 'A Great King at Mycenae. An Argument for the Wanax as Great King and the Lawagetas as Vassal Ruler', Palamedes, 3: 49-74.
- Kelder, Jorrit M. (2010), The Kingdom of Mycenae: A Great Kingdom in the Late Bronze Age Aegean, Bethesda, MD: CDL Press.
- Kelder, Jorrit M. (2018), 'The Kingdom of Ahhiyawa: Facts, Factoids and Probabilities', Studi Micenei ed Egeo-Anatolici, Nuova Serie, 4: 200-208.
- Kelder, Jorrit M. and Marco Poelwijk (2016), 'The Wanassa and the Damokoro: A New Interpretation of a Linear B Text from Pylos', Greek, Roman and Byzantine Studies, 56: 572-584.

- Kelder, Jorrit M. and Willemijn Waal (eds) (2019), From 'LUGAL.GAL' to 'Wanax': Kingship and Political Organisation in the Late Bronze Age Aegean, Leiden: Sidestone.
- Lohmann, Hans (2010), 'Kiapha Titi und der Synoikismos des Theseus', in Hans Lohmann and Torsten Mattern (eds), Attica: Archäologie einer "zentralen" Kulturlandschaft, Akten der internationalen Tagung vom 18-20 May 2007, Marburg, Wiesbaden: Harrassowitz, 35-46.
- Manning, Sturt W. (2014), A Test of Time and a Test of Time Revisited: The Volcano of Thera and the Chronology and History of the Aegean and East Mediterranean in the Mid-second Millennium BC, Oxford: Oxbow Books.
- Nagy, Gregory (2020), 'A Minoan-Mycenaean Scribal Legacy for Converting Rough Copies into Fair Copies', Classical Enquiries (online) https://classical-inquiries.chs.harvard.edu/a- minoan-mycenaean-scribal-legacy-for-converting-rough-copies-into-fair-copies/> (accessed on 16 November 2022).
- Nakassis, Dimitri (2022), 'Linear B', in Tim Whitmarsh (ed.), Oxford Classical Dictionary (online) https://oxfordre.com/classics/view/10.1093/acrefore/9780199381135.001.0001/acrefo re-9780199381135-e-8680?rskey=8zkngf&result=1> (accessed on 14 November 2022).
- Nikoloudis, Stavroula (2006), The Ra-wa-ke-ta, Ministerial Authority and Mycenaean Cultural Identity, PhD thesis, University of Texas in Austin.
- Palaima, Thomas G. (1995), 'The Nature of the Mycenaean Wanax: Non-Indo-European Origins and Priestly Functions', in Paul Rehak (ed.), The Role of the Ruler in the Prehistoric Aegean (Aegaeum, 11), Liège: Université de Liège, 119-139.
- Palaima, Thomas G. (2000), 'The Palaeography of Mycenaean Inscribed Sealings from Thebes and Pylos: Their Place within the Mycenaean Administrative System and Their Links with the Extra-Palatial Sphere', in Walter Müller (ed.), Minoisch-mykenische Glyptik: Stil, Ikonographie, Funktion (Corpus der minoischen und mykenischen Siegel, Beiheft, 6), Berlin: Gebrüder Mann, 219-238.
- Palaima, Thomas G. (2004), 'Mycenaean Accounting Methods and Systems and Their Place within Mycenaean Palatial Civilization', in Michael Hudson and Cornelia Wunsch (eds), Creating Economic Order: Record-keeping, Standardization, and the Development of Accounting in the Ancient Near East, Bethesda, MD: CDL Press, 269-302.
- Palaima, Thomas G. (2011), 'Euboea, Athens, Thebes and Kadmos: The Implications of the Linear B References', in David W. Rupp and Jonathan E. Tomlinson (eds), Euboea and Athens: Proceedings of a Colloquium in Memory of Malcolm B. Wallace, Athens 26-27 June 2009, Athens: Canadian Institute in Athens, 53–75.
- Pantou, Panagiota (2010), 'Mycenaean Dimini in Context: Investigating Regional Variability and Socioeconomic Complexities in Late Bronze Age Greece', American Journal of Archaeoloqy, 114/3: 381-401.
- Postgate, Nicholas (2001), 'Discussion', in John Killen and Sophia Voutsaki (eds), Economy and Politics in the Mycenaean Palace States, Cambridge: Cambridge University Press, 160.
- Postgate, Nicholas (2013), Bronze Age Bureaucracy: Writing and the Practice of Government in Assyria, Cambridge: Cambridge University Press.
- Powell, Barry B. (1991), Homer and the Origins of the Greek Alphabet, Cambridge: Cambridge University Press.
- Pulak, Cemal (1998), 'The Uluburun Shipwreck: An Overview', International Journal of Nautical Archaeology, 27/3: 188-224.
- Rougemont, Françoise (2011), 'Oil at Nuzi and in the Linear B Records', Ugarit Forschungen, 43: 345-410.
- Ruijgh, Cornelis J. (1985), 'Problèmes de philologie mycénienne', Minos, 19: 105–167.

- Steele, Pippa (2017), 'Other Pre-alphabetic Scripts of Crete and Cyprus', in Yannis Galanakis, Anastasia Christophilopoulou and James Grime (eds), Codebreakers and Groundbreakers, Cambridge: Fitzwilliam Museum & Museum of Classical Archaeology, 43-51.
- Shelmerdine, Cynthia W. (2006), 'Mycenaean Palatial Administration', in Sigrid Deger-Jalkotzy and Cynthia W. Shelmerdine (eds), Ancient Greece: From the Mycenaean Palaces to the Age of Homer, Edinburgh: Edinburgh University Press, 73-86.
- Shelmerdine, Cynthia W. (2008), 'Background, Sources, and Methods', in Cynthia W. Shelmerdine (ed.), The Cambridge Companion to the Aegean Bronze Age, Cambridge: Cambridge University Press, 1-18.
- Skafida, Evagelia, Artemis Karnava and Jean-Pierre Olivier (2012), 'Two new Linear B Tablets from the Site of Kastro-Palaia in Volos', in Carlier et al. 2012, 55-73
- Symington, Dorit (1991), 'Late Bronze Age Writing-boards and Their Uses: Textual Evidence from Anatolia and Syria', Anatolian Studies, 41: 111-123.
- Vasilogamvrou, Adamantia (2013), 'Rulers of Mycenaean Laconia: New Insights from Excavations at the Palatial Settlement of Ayios Vasileios near Sparta', Chinese Archaeology http://www.kaogu.cn/html/en/Special_Events/Shanghai_Archaeology_Forum/2013/10 25/29842.html> (accessed on 6 October 2022).
- Ventris, Michael and John Chadwick (1973), Documents in Mycenaean Greek: Three Hundred Selected Tablets from Knossos, Pylos and Mycenae with Commentary and Vocabulary, 2nd edn, Cambridge: Cambridge University Press.
- Waal, Willemijn (2011), 'They Wrote on Wood. The Case for a Hieroglyphic Scribal Tradition on Wooden Writing Boards in Hittite Anatolia', Anatolian Studies, 61: 21-34.
- Waal, Willemijn (2019), "My Brother, a Great King, My Peer'. Evidence for a Mycenaean Kingdom from Hittite Texts', in Kelder and Waal 2019, 9-30.
- Waal, Willemijn (2021), 'Distorted Reflections? Writing in the Late Bronze Age Aegean in the Mirror of Anatolia', in Michele Bianconi (ed.), Linquistic and Cultural Interactions between Greece and Anatolia: In Search of the Golden Fleece (Culture and History of the Ancient Near East, 122), Leiden: Brill, 197-232.
- Waal, Willemijn (2022), 'The Missing Link? Writing in West Anatolia during the Late Bronze Age', in Ivo Hajnal, Eberhard Zangger and Jorrit Kelder (eds), The Political Geography of Western Anatolia in the Late Bronze Age, Budapest: Archeolingua, 229-269.
- Whitley, James (2005), 'Archaeology in Greece 2004-2005', Archaeological Reports, 51: 1-118. Whittaker, Helèn (2013), 'The Function and Meaning of Writing in the Prehistoric Aegean: Some Reflections on the Social and Symbolic Significance of Writing from a Material Perspective', in Kathrin Piquette and Ruth Whitehouse (eds), Writing as Material Practice, London: Ubiquity Press, 105-121 < DOI: 10.5334/bai.f>.
- Wundsam, Klaus (1968), Politische und soziale Strukture der Mykenischen Residenzen nach den Linear B Texten, Vienna: Notring.
- Younger, John (1989), 'Ideograms and Supplementals and Regional Interaction among Aegean and Cypriote Scripts', Minos, 24: 29-54.