

In-Depth Backgrounder:

**Scribes, Bards and Heroes:
Divergent Poles of Public Memory in Early Greek Culture**

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Overview:

Several cultural systems in the Aegean, Levant and Near Eastern worlds helped shape the classical age of Greece. These early societies reflected on their past and used records, myths, legends and epics to construct a view of their place in the universe. There is a direct parallel between the social structure of these societies and the way they used different 'information regimes' to control the physical and cultural assets of any society. These methods help distribute resources and social roles, as well as mechanisms that legitimated the use of power and create a sense of ancestral origins. An overview of Minoan, Mycenaean and Archaic Greek societies shows a transition from a scribal-palace system (using Linear A then Linear B writing), towards an oral bardic culture focused around enshrining heroic memory. There is, however, considerable continuity from the Mycenaean period into the classical Greek world, suggesting a need to reconsider simple invasion theories or environmental collapse models. Once the heroic ideal was broadened into a wider spectrum of social values the new uses of writing (based on Phoenician alphabetic scripts) helped support the pluralistic social system needed to create a citizen-based society. Writing was once the tool of the palace, but later on, in different forms, became the tool of public memory.

1. Scribes in the Levant and Middle East

Several cultural systems in the Aegean, Levant and Near Eastern worlds helped shape the classical age of Greece. These early societies reflected on their past and used records, myths, legends and epics

to construct a view of their place in the universe. There is a direct parallel between the social structure of these societies and the way they used different ‘information regimes’ (for contemporary applications of this concept, see Braman 2004). An ‘information regime’ is used to help control the physical and cultural assets of any society. These methods help distribute resources and social roles, as well as mechanisms that legitimate the use of power.

The importance of scribal mechanisms can be seen in earlier civilizations. Two major civilizations developed around the control and use of water resources: of the Nile for Egypt, and the Euphrates and Tigris rivers for Mesopotamia. In part these were ‘hydraulic’ civilizations needing effective, large-scale irrigation, including the building of canals, dikes, the control of river flooding and the careful measurement of fields. This had to be undertaken at a communal level and suggested an extended and hierarchical social system (Butzer 1976). In other words, these societies depended upon a high level of social co-operation, and the necessary leadership structures to direct such efforts. In Egypt this may have helped develop the power of early kings who began to centralize power along sections of the Nile River (Kemp 1989), while in Mesopotamia the power of local leaders and temple priesthoods greatly concentrating effective power in their hands (Wittfogel 1957, pp50-100). However, we should not assume that this leads inevitably to forms of ‘oriental despotism’ (contra Wittfogel 1957), since in ancient Mesopotamia we have evidence of ancient assemblies with some real power, and centralized, dynastic kingship may have been a later evolution in the region after the emergence of complex cities such as Uruk, Kish and Ur, with power at first focused on an *en* or *ensi* (lords and governors). The *lugal* or true king only emerged in the third millennium BCE, partly in response to conflict between cities and their regional dominance, with their roles reinforced as war-leaders (Maisels 1993, p162, p278; Roaf 1996; Kriwaczek 2014, p158). However, that there may have been an increase in the powers of Mesopotamian city assemblies again in the first millennium BCE (Van De Mieroop 1997, pp101-141).

What is required is the ability to organize the construction of extensive irrigation works, to organize corvée labour, to distribute resources including grain and oil. To tax and administer the surplus of such a system requires efficient means of record keeping. At first this may have been based around a series of simple counters or marks on clay tokens designed to provide a numerical record, linked to simple signs indicating the resource type and its owner, though in Sumeria by 3,300 BCE some 700 signs might have already been in use (Roaf 1996; Maisels 1993). Such records would be especially important in distributive economies that developed around temples and centralized city-states. Likewise, early Cretan ‘hieroglyphs’ and Linear A emerged in early administrative practices from 1900 BCE onwards (Schoep 1999). Linear A itself still remains largely untranslated, though there is hope that new Deep-Learning AIs may help in its future translation (Emerging Technology 2019). It is not surprising therefore, that writing was developed and used on a large scale in these early river-valley cultures including Egypt, Mesopotamia and the Indus Valley civilization, as well as in early Crete.



*In Egypt scribes wrote on many surfaces, such as papyrus, wood or pottery, as well as carved in stone
(Photo Image photo by [Gianni Crestani](#), courtesy of [Pixabay](#))*

This means that one of the essential roles in such societies was the scribe. The scribe, or a priest with scribal training, becomes the bureaucrat, the administrator and even the architect par excellence (Smith 1938, p239). These societies did not have money or coinage in the modern sense. Set weights of silver or copper were sometimes used as a barter standard in early Mesopotamia, but stamped coins were a Lydian invention of the 7th century BCE (Oppenheim 1977). Thus, the recording of payments, receipts, stores and taxes meant that the scribe, even at the village and work-gang level, was indispensable. It should not surprise us, therefore, that scribes are often represented in the art of Egypt and in Mesopotamia, and that they also viewed their profession as superior to all others. This class of workers could become rather proud of themselves, as noted in a document on literary style written by the Egyptian scribe, Hori: -

The scribe of choice perception, patient in discussion (?), at whose utterances men rejoice when they are heard, a craftsman in the God's words; there is nothing that he knoweth not. He is a champion in valour and in the work of Sheshat <the goddess of writing>, and a servant of the lord of Hermopolis in his academy of writing; a teacher of subordinates in the office of books. The most eminent of his companions, and the commencement of his family; the pride of his contemporaries, without his peer. (Erman 1966, pp214-5, from Papyrus Anastasi i, written during the period of Ramesses II, circa 1304-1237 BCE)

These Egyptian and Mesopotamian societies tended to be highly centralized, working around royal or temple administrations, though trade linkages were made to remote regions and to nomadic and pastoral groups, especially in Mesopotamia. Uruk, for example, had trade links to northern colonies in Mesopotamia, to the Persian Gulf, Syria, the Zagros Mountains and parts of Anatolia (Crawford 2004). They were deeply involved, as well, in the creation of 'houses' for these functions; temples, palaces and tombs form a large part of the impressive architecture that is found throughout the region.

These temples and palaces, furthermore, were ‘central places’ around which a wide range of economic and social functions accrued. Market places, storage facilities, courts of justice, as well as places where annual religious festivals could be observed would be set up in the outer precincts, or adjacent, to these structures. However, since city architecture was often built in wood and mudbricks of a less permanent nature than stone or fired-brick temples, there has been some tendency to forget that early Egypt as well as Sumeria were urbanized societies (see Van De Mieroop 1997).

We can take some of these themes further by looking at the ‘palace cultures’ of the Minoan and Mycenaean civilization. Mycenaean civilization can be viewed as a ‘palace culture’ in so far as its ‘command economy’ was administered via writing on clay tablets by ‘officials installed in palaces which controlled their surrounding regions’ (Horrocks 1997, p3). From this point of view the Middle Minoan period of 2200-1700 BCE can also be called Old-Palace Minoan and the period 1700-1450 BCE as New-Palace Minoan (Willetts 1977, p59). These palaces seem to represent large households with a defined social structure (Willetts 1977, p63) but at first without strong physical defenses or external walls. These agglutinative palaces included cult centres, storage rooms, display areas, courts, and sometimes adjacent workshops for pottery production, weaving and dyeing (Willetts 1977, pp71-72).

We can compare this to the subsequent ‘heroic’ culture of the ‘Dark’ and ‘Archaic’ Ages of Greece. There are strong differences in their social organization, literature, and the types of cultural self-awareness that these two types of civilization demonstrate (see below). Ironically later Homeric accounts would largely project their images of great heroes back into the late second millennium, a time of which they had limited knowledge. As noted by M.I. Finley, “. . . the Homeric poems retain a certain measure of Mycenaean ‘things’ – places, arms and weapons, chariots, but little of Mycenaean institutions or culture” (Finley 1977, p84). Likewise, when alphabetical forms of writing return to Greece in the 8th century, though they may have had early use in inscriptions and on pottery for ownership or administrative purposes (Janko 2015), they are soon used for writing down poetry, public labeling, and remembrance of important events, e.g. recording epic poetry, lists of winners at the Olympic games, and names on gravestones (Finley 1977, p89). The emergence of Greek culture thus seems bracketed by two types of writing and two diverse patterns of social memory.

2. The Emergence of Greek Culture - Evolution Rather than Revolution?

The culture of ancient Greece is one of the cornerstones of modern Europe and remains central for 21st century global cultural legacies. It has left a sophisticated pattern of thought, art, politics and social practice. General historical texts tend to represent classical Greece as something that ‘emerged’ rather quickly, with only a couple of hundred years of development from the so-called ‘Dark Ages’. Thus, the philosopher Karl Jaspers would argue for the emergence of an ‘axial age’ in which great achievements occurred across several cultures from 800 BCE., a rather general idea taken up more recently by Karen Armstrong (Jaspers 1953; Jaspers 1962; Armstrong 2006). It seems as though with a dish of Homer, a serve of the philosopher Thales and the addition of the poet Hesiod, we suddenly

have science, philosophy, drama, comedy, historiography, and democracy. From this point of view, Greece and Rome are regarded as the sources of European civilization (see the thrust of Michael Grant's *The Birth of Western Civilization*, for example), admittedly with a dash of Hellenized Christianity from the Middle East. In reality, this process was much more complex and included extensive and early interactions with Egypt, Anatolian cultures and late on from the Persia cultural sphere. Such 'sudden emergence' views also they ignore the gradual development of Greek culture from earlier foundations, ignore the social inequity of ancient Greek polities and its general instability, underestimates the achievements of Eastern and tribal European cultures, and down-plays the achievement of later periods, e.g. the Hellenistic period and the early Middle Ages. This image is also based upon a misunderstanding of the impact of the end of the Bronze Age, and more importantly of the gradual developments in Greek society from 1050 - 600 BCE. Many of the key institutions of classical Greece were well underway during these early periods. It is true, however, that there was a political and economic watershed between the Bronze Age cultures of Crete and mainland Greece, and later developments that led to the city-states of the classical period.



The Greek Theatre in Ephesus (Asia Minor), a place of high culture for the Hellenistic Greeks, though its religious connotations were rejected by early Christian communities.

(Image by [12019](#), courtesy of [Pixabay](#))

Nonetheless, we will see that the intellectual legacy of Classical Greece remains enormous, and the political experience of these people over 1,300 years has significantly shaped modern political thought: early conceptions of democracy, politics, tyranny, freedom and autonomy find their origins in this culture. The Greeks were experts at creating a rich and diversified culture and an attractive

life in the confines of the polis (the *city-state*). Despite continual external warfare, and almost continual threats of internal revolution (called *stasis*), the archaic and classical Greeks created an important civilization and vital culture whose products would influence all of Europe, the Middle East, and parts of Afghanistan and north-west India. These legacies were enshrined and carried forward in writing, theatre, art and architecture, including the many plays, histories, inscriptions and temples that remain familiar icons today.

3. Minoan Civilization: A Palace and Scribal Culture

To trace one of these historical and organization nodes in the ancient world, we can turn back to one of the earliest island cultures of the Mediterranean. From early in the third millennium BCE we begin to find the traces of a complex and affluent society developing in the resource-rich island of Crete (Fitton 2002). Discovering the pre-historic origins of ancient peoples is extremely problematic, but DNA data from ancient Minoan graves suggests that they were descended from early neolithic peoples that had a presence in the Aegean, Greece, Sardinia and southwestern Anatolia (Gibbons 2017; Lazaridis et al. 2017).

This civilization is generally called Minoan, after the legendary king Minos of Knossos, who according to later Greek traditions developed a naval dominance of the southern Aegean in the second millennium BCE:

Minos, according to tradition, was the first person to organize a navy. He controlled the greater part of what is now called the Hellenic Sea; he ruled over the Cyclades, in most of which he founded the first colonies, putting his sons in as governors after having driven out the Carians. And it is reasonable to suppose that he did his best to put down piracy in order to secure his own revenues. (Thucydides I.4)

In fact, most of what know of this early culture derives from several limited sources. Beyond Homeric texts and scattered references in later Greek historical works, the archaeological excavations of various cites, including palace structures as Phaistos, Mallia, and Zakro, are the main sources. The earliest and most (in)famous excavations were conducted of Knossos by Sir Arthur Evans (1900-1935), but many of the conclusions he reached, and his reconstructions of the art and architecture of the Minoans have been challenged as erroneous (Castro 2020). Nonetheless, these people did build major ‘agglutinative’ type palaces with numerous internal rooms, whose walls were often covered with splendid murals. One of the largest examples of such structures is the palace at Knossos itself, though the function of some rooms remains under dispute, as does the interpretation of the murals (see Wunderlich 1974 for one controversial view).

These palaces, moreover, may be expansions of earlier modes of social organization. An analysis of earlier foundations, such as the small centre at Myrtos, demonstrates that a kind of ‘central living complex’ was then added to organically, and was a common feature of Cretan society by approximately 2900 BCE (Warren 1972, p271). This early settlement also shows clear evidence of

occupation and everyday use, e.g. a pottery-making area, rooms where fleeces were washed, along with the presence of hearths. The palace culture probably grew out of particular social formations, where a group of families, perhaps even a clan, were willing to live together in efficient but close proximity (Willetts 1980, pp207-208). It is not certain whether these early 'palaces' always had a king or chief, though this seems to be likely for the second millennium from our evidence in the Linear B tables (see below).



Reconstruction of part of the palace at Knossos, Crete

(Image by [davestem](#), courtesy of [Pixabay](#))

The construction of these palaces represents a major investment in time and effort for these small societies. They were maintained for long periods, and even when destroyed by earthquakes they were at least partly rebuilt. A highly organized culture was required to marshal labour for this effort, to control food and resources, and to be engaged in the trade which the Minoans conducted throughout the eastern Mediterranean, especially with Egypt, Ugarit, Cyprus, and mainland Greece. It is even possible that they imported sesame and cumin from the Near East (Fitton 2002, p17). At the same time, we need to be careful in suggesting an Aegean naval empire focused on Crete:

The concept of a Minoan thalassocracy during the Middle to Late Bronze Ages is well entrenched. Several sociopolitical or ideological bases of Minoan sea power have been proposed: conquest, transplanted 'community colonies', merchant enclaves or 'special trading relationships' . . . In a spirited defence of Minoan supremacy Wiener proposes that various sites in the Cyclades and Dodecanese, and along the western coast of Anatolia, formed part of a Minoan empire, and that Knossos dominated the principal trade networks within the Aegean. However, even if the Minoans exercised some level of control over intra-Aegean trade, their participation in exchange systems farther east has been challenged. E. and Y. Sakellarakis maintain that Egyptian Keftiu documents 'clearly indicate the leadership of Crete, the so-called "Minoan Thalassocracy"'. Wachsmann, however, argues that Keftiu

representations in Egyptian art need not represent an Aegean presence in Egypt. Egyptian wall-paintings, furthermore, may simply represent the people of Keftiu as bearers of gifts or merchandise. The recently uncovered 'Minoan style' frescoes at the MB-LB site of Tell el-Dab'a in Egypt's eastern Delta, and Minoan-style painted-plaster floors at Tel Kabri in Israel, open up the likelihood of diverse social or political contacts between Crete and Egypt or the southern Levant. However, unlike the Egyptian wall-paintings, these new discoveries apparently treat cultural (possibly ceremonial) themes, and have nothing to do with economic activity or political dominion in the Bronze Age Mediterranean. (Knapp 1993, p333, see citations in source)

We have four early forms of writing from Crete; these include an early form of pictogram writing, perhaps influenced by the Egyptian hieroglyphic system, and a limited group of seal stones engraved with signs of the 'Arkhanes script' (Schoep 1999). Beyond this, we have an early Linear A syllabic script, which probably evolved out of the pictograms (Caskey 1973, p138), and which has not yet been securely translated. We have only a few of these early documents, mostly from Crete, and brief inscriptions found in Melos, Thera, Ceos, in the Argolid and Messenia. Last, we have a larger number of Linear B records, most of which refer to administration, to the control of resources, supplies and manpower. It seems likely that scribes with a certain level of specialized knowledge would have taught and used this script, and that such a knowledge was essential for administrative purposes. Although priests and priestesses are mentioned in these documents, and some kind of intense religious devotion might be implied from Cretan art, including their seal stones and wall paintings, we do not find extended temple complexes in Crete. Nonetheless, the society seems to be rather hierarchical and highly organized, but it does not seem to be a warrior society since the early phases of Cretan architecture do not show large-scale walls or fortifications (Willetts 1977; Finley 1977). The strong representation of female figures may suggest a more egalitarian culture than later Greek societies, but does not strongly support the claims for a matriarchal society (contra Willetts 1977, p129), though this is not impossible. The idea that in the second millennia there was an extended matriarchal society based on the worship of the Great Goddess, though at best an overstatement of limited historical materials, has nonetheless been used to help launch a creative re-appraisal of the nature of human sexuality in its historical context (see Eisler 1995, pp16-18; Huton 1997).

Unfortunately, we do not have enough literary fragments to give us any idea of the types of oral literature and religious forms of expression that existed alongside the administrative use of Linear B. It seems likely that a society which could produce such a developed visual art could also produce a highly developed oral literature. Unfortunately, writing does not seem to have been commonly used to record their myths, stories or histories. Rather, it was used mainly for administrative purposes, recording economic and human resources. The archaeological and written evidence does show some evidence of cults, but these are rather different to later Greek counterparts. They suggest 'a tradition of vegetation worship, a dominant goddess in association with a young male, ecstatic dancing and sometimes mourning rites, animal and bird cult figures, a sacred conception of trees and plants connected with axes, stones and pillars.' (Willetts 1977, p116).

Palace building seems such a significant feature of Minoan civilization that the main stages of their civilization have been correlated with it (adapted from Willetts 1980 & Fitton 2002): -

7000 BCE – Neolithic period
3200 - 1950 Pre-Palatial Minoan (early Bronze age)
1950 - 1700 Proto-palatial Period
1700 - 1450 New Palace Minoan
1450 – 1375 Final Palatial Period
1375 – 1200 Post-palatial Period

After 1450 B.C. these most of these palace-building locations went into sharp decline, a mystery which has not been fully solved. Earthquakes may have caused serious damage to many palaces circa 1700 BCE, but this did not stop a new cycle of impressive rebuilding (Willetts 1977, p68). It is possible that the huge explosion of the volcano of the island of Thera (Santorini) may have helped undermine this civilization.



Ancient Pots in archaeological site of Bronze Age Akrotiri, Thera (Santorini), Greece

(Photo by Dimitris Mourousiadis, courtesy of Pexels:

<https://www.pexels.com/photo/ancient-pots-in-ruined-akrotiri-thera-greece-6613935/>)

Aside from the immediate damage due to earthquakes and tidal waves, there may have been a longer term and more insidious structural effect. Colin Renfrew put forward the idea that the huge amount of ash and debris which would have covered most of the east of Crete following the explosion and would have reduced soil fertility for some decades until it could be broken down and absorbed. Remembering that this society was built on the careful use of a modest surplus, a ‘systems crash’ would then have reduced the palace culture on most of the island, though palaces at Knossos did

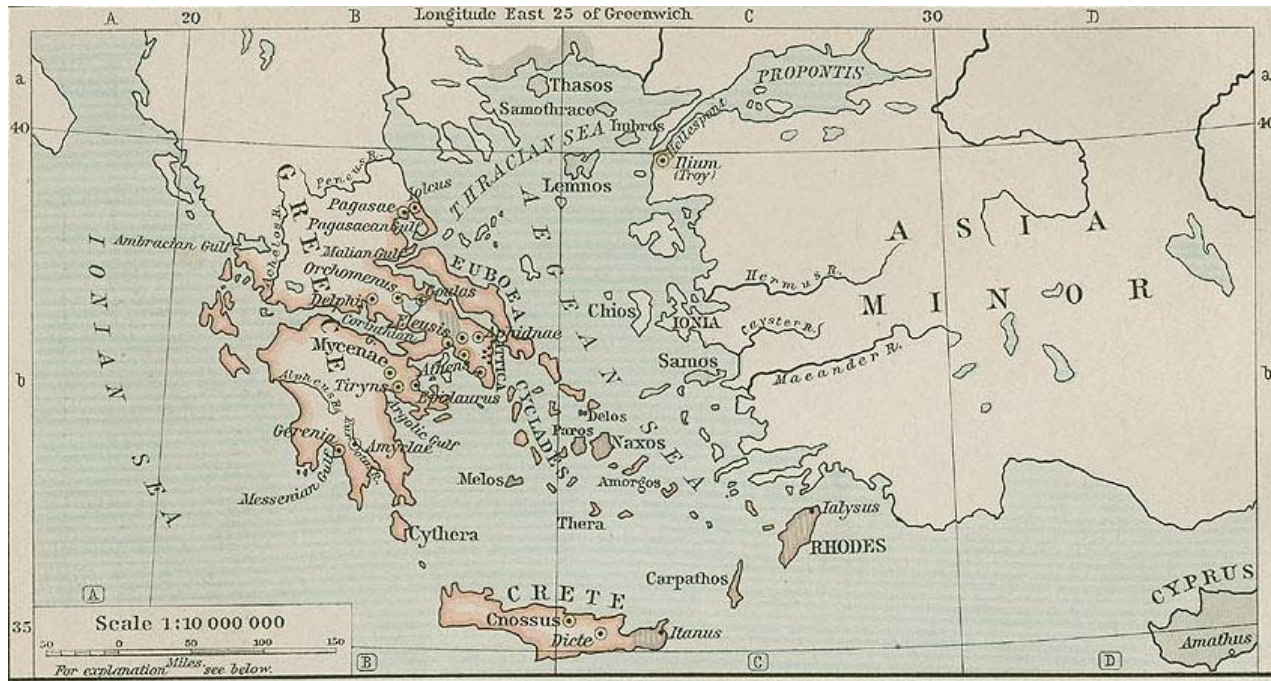
continue for a time (see Edey 1975, pp109-110; Fitton 2002, p6). Critiques of this theory have noted that earthquakes and related disasters are common across the region, that rebuilding and adaptation has often occurred in these societies, and that a precise chronology linking the Santorini eruption to the fall of Minoan culture has not been established (Westra et al. 2022). Another approach suggests that natural disasters may have made Knossos more vulnerable to invasion, probably from more war-like and less-affected Mycenaean centres (see Willetts 1997, p135). In any case, Mycenaean culture became more important towards the end of this period, perhaps circa 1450-1200 BCE.

4. The Mycenaean Culture - Foundation of the Greek World?

The term 'Mycenaean' derives from the Bronze Age city in Southern Greece, called Mycenae. This site, one of the first excavated by Heinrich Schliemann (1822-1890), has been taken to typify the type of culture found during this period, especially for circa 1600-1200 BCE., in southern and central Greece. This type of culture seems to have spread into the south and south-eastern Aegean, Miletus (Blegen 1975, p166), Rhodes and was even carried back in a different form into Crete itself (see below). Overall, there was some continuity of population groups across Minoan, Mycenaean, and later Greek groups, as noted in the summary one recent genetic study:

Minoans and Mycenaeans were genetically similar, having at least three-quarters of their ancestry from the first Neolithic farmers of western Anatolia and the Aegean, and most of the remainder from ancient populations related to those of the Caucasus and Iran. However, the Mycenaeans differed from Minoans in deriving additional ancestry from an ultimate source related to the hunter-gatherers of eastern Europe and Siberia, introduced via a proximal source related to the inhabitants of either the Eurasian steppe or Armenia. Modern Greeks resemble the Mycenaeans, but with some additional dilution of the Early Neolithic ancestry. Our results support the idea of continuity but not isolation in the history of populations of the Aegean, before and after the time of its earliest civilizations. (Lazaridis 2017)

Mycenae was one of the greatest of these fortified mainland sites. However, there is no strong evidence that Mycenae totally dominated all these other centres: political leadership is only assumed because in Homer's *Iliad* we are told that Agamemnon is the overlord of all the Achaeans, forces. Some writers have inferred a loose hegemony of Mycenae over other mainland centres, but this seems mainly drawn from the works of Homer. Though Mycenae might have authority over the nearby Argolid (northeastern Peloponnese), it was unlikely it had control over Thebes, Pylos, or Iolkos (Finley 1977, p56). Thus, when we use the word Mycenaean we are referring to a type of homogeneous culture, identified by its physical remains: its palaces, fortified walls, writing, and other artifacts, especially pottery. We are not necessarily referring to a political unity. This Mycenaean culture seems to have been born from the confluence of earlier Helladic societies (from 2300 BCE) with borrowed cultural aspects of Minoan culture (from 1600 BCE on).



Mycenaean Greece circa 1450 BCE

(courtesy PCL Map Library, Detail from *The Historical Atlas* by William R. Shepherd, 1911)

We have few exact dates in this period: most dating is based on stratigraphy (layers in archaeological sites), and on a series of pottery styles which are then approximately cross-dated to exported items which ended up in Egypt, Palestine and Syria (Blegen 1975), where Near Eastern traditions (kingship lists and official histories) do allow more exact dates to be calculated (Caskey 1973, p137). Common ‘periods’ derived from archaeological evidence and discussed in the literature include: -

Early Bronze Age 3200 - 2000 B.C.

Middle Bronze Age 2000 - 1600 B.C.

Late Bronze Age 1600 - 1100 B.C.

Late Helladic I : - 1600 - 1500

L.H. II: - 1500 - 1400

L.H. IIIa: - 1400 - 1300 (Known sites = 90)

L.H. IIIb: - 1300 - 1200 (Known sites = 143)

L.H. IIIc: - 1200 - 1100 (Known sites = 64)

(Desborough 1975, p669. Note the overall rise of Mycenaean sites from L.H. IIIa into IIIb, following Stubbings, 1975, p350-2, with a decline in later phases).

We can see that there is an overlap between the Minoan and Mycenaean cultures, with latter reaching its own peak and beginning to decline by around 1200 BCE. The traditional date for the events of Trojan War, which are the basis of the *Iliad*, has been optimistically given as 1183 BCE (Feder 1964, p188) but would certainly lie between the 13th and 11th centuries. Homer’s work was created several

centuries later, perhaps circa 750-700 BCE (Lenden 2005, p396), though it may have been based on oral kernels that stretched back before this, carried forward by bards and bardic communities through the ‘dark ages’ (see below).

The translation of the writing tablets found in various Mycenaean sites shows that the Cretan Linear B script had been adapted for the use of a proto-Greek language. This implies that the Mycenaeans, on the grounds of the phonology, morphology and vocabulary of their language are speakers of an ancestral Greek language (Chadwick, 1973, p617). It now seems likely that the Mycenaeans were the direct predecessors of the Hellenic Greeks (for genetic arguments, see Lazaridis et al. 2017), and their emergence in Greece has generally been placed somewhere between 2000-1600 BCE when Mycenaean-type centres began to be established on the Greek mainland.

More recently archaeological research has placed their arrival a little earlier, perhaps as early as 2100 BCE in the Argolid, and by 1900 BCE for the rest of the mainland (see Chadwick 1975 p815; Renfrew, 1989, p16; Childe 1915, pp196-207). Archaeological evidence suggests that there may have been more continuity between the Minyan ware people of the 3rd millennium and the Mycenaeans than previously thought. Gordon Childe thought that this Minyan ware may have heralded the arrival of a new people, but some scholars look towards an early phase around 2200 BCE when ‘an assemblage of pottery is found on a number of maritime Greek sites which does indeed resemble pottery from north-west Anatolia’ (Renfrew, 1989, p175). On the basis of this and linguistic evidence it is possible to suggest that “the ‘Greeks’ came to Greece in a single, though possibly gradual, population movement around the end of the third millennium BC, and that Greek *in toto* is the product of the contact between the Indo-European dialect(s) of the incoming population and the language(s) of the indigenous population.” (Horrocks 1997, p13). This view is somewhat complicated by the strong genetic similarities across Minoan and Mycenaean peoples, though an extra genetic strain (4-16%) related to Siberian and eastern European hunter-gathers may have entered the Mycenaean population, but did not arrive at Crete (Lazaridis et al 2017). This allows for the possibility of a second wave of people coming in via Armenia or East Europe, but there was nonetheless strong genetic continuity with earlier local populations (Gibbons 2017).

Colin Renfrew goes back further to suggest that the origins of the Greeks, and the Indo-European language speakers in general, may be sought in the early spread of agricultural practices from 6,500 onwards out of Anatolia (Renfrew, 1989). If so, the true cultural, linguistic and population sources of the Greeks, in a very attenuated form, might stretch back to the 7th millennium BCE. Our problem, therefore, will be one of definition. What defines ‘the Greeks’ then becomes an issue in setting up a cultural frontier where language, ethnicity and political culture play a part, a problem also found for the hazy construct called ‘Europe’. However, the main evidence against Renfrew's hypothesis of a long-extended continuity of a ‘Greeks’ in the Aegean region would be the existence of pre-Greek language there in the 3rd millennium BCE. Blegen and Haley in 1928 suggested that many non-Greek, and therefore pre-Greek place names, e.g. Korinthos and Tylissos, probably derived from the Early Bronze Age. However, it must be noted Caskey feels that a people akin to those of the Middle

Helladic migrations may have arrived a little earlier than previously thought, introducing a new culture in Early Helladic III. It is also possible that some or all of the foreign place names, though not proto-Greek, may still be of Indo-European origin (Caskey 1973, p139). In sum, the mixing of these people over hundreds of years would have then allowed the evolution of Greek cultures in an Aegean setting. By 1400 BCE. they were speaking a substantially Greek language (Renfrew, 1989, p62).

The implications of this hypothesis of Mycenae as essentially a Greek civilization has some interesting ramifications. Maurice Kelly, for instance, suggests that the people of Troy, specifically of the archaeological level Troy VI, was founded about 1800 BCE by a branch of the same people who had recently entered Greece - however, these Trojans did not undergo the same influence from Minoan culture as did the mainlanders (Kelly 1974, p14). Caskey agrees that the sixth level of the difference settlements on the site of Troy signalled the arrival of a new population who arrived with horses, and who also used Minyan pottery ware similar to that used in mainland Greece (1973, p132). If so, the Trojan War as fought between related peoples, cousins if not brothers. This would help make sense of the strong similarities between the social customs of the Greeks and the Trojans as portrayed in the *Iliad*. The Trojans do not appear as foreign barbarians with a distinctly alien culture, unlike the later portrayal of the Persians in the historian Herodotus. Note for example, the shared customs of single combat, chariots battles, notions of becoming a suppliant, and shared burial customs, all of which are required to make sense of the second half of the *Iliad*. Alternatively, it is possible that a bard such as Homer would have been forced to project the customs of his own people onto national enemies in order to humanize them, or at least make them intelligible. Rather than seeing the Trojans as related to Greek groups ethnically and linguistically, other writers have explored the cultures of diverse Anatolian peoples, including Luwian and Hurrian groups that interacted with the Hittites and their successors in the late second millennium BCE (Sarapli & Broyles 2019). Troy and its immediate region would at the least have had trade and diplomatic interactions with both the Aegean and Anatolian worlds.

When we speak of the ‘culture’ of the Mycenaeans we are actually referring to something quite technical: ‘a recurring assemblage of artifacts from archaeological sites in a region’ (Renfrew, 1989, p24), which might be identified to varying degrees with a specific people in an ethnographic sense. These assemblages are also assumed to have a certain contiguity in time and space which accounts for their unity, and also allows the archaeologist to posit a history and time-scale for the associated people who carry forward this culture. At present, the question of ‘ultimate’ origins of the Greeks, and the ‘Indo-Europeans’ (if this term is anything more than a linguistic epiphenomenon), remains unanswered. Clearly, however, an early Greek culture was already thriving in the Mycenaean cities circa 1400 BCE.

5. The Main Features of Mycenaean Civilization

Rather than focus on origins, it might be more useful to look at the key features of Mycenaean culture as revealed in our limited sources: -

1. Mycenaean religion and classical Greek religion seem to have somewhat different belief systems, so far as we can infer from their material remains (Renfrew, 1989, p195; Caskey 1973, p137). Nonetheless, there are a few signs of continuity from Mycenaean down into later epochs. Though Cretan and Mycenaean religion may have been more focused on special natural sites, e.g. forests and caves, there are at least two sites that seem to have continuity into classical times. One is a long narrow building, now identified as a temple, at Paroika in Paros. Constructed in the Middle Bronze Age, it was continuously used and modified through to Hellenistic times. As early as the 6th century BCE. it was a sacred site to Dionysus (Caskey 1973, pp130-131). Likewise, Eleusis seems to have been a holy site from before the 'Greek' Archaic period. However, in general it is true to say that with the exception of Eleusis, Paroika, Ceos and Delos, that few temples have been found dating from the Mycenaean period itself (Finley 1977, p57; Caskey 1973).

2. The building of palace societies within fortified cities was the Mycenaean norm, unlike the earlier Minoan settlements of Crete, which were at first not protected by defensive walls. Stone walls and fortifications are found at many Mycenaean sites, including Pylos, Mycenae, and especially Tiryns (of the 'Cyclopedian walls', walls so large they were viewed as having been built by the race of giant Cyclops, Bury 1913, p21).

3. These societies seemed to have been centrally organized and rather bureaucratic in their control of agriculture, resources and industries. Linear B tablets from Pylos list 270 smiths by name, with records for the distribution of bronze from a central source (Belgen 1975, p176). Likewise, the production of linen by female unfree labour seems to have been a state monopoly, and one which may have prompted an active trade in skilled slaves.

4. The class structure of these societies is not altogether clear. From the Linear B tablets of Pylos we can see that at this site they were led by kings (*wa-na-ka*), who probably controlled a special proportion of the land called the *te-me-no*. We also hear of a *te-me-no* of the *la-wa-ge-ta*, 'leader of the people', whose function is not clearly spelt out (Belgen 1975). It is possible he may have been a war leader, or some kind of 'tribune of the plebs' (Belgen 1975). We also hear of the *e-qe-ta*, whose names are distinguished by patronymics and had military duties. Last, we hear of the *qa-si-re-we* which seem to have lead subordinate towns (Belgen 1975).

Land holding was of two sorts; *ki-ti-me-na*, private lands, and *ke-ke-me-na*, perhaps public lands (Dickinson 1994, p84). Carl Blegen suggests that this reflects a dual population, with the private lands owned by conquering immigrants (1975, p180). There is no clear evidence for this, though those who tended the public lands may have been dependents of the king. This does not necessarily imply that they were totally unfree, nor that they were a subject population. It is clear that there were elite groups, probably based on the three-fold requirements of lineal descent (kings and the *e-qe-ta*), control of land, roles as Mycenaean officials (Davies & Duhoux 1984 p264), and the military leadership. However, there does not seem to have been an aristocracy in the Homeric sense of a relatively independent group of land-owners and princes who had only limited obligations to their kings.

5. Royal shaft graves were built during the late phase of the Middle Helladic culture, especially at Mycenae. These shaft graves were superseded by even more monumental 'beehive' or 'tholos' tombs; circular chambers built of stone with horizontal courses which come to a point, then covered with a mound of earth. It seemed that during this period leaders and kings paid more attention to monumental graves than to large-scale domestic architecture in stone (Finley 1977, p54). The size and wealth of these graves suggests a considerable and perhaps sudden acquiring and concentration of wealth (Caskey 1973, p135). It is also possible that this reflects a shift in the status of the chieftain into that of a true king. However, we need not go so far as Frank Stubbings (1973, p641) as to suggest that this change in the social and political situation is 'most readily explained on the assumption of invasion and conquest.' In this view, by the Late Helladic II period (15th century BCE) 'under the new overlords Helladic Greece was taking on a different aspect; what had been a village civilization was replaced by a palace civilization' (Stubbings, 1973, p642). However, it is possible that the growth in wealth and the increased exploitation of existing resources of the Aegean, perhaps stimulated by the decline of Minoan and Hittite strength, can account for the growth of palace societies without demanding the hypothesis of another phase of invasion.

6. The influence of Minoan culture, especially in art, architecture, and in the adoption of Linear syllabic script, was very strong. However, this was a two-way process after 1600 BCE. Linear B may have been a mainland adaptation which was later exported back to Knossos around that time. However, after the mysterious destruction of the Minoan palaces after 1400 BCE (the final destruction of Knossos may be re-dated to 1375-1350, 1250-1200 or even 1150 BCE, see Horrocks 1997 p3; Willetts 1997, pp136-140), Mycenaean culture develop more independently. This may have helped extend their power in the Aegean (Blegen 1975, p165).

8. The use of Linear A and B writing scripts was very important for these bureaucratic societies and their centralized administration. Without the use of money or other forms of record-keeping, this was a key tool in allowing extended social structures to emerge. Indeed, it is possible that writing in Sumeria first emerged out of simple counting systems designed to keep track of physical resources such as herds, grain supplies, the issuing of rations and so on. Scribal contributions to urban and temple life remained central to Mesopotamian societies for some three millennia, focused most strongly on economic and administrative roles and only thereafter serving a literary function (see Van De Mieroop 1997, pp217-218). The extended records of the Akkadian, Egyptian and Hittite cultures carried out a similar function. Once Mycenaean culture collapsed into more localized village centres after 1050 BCE., there was little need for the complex administrative system and distribution network which was the basis of the palace-culture. Likewise, intact scribal traditions and teaching may have been disrupted – the teaching of non-alphabetical languages was a long and difficult task carried out usually by professional elites (Van de Mieroop 1997, p221). This sort of record-keeping disappears, to be replaced by adapted Phoenician alphabetical scripts, perhaps transmitted via Ionian Greek cities in Asia Minor, circa 800 BCE (for complex issues surrounding this process, see Horrocks 1997, pp3-7; for an alternative Euboean origin, see Powell 1991).

9. Mycenaean influence expanded into the eastern Aegean, with the presence of Mycenaean pottery throughout the Levant indicating extensive trade routes. Moreover, very large pottery finds and tomb contents in Melos and at Ialysus on Rhodes suggests direct Mycenaean connections by Late Helladic II. Contacts are also strong with Miletus and at Troy itself (Stubbings, 1973, pp644-5). If not an extended empire, this is certainly part of a sphere of economic and cultural interaction that would set the contexts for later Greek views of their world and its horizons, as found in the works of Homer and Hesiod. Since Mycenaean was itself an early form of the Greek language (Horrocks 1997, p3), it

was a 'cultural channel' of continuity from the Bronze Age into the first millennium BCE., even as much else was destroyed or transformed. Some of these trends have been summarized by G. Horrocks: -

'Mycenaean' has thus emerged as the earliest dialect of Greek, which now boasts the longest recorded history of any European language (from the thirteenth century BC to the present day). Unfortunately, writing disappeared with the collapse of the Mycenaean civilization, and the Greek world entered a 'Dark Age'. But during the late ninth or early eighth century, writing was reintroduced in the form of an adaptation of the Phoenician alphabet, in which redundant consonant signs were redeployed for the first time to represent vowel sounds. (Horrocks 1997, p4)

6. Development and Discontinuity of Early Greek Civilization.

Sometime after 1150 B.C. Mycenaean civilization shows signs of decay and destruction. This included the collapse of most centres, the disruption of the palace culture, and the loss of known examples of writing, except for some special scripts and partial continuity in Cyprus (see Iacovou 2008). Various solutions have been provided to account for the decline of this culture, including the traditional (but now disputed) notion of a mass invasion of Dorian Greek peoples from the north or north-west (Horrocks 1997). Rather, it seems likely that many speakers of West Greek already existed in southern Greece, perhaps as a 'working class' for a Mycenaean elite (Horrocks 1997, p13).

Colin Renfrew (1989, pp133-135) has suggested that Mycenae underwent not so much an invasion as an internal collapse due to external pressure and internal over-extension. The idea here is that as the civilization develops and controls more resources, it tends to both expand outwards, and also to develop craft and role specialization which promotes a greater development of high-status elites. However, during a bad season, and under greater population pressure, the entire system is in jeopardy. Furthermore, there is greater pressure for wealth-access from opposing groups on or across the frontier. Once the production and distribution systems begin to break down, there is an immediate turn away from craft and crop specialization back to subsistence farming, and elites are unable to control sufficient surplus to maintain their specialized society. This collapses the elite structure, and its palace system, though the bulk of the ordinary farmers may be able to survive. This 'systems collapse' theory (for its evolutionary context see Flannery 1972) has been applied to explain the sudden disappearance of other civilizations and empires, e.g. the Mayans of Mexico.

Renfrew suggests that the Greek 'Dark Age' was caused in this fashion, while those who support the invasion hypothesis have found it very difficult to find traces of these supposed destroyers in the archaeological or documentary record (Renfrew, 1989, p135). However, there may have been some minor movements of peoples which account for the pattern of dialects later found in archaic and classical Greece (Renfrew, 1989, p136; Horrocks 1997). On this hypothesis there would be no waves of Dorian and Ionian invaders entering the Aegean area and directly causing the Mycenaean collapse, but rather smaller movements of people being able to filter in an already destabilized Mycenaean political sphere.

Rhys Carpenter (1968) has a somewhat different view in his *Discontinuity of Greek Civilization*. Noting the apparent non-violent abandonment of some Mycenaean sites, and that there may be a gap between the destruction of sites and their occupation by new settlers, he feels that there must have been some reason other than invasion for this discontinuity (Carpenter 1968). Having studied the weather and climate of the Mediterranean, he notes that there have been numerous shifts in the height of the sea level, correlating with periods of greater and lesser amounts of polar ice during the last 3,000 years. During a level of high seas, the polar weather system retreats northwards across Europe. This has important climatic effects. Essentially, it allows the north-eastern trade winds to advance across southern Greece and dominate its weather. These trade winds are dry, and this would result in eight months of dry weather (rather than the usual four). The result would be a period of increasing drought and famine in these areas, and would be followed by emigration into better areas, e.g. Attica, and the south-eastern islands of the Aegean, which seems to have occurred in the late 12th century. Eventually, this change of climate would have led to the destruction of the wealthier Mycenaean centres, and the abandonment of many sites (Carpenter 1989). During this phase, too, there may have been local revolts by poor and starving subjects who would have tried to gain access to the reserves of food held in palace storerooms. Carpenter's theory has been the centre of considerable debate: although strongly attacked at first, his hypothesis has received some circumstantial evidence from later regional weather cycles (see Weiss 1982). It now seems possible that such weather conditions might have dominated southern Greece around 1200 BCE (Croke, 1990, pp172-3).

The related models of Renfrew and Carpenter are attractive, but other developments during this period suggest that there were human enemies to be reckoned with as well. The later part of this period (Late Helladic III, 1400 BCE onwards) is more commonly marked by fortified towns than the Middle Bronze Age (Caskey, 1973, pp132-33). In L.H. IIIb the walls of Mycenae seem to have been extended and strengthened, as well as those at Tiryns and Athens (Stubbings, 1975, p352). During this period fortifications were also set up on the Isthmus of Corinth, probably to defend against an attack from the north. There is some evidence of destruction and attacks on north Peloponnesian sites during this time, e.g. Zygouries was destroyed, houses outside the Mycenaean walls were destroyed, and there is evidence of fires at Tiryns (Stubbings, 1975, pp352-3). However, the archaeological chronology of these sites is not exact. They may have occurred over a range of 20-50 years, but cannot be linked to the traditional explanation of Dorian invasions at that time (contra Stubbings 1975, p354). Neither pottery sequences, nor carbon-dating can give exact dates this far back. Rhys Carpenter (1968) thinks that the Dorians entered southern Greece at a somewhat later date to fill in a vacuum created by the earlier fall of the main Mycenaean sites.

However, linear B Tablets from Bronze Age Pylos written within months of the sack of the palace, suggests that there was some immediate danger to be feared. A group of tablets (PY An 657, 519, 654, 656, 661) speak of an organized force of 800 men who were coast-guards: "Thus the watchers are guarding the coastal regions." One of the tablets, PY Tn 316, shows hasty and unfinished writing of a series of expensive offerings to the gods. Tentatively, it is possible that this was written just before the destruction of the city (Chadwick 1973, pp623-626). These texts, however, are limited and their context uncertain. It does seem, then, that there was some immediate threat to the Mycenaean

centres of southern Greece, perhaps in conjunction with the widespread movement of Aegean peoples called the 'Sea Peoples.' It is possible that an earlier invasion failed, but that Mycenaean civilization then collapsed largely due to structural problems (perhaps exacerbated by climate change). Some 50-150 years later the main Dorian migrations into southern Greece may have occurred (Finley 1977, p81). It is from this point that a rather different society, with different literary formations and information regimes, begins to take shape.

7. Heroes and Bards: The Not-So-Dark Dark Ages

The so-called 'dark ages' reflect the fact that the loss of writing and reduction in the scale of archaeological sites have made this period one 'dark' to later historians. However, there was also some decline in material culture, suggesting patterns of destruction and relative poverty (Finley 1977). Archaeologists would correlate this period with the Proto-geometric and Geometric periods, on the basis of emerging pottery styles (Willetts 1977).

This description of the period 1200-800 BCE (especially 1050-800 BCE) as a Dark Age, is based on several factors; -

1) The loss of the use of Linear B and the absence of related administrative and historical records. Aside from archaeology, our only other evidence comes from legends, genealogies and later naming patterns that reflect earlier linguistic usages for cities and locales. Likewise, any recording of events in a shared chronological or annual framework seems to have lapsed (Desborough 1975, p795), at least until the Olympic games were set up on a regular basis (every four years) after 776 BCE, according to traditional dating. One of the earliest surviving Greek alphabetic inscriptions is found on an Attic vase from circa 720 BCE (Willetts 1977, p156).

2) This was a period where much of Mycenaean culture was destroyed in mainland Greece. Sites such as Mycenae, Tiryns, Pylos and parts of Boeotia suffered total or partial destruction (Desborough 1975, p659, p662). Only parts of Thessaly, Achaia, some of the Aegean islands, and Attica show cultural continuity. Likewise, the Mycenaean settlement of Emborio on Chios was destroyed sometime during this period, as was the ancient settlement at Miletus (Desborough 1975, p667).

3) The centres that do continue are smaller, lack the large palace structures of the past, and there is an absence of bronze metal-working on any scale, while the use of iron becomes more important (Finley 1977, pp74-75). Likewise, there is a decline in gold-working on the mainland (Desborough 1975, p673). Both trends may be due to the disruption of trade routes (especially to Cyprus and further eastward), or the lack of sufficient wealth to trade for some of these metals, especially tin, need for making bronze (see Finley 1977, p79). Likewise, pottery styles seem to degenerate from earlier brilliance into the so-called sub-Mycenaean type, before the evolution of a simple proto-Geometric style begins to emerge (Desborough 1975, p664).

4) There is evidence of movements of peoples, some southwards into central Greece which may constitute the so-called Dorian 'invasions', though in some cases these may have been more gradual migrations. Other groups move away from southern and central Greece into Attica, Euboea, the south-east Aegean, especially Cyprus and Rhodes (Desborough 1975, p680). Likewise, many smaller

Mycenaean sites seem to have been deserted rather than destroyed (Desborough 1975, p663, p669). It is likely that there was a movement of northern and north-western Greeks into the Peloponnese during this period, though it may have been after Mycenaean society had already collapsed. This movement may have compromised a relatively small elite rather than a mass migration

5) It seems likely that there was a severe decline in population on the mainland at this time. This would fit in with Rhys Carpenter's hypothesis (1968; see above) of climatic change leading to droughts and consistently poor harvests, which might trigger this early wave of emigration and then inward migration.

6) Burial customs changed as well. By circa 1050 BCE cremation was universal in the Greek cultural area, but by 250 years later inhumation became common on the mainland while cremation continues in Ionia, Rhodes, the Cyclades and Crete (Finley 1977, pp83-84).

7) When earlier forms of writing were discontinued, oral culture carried forward poetic accounts of the past that were passed down by bards, thereby creating alternative means of transmission into the archaic period that in turn became new modes of memory and culture: -

These stories probably began as short tales of isolated events and heroes; eventually a profession of story-telling was established - classical scholars call this new professional a "bard." This new professional began combining the stories into larger narratives; as the narratives grew, the technique of story-telling changed as well. Whereas early bards probably memorized their stories with great exactitude, the later bards, telling much longer stories, probably improvised much of their lines following sophisticated rules. Maybe. We have evidence from the classical age in Greece of people memorizing the complete poetry of Homer word for word (over 25,000 lines of poetry); it may be possible that the Homeric poems were memorized with more exactitude than scholars believe. No matter what the case, by the end of the Greek Dark Ages, these bards or story-tellers were probably the cultural center of Greek society; their status improved greatly as Greeks began to slowly urbanize. (Hooker 1999)

In summary, the Dark Age saw the final collapse of the Mycenaean political system in mainland Greece, and the end of large-scale kingships, with the exception in later times of Thessalian war leaders and the Macedonian kingship (Desborough 1975, p669). A rather different timeline occurred for events in Ionia and especially for Cyprus, which retained kingship as an institution and the use of a pre-alphabetic script called the 'Cypriot syllabary' (Willets 1977, p156; Iacovou 2008; Horrocks 1997; Finley 1977, p79). It is likely that there was a real decline in population, wealth and cultural resources during this period. This 'dark age' represents a partial discontinuity with Mycenaean culture. What we see emerging instead is a less centrally organized and less materially wealthy group of societies, usually aristocracies, often focused on a king, though this king did not have absolute powers and was perhaps only a 'bit more' than 'first among equals' (Finley 1977, p86). This was the age commemorated in the heroic epics of Homer, and partially reflected in the later poetry of Hesiod (taking definitive shape perhaps in the 8th century BCE).

The period from 1050 to 900 BCE was one of relative poverty, as far as we can tell from the material culture that has been excavated. This poverty, ironically, allowed the reconstruction of a new society and new cities, as well as encouraging migration to Asia Minor and Ionia (Cook, 1975, p782; Strabo

XIV, 632-3; Pausanias VII, 2-4). Moreover, it was also a period of expanding settlements and trade contacts with the fringes of the Greek world. As summarized by V.R. Desborough; -

In sum, it may be said . . . that this was a time of solid achievement. There will no doubt have been a fair amount of sporadic warfare, but this did not impede peaceful development. The fact and the range of influence of Attic pottery indicates normal, and mainly seaborne, communication. The general improvement of the potter's art, and that of other craftsmen, argues a time of greater stability and leisure. The southern and western Peloponnese may have kept out of the main stream, but there was no absolute isolation. There was no reversion towards the conditions of the Mycenaean world; instead there was a progressive movement towards the conditions under which the independent city-state developed. (1975, p675)

8. The 'Archaic' Period (800-600 BCE)

This period was 'Archaic', of course, only when we look back from certain developments in the subsequent classical period. This 'reading backwards' is one of the sources for bias in our analysis of various historical periods, since it usually infers that one epoch is better, more valuable, or more advanced than another. This may be true on specific criteria, but should not force us to treat one culture merely as a precursor for another. It often assumes a specific evolutionary or cyclic framework of historical analysis that falsely colour how data is interpreted. On the contrary, the Archaic Period may be in many ways the most crucial for the further development of Greek culture and society. It was during this period that a structural revolution took place that firmly established the economic and political structure upon which Hellenic culture rests. In the words of Anthony Snodgrass; -

It <the Archaic Age> established the economic basis of Greek society, as well as the main outlines of its social framework; it drew the political map of the Greek world in a form that was to endure for four centuries; it set up, with even greater permanence, the forms of state that were to determine Greek political history; it provided the interests and goals, not merely for Greek but for Western art as a whole, . . . it gave Greece in the Homeric epics, and ideal of behaviour and a memento of past glory to sustain it; it provided much of the physical basis, and perhaps also of the spiritual basis, of Greek religion; and it furnished many lesser things, among them the means for Greek society to defend its independence militarily (Snodgrass 1980, p13).

Thus, after periods of partial destruction, it is possible that parts of Crete returned to relative prosperity, with new political form of organization being the city-state, the replacement of iron for bronze tools and weapons (but fine bronze artistic works are also being created), and a new city-state economy emerging with a wider market framework (see Willetts 1977, pp151-152).

Trends for 800-600 BCE include: -

- 1) Rapid population growth in mainland Greece during the 8th century. The Dark Ages, of course, probably had an exceptionally low population level, but cemeteries in Athens, Attica and Argos indicated quite rapid growth from 780 BCE onwards (Snodgrass 1980, pp19-23). This population growth, a key factor in generating social complexity and cultural variety, was related to several factors. The partial switch to a greater focus on arable, crop-based farming was likely. During the Dark Ages the wealth of peoples may have been based more on pastoralism, with herds of cattle, sheep and goats forming the basis of their wealth. This picture fits in well with the heroic

conception of life, and descriptions of life as found in Homer's *Odyssey*. However, secure access to and control of specific plots of land may have become more important as population grew and agricultural patterns intensified. There remained a trade-off between access to land and security: -

In what remained a landscape full of unexploited land, it could not have been the case that Dark Age elites kept commoners under their sway by restricting peasant landholding through their own great estates. Nor would it have been difficult for commoner families, dissatisfied with the actions of local *basileis* [king], to leave their settlement and found an independent new hamlet in the vacant niches well away from their oppressors. A pathway to a solution seems to me to be linked to the clear preference for nucleated settlement. People chose to live in communities, in order to gain certain advantages which would outweigh the disadvantages of not living directly on their farm holdings. In any case, with generally small communities the distance to one's fields would still have been short for all farmers. (Bintliff, 1994, p221)

In the classical *polis* (city-state), for example, there was a strong link between land ownership and the right of full citizenship. In Athens circa 403 BCE it seems that at least three-quarters of the citizen body of 20-25,000 owned land (Snodgrass 1980, p37), most having relatively small holdings.

- 2) The beginnings of the *Polis*, the Greek city-state, occurred at this time, though this at first may have been a core town amid a cluster of smaller settlements. Early urban areas in Greece tended to be nothing more than a cluster of villages, often sharing a common nearby communal citadel, i.e. the acropolis or a high, defensible area (Snodgrass, 1980, p31), as found for example in Athens, Corinth and Thebes. In the Mycenaean period, this centralization focused on a palace complex, with perhaps an associated harbour. The *polis* extended this centralization by placing all political, most religious and economic institutions in a central site which then served the country around it (for the importance of centralized religious institutions, see de Polignac 1995). In some cases, we actually have the joining of smaller civic centres into a larger state, with only one central administration. This process is called *synoecism*, and according to Thucydides (II.15) this happened in Attica under king Theseus, with the political roles of the smaller centres such as Eleusis being transferred to Athens. The city-state, then, was both an urban centre and an independent political entity - later Greek ideals were to stress the importance of the *polis* and its autarky, independence, and freedom. There is a rough correlation between the *polis* system and the emergence of democracies, while tribal and *ethnos* organizations tend to remain oligarchies, though this is not a hard and fast rule (Snodgrass 1980, p46). In many ways this may be the beginning of the European version of a 'civil society'.
- 3) The emergence of temples as common cultic centres provided social cohesion that partly replaced earlier palace and kingship solidarities. Minoan and Mycenaean religion tended to use natural locations, e.g. caves, mountains and forest groves, for its cultic sites. Aside from early buildings at Eleusis and possibly Delos, the first major temples as civic centres emerge in the 8th century (Snodgrass, 1980, p33). Some of these centres become the basis for later pan-Hellenic games and festivals (Finley 1977, p87). Evolved temple structures quickly spread throughout Greece as the largest civic structure in the *polis*. Furthermore, from the 8th century we also find a massive increase in bronze dedications made to these shrines, including bronze statues, tripods, fibulae and clothes pins (Snodgrass, 1980, p53.). These dedications are often religious or personal, but soon take on political aspects. Other temples have been found in Prinias and Dreros for the mid-seventh century and early 8th centuries BCE (Willets 1977, pp191-192).



Frieze of horsemen from Prinias Temple (Building A), Archaic Period, 7th century BCE

(Photo courtesy of Dan Diffendale and flickr under Creative Commons License, see <https://www.flickr.com/photos/dandiffendale/>)

- 4) This period saw the initial development of the full hoplite (heavy infantry) panoply of bronze armour, and the advent of hoplite formation fighting, using spears and massed shields to create a phalanx which could break through the enemy line. In the Dark Age and the earlier part of the Archaic period we know that the cavalry officer was the aristocratic ideal, as shown in early representational art on pottery. Such a fighter needed not only expensive weapons, but also enough wealth to support probably at least a couple of horses. However, by the 6th century the hoplite army formation seems to be more significant. It still takes considerable wealth to buy a hoplite's set of arms, but much less than that needed to support a cavalry soldier. With the development of this new infantry tactic, more soldiers, coming from a landed class below the level of the full aristocratic clans, could enter the battlefield. These fighters also had to work in tightly drilled formations, perhaps generating a new sense of social identity (see Hanson 1991). It is possible this development would also give these fighters greater political rights and powers, and provide one of the preconditions for democracy, a trend taken further once fleet rowers became important in the navies of classical Athens and Samos.

- 5) The advent of new patterns of writing across most of the Greek world: -

The eighth century, finally, saw the return of writing to the Greeks, in the form of the alphabet borrowed with modification from the Phoenicians. This fact the Greek tradition had right (though they had no idea of the date). We are in the position to pin the source down to the North Semitic script, and specifically the cursive writing used in business activity rather than the monumental characters of, for example, Byblos. Al Mina may have been the point of contact and diffusion, though that is only a guess, and the first borrowers were perhaps people from Euboea, Crete and Rhodes, more or less independent of each other, from whom the art spread, by a complicated network of routes, to all Greek communities. (Finley 1977, pp87-88)

- 6) The middle of the eighth century was also the start of the great phase of colonization whereby Greek cities sent out expeditions to found cities in the central and Western Mediterranean and

then in the Black Sea. This suggests political crises in homeland cities (Finley 1977, pp98-100), perhaps triggered by over-population in relation to 'free' land resources, bearing in mind the aristocratic control of good land. By this mechanism the Greeks became a major influence across the Mediterranean world, alongside the Phoenicians.



Greeks in the Mediterranean World, circa 550 BCE
(Courtesy PCL Map Library, from *The Historical Atlas* by William R. Shepherd, 1923)

9. The Hero Cult as Remembrance

The hero cult is an important phenomenon telling us a great deal about the social life of archaic Greece. It was based on the idea of special honours given a human, semi-divine hero or founder with special connections to a place, city, tomb, or ethnic group. But on occasions it also points further back, through legend and myth and possible kernels of accurate oral tradition, to the end of the Mycenaean world and the period of change and migration from 1100 BCE onwards. From about 750 BCE the practice of leaving dedications in, or showing reverence to, Bronze Age tombs begins in the regions of Attica, Boeotia, Phocis, the Argolid and Messenia. (Snodgrass 1980, pp38-9). This is part of a broader process of honouring and memorializing heroes from the past.

There are several types of persons who might be honoured with a shrine or cult, or be associated with it: -

1) The historical founder of a settlement or a city. Called an *oikist* or founder, these may have been chosen from one of the noble families in a remote city, and were a common aspect of Greek life during various phases of colonization from the 8th century onwards.

2) The historical founder of a shrine to a God, e.g. the shrine to Apollo at Claros, famous for its oracles, was according to the later writer Pausanias (VII,3,1-2 & IX,18,4 cited by Desborough 1975, p679) founded by Manto, daughter of Teiresias, the blind seer of Thebes. This Manto is said to have led an emigration of refugees to Colophon. Her son, the hero Mopsus, may be one of the few figures of the period confirmed by later Hittite records, where the 'House of Mopsus' is known (Desborough 1975, pp679-80)

3) A hero associated with a tumulus or a tomb, regardless of whether this was factually true. Here legends might be 'attached' to a physical site to help explain it. (This should be distinguished from the reuse of a tomb for burial in later generations, which may not involve any heroic legend as such, Dougherty & Kurke 1993).

4) A hero re-buried on the soil of his homeland around which an official civic cult then developed.

These heroic cults had many functions, both ideological and practical. At the level of culture and ideals, they created a set of standards through which contemporary people could feel themselves part of a great and ongoing process. The actions of heroes sanctified realities in the present as well, e.g. the vague remembrances of the Trojan war with its victory for the Greeks was taken as setting the values for a warrior culture. The early representational art of classical Greek, on their pottery, for example, often displays these heroes and scenes from various myths and epics. The figures are often named, indicating that a sense of history pegged to specific events is developing. This is not just 'a' hero, it is the specific Hero 'x', e.g. Achilles, engaged in a specific incident, e.g. killing the Trojan warrior Hector. Likewise, heroes claimed as ancestors could lift the status of later royal or aristocratic families.



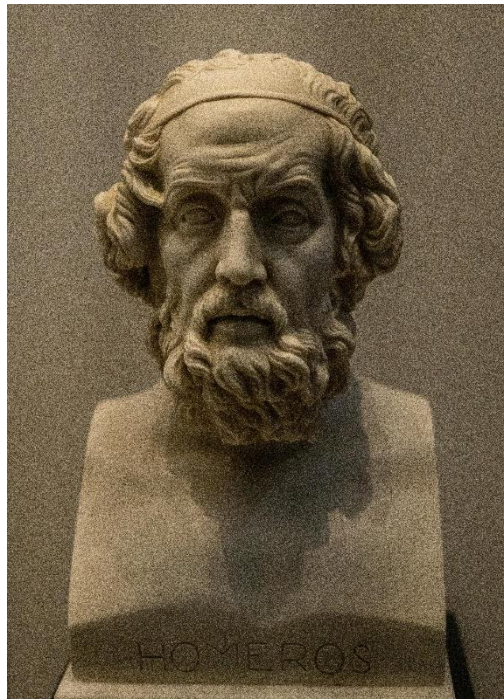
Ancient Pottery showing the hero Achilles carrying the body of the dead Achilles

(Photo courtesy of Egisto Sani and flickr under Creative Commons License,
see <https://www.flickr.com/photos/69716881@N02/>)

At the pragmatic level, the existence of a traditional cult could also be used to legitimate contentious land claims. The biographer Plutarch tells us how the Athenian leader Cimon used the fact that the Athenian hero died at Sycros as a pretext to invade that island, then bolstered his own political career by bringing the bones back to Athens (Snodgrass 1980, p38; Plutarch *Theseus*, XXXVI.1-2, and *Cimon* VIII.3-6). It is out of the social recognition of the hero cult that epic oral literature, and much of later Greek theatre, drew its continuing significance. It is not surprising, therefore, that Homer's great epics, the *Iliad* and the *Odyssey*, and other works ascribed to Homer, became normative definitions for Greek literature and Greek values.

The *Iliad*, though supposedly dealing with an earlier age, shows some reflections of the political structure of the Archaic Period. The *Iliad* displays a particular set of relations between the commanders and their troops, among the different princes, and between the princes and their overlord Agamemnon. In this work see the heroic type, Achilles, set against a royal figure, Agamemnon. It is through his role as ruler of men and giver of justice that Agamemnon derives his authority. Ironically, Agamemnon calls this traditional role into jeopardy by his arrogance and by his ungenerous attitude towards Achilles. Indeed, the entire plot reveals a tension among the power of princes, heroic vales, their pride (*hubris*) and a possible fall before the hands of fate. It seems Agamemnon is the foremost of an otherwise essentially equal group of chieftains. They owe him loyalty and he probably ruled the largest kingdom, but he cannot destroy or control them at will. In such an environment, even kings had to demonstrate their value, qualities and abilities. It is the heroic ideal that stood against

this arrogance, and the heroic ideal which finds its strongest representative in what is probably a slightly later epic, the *Odyssey*.



A bust of Homer, foundational Greek poet

(Photo by Mustafa Kalkan, courtesy of Pexels,

<https://www.pexels.com/photo/bust-of-homer-17665185/>

10. Conclusion: Writing and Public Memory

The oral and bardic traditions are well-suited to praising and upholding the standards of an aristocratic, horse-riding, warrior culture. The values of such a society can be supported by genealogy, by the values system associated with the heroic ideal, and by the aristocratic reinforcement of their own superiority over the rank and file. We get a glimpse of the role of the bard in the *Odyssey*. We find a bard singing tales of the return of the Achaeans from Troy to the suitors of Penelope (Homer *Odyssey* Book I), indicating that tales of comparatively recent times might be utilized by these poets. A more detailed reference is made to the bard at the court of Phaeacia, ‘whom the Muse loved above all others, though she had mingled good and evil in her gifts, robbing him of his eyes but lending sweetness to his song’ (Homer *Odyssey*, Book VIII). Odysseus himself hears sung the efforts of the Achaeans in the Trojan War and says that ‘it is almost as though you had been with them yourself or heard the story from someone who was.’ (Homer *Odyssey*, Book VIII). Just as Egyptian scribes praised their own profession, so bards were willing to phrase the earlier bards they presented in their works.

These bards then, form the closest connection between the elites of these ‘archaic’ societies, and their sense of the past. When the archaic and classical Greeks begin to use writing regularly (perhaps after

700 BCE), they do more than use it for economic and administrative purposes. They use it to record and propagate public dedications, territorial claims and institutional rights, poetry, epics, myths, early philosophic conceptions, and their first codifications of law. This is a far more active use of the written medium than the scribal records of Minoan and Mycenaean cultures as we have received them. It is this emerging culture, where the oral transmission and the written word exist alongside each other, which forms the pre-requisite for a true sense of history to develop. Furthermore, these written accounts become both reflections of social viewpoints and models for later imitation or avoidance.

Alongside this, however, is another trend. By having a written, set accounts which act as standards, it is also possible to be much more alert to social and cultural changes. Indeed, within notions such as law, ethics and politics, it is much easier to criticize traditional practices once they have been codified, and once their written form is widely disseminated. Here information is being used in a very different way to early scribal practices in Egypt and Mesopotamia, though all these cultures used religious stories and moral fables to critique the political order. It is true, for example, that love poetry, wisdom literature and royal decrees were written down in New Kingdom Egypt. The poetry, however, seems to have been essentially personal, rather than a public art-form like Greek theatre, though some later Egyptian religious texts may have been publicly chanted or enacted. Law, too, was largely couched in religious forms, and as part of the underlying concept of *maat*, an unchanging order that was capable of further articulation but not of substantial reform (see Lichtheim 1992; Ferguson 2020). Furthermore, although writing was not totally essential for the creation of a direct democracy like Athens, it was the basis of, and transmitter, of much of Greek ‘high culture’ in the Roman and European traditions (see Harvey 1966).

It is ironic that early Greek culture would lose the writing needed for a command economy but later on modify an alphabetical system to capture the different demands of a ‘heroic’ culture. However, once the heroic ideal was broadened into a wider spectrum of social values the new forms of writing may have helped support the pluralistic social system needed to create a citizen-based society (even if the citizen base was small and selective at first). Heroes may make poor ‘citizens’ but need to be remembered, first by word of mouth, then by the written word. Writing was once the tool of the palace, but later on in different forms became the tool of public memory.

11. Bibliography and Further Reading

- ARISTOTLE, *Politics*, trans. John Warrington, London Heron Book, n.d.
- ARMSTRONG, Karen *The Great Transformation: The Beginning of our Religious Traditions*, New York, Knopf, 2006
- BLEGEN, C.W. "The Expansion of the Mycenaean Civilization", *Cambridge Ancient History*, 3rd ed., Cambridge, CUP, 1975, Vol. II, Part 2, Chapter 22a, pp165-187
- BINTLIFF, J.L. "Territorial behaviour and the natural history of the Greek polis", *Stuttgarter Kolloquium zur Historischen Geographie des Altertums*, 4, 1994, pp207, Plates 19 – 73 [<http://hdl.handle.net/1887/7992>]
- BRAMAN, Sandra (ed.) *The Emergent Global Information Policy Regime*, Houndsmills, UK, Palgrave Macmillan, 2004
- BUTZER, W. *Early Hydraulic Civilization in Egypt*, Chicago, University of Chicago, 1976

- CARPENTER, R. *Discontinuity in Greek Civilization*, N.Y., Norton Library, 1968
- CARR, E.H. *What is History?*, Harmondsworth, Penguin, 1961
- CASKEY, John L. "Greece and the Aegean Islands in the Middle Bronze Age", *Cambridge Ancient History*, Chapter IVa, Vol. II, Part I, 3rd ed., 1973, pp117-140
- CASTRO, Francisca "The Interpretations and Reconstructions of Sir Arthur Evans at Knossos", *Teaching History*, Vol. 54 Issue 4, December 2020, pp21-27
- CHADWICK, John "Life in Mycenaean Greece" in Chadwick, J. *The Decipherment of Linear B*, Cambridge, CUP, 1976, pp101-133
- CHADWICK, John "The Prehistory of the Greek Language", *Cambridge Ancient History*, Cambridge, CUP, 1975, Vol II, Part 2, chpt 39a, pp805-819
- CHILDE, Gordon, "On the date and origin of Minyan Ware", *Journal of Hellenic Studies*, 35, 1915, pp196-207
- COLDSTREAM, J.N. *Geometric Greece*, London, Routledge, 1979
- COOK, J.M. "Greek Settlement in the Eastern Aegean and Asia Minor", *Cambridge Ancient History*, 3rd ed., Cambridge, CUP, 1975, Vol II, Part II, Chpt 38, pp773-804
- CRAWFORD, Harriet *Sumer and the Sumerians*, Cambridge, CUP, 2004
- CROSSLAND, R.A. "Immigrants from the North", *Cambridge Ancient History*, I, Cambridge, CUP, 1967, Chpt. 27
- CROKE, Brian "Climatic Change in Antiquity", *Ancient History: Resources for Teachers*, XX, 1990, pp168-175
- De POLIGNAC, F. *Cults, Territory, and the Origins of the Greek City-State*, Chicago, University of Chicago Press, 1995
- DESBOROUGH, V.R. D'A "The End of Mycenaean Civilization and the Dark Age", in *Cambridge Ancient History*, 3rd ed., Cambridge, CUP, 1975, Vol. II, Part II, Chpt 36a, pp658-677
- DOUGHERTY, Carol & KURKE, Kurke (eds.) *Cultural Poetics in Archaic Greece: Cult, Performance, Politics*, Cambridge, Cambridge University Press, 1993
- EDEY, M.A. *Lost World of the Aegean*, N.Y., Time-Life, 1975
- EISLER, Riane *Sacred Pleasure*, London, Doubleday, 1995
- Emerging Technology, "Neural Decipherment via Minimum-Cost Flow: from Ugaritic to Linear B", *arXiv*, 1 July 2019 [arxiv.org/abs/1906.06718]
- ERMAN, Adolf *The Ancient Egyptians: A Sourcebook of Their Writings*, trans. A. Blackman, Harper Torchbooks, N.Y., 1966
- FEDER, Lillian *Crowell's Handbook of Classical Literature*, N.Y., Crowell, 1964
- FERGUSON, R. James "The Ancient Egyptian Concept of Maat: Reflections on Social Justice and Natural Order," *Culture Mandala*, Vol. 13 no. 3, 2019, pp1-90
[https://librarysearch.bond.edu.au/discovery/delivery/61BOND_INST:BOND/12117450400002381]
- FINLEY, M.I. *Early Greece: The Bronze and Archaic Ages*, London, Chatto & Windus, 1977
- FITTON, J. Lesley *The Minoans*, London: British Museum Press, 2002 [free Access via The Internet Archive]
- FLANNERY, Kent "The Cultural Evolution of Civilizations", *Annual Review of Ecology & Systematics*, 3, 1972, pp399-426
- GIBBONS, Ann "The Greeks Really Do Have Near-Mythic Origins, Ancient DNA Reveals", *Science*, 2 August 2017
[<https://www.science.org/content/article/greeks-really-do-have-near-mythical-origins-ancient-dna-reveals>]
- GRANT, Michael *The Birth of Western Civilization: Greece and Rome*, N.Y., McGraw-Hill, 1964
- HANSON, V.D. *Hoplites: The Classical Greek Battle Experience*, London, Routledge, 1991
- HARVEY, F.D. "Literacy in the Athenian Democracy", *REG*, 79, 1966, pp585-635
- HESIOD (trans. H. Evelyn-White) *Hesiod, the Homeric Hymns and Homerica*, Cambridge MA, Harvard University Press, 1982
- HOMER, *Iliad*, trans. E. Vieu, Harmondsworth, Penguin, 1974
- HOMER, *The Odyssey*, trans. E. Vieu, Harmondsworth, Penguin, 1974
- HOOKE, Richard et al *Bureaucrats and Barbarians: Minoans, Mycenaeans and The Greek Dark Age*, Web Research Textbook, WSU, 1999
- HORROCKS, G. *Greek: A History of the Language and Its Speakers*, London, Longman, 1997
- HUTTON, Ronald "The Neolithic Great Goddess: A Study in Modern Tradition", *Antiquity*, 71 no. 271, March 1997, pp91-100
- IACOVOU, Maria "Cultural and Political Configurations in Iron Age Cyprus: The Sequel to a Protohistoric Episode", *American Journal of Archaeology*, Volume 112, no. 4, October 2008, pp625-657
- JANKO, Richard "From Gabii and Gordion to Eretria and Methone: The Rise of the Greek Alphabet", *Bulletin – Institute of Classical Studies*, Vol. 58 no 1, 2015, pp1-32
- JASPERS, Karl *The Origin and Goal of History*, trans. Michael Bulloch, London: Routledge and Keegan Paul, 1953
- JASPERS, Karl *Socrates, Buddha, Confucius and Jesus*, Orlando, Harcourt Brace Jovanovich, 1962

- JOHNSTON, A.W. "The Extend and Use of Literacy; the Archaeological Record", in Hagg, R. (ed.) *The Greek Renaissance of the 8th Century BC: Tradition and Innovation*, Stockholm, 1983, pp63-8
- KELLY, Maurice *View from Olympus: A History of Ancient Greece*, Melbourne, Cheshire, 1974
- KEMP, Barry *Ancient Egypt: Anatomy of a Civilization*, London, Routledge, 1989
- KIRK, G.S. "The Homeric Poems as History", *Cambridge Ancient History*, 3rd ed., Cambridge, CUP, 1975, Vol. II, Part 2, chpt 39b, pp820-850
- KNAPP, A. Bernard "Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth", *World Archaeology*, Vol. 24, No. 3, Feb., 1993, pp332-347
- KRIWACZEK, Paul *Babylon Mesopotamia and the Birth of Civilization*, London: Atlantic Books Ltd, 2014
- Lazaridis, Iosif *et al.* "Genetic origins of the Minoans and Mycenaeans", *Nature*, Vol. 548, 2017, pp214–218 (<https://doi.org/10.1038/nature23310>)
- LONDON, J.E. *Soldiers & Ghosts: A History of Battle in Classical Antiquity*, New Haven, Yale University Press, 2005
- LICHTHEIM, Miriam *Maat in Egyptian Autobiographies and Related Studies*, Göttingen, Vandenhoeck & Ruprecht, 1992
- MAISELS, Charles K. *Emergence of Civilization : From Hunting and Gathering to Agriculture, Cities and the State in the Near East*, Florence, KY, USA: Routledge, 1993
- MALEK, Jaromir & FORMAN, Werner *In the Shadow of the Pyramids: Egypt During the Old Kingdom*, n.p. Golden Publishing, n.d.
- MATZ, F. "The Maturity of Minoan Civilization", *Cambridge Ancient History*, Cambridge, CUP, Chapter IVb, Vol. II, Part I, 3rd ed., 1973, pp141-164
- OPPENHEIM, A. L. *Ancient Mesopotamia: Portrait of a Dead Civilization*, University of Chicago Press, Chicago, 1977
- POWELL, Barry B. *Homer and the Origin of the Greek Alphabet*, Cambridge, CUP, 1991
- RENFREW, Colin *Archaeology and Language: The Puzzle of Indo-European Origins*, Harmondsworth, Penguin, 1989
- ROAF, Michael *Cultural Atlas of Mesopotamia and the Ancient Near East*, Oxford, Facts on File, 1996
- ROBERTSON, N. "Solon's Axones and Kyrbeis and the Sixth-Century Background", *Historia*, 35, 1986, pp147-76
- SARAPLI, Onur & BROYLES, Shawn Christian "The late Bronze Age Anatolia: The Origin of Trojans in the Context of Language and Culture", *Karadeniz Uluslararası Bilimsel Dergi*, Vol. 44, Winter 2019, pp228-240 (DOI Number: 10.17498/kdeniz.567117)
- SCHOEP, Ilse "The Origins of Writing and Administration on Crete", *Oxford Journal of Archaeology*, Vol. 18 no 3, 1999, pp265-276
- SMITH, E. Baldwin *Egyptian Architecture as Cultural Expression*, N.Y., D. Appleton-Century, 1938
- SNODGRASS, Anthony *Archaic Greece: The Age of Experiment*, Berkeley, University of California Press, 1980
- STUBBINGS, Frank H. "The Recession of Mycenaean Civilization", *Cambridge Ancient History*, 3rd rev. ed., Cambridge, CUP, 1975, Vol. II, Part 2, Chpt 27, pp338-358
- STUBBINGS, Frank H. "The Rise of Mycenaean Civilization", *Cambridge Ancient History*, 3rd ed., Cambridge, CUP, 1973, Vol. II, Part I, Chpt XIV, pp627-658
- THUCYDIDES (trans. R. Warner) *The Peloponnesian War*, Harmondsworth, Penguin, 1972
- VAN de MIEROOP, Marc *The Ancient Mesopotamian City*, Clarendon, Oxford, 1997
- WARREN, Peter *Myrtos: An Early Bronze Age Settlement in Crete*, London, Thames & Hudson, 1972
- WEISS, Barry "The decline of Late Bronze Age civilization as a possible response to climatic change", *Climatic Change*, Volume 4, Number 2, June, 1982, pp173-198
- WESTRA, Alexander Jan Dimitris *et al.* "Disasters and Society: Comparing the Shang and Mycenaean Response to Natural Phenomena through Text and Archaeology", *Quaternary*, Vol. 5 no. 3: 33, 2022 (<https://doi.org/10.3390/quat5030033>)
- WILLETTS, R.F. *The Civilization of Ancient Crete*, Berkeley, University of California Press, 1977
- WILLETTS, R.F. "The Minoans", in Cotterell, A. (ed.) *The Encyclopedia of Ancient Civilizations*, Leicester, Winward, 1980, pp204-210
- WITTFOGEL, Karl A. *Oriental Despotism: A Comparative Study of Total Power*, New Haven, Yale Uni. Press, 1957
- WUNDERLICH, Hans Georg *The Secret of Crete*, trans. R. Winston, London, Fontana, 1974

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