CHAPTER FOUR: GENERAL CHARACTERISTICS OF MYCENAEAN ART

4.1: Introduction

4.1.1: Chapter overview

In this chapter, three of the four strands of interpreting the art of early civilisations, as outlined in section 2.4.4, will be investigated for the Mycenaean case. In succession these are:

1. The material forms of Mycenaean art, with a basic subdivision between containers and instruments, involving both monumental and non-monumental objects. For the containers a further subdivision is made between three-dimensional art objects and art bound to two-dimensional surfaces, though sometimes with relief, on architectural and portable containers.
2. The craft and materiality of Mycenaean art. Here the analysis is split between craft-work in its basic organisational settings, as they can be traced through *chaîne opératoire* approaches, and conceptions of material ontology. Both aspects are closely interrelated, and the element of long-distance exchange in the wider eastern Mediterranean plays an important role in their interpretation.
3. Iconography is the third investigative angle on Mycenaean art to be discussed. First of all the conventions of Mycenaean iconography are treated, not in terms of technical basics, but at the third level of cultural meaning as denoted by Panofsky. Particular emphasis will be given to depictions of anthropomorphic beings and their implication for understanding personhood and social roles, as well to the rendering of the spatio-temporal environment. The second aspect to be discussed is that of narrative, not only in terms of the structural analysis of pictorial scenes but also in their relation to oral poetic performance.

These three interpretive strands will come together in different ways for the fourth one that looks at contexts of art in section 5.2, as well as at a more general level of interpretation in section 5.3. As such the discussion of each of the three aspects of Mycenaean art covered here will remain more self-contained. Therefore the chapter has no synthesis section at the end. The reason they are put together in this chapter is in fact precisely because they provide a supporting role for the discussion of both the contexts and agency of Mycenaean art, as noted in the overview of chapters in section 1.3. One element that is common to all three, however, concerns the available sources on which any interpretation of Mycenaean art depends. These will be discussed immediately below in section 4.1.2, allowing for the reader to gain an initial critical insight into the possibilities and limits of the available evidence before turning to the specific interpretations offered here.

4.1.2: Sources for the interpretation of Mycenaean art

The basic source for Mycenaean art naturally consists of the archaeological record, but the discussion of the specific material forms of Mycenaean art will have to wait until section 4.2. The concern with the material record here deals with the two meta-issues of the reliability of what may be termed reconstructive work and, not unrelated to this, scientific studies of the material properties of the diverse art forms. As was already referred to in section 3.4.1, the critical analysis of modernism has also led to considerations about the relation between the discipline and its broader cultural contexts. Again this is more pertinent for Minoan archaeology, but its consequences cannot be ignored for the Mycenaean branch of Aegean Bronze Age archaeology either, as for material forms like wall-painting there exists considerable continuity between the two cases. Gere (2009, 111-123) has contended that there was a nexus between reconstructive work and modernist ideas

that lay behind the reconstructions by Evans and his project artists of wall-paintings such as the so-called 'Captain of the Blacks', the court ladies, the 'Priest-king', and bull-leaping figures. Especially in the case of the 'Priest-king', the reconstruction has been of such a problematic character that the viability of the enterprise has been called into question by some scholars (Sherratt 2001b, 19-20).

Yet it is of vital importance here to distinguish between modernist ideas as such and the specific procedures followed to reconstruct a wall-painting such as that of the 'Priest-king'. We may in fact liken what Evans did as a 'reverse-modernity' that is counterposed to Walter Benjamin's ([1936] 1968) concept of the mechanical reproducibility of modern artistic media and their concurrent loss of aura. By taking the wall-painting fragments, produced through the mechanical processes traceable by taphonomy, the reconstructions of Evans can be argued to have recreated a new aura, one that indeed might have as much to do with modernism as with that of its original cultural context. As such the critiques of Gere and Sherratt are well-taken, but they should not obscure the more basic functioning of another of Benjamin's concept: the ability of the 'mimetic faculty' to discern differences and similarities in the world. As we saw in sections 2.4 and 2.5, this was reinforced by the discussion of the work of Wittgenstein and the notion that it is possible to not be limited by the frameworks of one's own discourse, but rather to allow different ways of seeing to be incorporated in interpretation.[160] Of course, for this to work it is first of all necessary to have reliable procedures for reconstruction at a basic level, as well as to have other sources that provide insights into the original cultural context.

Pioneering work in this regard was carried out for the Minoan wall-paintings by Mark Cameron, who developed more robust criteria for the restoration of both individual elements and larger pictorial spaces from the different fragments (Cameron 1976). He used this to propose a number of new reconstructions of the Knossos scenes in his dissertation, identifying what he saw as errors in 50 out of 70 reconstructions of Bronze Age wall-paintings (Evely 1999, 199). His work included a new reconstruction of the 'Priest-king' case (Cameron 1975, plate 18), and his analysis of the meaning of these fragments differed considerably from the interpretation offered by Evans (Cameron 1975, 143). Other reconstructions and interpretations have been proposed since then (Niemeier 1988; Hitchcock 2000; Shaw 2004), demonstrating a healthy scholarly debate both at the technical level of fitting the fragments together and at the conceptual level of modifying cultural categories to interpret the evidence.[161] With regard to the former aspect, Cameron also made contributions with regard to the application of a number of scientific techniques to the study of the wall-painting fragments (Evely 1999, 142). It should be noted that Evans had already encouraged Noel Heaton to carry out technical studies of this material in the 1900s (R.A. Jones 2005, 199-200), a fact not often mentioned by those who critique him on cultural issues.

Since the work of Heaton and Cameron scientific techniques have developed in such a way that they are now becoming indispensable, not only to study the wall-painting fragments but many other material forms of Mycenaean art as well. A good example of this is the restudy of the wall-painting fragments from the Pylos palace. Here not only new fragments and interpretations have been recognised, such as an archer (Brecoulaki et al. 2008), but also new insights have been gained into

[160] It can be argued that modernistic art is more complex than is allowed for by many critics. If we look at some accounts of their own era (e.g. Gere 2007), it is possible to note in a Wittgensteinian vein that the form of progress has remained, in the sense of postmodernism being seen as a logical and necessary sequential stage to modernism. The paradox, then, is that in its formal progressiveness this strand of thought goes to great lengths to disavow the substantive progress of the (radical) Enlightenment. While far from denying the usefulness of reception studies, the more self-reflective work of (Renfrew 2003a) is preferred here to more postmodernist approaches.

[161] This can also be seen for the analysis of gender categories as they relate to the skin colour of the human figures depicted in Minoan and Mycenaean art, where the interpretations of Evans have seen much debate (Chapin 2012, 297-298), as will be further discussed in section 4.4.2 below.

the technical properties of the material (Brecoulaki et al. 2012). The project team has proposed that through this it will become possible to develop a more elaborate micro-chronology of the paintings and those who painted them from this site (Brecoulaki et al. 2008, 387). Perhaps even more revolutionary is the use of various scientific techniques to trace the technological connections between different sites for a variety of materials, including wall-painting fragments (Brysbaert 2008) and vitreous materials (Shortland 2012), as will be discussed in more detail in section 4.3.2. The impact of the various scientific techniques on the study of this field has reached such a level of sophistication that new interpretive frameworks are being developed to account for the observed patterns (e.g. Brysbaert 2008, 15-44). Therefore, it would be unfair to state that the discipline still lived under the shadow of modernism, given that the material is treated with sophistication in both iconographic and material reconstructions.

Turning to other sources, we can start with writing. So far no Linear B signs have been discovered on any form of Mycenaean monumental art, despite earlier Minoan experimentation with Linear A signs that have been found on a few isolated wall-painting fragments (Cameron 1965). There are of course the Linear B signs on the Inscribed Stirrup Jars with an administrative function, as well as a very limited number of personal names on other ceramic vessels (Van Alfen 1996/1997, 265), but neither is related to any kind of visual image on these vessels.[162] Despite this lack of integration between text and image, however, the Linear B evidence can help in other ways to make sense of Mycenaean art. One way is through the common occurrences of figures and things in art and written sources, as will be explored for a number of themes in section 5.2. More important for the present analysis are the descriptions of art objects in the Ta-series of Linear B tablets from Pylos. Together with the observation of interrelationships between art and ways of rendering ideograms in Linear B (Palaima 1992b, 71-73), these point to intersections between the conception of visual phenomena without directly implying a stylistic relation.

One potent, but at the same time highly complex, source for the interpretation of Mycenaean art are parallels with the contemporary early civilisations of the eastern Mediterranean and in some cases even with other societies beyond this.[163] As was noted a number of times in the discussions in chapter three, the contacts between cultures in the eastern Mediterranean was intensive and can be understood as part of a *koine*. This *koine* also involved the exchange of metals and many other precious materials, and possibly immaterial phenomena such as epic poetry as well (Bachvarova 2009, 24-25). Building upon the pioneering work by Helene Kantor (1947), a number of studies carried out recently have sought, with varying degrees of ambition, to embed the art of the Aegean Bronze Age in its eastern Mediterranean *koine* context. A key feature of Kantor's work was to note the seeming intermixing of iconographic features of different styles, such as on an ivory pyxis lid from Minet el Beida in Syria, which she described as possibly a 'hybrid carving' made by a craftsperson of unsure origin (Kantor 1947, 89).[164] From this observation two new lines of study were developed, one of which focused on the interaction between the different cultures and their iconographies and the other on iconographic features that were shared within an overarching international style.

The former line of argumentation has tended to look at similarities between iconographic features to

[162] There is also a sealing from Knossos depicting a dog and inscribed with the personal name *ku-wa-ta*, which seems to have administrative connotations (Younger 2010, 336), and no aesthetic connection is obvious.
[163] There are those (e.g. Kristiansen & Larsson 2005), that propose to include Europe in this sphere as well. But while it is clear that certain materials like amber made its way down from Scandinavia to the Aegean, as well as other materials and artefacts (Hughes-Brock 2005), the idea that these contacts imply close connections in iconography and the conceptions associated with them is quite controversial, see for critiques the papers in Whittaker (2008a).
[164] It is very important in this regard to sharply delimit notions such as hybridity by the evidence, lest the objects get entangled in dubious identifications of 'cultural fingerprints', as critiqued by Pappa (2013, 33-35).

argue for degrees of identity and sharing of motifs (Crowley 1989; Morris 1992). At an even more ambitious level, a recent study has proposed to use such similarities as a way for reading the art of both the Minoan and Mycenaean early civilisations (Marinatos 2010, 9). However, using such individual similarities to conflate what remain different iconographic systems carries with it very high interpretive risks, and the methods used by Marinatos are not able to mitigate this (Weingarten 2012). A telling example from the work of Marinatos is her use of the association between chariots and kingship in Egyptian and Levantine art to propose that the figures on chariots in images from Knossos and the Shaft Graves at Mycenae were kings (Marinatos 2010, 24-25). Yet chariots are found on a wide variety of artistic media, especially in vase-painting (C. Morris 2006), and continue to be a popular motif in the post-Bronze Age period (Wedde 2006). There is little in the Mycenaean record that associates it directly with the specific feature of kingship, rather than with the broader elite culture to which it unquestionably belonged (Schon 2007, 142-144). More critical iconographic studies show the subtle ways in which ideas and iconography change when crossing cultural boundaries, as in the study of the transformation of the Egyptian goddess Tawaret into the so-called 'Minoan genius' (Weingarten 1991). Nevertheless, there was also a circumscribed number of works of art that seems to have truly belonged to the *koine* as a whole:

"The marginalization of iconographic and minute stylistic analysis stemming from negative judgments of these pieces has caused subtle yet significant distinctions among the works to be overlooked, which in turn has led to less-than-consistent classifications. When we examine closely those pieces traditionally categorized as part of the Late Bronze Age international style, only a small subset displays completely hybrid imagery that can be classified as truly international (that is, not belonging to any one region). For these works, visual hybridity is an overriding formal feature, one that cannot be ignored and that is central for understanding them." (Feldman 2006, 5)

To complicate matters, it should be noted that the notion of an 'international style' also incorporates material aspects, in particular the favoured use of certain materials such as ivory and lapis lazuli (Feldman 2006, 115-127). Yet in other cases it is clear that material traditions from one region are 'exported' to other regions, as in the case of Aegean painted plaster found at different sites in Egypt, the Levant, Syria and perhaps Hittite Anatolia as well (Brysbaert 2008, 97-106). In order to deal with this complexity, it is necessary to tease out the specifics of each regional dataset and relate it to that of others. An exemplary example of such an approach can be seen in the study of textual and pictorial references to chariots in the Late Bronze Age eastern Mediterranean, which provided a macro-regional view of the, often quite different, regional cases (Feldman & Sauvage 2010). Noting the different kinds of elites associated with the chariot representations, the authors advocate a nuanced view that reduces images neither to regional or macro-regional contexts, but investigates specific interaction spheres (Feldman & Sauvage 2010, 68-70).[165] This point is well taken, and here we will use the notion of the 'template' as a methodologically useful abstraction rather than as over-arching cultural unit, in order to outline the similarities and differences between different regional artistic datasets in the eastern Mediterranean *koine*.

Turning to the connection between the art of the Aegean Bronze Age and that of the succeeding Protogeometric and Geometric periods, as well as the art of the civilisation that developed in the Archaic-Classical period, even more caution needs to be applied. For where for the Bronze Age interaction in the eastern Mediterranean direct links can be traced in the material and textual records, continuities with later periods of Greek history depend upon the more problematic notion

[165] A very good example of such a specific interaction sphere can be seen in the importation of Mycenaean *krater* vessels in Late Bronze Age Cyprus. This is especially interesting as the find contexts are such that the cultural biographies of these art objects are fairly well-understood (Steel 2013, 209-216).

of 'survivals'.[166] Not only did craft and artistic traditions change radically from those of the Mycenaean palaces to those of the Protogeometric and Geometric periods, the wide-ranging changes in the Archaic period had important ramifications for art as well. This is particularly true for the introduction of the alphabet and the changes in the relation between words and images this induced, as well as for the different forms of agency within the new *polis* states. Yet, as we saw in chapter three, there are some continuities in terms of the names of deities and with regard to the reflection of some Bronze Age elements in epic poetry. The question is to what degree these fragmented indices of commonalities can be used to allow for the use of knowledge about the later periods to reflect back upon the Mycenaean situation.

It is suggested here that most of these connections are not robust enough to infer parallels on a similar level as those from the contemporary eastern Mediterranean, except in cases where more information is available as in that of *kyanos* discussed in section 4.3.3 below. This is especially so, as the ability for scientific studies to show connections at the material level is lacking entirely. Hence the ability to formulate and test more robust 'templates' between the Bronze Age and later periods is mostly lacking. But it may nevertheless be possible to make inferences at a more general level, in particular with regard to the posited continuity in oral tradition but also to some degree in the iconography of certain kinds of images, as we shall see in section 4.4 below. This brings up the question of the relationship between words and images in a more general sense, with implications for the understanding of narrative in Mycenaean art. Furthermore, in the Archaic period this relation changes radically due to the introduction of the alphabet and the new forms of agency of the *polis* states. This allows for a better understanding of in what way, and to some extent also for what reasons, the iconographic systems of the Mycenaean and Archaic-Classical worlds differed.

4.2: The material forms of Mycenaean art

4.2.1: Introduction

In this section the material forms of Mycenaean art will be treated in detail. This serves the dual purpose of being able to explore these forms with more precision, in particular the connections between them, this provides a basis for the discussions of other aspects of Mycenaean art in the succeeding sections. As noted earlier, this overview will be split out in the three different categories of three-dimensional containers, art bound to two-dimensional surfaces on monumental and non-monumental containers, and instruments. Table 4.1 below provides an overview of the different forms for each category. Of course it is important to stress that the surviving record does not neatly reflect the material world of Mycenaean early civilisation. Not only has the passage of time led to the decay and destruction of materials, though with varying degrees of intensity, but other materials are more prone to have been re-used. Hence both materials susceptible to decay such as textiles are missing and also materials conducive to reuse, in particular when they are highly valued as in the case of metals. These problems can be countered to a very limited degree through information derived from iconographic depictions of art objects. Unfortunately, this does not allow for a good understanding of the contexts in which they would have been made, used and deposited. Such imbalances in the archaeological record need to be constantly kept in mind.

[166] Survivals differ from the structures of the *longue durée* in their higher degree of specificity. That is, in survivals the continued presence of culture traits in a more or less unchanged form and content is assumed, whereas the recurrence of long-term elements allows for generic features to take very different specific forms in particular periods. The notion of survivals derived from 19th century anthropology (Carneiro 2003, 24-25), and was developed further by Frazer. His ideas were addressed in section 2.4.2, and the critique offered there extends to the general notion of survivals. For Aegean prehistory this implies that the names of deities and titles common to the Mycenaean texts and later periods cannot be assumed to refer to unchanging cultural elements, as noted poignantly in Crielaard (2006, 271-272).

Material form	Material technique(s)
Three-dimensional containers	
statues/statuettes	various, including chryselephantine, clay
figurines	various, including clay
thrones, furniture	various, including inlays
hearths	painted plaster
Two-dimensional containers	
wall-painting	painted plaster
exterior façades	painted plaster, stone sculpture
mural decoration (stone)	stone sculpture, glass inlay
stelae	painted plaster, stone sculpture
larnakes	painted plaster, vase-painting
wall-hangings, *ikria*	textile, leather
vessels	ceramic, stone, metal, vitreous
seals, sealings	stone, vitreous
armour	boar's tusk, metal
garments	textile
jewellery	various, including ivory, metal and vitreous
Instruments	
ship's hulls	wood, unknown decorative technique
weaponry	metal, vitreous
musical instruments	various, including ivory
seals	stone, vitreous

Table 4.1: Categories of the material forms of Mycenaean art.

4.2.2: Three-dimensional containers in Mycenaean art

One striking feature of the monumental art of the Aegean Bronze Age is that, based on the available evidence, it seems to have been characterized by an emphasis on surfaces rather than three-dimensional forms such as statues. This can be seen in the focus on wall-painting but also on stone sculpture, though both also were in relief form. With a few exceptions, the evidence for statues seems highly limited and circumstantial, whether they were made from durable or more perishable materials such as wood (Blakolmer 2010b, 45-50). A hypothesis has been formulated to account for

this absence, going back to Matz, which holds that there might not have been a need for a central cult image in ritual as deities would have appeared in epiphanies (Marinatos 2010, 78-79). A note of caution has to be added on the basis of a comparison with the Hittite situation, however, where the archaeological record of statues and statuettes is as scanty and ambiguous as that of the Aegean. Based on a text from the reign of Tudhaliya IV, who reigned in the late 13th century BC, which dealt with the restoration of temples and shrines in his realm, we know that statuettes were ubiquitous and played significant roles in cult activities (Collins 2005, 15-18).[167]

One clear indication for the possibility of cult statues in the Aegean Bronze Age came from the discovery in Crete of a chryselephantine statue known as the Palaikastro *kouros*. This statue was reconstructed from fragments found in different areas of a destruction layer dated to the LM I period (Sackett & MacGillivray 2000a, 21). It is rather small (circa 50 cm in length), but very elaborately carved, and part of a larger corpus of chryselephantine statues and statuettes that has a chronological span from the early phases of the Bronze Age up to its latest phase (Lapatin 2001, 22-37). Chryselephantine statues in the Archaic-Classical period in the Aegean almost exclusively took the form of deities, and were able to act as the loci of epiphanies (Lapatin 2001, 4-6). The excavators propose that the Palaikastro *kouros* acted as the personification of a deity called Diktaian Zeus, who was related to the Egyptian god Osiris and associated with the constellation of Orion (MacGillivray & Sackett 2000b, 169). This interpretation is based on the architectural context in which the object was found, its intentional fragmentation, as well as parallels with contemporary Egypt and later periods of Cretan history, yet it has a certain speculative element to it. Furthermore, it is not entirely clear whether it can easily be extended to other chryselephantine statues and statuettes from the Aegean Bronze Age record (Lapatin 2001, 36-37).

Larger figures were also made from clay, either in solid form or as terracotta made on the wheel.[168] They are known from cult contexts at Asine, Mycenae and Tiryns (Renfrew 1985, 407-411), as well as Midea in the Argolid (Demakopoulou & Divari-Valakou 2001), Ayios Konstantinos on Methana (Konsolaki-Yannopoulou 2004, 63-64), Ayia Irini on Keos (Gorogianni 2011), and Phylakopi on Melos (French 1985, 276-280). There are also the 'Goddess with the Upraised Hands' figures found widely in similar contexts on Crete in LM IIIB-C (Renfrew 1985, 405-407). Some figures approached a life-size scale and were exclusively found in ritual contexts (Tzonou-Herbst 2010, 217). However, in almost all cases they were found in fairly large numbers, which makes it hard to maintain that any of them acted as a singular focus for cult, as in the Archaic-Classical Aegean (Blakolmer 2010b, 45-50). More exceptional is a painted plaster head from Mycenae, a very rare combination of clay modelling and painted plaster (Rehak 2005, 271-272), see figure 6. This head (with a height of 18.6 cm) was likely part of a larger statue, as indicated by an irregular break at the neck. Based on a number of iconographic *comparanda* Rehak argued that it is highly probable that the head belonged to a deity (Rehak 2005, 275).

Turning from actual remains of statues and statuettes to depictions of them, an even more intriguing pattern emerges. One of the scenes from the LM IIIA Ayia Triada sarcophagus depicts an armless figure at the receiving end of a procession (see figure 7), and a parallel for this figure can possibly be discerned on a painted plaster fragment from the megaron vestibule in Pylos (McCallum 1987, plate XXXVIII). In the case of the Ayia Triada figure a variety of ideas have been put forward, most prominently that it represents a deceased person but a cult statue is another option (Blakolmer

[167] Indeed, Collins notes in this regard that: *"Were it not for the cult inventories, statuettes such as these – even when found in archaeological contexts suggesting cultic activity – might well have gone unrecognized as possible cult images."* (Collins 2005, 17).

[168] As can be seen for the Temple Complex at Mycenae, a variety of different kinds of figures occurred together, alongside more idiosyncratic forms such as an anthropomorphic vase (Moore & Taylour 1999, 46-50).

2010b, 45-50). Two wall-painting scenes from Mycenae possibly depict statuettes, one indicating an ivory statue offered during a procession (*Aegean Painting*, 192). The other painting was found in a very fragmented state, but seems to depict a small figure that can either be seen as a statuette or as a facsimile, perhaps an *eidolon*, of a real person offered to a deity (*Aegean Painting*, 191). Another example from Tiryns shows a statuette in a scene with eight women carrying offerings (*Aegean Painting*, fig. 33b, p. 120). The evidence from vase-painting yields even more enigmatic clues, such as the group of three figures on a krater found in Cyprus (Rystedt 2001). Thus, while small statuettes were certainly represented in ritual scenes, the existence of larger cult statues is not readily apparent from iconographic sources.

Although there is no obvious reference to cult statues in the Linear B sources, it has been observed that the term *te-o-po-ri-ja* mentioned in two tablets from Knossos could refer to *theophoria*, a possible festival name (*Documents*, 585). This has been interpreted by some as a procession ritual in which cult images would be carried (Hiller 1984, 140). Alternatively, it may be that in this particular ritual human priestesses were carried around rather than statues (Blakolmer 2010b, 45-50). In that case the epiphany experience would lie not in a central sacred artefact, but rather was provoked through the priestess' impersonification of a deity and/or supernatural forces. Another proposal entails that the term *po-re-na* on Linear B tablets from Pylos and Thebes refers to larger terracotta figurines that would have functioned as 'images of the gods' (Gallou 2005, 108-110). These could have been carried in processions similar to those inferred for the *te-o-po-ri-ja* from Knossos. The Linear B sources, however, are much too limited to definitively confirm the hypothesis of statues and statuettes being used in religious ritual, but are not inconsistent with the material and iconographic sources.

At a lesser scale there are the figurines, which are much better known in terms of the amount of material, chronology and typologies of forms (Tzonou-Herbst 2010, 210-211, fig. 16.1, p. 212). The figurines of Late Bronze Age Crete show no standard set of shapes for both human and animal figurines, and have been found in a wide variety of ritual settings, houses, and general trash deposits (Tzonou-Herbst 2010, 216). The figurines on the mainland start from LH IIB or LH IIIA1, and are mass-produced according to a canonical set of shapes which can be seen especially in the *Phi*, *Tau*, and *Psi* female figurines (French 2008, 60). The mainland figurines cover a variety of forms, however, including many animals, enthroned figures, riders, charioteers, and *kourotrophoi* (women holding children), found in the same ritual, domestic and refuse contexts as on Crete (Tzonou-Herbst 2010, 216-217). It is indeed difficult to argue for a unitary function if some figurines are found in highly ritual contexts and others as temper in mud bricks. To get a better grip on the material there is a need to correlate the material even more closely with its context, including contexts outside the Aegean where such figurines have also been found (French 2008, 61-62).

Also important to consider are the aniconic forms that may represent deities or supernatural forces, chief among which are the *baetyls*, columns, and 'thrones'. In contrast to Minoan Crete there are few known *baetyls* from the Mycenaean period.[169] It is likely that the more regularly formed column had an important symbolic meaning, as can be seen in its prominent use in the 'Lion Gate' stone sculpture at Mycenae (see figure 8). Although this particular artefact is a façade and is discussed among the surface containers in the next section, it does give an indication of how columns in general were regarded. The position of the column on an altar and flanked by two creatures has been compared to images on other artistic media to suggest that it was a master/mistress of animals

[169] Of two possible examples, one is not even from the mainland but comes from a shrine at Phylakopi on Melos (Renfrew 1985, 430-431). The other case consists of two 'menhirs' from a tomb at Dendra in the Argolid that may actually be a cenotaph (Gallou 2005, 115-116). These examples are much too uncertain to allow further interpretations.

pose, normally occupied by deities or heroes (Bloedow 1996, 1163-1166). Columns are also known from more utilitarian settings, most prominently to support the roof in an arrangement of four around the hearth in the megaron area of the palaces (Wright 1994, 58-59). The hearth itself may also have played a complementary role in this, as will be discussed in section 4.3.3 below.

The master/mistress of the animals pose of the column in the 'Lion Gate' scene can also be seen for the throne category. The best example of this is the gypsum seat from Knossos (see figures 9-10), which is flanked by two wingless griffins (*Aegean Painting*, plate 47-48), which in a recent restudy using scientific techniques have been revealed to have sported wings after all (Shank 2007, fig. 19.5, p. 164). One similar case is from Pylos. Here no throne has survived but a combination of a base and possible libation channel, as well as one pair of flanking lion/wingless griffin, indicate that one may have been present originally (Rehak 1995, 101, 109). No clear parallels can be seen in the other palaces, largely due to the state of the remains.[170] Much more information is available from iconography and Linear B on thrones and furniture in general. From the iconography there seems to be a preference for seated female figures on thrones, since images on glyptic and other media predominantly show women as sitting on such objects (Rehak 1995, 109-112; Younger 1995b, 192). Another aspect is the occurrence of throne models in a number of tombs, which have been used to argue for the aniconic presence of (chthonic) deities here (Gallou 2005, 55-56). Apart from the thrones there existed a range of furniture such as stools, campstools, and footstools, some decorated (Younger 1995b, 189, 192). Linear B indicates that inlays were used in furniture (*Documents*, 334).

4.2.3: Two-dimensional containers in Mycenaean art

The bulk of the material remains of Mycenaean monumental art can be found in the category of surface containers, including also funerary monuments. The different material techniques of this category were painted plaster, stone sculpture, and textile tapestry, the characteristics of which will be discussed in turn in this section. Especially important are the remains of painted plaster that are mostly used for wall-paintings, and which have been found in a variety of architectural structures. Evidence of Bronze Age painted plaster in the Aegean has been found at 69 different sites, of which 39 are on Crete, 10 on the Cyclades and other Aegean islands, and 20 on the Greek mainland (Blakolmer 2000, fig. 2, p. 394, fig. 3, p. 395 & fig. 4, p. 404). They have a chronological range from the Final Neolithic to the very end of the Bronze Age in LH IIIC, though the main body of the material can be assigned to the periods of the Minoan and Mycenaean palace-states. In addition, significant Aegean-style mural art has been found at different sites in Anatolia, Syria, the Levant and Egypt. To properly understand the specifics of Mycenaean painted plaster it is necessary to consider it as part of this larger tradition of artistry and technique, as reconstructed through technical studies of the material.

Technical studies of Bronze Age painted plaster have been carried out since the earliest part of the 20th century (R.A. Jones 2005, 199-200). As little is known directly from archaeological or textual sources about painted plaster as a craft, there has been an emphasis on experimentation and scientific analysis to reconstruct the painting techniques. An important part in this was played by replication studies by Mark Cameron and colleagues in the 1970s (Evely 1999, 141-153). More recent work has advanced on this through using multiple approaches and types of scientific techniques, as outlined in a recent overview of the state of research on painted plaster by Brysbaert

[170] Among the fragments from Tell el-Dab'a Aegean-style painted plaster fragments of emblematic griffins were found, possibly accompanied by lions or leopards, which are also known from Tel Kabri and Alalakh (Bietak 2007, 41-42). The interpretation is that these fragments may have flanked a throne just like at Knossos, though the griffins in this reconstruction do have wings (Bietak 2007, fig. 36, p. 40). At present the published evidence is insufficient to determine the matter, especially since the presence of a throne here is only hypothetical.

(2008, 7-11). The origin of the craft is currently dated to the Final Neolithic at Phaistos, which provides the first example of a style of monochrome, red-painted plaster decoration (Blakolmer 2000, 396-7). On analogy with the Anatolian site of Çatal Hüyük and its murals, however, there might be a record of painted plaster on Crete that stretches back further into the Neolithic (Hood 2000, 191). During the Early Minoan period painted plaster was already used in monument-like buildings at Myrtos-Phournou Koryphi, Vasiliki and Knossos, all in the monochrome red-painted style and without distinctions in decoration between room functions (Blakolmer 2000, 396-397).

With the emergence of the first palaces on Crete in the Protopalatial period important technological changes were introduced, including the use of polychrome painting and multiple stylistic schemes (Blakolmer 1997, 97-100). The iconographic repertoire remained limited to decorative motifs, however, and it was only in Neopalatial Knossos that complex figurative scenes emerged on wall-paintings. This development is usually connected to widespread structural changes in society during the transition from the Protopalatial to the Neopalatial period (Gates 2004; German 2005, 90-93). Brysbaert (2008, 161) also emphasises that the shift from abstract to figurative art was dependent on the development of an almost pure lime plaster that allowed for the painting of figurative compositions. Although the Knossos style can be seen in various secondary sites, at the other Cretan palaces of this period the prime focus remains on decorative themes (Gates 2004, 28-29). This has been interpreted by some as an indication that the new painting tradition was under the control of Knossos, and therefore deployed primarily on the site itself and in its immediate territorial hinterland (Bevan 2010, 40-42). However, figurative painting influenced by the Neopalatial Knossos style has been found at various sites in the Cyclades, notably Akrotiri at Thera (Palyvou 2005a), and also at sites in the eastern Mediterranean like Avaris in Egypt (Bietak et al. 2007) and Tel Kabri in the Levant (Cline & Yasur-Landau 2007).

The painted plaster of the Mycenaean period derives from this tradition, not only in terms of its iconography but especially in terms of material technique. One important question in this regard concerns painting techniques. Early work up until the 1980s suggested that some kind of *al fresco* technique was used for Aegean painted plaster rather than alternative techniques that were used in Egypt (*Aegean Painting*, 14-16).[171] In Egypt painting was done *al secco* directly on limestone or quick-setting gypsum walls. More recent research, based on the application of new scientific techniques as well as experimental research, has reinforced the notion of painting on lime plaster having originated in the Aegean and spreading from there to different sites in the eastern Mediterranean (Brysbaert 2008, 156-160). This is not merely a matter of different techniques, but in Brysbaert's terms constitutes a difference in technological style that is intimately connected with a broader set of relations between people, techniques and materials, brought together in the *chaîne opératoire* of making painted plaster (Brysbaert 2008, 45-51). This will be further discussed in section 4.3.2 below. The iconographic traditions can be seen as complementary to this. The craft tradition of Aegean Bronze Age painted plaster should therefore to be considered as playing an innovative role, rather than a derivative one, in the interaction within the eastern Mediterranean.

[171] As defined by Brysbaert (2008, 17) the different painting techniques are *al fresco* (or *buon fresco*), where pigments in water are applied to a damp lime plaster, and *al secco* (*secco fresco*), where pigments are mixed with a binder and applied to a dry surface that can be made of a variety of materials. A combination technique is *fresco-secco*, which can be either painting part *al fresco* and part *al secco* or refer to painting with pigments mixed with lime water or slaked lime applied to a dry surface. A key problem with detecting *al secco* painting is that it is very hard to detect organic binding material with current techniques, as these are usually not well-preserved (Brysbaert 2008, 119-120). Such techniques are continually improving, however. The restudy project of the Pylos wall-painting fragments has claimed to have found egg as an organic binder on a painted plaster fragment, using a combination of gas/pyrolitic gas chromatography-mass spectrometry (Brecoulaki et al. 2009, 384, 390-393).

A synthesis of early work had demonstrated the technological continuity in painted plaster between the Neopalatial period sites such as Knossos and Akrotiri and the later mainland sites (R.A. Jones 2005, 203-209).[172] Studies like that of Brysbaert that incorporate new scientific techniques and experiments of replicating painting procedures, also make it possible to more accurately understand common and different aspects between periods and regions within this tradition. Of special importance to the discussion here are painting techniques and the recognition and description of colours. From macroscopic observations it seems that there existed a rather striking association between the Late Bronze Age Knossos painted plaster, that of the mainland sites, and of the site of Tell el-Dab'a in Egypt (Brysbaert 2008, table 7.1, p. 150). This was substantiated by other technical analyses, and on chronological grounds this includes Hattusha (Anatolia) and Qatna (Syria) as well (Brysbaert 2008, 155-156). Technical studies have also revealed a rich colour palette that includes black, red yellow, various types of blue, green, grey, maroon, pink, and brown as well as a number of others created through mixing or overpainting (*Aegean Painting*, fig. 5, p. 15). Through the application of new means of technological analysis it is possible to recognize new colours, like indigo at Thebes and possibly Alalakh (Brysbaert 2008, 139). These also enable further exploration of the details of the different variations of blue pigments (Brysbaert 2008, 134-139).

Differences between the Neopalatial and Mycenaean periods can also be observed in forms of painting. In the former period there existed a miniature style alongside the life-sized paintings which showed large and more elaborate scenes. Examples are the West House frieze at Akrotiri and the 'Grandstand' and 'Sacred Grove and Dance' wall-paintings at Knossos (*Aegean Painting*, 63-75). To give an indication of size, the 'Grandstand' wall-painting as reconstructed by Gilliéron measured 30 centimetres in height and 90 centimetres in length, with the standing female figures being about 6 centimetres tall (*Aegean Painting*, 64, 173). Another painting form of the Neopalatial period were wall-paintings of large human figures on stucco relief at Knossos, a technique that emphasized the anatomy of the figures in a more three-dimensional way (*Aegean Painting*, 52-53). After LM IB painting on stucco relief largely disappeared (Rehak 1997, 59), although a painted stucco layer was applied to the Kokla tomb on the mainland (Gallou 2005, 68). Another shift seen in the Mycenaean period was that the miniature style seems to have developed into a modified form of small-scale painting, within an overall preference for larger-scale scenes (Shaw 1997, 485-486).

Apart from the painted plaster, another important material form of Mycenaean monumental art is stone sculpture. The best example of this is the so-called 'Lion Gate' at the entrance of the citadel at Mycenae (Shaw 1986). A few smaller-scale examples of stone sculpture have been found as well, all from the mainland (Crowley 2008a, 269). Although less predominant, the scale nor the subject matter of stone sculpture does not seem to have been radically different from that of the painted plaster. The most important difference would have been that it could be applied to a greater degree in outside architectural settings, especially for the façades of buildings and tombs. The pictorial evidence from both the Minoan and Mycenaean cases suggests that façades were much more important than can be inferred from the limited material remains (*Aegean Painting,* figs. 34-35, pp. 126-127).[173] Stone sculpture may have been deployed on a larger scale, therefore, even if more substantial data is lacking. It was also used for the Shaft Grave stelae (Younger 1997), but stelae are not known for the era of the Mycenaean palaces proper. Stone could also be decorated through

[172] Occupying a more uncertain position within this tradition are the wall plasters from EH II Lerna and from pre-Palatial Tiryns (R.A. Jones 2005, 223). However, the art of the mainland in the early Mycenaean period shows more a process of adaptation of Cretan and Cycladic motifs than a connection with a larger preceding tradition, except for a broadly geometric tradition (Blakolmer 2010a, 515). This geometric emphasis will be further discussed for the concept of 'bounded naturalism' in section 4.4.2 below.

[173] The Minoan evidence suggests that ashlar façades were most important (Palyvou 2005b, 189-192), and these had only small symbolic markers on them (Begg 2004). Stone sculpture in the Minoan case was limited to the horns of consecration symbols (Younger & Rehak 2008a, 148).

inlay, as can be seen for the use of blue glass inlays in a stone block decorated with triglyphs and half-rosettes from the palace of Tiryns, originally discovered by Schliemann (Panagiotaki et al. 2005, 15-16), see figure 11.

Indications that larger-scale textiles existed can be inferred from both Egyptian and Aegean paintings. A significant number of ceilings of Egyptian elite tombs were painted with designs that closely parallel those of Minoan and Mycenaean textiles (Barber 1991, 338-351).[174] Such painted ceilings can be found from the 12th through the 21st Dynasties, but were especially numerous in the 18th Dynasty (1543-1292 BC), and can be interpreted as copies from large-scale textiles imported from the Aegean region (Barber 1991, 330-351). Some painted plaster scenes from the Aegean itself, all Minoan or Cycladic, also suggest textile wall hangings (Betancourt 2007a; Shaw & Laxton 2002). The more elaborate *ikria* or ship's cabins depicted at Akrotiri and Mycenae (see figure 12) were likely made of heavy cloth, while the simpler ones could have been made of leather (Shaw 1982, 54-55).[175] That they had a wider distribution can be inferred from the numerous depictions of them on both Minoan and Mycenaean glyptic (Tzamtzis 1989). Another case is that of a Minoan figurine from Pseira (Betancourt 2007a, fig. 30.2, p. 186), which represents a bull wearing a large textile, indicating some kind of ritual function. Overall, it is highly likely that large-scale textiles with decorative motifs, and possibly other kinds of motifs as well, were used in monumental contexts, but it remains unclear in what precise role they were used.

Although the painted plaster, stone sculpture and inlay, and large-scale textiles employed very different techniques, they were deployed in similar kinds of architectural settings and can be treated singularly in terms of overall iconography. This raises the question of the connections between the different crafts, as well as to the non-monumental surface containers with art. Mycenaean non-monumental containers with art include seals and sealings, vessels, jewellery, *larnakes*, garments, and armour, all of which share important iconographic motifs with monumental art. Such connections may well derive from the use of model books, as has been suggested for the Neopalatial period (Betancourt 2007b, 129-130). However, the concern here is not with the iconography in a self-contained way but rather with shared methods of technique and composition, potentially revealing cross-craft connections. This has an important impact for understanding the different kinds of material metaphors that can be attributed to these containers. To understand the relations between these different monumental and non-monumental forms of Mycenaean art, one available strategy is to look at similarities in surfaces and the way in which they have been worked to create art objects. By taking this approach, it becomes possible to delineate four different kinds of interconnections between material forms:

1. In similar kinds of pictorial spaces, as they can be seen primarily for various kinds of vessels, textiles and painted plaster.
2. With regard to the interior design of pictorial spaces, as seen in seals and sealings, stone sculpture and painted plaster.
3. In the direct imitation of surface motifs and design (skeuomorphism), as can be seen for textiles and painted plaster.[176]
4. The use of inlays of similar materials, in stone sculpture, jewellery, and furniture.

[174] More complex tapestries with figural scenes are also known from the contemporary Near East (J. Smith 2012, 241-242).

[175] Leather was also used for chariot platforms, though with decoration (if any) limited to simple designs, as can be seen in the depiction of two examples on the Ayia Triada sarcophagus (*Aegean Painting,* plate 53), or in depictions of chariots on pictorial pottery (C. Morris 2006, fig. 1, p. 100).

[176] Another variant of skeuomorphism can be seen in the imitation of natural phenomena in wall-painting, a feature that will be only discussed in section 5.2.4 (for it does not involve relations between material forms of art as such).

Of the four kinds of surface connections, the first one of similar kinds of pictorial spaces is the most complex, and also the most problematic. Vessels were made from clay, stone or metal. Mycenaean stone vessels seem to have had little decoration (Bevan 2007, 157-165), in contrast to the Minoan ones such as, most notably, the Harvester Vase (Koehl 2006, pl. 12). This difference may be related to the concurrent disappearance of painted stucco after LM IB, given that scenes such as that of the Harvester Vase have been closely related to stuccoed wall-paintings (Blakolmer 2007b). For the metal vessels, mostly silver and gold, the repoussé technique was used to create complex figurative scenes. This includes a rhyton depicting a siege scene from the Shaft Graves at Mycenae, which recalls both the contemporary (Late Cycladic IA) miniature wall-painting from the West House at Akrotiri on Thera and the small-scale LH IIIB scenes from Hall 64 of the Pylos palace (Blakolmer 2007a). Metal vessels with repoussé decorations have also been found in Mycenaean palatial period contexts, but not in great numbers and the known ones show simple faunal subjects rather than the more complex scenes of the siege rhyton (Crowley 2008a, 274).

The most interesting connection is between pottery vessels, wall-paintings, and textile garments. Already in Crete in the Protopalatial period a borrowing of motifs from pottery and textile designs can be seen in the development of wall-painting (Blakolmer 1999). In the Mycenaean palatial period, however, the painted plaster and vase-painting techniques had developed in such a way that they appear highly distinct in terms of the ways in which different iconographic elements are depicted.[177] The connection can rather be found in composition, or more specifically in the use of friezes in all three cases. A layered pattern of friezes can be observed both in garments such as the Mycenaean kilt (and in the *ikria*) and in pottery, a connection that remained in existence throughout the Early Iron Age (Barber 1991, 370). Furthermore, friezes are common for Mycenaean monumental art as well, as can be seen in the stelae from Mycenae (Barber 1991, fig. 16.9, p. 369). More importantly such friezes can also be seen in wall-paintings, especially those from Pylos which show nautili, snails, bluebirds, floral motifs, spirals and other decorative motifs (Lang 1969, 141-157). As material metaphors, therefore, the painted plaster friezes are closely connected with pottery and textile friezes. The same seems to be true for the connection between repoussé decorations on metal vessels and miniature/small-scale narrative scenes of mural art.

The second connection to be explored revolves around similar kinds of interior pictorial design. The materials forms involved are seals and sealings, stone sculpture and wall-paintings. Although seals and sealings seem to have been less important for administrative purposes in the Mycenaean palaces in comparison to their Minoan counterparts, there still was an expansive range of figurative motifs and scenes depicted on them (Younger 2010, 330-333). It has been argued that the lack of a frame in seal designs necessitates a strong internal composition, with a special focus on symmetrical ones (Younger 1995a, 340-342). This made it difficult to copy the more expansive compositions of monumental art on seal surfaces. However, such symmetrical compositions, especially those of cult scenes from finger rings, were also used for monumental art: both in painted plaster scenes and in stone sculpture. The best example of the latter is the 'Lion Gate' at Mycenae with the two creatures flanking the central pillar, which can be closely connected in iconography and technique with seals from the so-called Mycenae-Vapheio Lion Group (Younger 1995a, 346-347). Another example may be seen in the antithetical lion and griffins in throne settings discussed earlier in section 4.2.2.

The third relation in surface composition concerns the direct imitation of surface motifs and design from one artistic form to another, a process known as skeuomorphism. The best examples of this are between large-scale textiles, garments and painted plaster. Apart from the connection with friezes referred to earlier, painted plaster scenes could also directly imitate what most likely were wall-

[177] We may point to the Tanagra burial coffins or *larnakes*, however, as an example of how vase-painting techniques were deployed into larger pictorial settings (*Aegean Painting*, 154-158), for which other examples may have existed.

hangings, as seen at Akrotiri and Ayia Triada in the Neopalatial period (Shaw & Laxton 2002). Furthermore, some depictions of garments from this period also show figurative designs on them (Barber 1991, fig. 15.6, p. 320). The evidence from the Mycenaean palatial period is much sparser. The garments change to a basic distinction between elaborate ones, now worn mainly by men rather than women, with decorative motifs and a plainer 'native Mycenaean' style (Barber 1991, 322-325). This distinction seems to be supported by the broader analysis of Mycenaean textile economies based on the Linear B tablets (Burke 2010, 103-104). The relation between textiles and painted plaster thus becomes less clear, although there are convergences as well with regard to the border designs of both wall-paintings and garments (Barber 1991, 325-327), which suggests the connections were still significant. Other cases that can be seen are between glass seals and hard-stone seals before the large-scale use of moulds in LH IIIA for glass seals (Hughes-Brock 2011, 100) and the cessation of the production of hard-stone seals.

The fourth and final connection lies in the common use of materials, such as of inlays in different kinds of material forms. As noted earlier in this section for stone sculpture, blue glass was used as an inlay in a frieze of carved stone blocks from Tiryns. Such inlays are common for other kinds of artefacts as well and involve a variety of other materials like gold and ivory, as documented in Linear B for furniture (Bernabé & Luján 2008, 202-205). These kinds of cross-craft links can also be inferred from workshop settings where a variety of different kinds of materials were worked, as has been recently discovered for the site of Tiryns (Brysbaert & Vetters 2010). Another important cross-craft connection can be seen in the relation between the pigments used in painted plaster and the materials from which they derived, especially notable in the case of Egyptian Blue. There are important implications for such common occurrences of inlays in different material forms. The significance of this includes not only the cross-craft links but also conceptions of materiality. These issues will be further explored in section 4.3 below.

4.2.4: Instruments in Mycenaean art

Only a few material forms of Mycenaean art can be seen as instruments, and only one of them approaches a scale that can be plausibly viewed as monumental. This concerns the decorated hulls of ships, which are not known directly from the remains of ships themselves but indirectly from depictions on wall-paintings. One implication of this is that little can be said about the material properties of this art, and that their actual existence is only a plausible assumption. The best examples of depictions of ship's hulls can be seen in the Late Cycladic IA miniature wall-paintings of the West House of Akrotiri *(Aegean Painting*, plates 25-26), see figure 13, but a preliminary publication of the wall-painting fragments from the Mycenaean palace of Pylos suggests their presence here as well (Brecoulaki 2005). As was discussed in the previous section, the *ikria* are also known from both periods. We may then infer a roughly similar way of depicting ships and of conceiving of their 'monumentality' in both cases, which also has parallels in the Egyptian and to some degree in the Mesopotamian artistic records (Foster 2012, 681-683).

It may seem contradictory to include ship's hulls in the category of instruments, as they would seem to act as a container of all that is located within the ship. However, the hull can also be understood to be the means, the instrument, of the ship that enables it to be carried through the water. It is this dual role of the ship as a container of humans and goods and as an instrument to navigate the seas, that allows for the cabins or *ikria* to be assigned to the surface container category and the ship's hull to that of the instruments. A possible parallel for this can be seen in the wheel and platform box combination of chariots. Some examples are known of chariot wheels with simple decoration (e.g. *Aegean Painting,* plate 69), and simple decoration is known for the platform boxes as well, for which the most numerous examples of can be found in the vase-painting corpus (C. Morris 2006,

fig. 1, p. 100). From the Linear B sources we can infer that metals and ivory may also have been used for decoration of chariots (Schon 2007, 134). This is the case for both the wheel and the frame of the vehicle, both of which could be painted as well (Bernabé & Luján 2008, 209).

Returning to the ship hulls, the different landscape themes depicted on the individual hulls from the Akrotiri wall-paintings can be read as representing a total view of nature in the overall composition of the fleet (Marinatos 2000, 911-912). The reconstructed compositions on the hulls bear a striking resemblance to those on the roughly contemporary Shaft Grave daggers from Mycenae. Nanno Marinatos has argued that *"what the daggers and the ships have in common is the fact that they are instruments of **aggression**"* (Marinatos 2000, 911, emphasis in the original). This is a compelling argument, although domination will be used here instead of aggression.[178] Swords with decoration were already in use in Minoan Crete, but new types were developed in the Mycenaean period (Georganas 2010, 306). As regards daggers, the black-inlaid types are especially noteworthy for the apparent use of either the 'niello' or the 'black bronze' technique to create figurative compositions, though the specific technique remains controversial (Thomas 2005; Boss & Laffineur 1997). These 'paintings in metal', which derive predominantly from mainland funerary contexts such as the Shaft Grave circles at Mycenae, show a variety of complex iconographic compositions with narrative potential (Thomas 2005, tables 1-3, p. 728). Interestingly, later Mycenaean weaponry from LH II - IIIB, though elaborate, has so far not yielded any evidence of the use of 'niello' or 'black bronze' to create complex pictures, despite indications that the technique continued to be used on cups and possibly other metal vessels.

Turning to other kinds of instruments, simple decoration is known for musical instruments such as the *phorminx* lyre, with several examples having decorative and/or simple figurative motifs (Younger 1998, 21-22). Interestingly, representations of tools with more functional uses are never seen in prominent positions Mycenaean art, which is almost certainly a cultural preference as in Minoan art tools can sometimes be seen, as in the Harvester Vase (Koehl 2006, pl. 12). Yet this would have more to do with the lack of quotidian scenes in Mycenaean art, to be discussed in section 4.4.2 below, than with a 'taboo' on mundane tools as such. The proper context for their representation would simply be lacking. Neither the stylus of the Linear B scribes or the brush of the painter have survived, and this lack of material extends to the other tools used to create the material forms of Mycenaean art. There are two terms from the Linear B tablets, however, that yield a minimum of insight into the conception of artistic instruments. These are *a-ja-me*-no, likely meaning 'inlaid' that occurs in a number of Linear B tablets (*Documents*, 528) and *qe-qi-no-me-no* that occurs just once and likely means 'carved' (*Documents*, 576).[179]

One category of instruments that has survived better is that of the seals. These were discussed in section 4.2.3 as three-dimensional containers, but they can also function as instruments by impressing their design on a surface. Already in the Neolithic stamps were used to impress designs on textiles, and possibly for tattoos as well, forming part of the *pintadera* tradition of the Balkans and Near East (Younger 1995a, 331-332). This tradition may have continued, but by the Early

[178] This is particularly true for the ships, since it is not easy to distinguish a Bronze Age war galley as would be possible for the Greco-Roman period. Even so, the different functions of ships should by no means be held to be incompatible and a connection between conflict and ship imagery can be seen from the Middle Bronze Age through Early Iron Age periods (cf. Petrakis 2011, 216). Yet the more generic term of domination seems to best capture the multiple functions ship could have in terms of sustaining power, whether through conflict or exchange. In this regard Mary Helms notion of power deriving from contact with far-off places is also relevant (Helms 1988).

[179] The context and etymology of the term *qe-qi-no-me-no* has been further explored by Heubeck, who concluded that it referred to the specific technique of painting or carving, in this case of stone and ivory furniture (Heubeck 1966, 231). The term also occurs in Homer in the more general sense of describing something as decorated, and has an interesting etymological root that would mean something like 'to make or endow with life' or 'to vivify' (Heubeck 1966, 234-235).

Bronze Age a different kind of use of such objects can be seen as seals within an administrative setting (Weingarten 2010, 320-322; Younger 2010, 330-331). With the introduction of the bow-drill on Crete in the Middle Minoan II period it became possible to carve harder stones, which led to the possibility of much greater precision in the carving of scenes (Younger 1995a, 338). This led to a great variety of iconographic motifs and scenes on seals, as can be inferred from a recent catalogue of different kinds of Minoan and Mycenaean seal iconography (Crowley 2013). In this use of seals, the Aegean Bronze Age was no different from the contemporary Near East and surrounding areas, with seals helping to spread iconography across boundaries (Collon 2000; Wengrow 2014, 65-67).

The use of seals for administrative purposes in the Mycenaean palaces seems to have been different from that of Minoan Crete in two ways. One is that sealing practices in the Mycenaean case were more uniform across different sites (Krzyszkowska 2005, 284). The second is that the use of seals in Mycenaean administration was restricted mostly to recording transactions between centres and their hinterland sites, instead of also including internal palatial transactions as in Neopalatial Crete (Younger 2010, 334-337). In order to grasp this situation better, it is useful to look in more detail at the trajectory of Mycenaean seals, following the outline of Flouda (2010, 61-63):

1. The MH III – LH I deposition of seals of hard-stone materials (including semi-precious stone) and metal signet rings as high-status burial goods in the Argolid. It should be noted that such seals were found in lesser quantities in other regions as well (Drakaki 2008, 84).
2. A wider distribution in LH II-IIIA of hard-stone and metal ring seals in burial contexts, including in more peripheral sites. Crete in LM II-IIIA shows a continuation in materials and style, if not in administrative use, of seals of the Neopalatial period.
3. At the end of LH/LM IIIA hard-stone seals cease to be made, but continue to be used in administrative contexts. Soft-stone seals and moulded glass seals are made in greater quantities, but the evidence for their use in administration is very limited.

The administrative uses of seals on the mainland are best known for the LH III period, where they can be placed alongside the Linear B evidence. As noted earlier, the main use of seals in Mycenaean administration was for recording transactions between centres and sites in their hinterlands. For this purpose nodules were used, which are small clay clumps with impressions that do not ordinarily seal containers with goods but can rather be seen as labels. Over a thousand of such nodules have been found at ten different sites (Panagiotopoulos 2010, 299), a tiny minority of which carry brief Linear B inscriptions in addition to the seal impression (Palaima 2000, 262). Of special interest here is how this use of seals as administrative instruments can be related to their artistic properties. An important point in this regard was made by Younger (2000, 349), who distinguished between the properties of a seal as a material form in itself and the iconographic impression created by the act of using a seal. The former aspect of object-hood of seals would be connected with the status of its owner, and in its materiality also reflects ideas on the often magical qualities of seals as will be explored in sections 4.3.3 and 5.3.2. The iconographic element, by contrast, would refer more closely to the function of its user in the administrative contexts, as this would be where such images were made visible in impressions on sealings and nodules.

For the Mycenaean mainland, it seems that the status aspect of seals was developed before their administrative use. This can be seen in an analysis of the LH I-IIA depositions of seals made from precious materials in burials rich with other kinds of prestige goods (Drakaki 2008, 85-94). There are indications that they were not intended for seal-use as such but as prestige goods in themselves (Drakaki 2008, 99-100), perhaps exchanged as gifts and used for conspicuous consumption as proposed for the Shaft Grave burial goods in general (Voutsaki 1999, 109-112). The soft-stone seals are held to indicate an expansion of seals to non-elite groups (Flouda 2010, 63), but the situation of

the glass seals is more unclear. Despite being found mostly in peripheral sites the glass seals seem more similar to their hard-stone counterparts (Dickers 2001, 77-87).[180] The glass seals are not linked with administration and being mould-made and lacking individual qualities, they may rather have designated social groups in a regional setting (Eder 2007b, 91). The hard-stone seals are the only clue to the role of iconography in the administrative process, and were still being used for such purposes after production of them had ceased in LH IIIB. Especially notable in this regard is the emblematic character of iconographic scenes on nodules from Pylos, paralleling LH IIIB wall-paintings from the same site, which seem to be connected to certain offices (Flouda 2010, 73). As such, both the use as as a status object and the use of its iconography in impressions related to administrative tasks can be seen for Mycenaean seals in palatial contexts.

4.2.5: The material forms of Mycenaean art

The connections between the different material forms outlined in the previous sections are by no means obvious. One recent argument may offer at least a partial resolution to this. Wengrow (2014) has developed the idea that the first urban societies of the area between the Aegean and the Indus can be characterised as the 'first age of mechanical reproduction'. By this he refers to the use of certain technical means such as moulds and especially seals, in order to (potentially) create multiple impressions of the same artistic design. There are implications of this for other aspects of the analysis of Mycenaean art, as will be discussed for iconography in section 4.4.2 and contexts of art in section 5.2. Here the concern is with the implications for understanding the relations between different material forms of art. There are two basic elements of this, the first of which concerns the immediate impact of the means of technical reproduction, as noted for seals by Wengrow:

"Such [sealing] practices had a dual effect on the dissemination of images, comparable in some respects to that of the printing press in late medieval and early modern Europe. They provided a method for accelerating the replication of powerful visual formulae, simultaneously restricting their production to a small group of artisans and their elite patrons. This use of mechanical image production to fix ritual values within stable media of transmission, extending their dissemination beyond ephemeral performances into the spaces of everyday transactions, is a distinctive and neglected feature of early state formation in the western Old World." (Wengrow 2014, 81)

The relation between different forms here is that between instrument and container, a basic example of which is the use of a seal to create a sealing. Such direct relations are limited, however, to the seals and to moulds and the art objects created through them. Beyond this it is possible to note a more indirect impact of this kind of mechanical reproduction of images on other material forms. This can be noted for Egyptian art in the relation between two-dimensional art and statuary, as well as in the fitting together of architecture and furniture from different 'modular' parts (Wengrow 2014, 55-59). The question is whether such a pattern can be observed for the Mycenaean case as well. In terms of the use of seals and moulds it is clear that the Aegean had long been a participant in this kind of 'mechanical reproduction'. Two kinds of relations between material forms cautiously suggest broader notions of 'modularity' may have been present as well. The first concerns the relation between similar kinds of pictorial spaces, as observed for vessels, textiles and wall-painting in section 4.2.3, and for the hulls of boats and daggers in section 4.2.4.

These designs may have been copied either directly from one material form to another. As noted in section 4.2.2 an alternative is that model books (which have not survived) may have been used. The

[180] Here we may also note that two of the seals from LH I-IIA high-status burials were made of glass (Drakaki 2008, 95). Furthermore, a glass seal found at Tell Abu Hawam in the southern Levant (dated LH IIIA2 – IIIB) seems to have been made from the same mould as another glass seal from the Argolid (Pini 2005, 782).

other potential indicator of modularity is related to the use of inlays from one material in different material forms like stone sculpture, jewellery, and furniture. Not enough research has been done to conclude that a modular concept can be seen behind all uses of inlays. In the case of furniture, however, the more detailed description of specific forms in the Linear B tablets points to a modular use of different materials (e.g. *Documents*, 341). The on-going work on cross-craft activity discussed in section 4.2.3 will hopefully show in the future to what degree modularity in the use of materials can be observed in other material forms of Mycenaean art as well. The more basic forms of skeuomorphism between textiles and wall-painting and between stone and wood and wall-painting discussed in section 4.2.3 are unrelated to notions of modularity.

Another interrelation between material forms noted in section 4.2.3 was the use of the 'symmetrical' interior design of seals to the material forms of stone sculpture and wall-painting. This often showed antithetical animals flanking an architectural feature, which, as discussed in section 4.2.2, could also involve a relation between two-dimensional wall-paintings and a 'throne' as in the Knossos palace. Hence the similarity seems to indicate primarily a common iconographic theme, based on the antithetical animals, rather than deriving from a common design. The knowledge with regard to statuary is simply too limited to propose a metrological relation between three-dimensional and two-dimensional material forms as noted for Egyptian art. The conclusion to draw from these interrelationships between the different material forms of Mycenaean art is that Wengrow's idea of the 'first age of mechanical reproduction' can be recognised. This is based mostly on the seals and their uses, but also on indications of modularity in different material forms. Based on the still limited analysis, it would be too rash, however, to posit modularity as the overarching principle of Mycenaean art, even if it can be acknowledged to have played a significant role.

4.3: Craft and materiality of Mycenaean art

4.3.1: Introduction

The next aspect of Mycenaean art to be discussed is that of craft and materiality. It builds upon the analysis of material forms in section 4.2, but is less concerned with considering all material forms than with exploring the properties of some of them in more detail. The details that will be investigated here revolve around craft and materiality. As noted in section 2.4.4, craft is closely connected with ideas of materiality as they are understood within a particular worldview such as that of Mycenaean Greece. In analytical terms, however, the analysis of craft-work in itself is sufficiently different from that of conceptions of materiality to make it useful to first consider the two separately. Hence section 4.3.2 will focus on craft-work, focusing in particular on its social dimensions. This involves considering not only the organisation of the craft-workers themselves, but also questions concerning their relations to other sectors of society. One approach that is very useful in this is the so-called *chaîne opératoire* approach, which will be explained in more detail below. The usefulness of this model is that it allows for a systematic grasp of the relations between craft-workers, the materials they use, and the social relations of importance to them.

The focus on section 4.3.2 will lie on those materials that are especially relevant for understanding conceptions of materiality such as painted plaster and vitreous materials, rather than considering all the different kinds of materials used in Mycenaean art. The discussion of conceptions of materiality of Mycenaean art in section 4.3.3 will start with some general considerations of the topic. The central focus on attention here, however, concerns the analysis of the meaning of the linguistic term *ku-wa-no* or *kyanos*. A large number of different sources intersect in this term, including those of Linear B and various materials and artefacts of the Mycenaean archaeological record. Other sources are materials and texts from the contemporary early civilisations of the eastern Mediterranean and

Near East, as well as inferences that can be made based on Homer and other Archaic-Classical Greek sources. The inferences that can be made from the analysis of *ku-wa-no* will be used to discuss conceptions of materiality in Mycenaean art in general, with particular attention to the perception of colours. Finally, in section 4.3.4 the analysis of craft-work and conceptions of materiality will be brought together to consider their interrelation.

4.3.2: Craft-work and Mycenaean art

One important approach for interpreting craft-work increasingly used in archaeology is the so-called *chaîne opératoire* approach. This 'chain sequence' can be defined as the steps through which a raw natural material is transformed into a cultural product, bringing together all the technological and social elements that are involved in these steps (Brysbaert 2008, 22-23). A complex web of relations between craft-workers, various kinds of elites, society at large, and the materials themselves follow from this (Brysbaert 2008, 41-44). The concern here is, however, more focused on the organisation of craft-workers and their relation with the materials that were worked by them. The latter aspect also brings up the question of long-distance exchange and the ways in which this was organised and controlled. Hence the analysis presented here will draw upon the *chaîne opératoire* approach selectively rather than provide a full-scale analysis. As noted in the previous section, the focus here will lie primarily on painted plaster and vitreous materials, owing partly to their importance in the discussion of conceptions of materiality in the next section.

The first material technique to be discussed is that of painted plaster. As indicated in table 4.1 this was used primarily, if not exclusively, for making wall-paintings. The basic (technical) properties of painted plaster and wall-paintings were already treated in section 4.2.2, here this discussion will be extended to craft-work. The first thing to note is that there are no direct references in the Linear B tablets specifically to painted plaster as a material or to the painters of murals. Furthermore, the direct archaeological evidence for their production is very limited, amounting at the most to the remains of pigments in ceramic containers from Late Cycladic IA Akrotiri (Sotiropoulou et al. 2012). As a result the best way to make inferences about the *chaîne opératoire* of painted plaster is by working backwards from the wall-paintings and other material forms for which it was used. This can be done both by looking at the material characteristics of the painted plaster and by identifying individual 'hands' in painting styles. Starting with the material aspect, much work has been done since the initial replication studies (Evely 1999, 141-142) and analysis of pigments (Philippakis et al. 1976) in the 1970s. Not only have new replication studies been carried out (Chryssikopoulou et al. 2000), but the range of analytic techniques to study the remains of painted plaster has also been broadened considerably (Brysbaert 2008, 111).

The better grasp of the technical properties of Aegean Bronze Age painted plaster that results from this allows for more fine-grained insights into the processes behind their production. One basic aspect of this can be seen in the recognition that the making of the pure lime plaster, its application to architecture, and finally painting itself, would have involved a variety of skills that demanded specialisation among craft-workers (Brysbaert 2008, 168-172). Furthermore, given the complexity of the overall task considerable coordination of these different, sometimes incompatible, skills would have been required. Most likely such coordination would have been achieved through the organisation of craft-workers in dedicated workshops. The existence of these can also be inferred from the analysis of stylistic variation in the painting styles of murals. Such studies have been especially well-developed for the Neopalatial wall-paintings from Crete and the Cyclades (Cameron 1975, 306-370; Davis 2000; Televantou 2000). This work can involve the broad recognition of styles of painting, but also the precise recognition of stylistic 'hands' that makes it possible to note

individually idiosyncratic ways of rendering paintings (Davis 2000, 859).[181] The recognition of specific individual 'hands' is much easier in the better-preserved Akrotiri wall-paintings than for other cases, especially compared to the more fragmented Mycenaean wall-painting record. Yet more intensive study of fragments from the Mycenaean palace of Pylos may eventually allow for similar kinds of interpretations of 'hands' of painters, including those based on the specific materials and pigments used by painters (Brecoulaki et al. 2008, 387).

Both the analysis of the technical properties of painted plaster and the recognition of 'hands' in wall-painting can also facilitate an understanding of the cross-craft relations of this material form. With regard to the technical properties special attention should be given to the use of pigments. Good examples of this can be seen in the use of Egyptian Blue as a pigment and its relation to metallurgy and vitreous materials, as well as in the dual use of *murex* purple and indigo for wall-painting and textile dyeing (Brysbaert 2008, 179-180). The connection between Egyptian Blue, vitreous materials and metals will be further explored below. A close analysis of the way images were rendered on three daggers from the Shaft Graves suggests that individual artists may have tried their 'hand' at a diversity of material forms, including metal inlay, ivory, and wall-painting (Thomas 2012, 759-762). As such, in this particular case the cross-craft connections seem to go beyond the broad connections between material forms outlined in section 4.2. In this sense the detailed on-going work based on the investigation of cross-craft relations at the level of production in workshop contexts (e.g. Vetters & Brysbaert 2010), should provide important qualifications.

Here two very basic aspects of the *chaîne opératoire* of painted plaster can be noted. The first constitutes a vertical line, linking the production of lime plaster to the actual process of painting murals. Secondly, a horizontal line can be noted in the cross-craft relations in pigment use and the rendering of iconography. As a material technique Aegean painted plaster was used consistently over a long period of time, suggesting the primacy of the vertical line from plaster production to wall-painting over the horizontal one of cross-craft connections. Its distinctiveness as an Aegean-derived material technique can also be seen in its use in wall-paintings in different sites across the eastern Mediterranean (Brysbaert 2008, 189-195). Such a long-lived technological style likely depended upon a master-apprentice relation in order to perpetuate itself (Boulotis 2000, 851; Brysbaert 2008, 32-33). As noted earlier, the team of craft-workers required for using painted plaster for making wall-paintings would have been fairly large. The stylistic relations between paintings at different sites, including the ones outside the Aegean, also indicate that the craft-workers could travel considerably (Boulotis 2000). The kind of patronage relations this would have involved cannot be inferred directly from the material evidence, even if it strongly indicates that they would have been present. Such questions can be better grasped by looking at the contexts in which wall-paintings have been found, an issue that will be addressed in section 5.2.

Moving from painted plaster to the material techniques involved in the production and use of vitreous materials, the first question that needs to be answered is what exactly the term 'vitreous' refers to here. Sherratt (2008, 209-210) has pointed out the ambiguities of this term as used in interpretations of the archaeological record of the Bronze Age eastern Mediterranean and Near East. For those not fully schooled in the precise technical aspects of such materials, which certainly includes the present author, it can be very difficult to ascertain the varying usages of the term vitreous in the literature. Some prefer to distinguish glass from other materials described as vitreous such as faience, even if accepting some similarities at the level of craft-work (Duckworth 2011, 214-215). Here the definition of Shortland (2012, 29) will be followed, who includes all human-

[181] A much larger debate in this regard concerns the appropriateness of recognising 'hands' and the theoretical focus this implies with regard to individual artistry (Cherry 1992; Morris 1993), see in this regard also Ginzburg (1984) for the broader background of such ideas.

created materials that contain large amounts of glass. These include for the Late Bronze Age glass itself, faience, ceramic with glaze, frit, and a number of pigments. It should be stressed that these materials are by no means identical. In the period of the Mycenaean palaces there was a preference, although faience was also used, for light to dark blue materials that were either glass or Egyptian Blue frit (Panagiotaki 2008, 53).

The *chaîne opératoires* of vitreous materials are very complex given the minerals, pyrotechnology and shaping procedures involved. Again, the aim here is not to provide a full account of this, but rather to focus on the craft-workers and their interaction with the material. One very broad division in the *chaîne opératoire* of glass specifically was between making it and working it, which involved very different kinds of craft-work knowledge and instruments (Shortland 2012, 135). The complexity of making glass can be readily inferred from the number of technical steps discussed in the textual sources (Shortland 2012, fig. 6.11, p. 125). So far only a few glass-making sites have been discovered, with the best evidence coming from Egypt (Shortland 2012, 87-97). However, there is also good evidence for a glass-making tradition in Syrian and Mesopotamia (Moorey 1999a, 189-198; Oppenheim 1970, 69-86). The distinction between glass-making and glass-working is of great significance for the Aegean. So far no clear evidence has been recovered for indigenous glass-making in this area. Although it has been proposed that there are a few chemical clues from finished glass objects that glass-making may have taken place here (Nikita & Henderson 2006), these are not conclusive in demonstrating that it was made within the Aegean (Shortland 2012, 164-165).

Glass was traded throughout the eastern Mediterranean in the form of ingots, as can be seen in the about 175 ingots of dark blue and turquoise glass found in the Uluburun shipwreck dated to the late 14th century BC (Mee 2008, 364; Shortland 2012, 146-147). The analysis of Mycenaean glass beads has revealed that the glass used to shape them was made in Egypt and Mesopotamia (Walton et al. 2009). Hence it was likely imported through high-level exchange between states. As noted in section 3.4.2, the use of copper ingots was closely connected to elite control. Texts and iconography from Near Eastern sources further confirm the close association between elites and the control and exchange of glass (Shortland 2012, 141-152). Of course, this does not preclude the possibility that glass was exchanged in other ways as well, but these cannot be recognised. While there is so far no definitive evidence that glass was made in the Aegean it was certainly worked into the distinct shapes there, as can be grasped not only from these shapes themselves but also from moulds discovered at a number of different sites (Shortland 2012, 164-166). An outstanding example of glass-working can be seen in the evidence for a glass workshop at Tiryns (Panagiotaki et al. 2005).

There have also been suggestions that the *ku-wa-no-wo-ko*, or *ku-wa-no* workers mentioned in the Mycenae tablets were glass-workers, a term that will be discussed further in section 4.3.3 below. Yet there is no definitive proof that connects these craft-workers to glass. Other indications add more complexity. For example, it has been proposed that glass finds from Pylos were originally made in both Egypt and Mesopotamia and worked at another site in the Aegean, pointing to an exchange of glass objects within the Aegean itself (Polikreti et al. 2011). Since no direct link can yet be established between finds of glass and the place in which they were worked, however, it is not possible to establish specific exchange patterns. The finds of moulds used for glass-work suggests some degree of concentration at palatial sites such as Knossos and Mycenae, but they are found widely if in much lower numbers at non-palatial sites as well (Hughes-Brock 2008, 136). As with the wall-paintings, it is also important to consider the contexts in which objects made from vitreous materials were found when addressing the issue of the relation of craft-workers to the (palatial) elites and broader society. This issue will be dealt with in section 5.2.

A number of different indications point to a relation between glass and metallurgy (Jackson & Wager 2011, 118-119). These clues include the use of the same ingot shape for glass as for copper (as can be seen in the Uluburun shipwreck), the transformative character of both glass-making and metal-making, the use of moulding to work glass and metal, and finally the use of metal for colouring glasses. Clearly this presents a complex set of questions, but it is possible to use the *chaîne opératoire* approach to disentangle some of these complexities. What is clear is that despite parallels between metallurgy and making and working glass, the specific processes have to be understood in their own terms since they involved different materials and end-products. Furthermore, as we shall see in the next section vitreous materials were more closely associated with semiprecious stones than with metals. Keeping this in mind, some interesting cross-craft links in the *chaîne opératoire* of glass can be observed. One concerns the pyrotechnology of glass-making and the production of bronze alloys, which can be seen side-by-side on an almost 'industrial scale' at the Late Bronze Age Egyptian site of Qantir (Shortland 2012, 94-96). This may be one of the reasons behind the use of the ingot shape for glass.

Pyrotechnology in itself is not a very strong indicator that the materials were conceived of in a similar way, however. Much more interesting is the use of metals to colour glasses, which was extensive (Shortland 2012, 103-119). The best examples are the use of copper and cobalt to produce blues,[182] but there are other cases as well like the use of manganese to make purple and black glasses. As noted earlier there was a preference for blue glasses in the Mycenaean world, both the dark-blue ones coloured through cobalt and the lighter blue variant coloured using copper. One technical aspect behind the preference for these blue glasses may have been that they, unlike glasses of different colours, did not lose their distinct colour when heated at high temperatures for working (Jackson & Wager 2011, 117). As will be discussed in the next section there were many other reasons that informed this preference. What is important here is that metals were used at one stage in the *chaîne opératoire* of glass-making, and that just as with pyrotechnology it is located in that section of the process in which raw materials are transformed into a material that can be worked.

Moulds for working glass and for working metals were distinct, so there is no intersection in the *chaîne opératoire* sense here. This underlines the point that while metallurgy and glass can show parallels, they remain at distinct tracks and meet only at certain points. This can also be seen in the different way glass and more broadly vitreous materials were used in distinct material forms of Mycenaean art. One of these was the association of small dark blue glass objects with gold, with the latter either covering the glass or the two being used together in a necklace of beads (Nightingale 2008, 81). Another connection is even broader, involving glass-working, metallurgy, and painted plaster. The copper used to colour glass was also used for making one of the blue pigments of Aegean painted plaster, up till the latest phase of the Mycenaean palaces (Brysbaert 2008, 134-139). This specific pigment is made from the ground powder of a frit known as Egyptian Blue, and as such can be conceived of as part of Shortland's generic category of 'vitreous' materials discussed earlier.[183] It could also be used, only seen occasionally in the Aegean, to make objects like the Egyptian monkey figurines from Mycenae and Tiryns (Cline 1991).

As a result a multiplicity of uses of copper can be seen at various stages of the distinctive *chaînes opératoires* of bronze alloys, glass, and painted plaster (in the use of Egyptian Blue pigment). This interaction between what are here presented as neat analytical categories would have been much more complex in the actual circumstances of workshops. This can be clearly grasped from the

[182] Copper was also used to produce red-coloured glass in Late Bronze Age Egypt (Shortland 2012, 118-119).
[183] Once again it should be stressed that as a frit Egyptian Blue should not be mistaken for glass, even if there is a clear risk of doing so (Moorey 1999a, 186). Some scientific analyses indicate that, unlike glass, Egyptian Blue frit was actually made within the Aegean area itself (Tite et al. 2005, 11).

recent study of the working and re-working of copper/bronze alloys, glass and Egyptian Blue frit in a workshop context at Tiryns (Brysbaert & Vetters 2013, 185-186). The possible meanings of these material interconnections, as well as the one between blue glass and gold, will be discussed in the next section. Here it is important to stress the interaction between the vertical lines of the *chaînes opératoires* of painted plaster and vitreous materials and the horizontal intersection between them for the production of colours, in which copper metallurgy also played an important role. It remains hard to determine precisely the social relations impacting these *chaînes opératoires*. Even so, it can still be argued based on the technological demands of the materials (including the need to support a larger number of people to make wall-paintings) and their exchange contexts (the glass ingots), that it has to be understood primarily within the framework of the palaces. This generic thesis will be further explored for the contexts of Mycenaean art in section 5.2.

4.3.3: Conceptions of materiality in Mycenaean art

Turning now to conceptions of materiality in Mycenaean art, it is important to first sketch the broad outlines before addressing the specific interpretation of *ku-wa-no*. As noted in section 3.4.2 for specialised knowledge, the specifics of Mycenaean ontology and cosmology remain elusive due to the lack of unambiguous sources on this matter. However, a generic connection between craft, materiality and worldview has often been noted based on the specifics of archaeological finds. A good example is that of the 'failed' glass productions in the Cult Centre at Mycenae that may have been offerings (Hughes-Brock 2008, 136). These can be compared to the contemporary metallurgical moulds, crucibles and slags found in cultic contexts in the Cyclades, which have been interpreted as votives (Schallin 1997, 17-19). It has also been suggested that some of the larger three-dimensional figures may have been associated specifically with workshop areas, especially those where metallurgy was practiced (Vetters 2011, 39-42). Furthermore, it is clear that different kinds of craft activity took place in a variety of excavated sanctuaries and buildings with religious functions (Lupack 2008, 131-160). It should be stressed that this activity was not on a scale that warrants the use of the term 'temple economy', as also noted by Lupack (2011, 210), and as should be clear from section 3.4.2 craft-work was carried out by non-sanctuary personnel as well.

These different strands of evidence point to a situation in which religious ideas may have been associated with certain kinds of craft-work both in sanctuary contexts and in workshops outside of them. The distinction between these two kinds of contexts may appear somewhat diffuse, as Mycenaean ritual objects and architectural features such as hearths are more widely distributed than just in exclusively religious contexts (Vetters 2011, 38-39). As such there would be no need for ritual related to be craft-work to be limited to sanctuaries and religious buildings. Much more research is required to be able to determine more precisely the relation between craft-work and ritual, however, especially because there are also no clear insights on whether this would imply a connection between conceptions of materiality and craft on the one hand and religious ideas on the other. It cannot be excluded that this was the case given that parallels exist in contemporary Bronze Age societies such as Egypt, as will be discussed further below, but the Mycenaean evidence at present is insufficient except to note the possibility that this was the case.

One specific material form for which interpretations of its materiality have been offered is the use of painted plaster for creating wall-paintings. As with the relation between cult and craft-work such interpretations are more generic and deal with aspects, rather than presenting a coherent framework of the material ontology of painted plaster. One interesting property of the *al fresco* painting technique used in at least part of the wall-paintings is that the colours only emerge out of the grey, dull plaster wall over a period of weeks or months, so that the act of painting may have been conceived as a magical transformation (Brysbaert 2008, 164, 183-184). Much has also been made

of concentrated 'dumps' of discarded plaster at Pylos, which suggests that the periodic renewal of the painted plaster may have required a special deposition of such symbolically-charged materials (Bennet 2004, 100; Steel 2013, 119-120). Other plaster dumps are also known from Ayia Triada, Mycenae and Tiryns, and there are indications from Gla that the renewal of the painted plaster was based on a continuity in iconography in specific painted areas (Petrakis 2011, 218). Possibly these cycles of renovation of plaster were themselves connected to a ritual calendar, like the one outlined by Younger (2009), a possibility that has been noted earlier (Wright 2006a, 56; Brysbaert 2008, 184). While not implausible, these authors also acknowledge that such a proposition is extremely difficult to prove in a definite way.

Another thing that remains unresolved in this is whether this symbolic value is due to the qualities of the plaster itself or to the colours painted on them, or a combination of the two. Based on technical similarities in building techniques it has been argued that the Hittite evidence might be useful to explore architectural connections with the Mycenaean world (Thaler 2007, 297-301). One Hittite text called 'Ritual for the erection of a new palace' (KUB 29.1) is of particular importance with regard to this question, as it has been pointed out as a possible analogy for grasping Mycenaean painted plaster (Thaler 2007, 307-308). The second line of the text refers to the act of plastering the finished palace, which should be done with 'long years' (or goodness) on the inside and with 'frightfulness' (or lordliness) on the outside (Beckman 2010, 72). This points to a symbolic, and quite possibly 'magical', force of the plaster. Only a few fragments of painted plaster have been found at the Hittite capital of Hattusha (Özyar 2006, 131-132). A number of scholars have linked these fragments with the Aegean painted plaster, though the highly fragmented state of the material makes this quite difficult (Brysbaert 2008, 102). If through future technical studies it could be proven that the Mycenaean and Hittite painted plaster would have shared the same material technique, this would make the connection at the level of material ontology more robust.[184]

These examples of conceptions of materiality in Mycenaean art so far are certainly not insignificant, but they do lack a strong coherence that allows for in-depth insights into material ontology. This is because, as noted in section 3.4.2 for specialised knowledge, the available sources are so limited and fragmented that it is hard to move beyond generic statements. It is proposed here, however, that the case of the Linear B term *ku-wa-no* offers an almost unique opportunity to gain greater insights into the materiality of Mycenaean art and the material ontology of Mycenaean early civilisation. This is because the term *ku-wa-no* can bring together a great variety of sources into a coherent framework. To facilitate the complex analysis implied by sources involving different kinds of arguments, a sequence of four consecutive steps will be followed to make this argument:

1. A discussion of the references to *ku-wa-no* in the Linear B sources, the information on the etymology of the terms, and a consideration of the relation to the early historical Greek use of the term *kyanos*. Particular attention for the last aspect will be given to the conceptualisation of colours implied by the use of *kyanos* in these textual sources.
2. An analysis of the different materials in the Mycenaean archaeological record that can potentially be connected to *ku-wa-no*, in particular lapis lazuli, vitreous materials, and the so-called 'black bronze'. For each of these materials the broader aspects of colour-use will be investigated as well.
3. An exploration of the place of the materials related to *ku-wa-no* in the Mycenaean record within the Late Bronze Age eastern Mediterranean exchange sphere of materials and art objects. Part of this analysis builds upon the one provided in section 4.3.3. Particular attention will also be given to conceptions of the materiality of art objects and material

[184] Reference here can also be made to a recent study that has found a close resemblance between stone sculpting techniques of Hittite and Mycenaean architecture (Blackwell 2014).

ontology in general in Egypt and Mesopotamia.

4. The three previously separately discussed aspects of linguistic usage and meaning, materials and colour use, and eastern Mediterranean connections will be combined in a consideration of the meaning of *ku-wa-no* in Mycenaean art.

The linguistic analysis is based upon the information from the Linear B tablets, in which two kinds of references can be found relating to *ku-wa-no*. The first kind can be found on two tablets from Pylos. Tablet Ta714 lists a chair inlaid with *ku-wa-no* and also with an inlaid motif of a *ku-wa-no* griffin (although the term *po-ni-ke* might alternatively refer to a palm-tree), as well as a footstool inlaid with the same *ku-wa-no* (*Documents*, 344). Other materials used as inlays (including for motifs) for this chair and footstool are gold and silver.[185] As we shall see later, it may be significant that the griffins on the chair described in Ta714 are made of *kyanos* and gold. The other tablet is Ta642, which contains a reference of a stone table that was inlaid with *ku-wa-no-qe*, as well as gold, silver, and a substance translated as 'aquamarines', which likely was an epithet for an unknown material (*Documents*, 339-340). It is hard to derive from these tablets exactly what kind of material is referred to, and this does not become clearer for the other group of references related to *ku-wa-no* on tablets Oi701-704 from Mycenae (Chadwick 1963, 58-59). These tablets mention *ku-wa-no-wo-ko*, or *ku-wa-no* workers, which were associated with a deity known as the 'mistress of the grain' and found in the Cult Center, with possibly a glass workshop nearby as indicated by moulds for glass relief beads found close to it (Nightingale 2008, 79-80).

From the Linear B references it does not become entirely clear what kind of material is referred to (if it is indeed a single material), and it seems as though multiple options can fit with the meagre linguistic evidence. It can be useful therefore to consider the etymology of the term rendered later as *κυάνος* or *kyanos*, which refers to a certain material from which the adjective *κυάνεος* was derived (Irwin 1974, 79). In later Greco-Roman texts, *kyanos* referred to different materials such as a dark-blue enamel, lapis lazuli, or a blue copper carbonate (Liddell & Scott 1940). According to the 4th century BC book *On Stones* by the Greek philosopher Theophrastus, *kyanos* could refer both to natural and artificial materials.[186] The word may also possibly be related etymologically to Hittite *kuwanna*, which refers both to copper and an 'ornamental mineral' material that was used for decoration and for beads (Puhvel 1997, 308-311). Copper carbonates such as azurite may have occupied an intermediate position between the two. In any case, *kuwanna* did not refer either to a colour or to lapis lazuli in the Hittite world (Puhvel 1997, 310). Although these connections give a little more texture, they do not offer more detailed insights into the broader semantic associations of *kyanos* as part of a broader material ontology.

Next we can turn to the references to *kyanos* in early historical Greek poetry. There is sufficient justification for doing so, not only because the words *ku-wa-no* and *kyanos* are etymologically connected, but also because the material aspect of *kyanos* described in Homer and other sources is

[185] Other materials used for inlays in the Pylos furniture are sea shells, aquamarines, ivory, and ebony (e.g. *Documents*, 335, 339, 341). An unknown material called *ne-pa2-sa* was also used as an inlay on metal vessels listed in one of the Knossos tablets (*Documents*, 330).

[186] The relevant passage is worth quoting in full:

"Just as there is a natural and an artificial red ochre, so there is a native kyanos and a manufactured kind, such as the one in Egypt There are three kinds of kyanos: the Egyptian, the Scythian, and the Cyprian. The Egyptian is the best for making pure pigments, the Scythian for those that are more dilute. The Egyptian variety is manufactured, and those who write the history of the kings of Egypt state which king it was who first made fused kyanos in imitation of the natural kind; and they add that kyanos was sent as tribute from Phoenicia and as gifts from other quarters, and some of it was natural and some had been produced by fire. Those who grind colouring materials say that kyanos itself makes four colours; the first is formed of the finest particles and is very pale, and the second consists of the largest ones and is very dark. These are prepared artificially, and so is white lead." (*On Stones*, 55)

closer to the Bronze Age archaeological record than to that of Archaic Greece. This point will be addressed in detail after the discussion of the Mycenaean archaeological record. The references to *kyanos* in the Homeric epics compiled by Irwin provide further insights (Irwin 1974, 84-96). These include what were likely inlays of *kyanos* in the breastplate, shield, and shield strap of Agamemnon (*Iliad* XI, 26-30, 36-41, 43), feet or a border of the material in a table of Nestor (*Iliad* XI, 741), and what appears to be a trench of *kyanos* surrounding a vineyard on the Shield of Achilles (*Iliad* XVIII, 657-658). Finally, there is a reference to a circling frieze with the characteristics of *kyanos* (usually translated as lapis lazuli) in the description of the palace of Alcinous (*Odyssey* VII, 101), already enthusiastically seized upon by Schliemann to account for the frieze inlaid with blue glass from the palace of Tiryns (Schliemann 1886, 287-290).

Although archaeologists by and large have become more cautious than Schliemann, it can be observed that some of these Homeric references are not inconsistent with the Mycenaean material remains and the Linear B evidence. Yet *kyanos* also occurs in very different ways in Homer and other authors that problematise a straightforward correlation between the materials and the way they were conceptualised. As indicated by the list compiled by Irwin referred to above, *kyanos* could be used in Homer in such phenomena as the battle-line of warriors (which is compared to a cloud coming in from the sea), 'magical' clouds either protecting/shrouding or bringing death, sometimes explicitly created by deities. Other cases include a dark veil of the sea-nymph Thetis, the hair, beards and eyebrows of deities and of human heroes, the prows or totalities of ships, and earth in combination with sand. The picture grows even more complicated when the Homeric hymns, Hesiod and the lyric poets are considered (Irwin 1974, 96-103). In Hesiod there are epithets of eyes deriving for *kyanos*, which is also used to describe elements of the Shield of Heracles, certain robes, the wings of a grasshopper, and humans from a faraway region that may have been Ethiopia.

The range of phenomena listed here is so broad that it has been doubted that they can all refer to blue, and Irwin (1974, 93-94) has proposed that *kyanos* should instead be seen as a noun-epithet for dark phenomena, alternating with *melas* in the Homeric meter, as can be seen for ship descriptions. From these references in early historical Greek poetry, it follows quite clearly that the identification of *kyanos* as referring primarily to the colour blue or dark-blue is not likely given the range of different examples, some of which are improbable if taken as literal indicators of hues. However, Irwin's (1974, 84) hypothesis of its use as indicating something dark seems to be too limited as it does not fully think through the material connection, which remains subsumed under the poetic meaning. Yet there is another way of analysing the conception of colours in the poetry sources that offer more insights into this matter. Other colours in early historical Greek poetry display the same kind of bewilderingly different references that seem both unrelated to each other and to the colour they are supposedly associated with. Clarke (2004) has analysed one of these terms, *χλωρός* (referring to green/yellow) by treating it as a semantic prototype: not as a noun denoting a patch of space with a hue, but rather as a kind of 'kinetic phenomenon' that shapes perception of the world.

He notes that in early Greek historical poetry, *χλωρός* refers to phenomena as diverse as vegetation, honey, cheeses, the part of the rainbow opposite to purple, sand by the sea-shore, the faces of terrified humans, the flesh underneath a nail that has been cut, drops of red wine or blood, tears, flowers of rose trees, and human limbs. Although some of these phenomena are related to yellow, others are clearly not, and it is hard to conceive of a noun-epithet that could possibly cover them all in terms of a determinate patch of a hue. Rather, Clarke (2004, 134) proposes to define the semantic prototype of *χλωρός* as *"the green fecund vitality of moist growing things"*. This can be best seen in the greenish ooze that flows from a growing shoot in springtime. Other phenomena follow from this, such as the flesh underneath the nail that has been cut and is still moist, though some are closer to the core semantic prototype than others. He discusses a number of different terms, and also

suggests that as historical Greek civilization developed a new kind of conception of colours emerged (more in line with modern ones) that limited the scope of the semantic prototypes (Clarke 2004, 136-138). In effect, they became more 'fixed', a process that can perhaps be seen as a parallel to the changes in the relation between texts and images to be discussed in section 4.4.3 below.

Clarke's method is attractive in that it can incorporate the range of different phenomena referred to from the same semantic prototype, as well as the material characteristics that are closely associated with it. For *kyanos*, we saw that the references were even more wide ranging, such as those of *kyanos* clouds in early historical Greek poetry which also seem to suggest a role as a protective or shrouding surface, as may be inferred for the veil, the line of warriors and the shields and breastplates. The situation is made more complex when one considers the reference to the eyes, hair, eyebrows and beards of deities and human heroes. On this basis the core semantic prototype of *kyanos* may be defined in a basic and minimal way as a 'vital, vigorous and lustrous darkish surface' (whether solid, gaseous or organic or any other kind of material). The clouds, veils and metal inlays closely adhere to this semantic prototype, as do the hair of deities and human heroes. The prows of ships can also be understood in this way, if already less strongly. Other references are more obscure, such as the wings of a grasshopper or humans from a faraway region, which seem to stray further from the core semantic prototype.

Of course, the semantic usage of *kyanos* in Homer and early Greek historical poetry does not prove that Mycenaean *ku-wa-no* was grasped in the same way, despite the clear etymological connection. To grasp the possible similarities and differences between the two it is necessary to grasp the Mycenaean case in more detail, starting with the possible materials to which *ku-wa-no* could refer and the colour-uses associated with them. As noted earlier the information of the Linear B tablets is very limited in this regard, although we saw that on the chair described in tablet Ta714 *ku-wa-no* griffins accompanied griffins made of gold as inlays. This does not allow for an obvious connection to a particular material, so three different categories will be investigated: lapis lazuli, glass and vitreous materials, and 'black bronze'. The first material to be discussed here in detail is lapis lazuli. As outlined by Bennet (2008, 160), lapis lazuli has been found in the form of imported cylinder seals, jewellery and inlays, with evidence that it was worked in the Aegean itself alongside vitreous materials that were closely associated with it. The most famous category of lapis lazuli finds are the engraved cylinder seals from the Mycenaean palace at Thebes that were imported from different parts of the Near East (Porada 1981/82).[187]

Out of the collection of 42 seals found at Thebes 32 were made of lapis lazuli, and derived from a variety of regions that include Anatolia, Cyprus, Syria, and especially Mesopotamia (Kopanias 2008, table 1, pp. 42-43). Some of the Mesopotamian seals dated back to the 3rd millennium BC. A number of the lapis lazuli seals have a gold foil, which can also be seen in some of the 10 seals made from this material that have been found on other sites of the Late Bronze Age Greek mainland (Kopanias 2008, 55). Another case of the association between lapis lazuli and gold can be seen in the hilt of a dagger from the Shaft Graves at Mycenae (Harrell 2009, fig. 11, p. 98). Technical analysis of painted plaster fragments from Gla shows that lapis lazuli was also used as a pigment component in a form of purple (Brysbaert 2006, 2008, 154-155). On the other hand, its possible use as a blue pigment on the Ayia Triada sarcophagus cannot be corroborated because of the lack of analytical studies (Brysbaert 2006, 256). The material evidence thus shows that lapis lazuli was both used and appreciated in the Mycenaean palatial period. Yet even if the uses that were made of it seem not incompatible with the Linear B references to *ku-wa-no*, the material seems to be too rare to require the existence of specially dedicated workers.

[187] A much earlier lapis lazuli scarab from Egypt was found in one of the Shaft Graves at Mycenae (Martin 2006). Lapis lazuli has also been found in very limited quantities on Minoan Crete (Hughes-Brock 2011, 99).

Instead it is possible to point here to the association of *ku-wa-no* with vitreous materials, which were already discussed at some length in the previous section. There we saw that both glass and Egyptian Blue were used, the latter mainly as a pigment in wall-paintings. The uses of the blue glass were more varied. These included a large number of beads (and gaming pieces of the same size) in a variety of shapes (Nightingale 2008, 64-72), the meaning of which will be discussed below. Inlays were used for jewellery, architecture, and likely furniture as well (Jackson & Wager 2011, 116). The architectural case comes from Tiryns, where as noted earlier glass was found in a stone block forming a frieze with half-rosette motifs (Panagiotaki et al. 2005, fig. 1, p. 16). It seems that glass could also have been hung on walls (Jackson & Wager 2011, 116). Another important use of glass in the Mycenaean palatial period was for seals. Initially glass seals were worked in a way that was analogous to the hard stone seals, but from LH IIIA onwards they were 'mass-produced' through the use of moulds (Hughes-Brock 2011, 100-101). Finally, glass was incidentally used as a part of weaponry such as daggers and swords, as well as in helmets (Nightingale 2005).

The quantity of the evidence for glass-working and the range of glass objects found makes dedicated workers a distinct possibility (cf. Nightingale 2008, 79-80), more so than for the limited amount of lapis lazuli found in only a few special contexts. As with lapis lazuli there are also indications that vitreous materials were associated with gold. This can be seen for the use of gold foil for three (imported) faience seals found in Thebes in the same context as the lapis lazuli cylinder seals (Kopanias 2008, table 1, pp. 42-43), as well for many of the dark-blue glass beads (Nightingale 2008).[188] This brings up the question of colour-use, and extending from this the more difficult issue of the conception of colours. Here a number of select topics will be addressed that involve the first question of colour-use. This also involves the use of colours in wall-painting, for which the evidence of the Late Cycladic IA paintings from Akrotiri will also be discussed. Although located in the Cyclades and preceding the period of the Mycenaean palaces, this site is important for the discussion because of the very good preservation of the wall-paintings. Work done here has also been able to relate the material properties of the pigments used in these murals to the iconographic themes that are depicted (Sotiropoulou et al. 2012).[189] As such it is very important to the argument presented here and cannot be left out of the discussion.

The first issue that needs to be addressed is the relation between colours as they relate to materials and as they are used in wall-paintings and other forms of art. For the depiction of jewellery in wall-paintings the following identifications have been proposed: a) yellow or gold-painted jewellery as gold, b) red-painted stone as carnelian, c) red-painted metal as sylvanite (a gold alloy), d) blue or blue-grey stone as lapis lazuli, amethyst, or blue glass, and e) blue metal as silver (Younger 1992, 257). This already highlights the need to relate colours such as blue to their specific iconographic rendering (as stone or metal), but the situation becomes even more complex when broadening the discussion to iconographic elements that are further removed from the mineral world. The intricate uses of colour can be immediately grasped when considering the depiction of griffins in Aegean Bronze Age wall-painting. If we accept the position that the *ku-wa-ni-jo-qe* inlay of *po-ni-ki-pi* figures on the chair of tablet Ta714 represents griffins made of *kyanos* (*Documents*, 344),[190] then the question is whether such griffins can also be recognised in wall-painting. The answer to this seems to be a qualified 'yes' as at least four cases can be recognised.

[188] Of course gold foil was used quite extensively in Mycenaean jewellery (Laffineur 2010, 448) and cannot be seen as limited in its association to just lapis lazuli and vitreous materials.

[189] The large-scale application of the X-ray fluorescence technique to identify pigments in the Pylos wall-paintings will provide an extremely useful counterpart to this analysis from a Mycenaean palace. This work is on-going, however, and has so far not been published in detail.

[190] This is certainly not impossible as both gold and blue glass inlays of griffins are known from the Mycenaean archaeological record (Zouzoula 2007a, #268, #269, #270, p. 67).

The first concerns a griffin of which the wings are partly blue (see figure 14) in a hunting pose on the East Wall of the miniature wall-paintings of the West House of Akrotiri (Doumas 1992, fig. 21, p. 65). This scene does not involve any human hunters, and shows an ubiquitous use of blue for many other iconographic elements of this scene such as the river, vegetation, the hunting feline, and the wings of the bird that soon will become a prey (see figure 15). From the same site comes a larger-scale painting in building Xeste-3 showing a griffin with partly blue wings (see figure 16) behind a goddess (Doumas 1992, fig. 128, p. 165). Both griffins also carry spiral designs on their wings.[191] In this they resemble a griffin in an Aegean-style wall-painting from the site of Tel el-Dab'a in Egypt, which also shows a combination of a partly blue wing with a spiral (Morgan 2010, fig. 1, p. 305). The overall composition of this scene is not completely clear yet, but it does seem to have involved human hunters (Morgan 2006). A later example comes from the LM II sarcophagus from the site of Ayia Triada on Crete, where one of the sides shows a griffin with blue wings pulling a chariot (Long 1974, 29-33), even if unfortunately the exact pigment is not known as noted earlier.

However, these are just four cases out of a wide variety of griffins depicted in Aegean Bronze Age wall-paintings, and many others have wings in other colours, have no wings, or it is insufficiently established what colour the wings would have had.[192] Many of the portable art objects such as seals and vase-painting cannot show blue in the way wall-paintings can, but at least for the objects made from vitreous materials a relation between griffins and the colour blue can also be noted. The best example of this can be seen in fragments of a faience vessel with blue griffins and yellow lions (Zouzoula 2007a, #271, p. 68). Another possible case is that of the blade hilt inlaid with lapis lazuli from the Shaft Graves at Mycenae, the figures of which can be plausibly interpreted as griffins (Harrell 2009, 98). These are just two cases, however, and griffins were rendered in other materials as well, notably in ivory (Morgan 2010, 304). Given that not all griffins are rendered in the same colour, this makes the relation between colour and meaning in this case much more complex. In a forthcoming article Mark Peters (in press) has discussed how the griffins depicted on the Pylos palace walls tend to vary in colour, which seems to be connected with the specific contexts in which they are depicted. This is useful to explore for the griffins just discussed. In table 4.2 the main characteristics and contexts of the four depictions of griffin wings with blue elements are given to allow for an exploration of these colour-uses.

Scene	**Context**	**Overall colour-use**
Akrotiri West House	hunting scene, no humans	ubiquitous use EB
Akrotiri Xeste-3	association seated goddess	various uses of blue
Tell el-Dab'a	hunting scene, composition yet to be established	unknown
Ayia Triada sarcophagus	pulling chariot with goddesses	various uses of blue

Table 4.2: Depictions of griffins with blue wings in Aegean-style wall-paintings.

[191] The decorative motifs of griffins have more complexity than can be done justice for here, see for an overview of these motifs across time D'Albiac (1995).

[192] The colour of many of the extant examples from Mycenaean wall-paintings remains unclear. From Mycenae there is the possibility that a small winged griffin was present in the Cult Centre (Morgan 2005, fig. 10.5, p. 167), but the reconstruction of the figure remains unclear. A more certain case from the Ivory Houses at the same site has wings but the remains are without colour (Cameron & Mayer in Tournavitou 1995, 283). The remains from Pylos appear to show no blue, but the publication of the restudy of the fragments is still forthcoming. Finally, blue was used on a griffin's wing at Thebes (Fappas, personal communication), but this also awaits publication.

These four cases at least show some common elements. With regard to the contexts of griffins these consist of an association with a female deity and also with hunting. Both associations can be seen in a broader set of Aegean Bronze Age images, including from the Mycenaean mainland (Morgan 2005, 168). The wings of griffins were also a significant iconographic element (cf. D'Albiac 1995), left out for certain scenes and emphasised in others. Yet it remains unclear what the role of blue on these wings was in iconographic terms. All of the three scenes of which the composition is known show a significant use of blue in other iconographic elements. This can best be seen in the hunting scene from the West House in Akrotiri, where as noted earlier an abundant use of blue was made. Recent scientific analysis of the blue pigments used in this scene show that Egyptian Blue was used for the animals, vegetation, and river in this scene (Vlachopoulos & Sotiropoulou 2012, 253). This seems to be contrary to the notion that the use of blue on the wings of the griffin was in any way special or exclusive. The use of Egyptian Blue at this site was also applied together in complex ways with another blue pigment based on riebeckite to create more refined renderings of colour, rather than showcasing Egyptian Blue as a material linked with wealth, or any kind of symbolic meaning (Vlachopoulos & Sotiropoulou 2012, 259-261).

The same pattern can be seen for the use of blue in monkeys in Cretan and Cycladic wall-paintings (Greenlaw 2011, 47-48).[193] These monkeys are somewhat exceptional, most notably the ones from Room 4 of building Xeste-3 at Akrotiri. Not only do these blue monkeys have anthropomorphic traits, but they also handle musical instruments and swords (Greenlaw 2011, 60; Rehak 1999a). As with the griffins, these creatures seem exceptional but the combination of riebeckite and Egyptian Blue to render monkeys in the Akrotiri wall-paintings (Vlachopoulos & Sotiropoulou 2012, 254-255) is not intrinsically different from other iconographic elements. As a result it can be said that the vitreous aspect of Egyptian Blue and the symbolic connotations this might have had are not readily apparent in Aegean Bronze Age art. The only exceptions are depictions of blue beads that were most likely made of blue glass can be seen in various artistic depictions, again with the Akrotiri wall-paintings providing some of the best evidence (Younger 1992, 263, 265, 274), see figure 17.[194] Hence the pigment could be used to show the same kind of material from which it was made, but it is not the case that it was applied in a way that suggest a highly symbolically-charged meaning. Instead, the uses of Egyptian Blue in wall-painting seem more related to the complex chromatic aesthetics of that medium. It is possible, indeed very likely, that this carried distinct symbolic meaning as well, but this should not be reduced to the properties of the materials used.

Although they are even less clear, some of the other uses of blue related to vitreous materials need to be discussed briefly. The first is that of beads and other small objects made from vitreous materials, including their use in different forms of jewellery. First of all the shapes of the beads themselves, mostly involving a variety of vegetative and animal motifs (see figure 18), have been linked with 'magical' meanings (Hughes-Brock 2008, 130-131; Nightingale 2008, 80-81). However, both authors acknowledge that motifs such as rosettes, ivy leaves, and argonauts can be seen in various other art forms as well, and here the notion of magic is less suggestive. Finally, yet another feature from the site of Akrotiri is the use of blue on the heads of various human figures, such as for the 'boxing boys' from Building Delta (Doumas 1992, fig. 81, pp. 114-115). This indicates not hair, however, but rather shaven heads (Davis 1986). It seems an undue stretch to connect this with the Homeric description of the hair of heroes and deities as *kyanos* based on the available evidence.[195]

[193] So far there no depictions of monkeys have been found for any of the known Mycenaean wall-paintings, and the theme seems somewhat unlike Mycenaean art. The only clear evidence for depictions of monkeys from the period of the Mycenaean palaces proper can be seen in two imported Egyptian Blue frit figurines with cartouches of the Pharaoh Amenhotep II (1427-1400 BC) that were found in what were most likely LH IIIB2 contexts at the palatial sites of Mycenae and Tiryns (Cline 1991, 33, 34; 2013, figs. 3-4, p. 28).

[194] See Whittaker (2012) for a recent discussion of the relation between colour and jewellery in Mycenaean art.

[195] More promising are the blue glass inlays that closely resemble hair curls that would have been used on helmets

An alternative interpretation of *kyanos* that has been proposed was 'niello' (Irwin 1974, 81-84), a specific mix of copper, silver and lead sulphides that produced a black inlay for metal objects. It is possible that this material was used for the black inlays in the Shaft Grave daggers, and more generally in vessels up till the LH IIIB period (Xenaki-Sakellariou & Chatziliou 1989). It can also be inferred indirectly from objects like the bearded heads from a now-lost silver cup from Pylos, which were found to contain high percentages of copper (Boss & Laffineur 1997, 191). A variety of such black inlays are known from the Bronze Age, both in the Aegean and in Egypt and the Levant. However, it has not been proven conclusively through technological analyses that they are either made from 'niello' or from a technique known as 'black bronze' (Thomas 2005, 719-720). However, the analysis of a cup from Enkomi with Aegean connections and contemporary to LH II-IIIA shows that such black inlays are more likely to have been made of 'black bronze' (Giumlia-Mair 2012). Later analysis of one of the Shaft Grave daggers seems to confirm this (Giumlia-Mair 2013).[196] As such, it is proposed that the *ku-wa-no* workers were dedicated to this material, much as the *ku-ru-so-wo-ko* were dedicated to working gold (Giumlia-Mair 2012, 114).

The question to be considered now concerns the relation of each of these three kinds of materials both to each other and to the linguistic term *ku-wa-no* or *kyanos*. Based on the discussion of the forms and uses of the materials it is proposed here that both lapis lazuli and vitreous materials can refer to *ku-wa-no*, while the 'niello' or 'black bronze' technique is a less likely candidate because of its exclusive application to metal vessels.[197] The only reason to favour vitreous materials is because the higher volume of production makes the existence of dedicated workers more plausible. The two materials need not have been seen as mutually exclusive, however. One interpretation is that lapis lazuli and vitreous materials can be associated together for the Linear B references to *ku-wa-no*. Bennet (2008, 160) has proposed that the term might be a dual reference to both, with the colour being the common element. One example of such a dual reference given by him was *êlektron*, which refers both to amber and to an alloy of gold and silver (Liddell & Scott 1940). The dual reference has some merit to it, notably for the indications for skeuomorphism between early glass seals and hard-stone seals discussed in section 4.2.3 and for the association of both glass and lapis lazuli to gold discussed earlier in this section.

Yet the focus on blue as a colour is complex, given the discussion on the interpretation of *kyanos* as a colour term discussed earlier. An alternative to blue as such can be found in Sherratt's (2008, 214) perceptive remarks on the almost alchemical processes through which certain materials could be molten and then cast into solid metal and glass objects that seem alike to natural originals such as lapis lazuli. This brings up the possibility that the use of the colouring agents of copper and cobalt may have played some role in the conceptions of (similarities between) materials. As noted in the previous section, materials such as painted plaster, glass, and metallurgy could be related to each other in this way. Potentially this would allow for considering 'black bronze' inlays here too. However, at this level of analysing craft-work more complexities arise. For example, it has been proposed that a distinction can be made between the darker blue glass coloured through cobalt associated with lapis lazuli and the less darker blue glass coloured through copper associated with

(Nightingale 2005, 20-21; Shortland 2012, 162). This evidence does not seem to be sufficient, however, to make the connection with the poetic descriptions of *kyanos* hair.

[196] The analysis of Thomas (2011) that is more favourable to the niello hypothesis is based not on close visual inspection nor on laboratory analysis. Furthermore, it could not take into account the analysis of the Enkomi cup and the later investigation of the Shaft Grave dagger.

[197] There is a hypothetical possibility that the material would have functioned as a decorative material in its own right, and was used as an inlay in the ivory chair (*Documents*, 340). Unlike for both lapis lazuli and vitreous materials, however, there is no archaeological evidence whatsoever for this somewhat unlikely proposition.

turquoise (Hughes-Brock 2011, 100).[198] If this proposition is accepted then it would create a distinction with further ramifications. Cobalt-coloured blue glass and lapis lazuli would form one category, while another would be made up of blue glass coloured by copper, Egyptian Blue, and possibly 'black bronze' as well.

Yet any attempt to establish an exclusive connection of one of these categories to the linguistic term *ku-wa-no* seems to get mired in contradictions.[199] Furthermore, in terms of aesthetic usage it is possible to see a complex mixture of different minerals to achieve aesthetic effects, as can be seen in the case of riebeckite and Egyptian Blue in the wall-paintings from Akrotiri discussed earlier. The colour-use observed for Egyptian Blue was also not tied very closely to its mineral properties, in the sense of a heavy symbolic content in its usage in certain iconographic elements. Rather its qualities seems to have been used to serve the aesthetic characteristics of wall-painting as a medium. The result is that there is an unclear relation between two levels of craft and materiality: a) that of the production of materials, and b) that of the use and appreciation of materials in art objects of different kinds. This parallels the Homeric use of *kyanos*, in that a dualism can be seen in its use as a term for a material and a bewilderingly variation in the contexts it was used in. Yet the connection of the use of lapis lazuli and vitreous materials as known from the Mycenaean archaeological record and Homeric descriptions of material usages may be plausible, the broader aesthetics of colour-use remains elusive. There is very little in the rendering colours in Mycenaean wall-paintings or other art forms that could directly be connected to Homeric descriptions of *kyanos*. Even broadening the analysis to the much better-known wall-paintings of Akrotiri failed to reveal direct connections.

To gain further insights into this relation good use can be made of another form of evidence provided through the use of scientific techniques, namely the relations between the Mycenaean Aegean on the one hand and Egypt and Mesopotamia on the other. Given the presence of lapis lazuli and glass from these sources in the Aegean, it can be instructive to look at the conceptions of materiality of them in these cases.[200] We already saw that the lapis lazuli cylinder seals were imported from Mesopotamia, and of course ultimately derived from their place of origin in present-day Afghanistan (Von Rosen 1988, 11-13). The material was held in very high esteem in the Bronze Age Near East (Moorey 1999b, 180), as can be inferred from the great lengths to which elites went to get the material.[201] This esteem can be traced back to the 4th millennium BC, when a 'lapis road' of remarkably similar appreciation and uses of the material can be observed from the Indus Valley to the eastern Mediterranean (Wengrow 2010, 32-38). An extensive network of centres for processing and trading lapis lazuli, alongside other materials such as chlorite, has been traced both for the Persian Gulf and Central Asia (Aubet 2013, 182-192). As noted in sections 3.4.2 and 3.4.3, it was in such long-distance exchange networks that complex weighing systems were developed.

[198] A further complication added here is that copper was used in Bronze Age Egypt to make red-coloured glasses as well (Shortland 2012, 118-119). This points to the need to consider the differences between the use of materials in production processes and the material end results of these processes.

[199] On the one hand, the etymological connection to Hittite *kuwanna* seems to favour copper, on the other the later Greco-Roman association between *kyanos* and lapis lazuli seems very clear. It may even be that, as in the quotation of Theophrastus given earlier, there existed different versions of *kyanos* in the Bronze Age as well.

[200] One assumption in this is that there is some connection between working a material and the conceptual framework of materiality in which it is used. That these are closely connected can be seen in the case of the introduction of steamship technology in 19th century China (Wang 2010). Here it was not just enough to make the different parts and fit them together, but the theoretical idea of mechanical motion (which clashed with pre-existing Chinese conceptions of motion) had to be introduced as well. Hence (successfully) working a material demands mastering a conceptual framework, although this does not necessarily imply a wholesale transformation of worldviews.

[201] So much so that some scholars have argued that together with gold it replaced silver as a standard of value in the Late Bronze Age (Von Rosen 1990, 45). Such ideas remain hard to prove in detail and in context. Yet it is clear that the rulers of Mesopotamia in this period were very concerned with gaining access to lapis lazuli, seemingly even to the point that it could impact geopolitical calculations (Olijdam 1997; Oppenheim 1970, 11-12). Normally the material would be stored in temples 'for the service of the gods' unless extracted by tribute or raids (Moorey 1999a, 92).

Although the fluctuations in the degree of usage of lapis lazuli may be partly due to the impact of taphonomy, it is likely that different conditions for exchange could have an impact as well (Moorey 1999b, 181-182; Von Rosen 1990, 21-48). During the so-called Kassite period (1570-1155 BC) in Mesopotamia, however, the use of lapis lazuli seems to have increased, now alongside its ersatz of blue glass (Moorey 1999a, 90). In sources from the Late Bronze Age Near East there is in fact a very consistent association between lapis lazuli and blue glass. This is captured in the use of colour terms in Egypt and Mesopotamia that pair naturally-occurring lapis lazuli to artificial (glass) lapis lazuli (Shortland 2012, 140-141). It is now paramount to look in more detail at these two areas separately. The textual evidence from Mesopotamia suggests a difference in terminology between 'lapis from the mountain' for naturally-occurring lapis lazuli, and 'lapis from the kiln' for dark-blue blue glass (Oppenheim 1970, 10-11). As noted earlier in section 4.3.2 the direct evidence for glass-making in Mesopotamia is very limited. A number of texts, most later ones from the first half 1st millennium BC,[202] shed some light on the technical and magical aspects of glass-making (Oppenheim 1970, 22-23). Particularly interesting in this regard are also the descriptions of the step of adding colourants in the glass-making process.

Here there are somewhat enigmatic references to 'slow copper', 'fast copper', and also 'fast bronze' as colouring agents (Oppenheim 1970, 76-77). The 'fast copper' may well have been blue frit, possibly Egyptian Blue (Moorey 1999a, 212; Oppenheim 1970, 77). However, this intersection with metallurgy was only at the level of glass-making. The finished blue glasses were closely linked with lapis lazuli, as can be seen for other combinations of coloured glasses and semiprecious stones as well (Oppenheim 1970, 14-15). Mesopotamian texts also give more insights into how stones were conceived of, in which the structuring role of textual lists briefly discussed in section 3.4.2 played an important role. Initially lists including stones seem to have grouped function and substance together, either in inventories or in literary musings on the inherent, essential characteristic of stones (Postgate 1997, 213-214). Later stones are recognised based on shared substances only, forming a separate category that combined natural qualities such as colour and hardness with magical characteristics (Postgate 1997, 218).[203] Lapis lazuli played a key role in this ontological framework (e.g. Postgate 1997, 215, 217), which also had a cosmological-astrological dimension. Furthermore, the material also occurs in a number of important epics such as the *Lugale* and the *Gilgamesh* (Benzel 2013, 64-68).

Turning from conceptions of materiality to the uses of materials, the Uruk period (3500 – 3100 BC) shows the first consistent use of lapis lazuli beads and cylinder seals, even if beads made of it were found in earlier contexts (Moorey 1999a, 88-89; Von Rosen 1990, 21-24). As noted earlier there were fluctuations in the supply of the material, but it was used consistently and sometimes spectacularly as in the Royal Cemetery at Ur (about 2500 BC). The range of objects made from lapis lazuli was very broad also in the Kassite period, being used for jewellery, for small objects like tablets and amulets, in statuary, and in architectural settings such as foundation deposits and mural decoration (Von Rosen 1990, 45-48). Although blue glass did not have a similar long-term history in Mesopotamia before the second half of the 2nd millennium BC, it was used in a variety of forms in the Kassite period.[204] These included beads, small objects such as plaques and amulets, cylinder seals, inlays for the decoration of furniture and walls, mosaics, and occasionally complete vessels as well (Moorey 1999a, 196-198; Oppenheim 1970, 16).

[202] However, these texts were copied for collection into the library of a neo-Assyrian king and there are good indications that they reflect the situation in the later part of the 2nd millennium BC as well (Oppenheim 1970, 81-82).
[203] One clear difference between this ordering and modern ones is that in Mesopotamia shell was grouped with the stones, while metals seem to have been sharply distinguished from them (Postgate 1997, 213-214).
[204] The trajectory of Egyptian Blue seems to follow a somewhat different trajectory from glass in being developed earlier, but it certainly was present in Late Bronze Age Mesopotamia (Moorey 1999a, 187-189).

As such both lapis lazuli and blue glass are well-represented in the archaeological record of Late Bronze Age Mesopotamia, and to some degree share the same material forms. We saw that these two materials were conceived of as being closely related, but the best evidence for the ways in which their materiality was perceived can be seen for lapis lazuli. The best way to grasp this is to look at the visual aspect of this material as part of colour perception. From the textual evidence it is clear that this is quite complex, with different hues being associated with lapis lazuli (Oppenheim 1970, 10). The most consistent usage that can be derived from the textual sources indicates a focus not so much on blue as a hue, but rather on a darkish, lustrous surface (Winter 2010, 293-295). As a result it should not be expected that every blue surface refers to lapis lazuli. This can be seen in the wall-paintings from different periods and sites, which show both an overall focus on rendering colours in a naturalistic way with an occasional symbolic use of blue on certain iconographic elements (Pizzimenti 2012, 309; Zanon 2012, 226).

One clear way in which the symbolism of lapis lazuli can be observed in the artistic record is in the facial hair (beards, eyebrows) and eyes of humans, deities, and animals. This symbolism of lapis lazuli as related to facial hair can be seen in the textual sources and may have had a (male) gender aspect as well (Winter 2010, 295-296). It can also be recognised very well in the archaeological record, not least for the 'bull lyres' of the Royal Cemetery at Ur that feature lapis lazuli for the beard, head hair and eyes of the bulls (Woolley 1934, plates 107, 109-110), see figure 19. Other examples for this are known for statues and statuettes of humans, deities, and animals such as goats (Moorey 1999a, 89; Von Rosen 1990, 41, 47; Wengrow 2010, 34; Winter 2010, 297). There is even a textual reference to the use of 'glass lapis lazuli' as inlay in a statue of a sheep intended for a Kassite era palace (Oppenheim 1970, 13). Such uses of colour can be understood as part of a broader aesthetics of colour. In this the relation between lapis lazuli and gold has also to be taken into account, which is visible already in beads of the Uruk period (Von Rosen 1990, 23).[205]

According to Mesopotamian texts certain coloured surfaces actually radiated an aura of *melammu*: a 'vital force or energy field' that emanated from rulers and deities, and can be particularly be associated with a material such as gold (Winter 2012, 159-161). This particular focus on brightness, shine and their relation to the divine can be traced back to the mid-3th millennium BC, when a new colour pattern emerged in Mesopotamia that was focused on metals in the light colours red and white and on lapis lazuli for blue (Zanon 2012, 227-228).[206] Interestingly, unworked lapis lazuli did not possess the lustrous qualities of its polished version and this may be one of the reasons why it was both related and distinguished from metals (Benzel 2013, 59-62). That is, their internal (and working) properties of lapis lazuli are unrelated to metals, but their surface characteristics when polished are perceived to resemble them.[207] These internal features cannot be ignored, however, as they form the basis not only for the classificatory scheme of stones discussed earlier but also for the magical properties of lapis lazuli in protecting against evil and disease (Winter 2010, 300-301).

Yet the relation in colour-surface characteristics between lapis lazuli and metals is interesting for another reason, namely its relation to value. In the textual sources of Bronze Age Mesopotamia the first cases of *ekphrasis* (the literary or oral description of art works) can be recognised. The most famous of these is the axe of Gilgamesh in the epic named after him, but there are other examples

[205] This relation can be seen even better in the Royal Cemetery at Ur, for example in the collection of grave goods from the tomb of Pu-Abi (Benzel 2013, 140, 146, 151, 155, 157, 162, 169). The association between lapis lazuli and gold is quite natural, given the gold-like pyrite specks that often can be discerned in the veins of this stone.

[206] A focus on shine and lustre can also be seen in the use of (blue) coloured glazed bricks, which are better known for the first half of the 1st millennium BC but may have been present in the Kassite period as well (Moorey 1999a, 312).

[207] This can also be seen for the use of beads made of semiprecious stones and metal, and also shell, together in necklaces that possessed magical meanings (Reiner 1995, 128-129).

such as the isomorphism between the description of the heroic body of Enkidu and the stela of the Akkadian ruler Naram-Sin (Winter 2010, 437-438). Winter has also explored the notions of 'seeing' in the Mesopotamian texts, finding that viewing was cathected, in that the act of viewing was strongly emotional and connected to a distinct way of valuing artefacts. This can be seen in two different cases of an *ekphrasis* of a piece of furniture (a bed) made of precious materials and intended for temples. These were explicitly referred to as being 'suited for viewing', leading Winter to comment on the connection between viewing and valuing:

"In neither of these texts is the audience who will do the looking specified. Rather, it is the fact of being see-worthy that is emphasized, as if this in itself were a sufficient statement of the work's impact and value." (Winter 2010, 442)

This connection is even more explicit for a later Assyrian statue:

"Here too, issues of facture (its workmanship) and representation (its extraordinary appearance) are articulated, and both are linked to viewing. But perhaps even more important: if through a combination of workmanship and visual attributes value is achieved, it is also the case that ***through seeing, value is perceived****."* (Winter 2010, 442, emphasis in the original)

The use and appreciation of lapis lazuli and to a lesser extent blue glass can be followed very well in the Mesopotamian case, from the initial conception of their materiality and craft-work to the visual aspect of value-determination. Much work remains to be done on this, but some general patterns are becoming clearer. The implications of these for the Aegean will be discussed shortly. First it is necessary to look at the Egyptian evidence as well, if more briefly than for Mesopotamia, since some of the blue glass and (very rarely) lapis lazuli found in the Mycenaean archaeological record was imported from Egypt. As noted earlier there was a close connection between lapis lazuli and blue glass in New Kingdom Egypt (1530-1070 BC) as well. Yet the terminology is somewhat different than in the Mesopotamian case. It involves a qualification to the basic term for lapis lazuli *hsbd* that denotes it as 'true' and distinguishes it from dark-blue glass, something that can also be seen for turquoise and the more lighter blue glass (Shortland 2012, 140-141). While this seems fairly straightforward, more complexity is added by religious associations such as with specific deities. As such lapis lazuli and turquoise can be seen as complementary to each other in more complex religious ideas (Aufrère 1991, 511), rather than being clearly distinguished as the basic terminology for minerals would suggest.

This complexity is important to keep in mind when evaluating colour use. The choice of colours and the specific minerals associated with them was clearly important in Egyptian statuary, linking the microcosm of its body to the broader cosmos (Morgan 2011). Lapis lazuli was also used for decoration and has a clear time-depth, as can be seen for its use as inlay for the eyes and eyebrows in two small statuettes dated to 3200 BC (Wengrow 2010, 32-33). After glass-making was introduced, blue glass was also used as inlay for eyes alongside other materials such as gold (Duckworth 2012, 318-319). Colours also formed an important element in the decoration of the interior spaces of Egyptian temples (Baines 2001), and carried with them magical meanings (Pinch 2001). It is more difficult, however, to understand how colour symbolism was related to the themes that were depicted. Overall a 'naturalistic' use of colours can be seen in wall-painting, albeit a naturalism influenced by clear conventions that includes specific skin colours for deities and for men and women (Baines 2007, 246). The use of colours in painting far outstrips the limited set of colour terms found in the texts, particularly for the New Kingdom (Baines 2007, 249-250).

In fact, the term for lapis lazuli *hsbd* is not a proper colour term in the Egyptian texts, and there is no term for blue even if it is used extensively (Baines 2007, 252-253). This has caused debate over the applicability of schemes for the development of colour terms (Baines 2007, 259-261). One suggestion is that colour terms in Bronze Age Egypt were not intrinsically separated from materials, and could be used both in more abstract ways and as referring to concrete materials (Warburton 2004, 129). According to Warburton (2012) this is closely connected to value systems, an issue that will be addressed in the next section. More insight in the value of both lapis lazuli and blue glass can be inferred from a wall-painting at the Temple of Karnak showing the spoils of military campaigns by Thutmosis III (1479-1425 BC). Here the different materials were arranged in registers that placed the materials valued most highest at the top level and descending from there to the lower-value materials (Shortland 2012, fig. 7.2, p. 142). Dark-blue glass is shown at the level of semiprecious stones (including lapis lazuli) indicating that is was valued in a roughly similar way, and the high value of glass can also be appreciated from other Egyptian depictions of it in different tomb paintings (Shortland 2012, 143-145).

The time has now come to draw together the different interpretive strands in order to generate some general conclusions on the meaning of *ku-wa-no* and its wider implications. The first thing to note is that the association between lapis lazuli and blue glass for the Mycenaean case is much strengthened by the Near Eastern evidence. Not only is the internal Aegean connection between the two materials a strong one, it is closely paralleled by the conceptual relation between the two in the Egyptian and Mesopotamian cases. The fact that much of the lapis lazuli and blue glass found in the Mycenaean world derives from these two regions makes it more plausible to infer that materials were not only used in the same way, but also that the conception of their materiality was broadly similar. Furthermore, the etymological connection between Mycenaean *ku-wa-no* and later Greek linguistic uses of *kyanos* shows that a dual usage of this term is a distinct possibility. Such overall coherence between the Mycenaean case and the Near Eastern one of course does not imply similarities at a more detailed level, and for this reason good contextual evidence is always required to make specific inferences about meaning.

The Mesopotamian case was also instructive on the distinction between the use of metal-based colouring agents ('fast copper') in the process of making glass, and the classificatory framework that placed glass alongside stones rather than with metals. This provides some context for the Mycenaean pattern of two distinct levels of material usage in production and aesthetic appreciation. This does not mean that the elaborate Mesopotamian system of classifying the natural world can be inferred for the Aegean, however, since the Linear B references are too limited to allow for this.[208] Yet another way in which the Near Eastern sources help to make sense of the Mycenaean evidence is for understanding the relation between naturalistic use of colours and the appreciation of their symbolic connotations. The ambiguity of this relation could be noted especially well for the use of blue in the Akrotiri wall-paintings, where possible symbolic uses of this colour go hand in hand with an overall naturalism. Similar kinds of ambiguity can be seen in Egyptian and Mesopotamian colour uses in wall-painting, which show an overall naturalism quite distinct from the metaphoric uses of colours in texts. Even so, the textual references to lapis lazuli can be seen in striking ways in certain kinds of art objects in the two areas, especially in statuary art.

The most spectacular examples of this can be observed in the Royal Cemetery of Ur with the use of lapis lazuli in beards and other kinds of facial hair, but Egyptian examples were noted for this as

[208] The references of *ku-wa-no* in the Linear B tablets would point conform to stage 1 of Postgate's (1997, 213) scheme, in that function (as decorative motif and inlay) and substance are listed together. The linear B tablets did not carry texts as elaborate as their cuneiform counterparts, yet as noted in section 3.3 Mycenaean writing may have used perishable materials as well. Because of this it is possible to say that the Mycenaean case had reached stage 1 of the Postgate scheme, but impossible to ascertain that it had potentially reached further.

well. It is remarkable how close these two cases are to the descriptions of the facial hair of human heroes and deities as *kyanos* in Homer. A close similarity can also be seen between the Mesopotamian view of (polished) lapis lazuli as possessing a dark, lustrous colour surface, and the notion of *kyanos* as a 'vital, vigorous, and lustrous darkish surface' inferred here for its use in Homer and other poetic sources. No parallels have so far been discovered that relates *ku-wa-no* and the materials associated with it to the facial hair of any creature, although some indications could be seen in the blue glass hair curls used as inlays in helmets. This is insufficient evidence to serve as proof that the similarity between Near Eastern and Homeric conceptions of, respectively, lapis lazuli and *kyanos* derived from the Mycenaean palatial period. Rather than from the Late Bronze Age exchange of materials in the eastern Mediterranean, this Homeric connection could also derive from later influences from the Near East. Such later Iron Age connections have been proposed for the description of the palace of Alcinous in book VII (101) of the *Odyssey* derives from neo-Assyrian palatial architecture (Cook 2004).[209]

One important reason to suppose that the Homeric usage of *kyanos* goes back to the Mycenaean palatial period is because of the etymological connection with *ku-wa-no*. Unless one could construe an argument in which exactly the same linguistic term was borrowed twice,[210] in a basic sense the use of *kyanos* in Homer derives from its preservation in poetic *Kunstsprache*. There is little in the Early Iron Age archaeological record that indicates even a limited use, let alone working, of lapis lazuli or (blue) glass (Dickinson 2006, 118-119). Furthermore, later words that refer to glass belong to a different word family than *kyanos* (Nightingale 2008, 80). This means that the descriptions of artefacts with *kyanos* in Homer either derive from the Mycenaean era or from a distant region. Another reason to suppose the former, apart from the etymological connection, are the similarities between the Mycenaean uses of lapis lazuli and blue glass and those in contemporary Egypt and Mesopotamia. Even if Mycenaean craft-workers moulded blue glass in distinct shapes, an overall focus on beads and inlays in a variety of artefacts and architectural settings can be seen. The combination of a more seemingly naturalistic use of colours and indications of symbolic meanings can also be seen in the Aegean and Near East alike. As a result, the following common 'template' may be formulated to situate Mycenaean *ku-wa-no* in its broader *koine* context:

1. The close association between lapis lazuli and blue glass, both in terms of their uses and in their conceptualisation in specific linguistic terms.
2. A similar range of uses as materials of adornment in jewellery, weaponry, architecture, and other kinds of artefacts. This implies a relation between the visual aspect of the materials and their aesthetic valuation.
3. Colour use is dualistic, with both a general 'naturalism' and more symbolic colour uses. This is in line with the textual references that describe colour as possessing complex metaphoric meanings rather than as a determinate hue. Much remains to be explored for both Aegean and Near Eastern uses of colour in the Bronze Age, however.[211]

[209] Of particular relevance here is that lapis lazuli was used for the adornment of these neo-Assyrian palaces (Cook 2004, 58, 62). The glass industry of the neo-Assyrian empire was also one of the few cases where continuity can be seen with the Bronze Age for glass-making and uses of glass, even if this now also involved a new set of technological innovations and colour preferences (Moorey 1999a, 201-202).

[210] It is highly unlikely that *kyanos* should be seen as referring to exotic objects only, as it is very much interwoven in a broad set of metaphoric uses as well as deployed in Homeric similes.

[211] For example, there are other linguistic terms that point to metaphoric uses of colours in Mycenaean art. Another term that is mentioned both in Homer and the Linear B tablets is *oἶνοψ*. This term is usually taken to be wine-coloured or wine-dark, as in the well-known references to the sea (e.g. *Odyssey* V, 147) and to oxen (e.g. *Odyssey* XIII, 35). It happens that two bulls are described with the same colour terms in the Linear B texts from Knossos, and other kinds of epithets are known for bulls as well, which indicates a similar conception as well (Blakolmer 2004, 63). Furthermore, the colour of the sea in the newly reconstructed naval scene from Pylos may be described as wine-dark as well, at least according to the preliminary report of the reconstruction team (Brecoulaki 2007).

Based on this template it can be argued that the basic conception of colour in later Homeric *kyanos* very likely derives from Mycenaean *ku-wa-no*. This does not mean, however, that changes and additions to the template could not occur, as may well have been the case for the relation of the description of the palace of Alcinous to neo-Assyrian architecture discussed earlier. Such a layered pattern of specific older and newer kinds of artefacts is in fact typical for the material culture that is described in the Homeric epics (Sherratt 1990). This also means that the scenario sketched here does not depend in any way on the debate regarding the period that most closely corresponds to the notion of a Homeric society (e.g. Crielaard 1997). Finally, the Near Eastern evidence has also pointed to the relation between materiality, especially in its visual aspect, and value. In the case of Mesopotamia this involved the relation between viewing and valuing, and in Egypt the place of lapis lazuli and blue glass in the overall hierarchy of materials. There are no clear Mycenaean parallels for this, but the uses of lapis lazuli and blue glass in jewellery, weaponry, architecture, and other kinds of artefacts point to a broad concern with an aesthetics that depends on the visual qualities of these materials. This can be understood within the process of the *chaîne opératoire*, hence it is time to turn to the overall synthesis of the craft and materiality of Mycenaean art.

4.3.4: Craft and materiality of Mycenaean art

The synthesis of craft and materiality of Mycenaean art here proceeds from the observation in the previous section of a distinction between the production of materials, and their use and appreciation in art objects. As the analysis in section 4.3.2 showed, however, the exchange, working, and re-working of materials has to be added as an intermediary step. The analysis here will will work backwards from the aesthetic appreciation of art objects to the convertibility of materials in working and exchange contexts, and finally to the initial production processes that created workable materials. To start with the appreciation of materials and art objects in aesthetic 'use contexts', the analysis of *ku-wa-no* showed the relation between value and what may be termed a colour 'aura'. Unfortunately, while for the Near East it is sometimes possible to estimate the relative values of materials in relation to each other, this is not possible in the Mycenaean case. Yet the uses lapis lazuli and blue glass point to their high value, an aspect that will also be explored for contexts of art in section 5.2. The analysis of the linguistic meaning of *ku-wa-no* showed that parallels could be drawn with the conceptions and uses of colours in Egypt and Mesopotamia. This produced the insight that the visual aspect of value has to be understood as part of a rich set of metaphors related to materiality, even if this set so far has not been reconstructed to a sufficient degree.[212]

The possibility of aesthetic valuation of course depends upon the preceding step of converting basic materials into finished products. This would involve both working and re-working materials, but also their exchange. In each of these processes convertibility appears as a key term. To be sure it can be seen in different degrees in the working of materials, less so for semiprecious stones like lapis lazuli and more so for the use of moulds to shape (blue) glass objects. The properties of materials greatly influence the ability to work them into different shapes, with human-made metal alloys and vitreous materials possessing a high degree of convertibility and the ability to be produced in greater numbers through the use of moulds. Another example of convertibility can be seen in the horizontal linkages of *chaînes opératoires* between different kinds of materials, as noted in section 4.3.2. Finally, there was the process of long-distance exchange through which materials like lapis lazuli and blue glass had to be procured, the latter even being exchanged in ingot form.

[212] The complexity and variation in colour use in Mycenaean jewellery and depictions thereof in wall-painting, together with elaborate textiles, can be seen as representations of ideal beauty (Whittaker 2012, 194). This points to the importance of colour-use in relation to value. Work on colour-use at the site of Asine (Gillis 2012) will allow for further insights into this for a smaller, non-palatial centre.

Here weighing played a very important role in establishing the measures required for reliable transactions. In this way equivalencies could be determined, allowing for materials to be exchanged over long distances and between the boundaries of specific cultures and states, even if, as noted in section 3.4, elites would have controlled such exchanges.

The convertibility of materials in exchange and working contexts of course depended on their initial production. For lapis lazuli this would merely have involved quarrying, but for glass and metal a process of transforming materials through pyrotechnology was required. This focuses attention on the importance of the vertical lines of *chaînes opératoires* of these materials, something also noted in section 4.3.2 for painted plaster. One very interesting and important aspect of such processes of transformation is that they could involve changes in colour as well, whether in the colours of painted plaster gradually becoming more vivid on walls or in the process of adding colouring agents to glass. The relation between colour and the transformative potential of materials can be traced back to the origins of metallurgy in western Eurasia. Initially naturally-occurring copper was worked for uses such as beads, pendants, and pigments as early as the 11th millennium BC in the Near East (Roberts et al. 2009, 1013). Such early uses of copper formed the basis for the later elaboration of colour aesthetics with the development of true metallurgy. This can be seen very well for the 'aesthetics of brilliance and colour' based on metallurgy of the climax Chalcolithic of the Balkans, which developed out of a pre-existing Neolithic aesthetic of colour (Chapman 2007; Gaydarska & Chapman 2008). Of particular note here is that the later aesthetics of colour also involved the semiprecious stone of carnelian (Chapman 2007, 69).

The aesthetics of colour in the 2nd millennium BC Near East and Aegean can be seen as an outgrowth of these initial developments. It would be incorrect, however, to reduce all colour-use in the Late Bronze Age to a metallurgical template.[213] Instead the crucial point lies in the impact of the introduction of *chaînes opératoires* of a transformative character for metallurgy, and also for glass-making and painted plaster, on the middle level between the production of materials and their aesthetic appreciation. The ability to transform crucial materials at a large scale through the means of pyrotechnology added the new feature of convertibility at the level of working and exchanging materials. This involved not only new ways of producing artefacts through the use of moulds, but also cross-craft linkages at a far larger scale. Furthermore, as noted in section 3.4.3 the spread of more advanced metallurgical techniques in the middle of the third millennium BC went together with the development of new types of aesthetic uses of metals, semiprecious stones, and pigments. This also was accompanied by a new nexus of weighing, sealing, and writing for administration and exchange. In this way the impact of transformation in production on the greater convertibility in working and exchanging materials can be seen as one of the causal factors behind the beginning of a 'commodity nexus' in western Eurasia, as argued for by Renfrew (1986a). This idea will be investigated in more detail in the synthetic section 5.3.

[213] There are clear indications that metallurgy did have an important impact on Aegean Bronze Age aesthetic conceptions of colour. This can be seen especially well for the use of tin to create colour effects on ceramic containers, as part of a broader aesthetic usage of this material (Gillis 2004). Peters (2008) has also explored the use of colours in Minoan wall-paintings and other art forms in relation to the mineralogical properties of pigments. One of his findings was that a distinction could be noted between naturally-occurring colours and those produced through transformation (as noted here in section 4.3.3 for glass as well, a topic not looked at by Peters). This would have implications for colour-uses, such as the avoidance of green because of its association with the corrosion of copper:

"Here I suggest that the difference can be found in the distinction between colors of transformation and inherent, natural colors. The metaphorical association of transforming an object through the application of a product replicating the effects of copper corrosion is viewed as undesirable, while the exploitation of a substance that is naturally coloured does not hold such connotations; the colour has not been transformed through human intervention and is not associated with the copper-producing minerals." (Peters 2008, 203)

4.4: The iconography of Mycenaean art

4.4.1: Introduction

In the following sections the iconography of Mycenaean art will be considered. As noted in section 2.4.4 on the approach to art used in this thesis, comparative studies of iconography are most useful at the third level of Panofsky's three levels: that of synthesis. The other two levels (of identification at a basic level and of convention) will be addressed here only to support the analysis at the third level. Hence what is presented here is not so much a reconstruction of Mycenaean iconography from the ground up, but rather an outline of important general parameters. In section 4.4.2 two of these will be discussed, starting with naturalism and the rendering of the spatio-temporal environment in art.[214] Another very important general element is the way in which anthropomorphic figures were rendered, which also has implications for the understanding of Mycenaean personhood. Although this does not provide an exhaustive overview of all the iconographic elements in Mycenaean art, it is enough to function as a platform for the discussion on narrative in section 4.4.3. The analysis there considers how these anthropomorphic figures were related to each other and to other iconographic elements, within the outlines provided by the way the spatio-temporal environment was organised in representational art. Particular attention in this section will also be given to the structural properties of pictorial narratives, as well as to the relation between pictorial narrative and oral performance.

Before turning to the specifics of iconographic studies of Mycenaean art, we can observe that as a case with limited texts this presents us with an interesting set of interpretive problems. A brief overview of the problems inherent in this will be given here to bring this problem in sharper focus. One influential scholar, writing before the decipherment of Linear B, noted that to reconstruct the religion of the Minoan and Mycenaean cultures was like working with a 'picture book' without the textual references, for which the text had to be supplied by modern scholars (Nilsson 1950, 7). For him this meant that this body of pictorial information had to be understood primarily on its own terms rather that giving undue weight to analogies with outside cases, and he also distinguished this analysis from his tracing of survivals into later Greek religion (Nilsson 1950, 9-10). It is clear that many of the particular reconstructions offered by Nilsson are no longer current, given the decipherment of Linear B and the discovery of a large number of new features of the archaeological record. Yet his observation of a 'picture book without texts' retains its general validity for iconographic studies of Mycenaean art.

Iconographic studies of Mycenaean art are coeval with the broader discipline, but the development of an explicit framework for analysis remains to some degree problematic. Strangely, the art of the Aegean Bronze Age is not usually studied with the same methods as those applied to Greco-Roman art. This is somewhat remarkable given the fact that many archaeologists specialising in this period reside in Classics departments. Likely this distinction derives from the very different kinds of art of the two periods, as well as the extensive philological tradition available from the study of Greco-Roman texts.[215] This should not be seen as to imply that iconographic studies of Aegean Bronze Age

[214] The use of the term naturalism has been questioned for Aegean prehistory recently, owing to its association with Western worldviews in the post-Renaissance period (Shapland 2009, 110-112). However, this discussion is tied to the place of naturalism in the specific theoretical framework of Descola (2013). While these ideas are of considerable use, as will be shown in section 5.3.2, more problems are created than solved by using such high-level ideas to try to change the vocabulary of middle-level theories. Because of the lack on agreement on what the appropriate high-level ideas are in archaeology, this would create an annoying obstacle to communication. Here 'naturalism' is held to be the culturally-informed iconographic rendering of the physical world as perceived through human stereoscopic vision.

[215] A diversity from approaches can be seen, both with regard to specific periods and regions such as Archaic-Classical Greece (Whitley 2001) and Rome (Zanker 2010), and with regard to thematic topics such as narrative (Giuliani 2013)

art are lacking in rigour as such. A good example of the application of an explicit and sophisticated framework for the study of the 'picture book' was supplied in a series of studies by Crowley.[216] She investigated how the 'initial image' of the sea in the art of the Aegean Bronze Age was rendered into an ‘elaborated image’ through the use of various visual techniques and conventions (Crowley 1991, 223-224). This then enabled her to formulate a more elaborate conceptual apparatus for the iconographic analysis of this art (Crowley 1992, 24), with a core nexus of icon (what is represented), elements (the different parts of the icon) and syntax (the relationships between the elements that form the icon). These icons are part of themes (broad subject areas), and the prototypical is the most characteristic representation of the icon for a given theme.

A broadly similar strategy was developed by Michael Wedde, who recognised the interrelationships between components, pictorial architecture and the image at large, as well as clusters of images, and a so-called master-type or original image (Wedde 1992, 182). This enabled him to analyse the pictorial architecture of different kinds of pictorial architecture on glyptic, such as epiphany, adoration, and processional scenes (Wedde 1992, 2004), as well as ship imagery on a variety of media (Wedde 2000). It should be noted, however, that the larger surfaces and greater variability of elements make it harder to formally identify clusters of images and master-types in monumental art than on glyptic. Therefore, the broad thematic groups defined for wall-paintings are much looser and more apparently subjective than those used in glyptic, though these are also admittedly etic categories even if they are derived from rigorous formal methods (Wedde 2004, 155-157). Furthermore, such classifications do not generate meaning of themselves, even in a generic sense, even as they can be seen to form a necessary prerequisite for analysis.

It is argued here that iconographic studies of Aegean Bronze Age art have been very successful in the classification of specific themes and scenes, as well as their relation to broader aspects of society, as in the art of war at Mycenaean Pylos (Bennet & Davis 1999). Yet the broader contours of Mycenaean art as a semiotic system remain to some extent under-analysed. It is suggested here that by looking at some of the studies of later Greek art, in particular from the Late Geometric and Archaic periods, allows for ways to remedy that situation. Although the argument that will be presented here will not challenge the specific work that has been done, it will try to bring the specific cases within a framework that is based on iconographic studies by Classical scholars. It should be stressed that the intention is not to impose an interpretive straitjacket from the outside on the material, but rather to tease out significant connections between them. Of particular interest is the work by Stansbury-O'Donnell on pictorial narrative (Stansbury-O'Donnell 1999, 2006, 2011), which will be discussed in section 4.4.3 on narrative.

4.4.2: Iconographic conventions in Mycenaean art

Both the overall composition and the rendering of different kinds of elements of Mycenaean art can be understood through the prism of the question of naturalism. For reasons of brevity and interpretive focus our main concern will be with the rendering of space and landscape and with the human form (including its relation to personhood). Naturalism is a particularly vexed issue for Mycenaean art given that it is often unfavourably compared to its Minoan predecessor with regard to this, especially with regard to the rendering of nature scenes and landscapes (e.g. *Aegean painting*, 141). One of the areas where this can be seen very clearly is in vase-painting, where an ‘architectonic design’ derived from Middle Helladic mainland art can be seen. This stressed a more formal and symmetrical composition that was based on the shape of a vessel. During the Late

and broader interpretations of art (Stansbury-O'Donnell 2011).

[216] One of the best elaborations of this specific method can be seen in the systematic ordering of a very large amount of images from glyptic in Crowley (2013).

Helladic period this design became intertwined with the Minoan ‘unity design', which featured a composition that stretched freely across the surface of the vessel (Betancourt 2007b, 134-136), see figure 20. A good example of these changes is provided by the rendering of specific motifs such as the octopus, which moved, almost as if in a series of stages, from an informal, naturalistic arrangement to a symmetrical and abstract rendering of the creature (Betancourt 2007b, fig. 8.3, p. 158). Even so, a comparison of Attic Geometric and Mycenaean painted vases showed that there was more unity and less framing in the pictorial designs of the latter (Rystedt 2006, 242).[217]

A similar shift had been observed by Cameron (1975, 259-266) in his work on the Cretan wall-paintings. He noted a shift from a more free-flowing 'encircling' composition, in which objects bounded pictorial nuclei in a pattern that suggested a natural landscape with elements overflowing into each other, to a stricter and more monumental setting that emphasised vertical and horizontal boundaries. The latter form of composition became predominant in the material he dated to LM II – IIIA1, even though such a compositional rendering could also be seen, at least partly, in some of the earlier wall-paintings (Cameron 1975, 263-266). These changes that can be seen both in vase-painting and in wall-painting had a number of ramifications for the way landscapes and the interaction between individual elements were depicted, but it should be emphasised that in terms of naturalism their impact was primarily at the 'architectonic' level. It is true that the changes in composition in vase-painting led to a less free-flowing rendering of octopuses, as well as in the repetitive wall-painting friezes of bluebirds, snails and nautili from Pylos (Lang 1969, 140-145), see figures 21-22. Yet there are naturalistic renderings of dolphins on a wall-painting at Gla (Iakovidis 2001, plate IX), see figure 23. Also, octopuses, dolphins, and fish were depicted on floor-paintings from Pylos and Tiryns (Hirsch 1977, plates 7, 9, 12 & 13), see figures 24-25.

The decorative motifs do not seem to change in any fundamental way from Minoan to Mycenaean art. Iconographic studies of them are underdeveloped, especially with regard to intrinsic meanings. They consist of two different groups, one of more abstract symbols like the spiral, rosette and half-rosette, and the other of quite naturalistic imitations of architectural features such as dadoes and beams. For the former category it is not entirely clear what they represent, and interpretations range from simple decorative themes to complex astronomical and religious signs in the case of the rosette and half-rosette (Marinatos 2010, 131-139). It is not necessary to accept the latter hypothesis to suspect that such motifs may be more than mere decoration. This is also true for the spiral, which has been interpreted as a symbol of power (Hiller 2005), which, though it may be true, does not resolve the question of what they represent (which is a perquisite for considering their naturalism). In any case, these motifs are here considered as ‘stylised nature’, with likely (if yet unknowable) conceptual meanings, rather than mere ‘aesthetic primitives’. In the case of the spirals this is also supported by their association with papyrus in some depictions, and a case can be made that they represented something that was conceptual.[218] A desire for naturalistic appearance can also be seen

[217] Rystedt also notes the emphasis on symmetry and antithesis in the Attic Geometric pots, which she connects with a narrative dimension that would be lacking in the Mycenaean painted vases, which, despite their pictorial complexity, would have played a more symbolic role (Rystedt 2006, 244-245).

[218] It has been argued that the complex decorative designs in the art of the Aegean Bronze Age indicate rather advanced knowledge of geometry, and that the way in which these designs were employed shows that there was no separation between geometry and natural forms (Crowley 1997, 89). Muskett (2007, 23) has made a distinction between low-level aesthetic primitives such as geometric designs, patches of colours, and stylized natural forms, and high-level ones such as different parts of the human body. Interestingly, further analysis of the geometrical designs at Akrotiri has shown that not only can a linear or Archimedean spiral be discerned here, it is also likely that the geometrical knowledge evidenced by such designs was transferred to the rendering of the anthropomorphic figures through the use of stencils (Fragoulis et al. 2005, 332-336). Further research is needed, especially for the greater abstraction in Mycenaean art, but if true this discovery would indicate that low and high-level aesthetic primitives were physically, and very likely also conceptually, linked in Aegean art. Unfortunately the semantic interpretation of the references in the Linear B tablets to running spirals or *to-qi-de* on vessels and furniture (*Documents*, 587) is not very helpful beyond identifying them as such.

for the flame patterns on the painted plaster that surrounded the hearths of the central megara at Pylos and Mycenae (Wright 1994, 57).

As such, it seems that the great change lies not in a shift from naturalism to a more abstract style that has to be understood in essentialist terms, but rather in a transition of design. In this new kind of design there was much less emphasis in creating a form of naturalism congruent with its architectural surroundings, as can be seen at Akrotiri (Palyvou 2000), than with creating 'bounded' spaces in paintings on vases, walls and floors. Within these spaces the different individual components would still be rendered in a largely naturalistic way, but only very rarely could they be brought together to form a larger unitary landscape as seen in the Minoan wall-paintings. This brings us to the more specific question of the rendering of the spatio-temporal environment in Mycenaean art, a topic that can be investigated in some detail with regard to the composition of landscapes. Chapin (1995, 15-21) had provided a broad yet incisive analysis of the rendering of landscape in monumental and non-monumental Aegean Bronze Age art, taking from the outset the need to view perspective and landscape, as far as possible, from within its cultural context. Given the absence of documented indigenous viewer responses, the only tactic to achieve this is to consider the broader parameters of ways of rendering space in the known compositions.

Even though the overall nature scenes were lost, features of the natural environment as individual components were still rendered in a naturalistic way. Floral motifs are very rare, and mostly known from fragments (*Aegean Painting*, 202). Yet, where enough material is present to study landscape motifs in more detail, such as the paintings of multi-coloured rocks and olive trees from Pylos, it seems that they were as naturalistic as their Minoan predecessors (Chapin 2006, 129-130). Even if complete landscapes are lacking, fragments of rock-work and various kinds of vegetation, including that found on the sea floor, are suggestive of the rendering of broader landscapes and seascapes. This can also be seen for the wavy lines that are used in a variety of ways as at Pylos (Lang 1969, 21-24), but some of the renderings and contexts of this iconographic motif suggests a more generic connection with hillside landscapes (Chapin 1995, 160-162). Yet another case is that of the rock on which the lyre-holding 'bard' in a wall-painting in the central megaron of the Pylos palace sits (*Aegean Painting*, plate XVIII), see figure 26. Even if these different motifs appear as schematic due to their lack of a broader context, there is no reason to doubt that they were employed for naturalistic purposes, and Minoan art has yielded similar examples as well (Schiering 1992).

Hence it is is still possible to discuss the rendering of landscapes in Mycenaean art, even if modified from the exceptional care that went into them in Minoan Neopalatial and in Cycladic art. Chapin (1995, 276) has suggested that considerable continuity existed in large-scale spatial representations, with Mycenaean artists using the same basic conventions that were used in Minoan art before the Neopalatial period. In order to be more precise in this, it is useful to list here the five main features of the most elaborate renderings of landscapes in the Neopalatial period:

1. The use of 'overlapping' and 'vertical' perspectives (Chapin 1995, 70-71), with the former referring to the positioning of one motif as partly obscured by another in order to suggest it was located behind it. The 'vertical perspective' refers to the placement of figures higher up in the picture in such a way as to suggest a greater distance to the viewer.
2. By using the 'overlapping' and 'vertical' perspectives together, a more elaborate sloping terrain can be created of hillsides and mountainous regions. This is known as the 'hillside perspective' and can be seen best in the so-called Sanctuary Rhyton of Kato Zakros in Crete dated to LM I (Chapin 1995, 83-88).
3. Through the use of elements characteristics of hillsides, its presence can be suggested without being rendered in full detail. This is termed the 'referential perspective', and can use

floating elements, rocky elements, or a combination thereof (Chapin 1995, 163-165).

4. The use of a 'vertical plane perspective' is that it can show landscapes in a two-dimensional way, with the highest elements in the image being highest in the depicted landscape as well. Certain 'concentric' compositions that had earlier been very hard to interpret can be understood through the 'vertical plane perspective' to represent features such as the shallow caves that are characteristic of limestone mountains (Chapin 1995, 205-209).[219]

The focus on hillsides in renderings of landscapes is hardly surprising given the topography of the southern Aegean, where hills and mountains are practically never out of sight. The overall concern with vertical landmasses does not mean, however, that other features of the spatial environment were ignored, as can be seen for the seascapes and townscapes in the LC IA miniature wall-paintings of the West House at Akrotiri (Doumas 1992, fig. 39, pp. 71-74). All of these features can be clearly seen in the art of the LC IA Cyclades and Neopalatial Crete, but almost all of them can also be recognised in the more fragmented record of Mycenaean art. Even if no complete 'hillside perspective' scenes like that of the Zakros Siege Rhyton can be seen in the Mycenaean corpus, there is good evidence for the use of the 'overlapping' and 'vertical' perspectives, together with 'referential perspective' for hillsides, and also the 'vertical plane perspective' (Chapin 1995, 265-273). The 'vertical plane' example of the bluebird frieze wall-painting from Pylos (Lang 1969, plate R bottom left) is especially notable for its elaboration (Chapin 1995, 197-198). Wall-painting fragments of architectural features from multiple Mycenaean sites (*Aegean Painting*, fig. 35, p. 127) also show the importance of such settings, even if no complete townscape or palace can be recognised. The newly reconstructed naval scene from Pylos (Brecoulaki 2005) furthermore points to the continued use of larger-scale seascapes.[220]

Having ascertained that the Mycenaean renderings of the spatial environment conform to the general tendencies of Aegean Bronze Age art in this regard, more observations can be made about the ways in which the spatio-temporal environment was conceptualised in this art. With regard to the very common use of 'vertical perspective', Chapin has argued persuasively that this should not be interpreted as indicating a singular viewpoint from which to grasp landscape scenes:

"Such an assumption, however, cannot be made about Aegean art, where each pictorial element is typically drawn from its own center point so that there are as many viewpoints as there are objects in a composition. Furthermore, Aegean landscape art provides no locator elements to inform the observer of a specific location from which to view a landscape. As a result, it cannot be demonstrated that a landscape should be understood as being viewed from above, as in cavalier perspective, bird's eye perspective, and mountain view perspective, or from some possible other point." (Chapin 1995, 278-279)

In a very basic sense the 'overlapping' and 'vertical' perspectives derive (Chapin 1995, 215-220), or are at least very similar to the rendering of space in Near Eastern art styles. These are very generic techniques for depicting spatial environments, however, and the focus on hillsides is a very Aegean-specific development. The 'bounded naturalism' of Mycenaean art can furthermore account for the absence of the more elaborate 'hillside perspective' of the Neopalatial period, alongside the persistence of the 'referential perspective' and other iconographic conventions showing hills. One interesting observation can be made for the temporality of these landscapes, in that a clear focus on

[219] These scenes appear highly puzzling because they show rockwork, and often vegetation as well, both on the lower and the upper borders of pictorial space, in a concentric way (Chapin 1995, figs. 9-13, pp. 78-80).

[220] Younger (2011, 167-171) has pointed out the relation of the complex overview of the seascapes, townscapes, and hillsides in the miniature wall-painting of the West House at Akrotiri to the kind of mapping that can be seen in lists of place-names. The new reconstruction of the Pylos wall-painting of a complex naval scene is as of yet insufficiently published to ascertain whether a similar effect can be seen here.

seasonality can be observed. This is true not only for vegetation, but especially for the different ritual activities that are depicted.[221] Based on the discussion of feasting and cycles of public festivals in section 3.4.2, it is clear that a basic calendar of major ritual events existed in the Mycenaean period. The discussion in section 5.2.2 will show the relation between specific ritual events listed in the Linear B tablets and specific wall-paintings. Other than this there are few indications of temporality in Mycenaean art or in that of the Aegean Bronze Age as a whole, and much less of a relation to complex cosmological ideas.[222] The spatio-temporal environment depicted in Mycenaean art, then, is very much bounded by the hills and seascapes that delimited the valleys within which the major palatial states were located.[223]

Now we turn from the macro-cosmos of landscape to the micro-cosmos of the human(oid) body. For this the emphasis will lie on the material forms that are more closely associated with the palaces such as wall-paintings and seals. The rendering of anthropomorphic beings in these media is quite distinct from that which can be observed in vase-painting, excepting the LH IIIC so-called 'warrior vase' from Mycenae (*Aegean Painting*, plates 85-87). The anthropomorphic figures painted on vases appear more schematic, in some cases rendered almost like sticks. This seems to be due to the painting techniques used, as it can also be observed for the Tanagra *larnakes* (burial coffins) that were decorated in this way (e.g. *Aegean Painting*, plates 92, XXII-XXIII). At present it remains to be determined whether this different rendering of human forms has implications for the conception of the beings that were depicted.[224] The analysis based on the other forms of Mycenaean art will be presented as more or less congruent with Mycenaean worldview. In general the anthropomorphic figures in Mycenaean art includes both humans and deities. The latter can usually only be distinguished by considering details of composition, the context in which it was found and most importantly the position of the figure within the overall composition (Crowley 2008b, 77-78).

One of the most interesting discussions in the interpretation of the art of the Aegean Bronze Age concerns the gender of the anthropomorphic figures depicted in it. One of the reasons for this is that this issue often puts contemporary social attitudes to the test (Morris 2009). The differences between male and female figures are not only in bodily form, and associated dress and attributes, but also in hairstyles and hypothetical colour conventions of a white skin for women and a red one for men. The notion of a dichotomy in skin colour between female and male figures was initially established by Arthur Evans for the Knossos material, but has since created much debate for the art from this site (Alberti 2002; Hitchcock 2000; Shaw 2004). However, it seems that the distinction

[221] The cycles of plant life and ritual activity would of course intersect, as can be seen in a powerful way in the Minoan Harvester Vase (Koehl 2006, pl. 12).

[222] Recent work on the site of Knossos has related its art and architecture more closely to complex cosmological ideas (Goodison 2004; MacGillivray 2004). Yet even for this site such ideas need to be substantiated further, and no such proposals have been put forward for Mycenaean art. Furthermore, there are no indications that a more complex calendar than the basic lunar-solar one was in existence for the Bronze Age.

[223] The rendering of the spatio-temporal environment and viewer perception was very different in the later Greek *polis* of the Archaic-Classical period, as has been explored by Stansbury-O'Donnell (1999, 83-86) for the Lesche paintings by Polygnotos. These paintings have not been preserved but their content is well-known from textual sources. These works of art involved a more personalised, participative kind of viewing experience, and the ring-like character of their composition has been related to the tragedies of Aeschylus (Stansbury-O'Donnell 1999, 178-179). This underlines how very different the worldview of the Greek *polis* was from its Mycenaean palatial precursor, and this would have had an impact on conceptions of personhood and cosmology as well (cf. Seaford 2012).

[224] It has been argued that the (very few) representations of human forms on Middle Bronze Age pots from the island of Aegina and from Tsoungiza on the mainland show an 'aesthetic primitive' distinct from the Cretan and Cycladic ways of rendering the human body (Muskett 2007, 20-24). In particular, she notes the close relation between the pots on which these figures were painted and the context of maritime exchange they formed part of, in contrast to the images on seals that were used in administrative settings (Muskett 2007, 23). Like the more geometric designs discussed for naturalism, this way of rendering human figures on pots would continue after the Bronze Age.

between white for the depiction of females and red for males holds true in general terms,[225] and that in the Mycenaean case even distinctions in costume can be related more closely to the kind of activity carried out than to gender (Chapin 2012, 303). A good example of this are the female participants in the 'boar hunt' wall-painting from Tiryns, who are rendered in white but wear the same kind of tunics as the male participants (Muskett 2008, 91). The use of male and female signs in the Linear B tablets points to a clear gender dichotomy as well, in contrast to the more ambiguously gendered Linear A script (Weilhartner 2012).

Practically no distinctions can be made on the basis of age, as no children or elderly adults can be recognised in Mycenaean art, except for two possibly youths in a LM II wall-painting of a procession from Knossos (*Aegean Painting*, 88). Mycenaean art was different in this from Minoan art, where human figures of a variety of ages were depicted, and for which interesting social distinctions can be recognized on the basis of hairstyle, gender and age (e.g. Chapin 2007). Hence, although depicted in naturalistic forms, the anthropomorphic figures do not seem to reflect the full spectrum of the different human beings that must have existed but rather show a highly idealised version of humanity.[226] This can even be seen in the Linear B rendering of male figures (Weilhartner 2012, 289). Social roles can be recognised, however, as for persons held to be of special importance, based on criteria such as the relative size and clothing of figures as well as attributes carried (Crowley 1995). A good example of different social roles can be seen in the differences between the figures in the small-scale procession scene from the vestibule of the central megaron of the Pylos palace (McCallum 1987, plate VIIIa). Finally, it has been noted that there are few indications that different kinds of ethnicity or notions of 'foreignness' were depicted in Mycenaean art (Blakolmer 2012). This aspect will be further explored for battle-scenes in section 5.2.3.

One set of artistic creatures that seem to run counter to notions of ideal beauty are those that combine anthropomorphic and zoomorphic elements, or even inanimate elements (Crowley 2013, 52). These 'composites' of human and animal forms occur frequently in glyptic (Crowley 2013, 52, 96-99, 231-234), but no examples from monumental art are known. This is not true for the broader category of 'fantasy creatures' that also included griffins and sphinxes. However, the distinction between fantasy and reality may not have been the same in the Mycenaean case as for the modern, Western world, and creatures like griffins and lions are depicted side by side at Pylos (Shank 2007), see figure 27.[227] Another relation between humans and animals can be discerned in the so-called master and mistress of animals, for which an association with hybridity between human and animal forms has been noted for the visual record of Minoan Crete (Simandiraki-Grimshaw 2010). So far no model has been formulated to relate the different connections between zoomorphic and anthropomorphic elements to each other comprehensively. This would also need to take into account the zoological and ecological evidence, as well as the recurrence of such forms across

[225] This dichotomy in the colour of males and females can also be observed for Egypt and other ancient Mediterranean cultures (Eaverly 1999). However, they should not be seen as immutable. The case of the rendering of Akhenaten and his family in art provides a good (if rather unique) example of how colour-use could intersect with religious and perhaps also socio-political issues (Eaverly 2004).

[226] With regard to the idealism in the Knossos wall-paintings Cameron observed that this might initially stem from the kinds of activities that were depicted, but should be grasped as part of a broader worldview:

"It would seem natural, therefore, that the youths hailed as the chief participants in the great Minoan public festivals should become the models for the idealized human figure which appeared on palace and house walls. Since the Minoans also believed their deities to be anthropomorphic, these too are represented as ever youthful and perfect. This hypothesis accords with the Minoan view of the world of Nature as a kind of perpetual Spring with gushing streams, blossoming flowers and landscapes filled with pairs of birds and animals vivaciously portrayed." (Cameron 1975, 54)

[227] With regard to the fantasy beings it is certainly possible that certain kinds of material features may have led to a belief in the physicality of such beings. For example, this may have been the case with the imported ostrich eggs that could have been connected with griffins (Younger 2011, 166).

different cultures in western Eurasia (Wengrow 2014). In the absence of such a model it is hard to grasp the 'composites' of human and animal forms as part of Mycenaean conceptions of personhood.

All of this raises the question of the degree of portraiture of the anthropomorphic figures depicted in Aegean Bronze Age art, in particular the Mycenaean ones. Many of the figures in narrative settings are almost entirely lacking in individualising facial features, as can be seen for the figures involved in a (funerary) procession, with horses, driving a chariot, hunting and soldiers in a battle scene (*Aegean Painting*, plates 50-51, 64, 66-67, 74). By contrast, a number of scenes from LM II-IIIA Knossos show more individual features in hairstyles and facial expressions (Foster 1997, plate LV), and this can also be seen for two depictions of women from Tiryns and Pylos (*Aegean Painting*, plates 56, 58). On the basis of a comparison between the depictions of anthropomorphic figures on different media, including glyptic, vessels, painted plaster and sculpture, Foster (1997, 139) concluded that it is possible to recognize individuals in Minoan art. Although the Mycenaean evidence is more circumscribed in terms of the kinds of anthropomorphic figures that are depicted, the same kinds of distinguishing features are present in different art objects, both in two-dimensional and in three-dimensional ones.[228]

An alternative to true portraiture can be suggested, however, in that the individualising features are in the facial expressions and/or hairstyles rather than in 'essential' physical characteristics. Therefore, it can be argued that they depict an emotion or temporal condition in a certain context, rather than any specific individual.[229] It might be argued that for Mycenaean anthropomorphic figures their identity did not derive from essential individual characteristics, but rather from the specific context in which they were embedded. This can also be seen in the importance of gestures in Minoan and Mycenaean art, which seem to have derived from a combination of stock figures and natural improvisation that allowed for scenic individuality (Immerwahr 2005, 183; Wedde 1999, 918-919). Further specifics could be added through a variety of attributes, which included a variety of features such as different kinds of textiles, armour and weapons, and jewellery. The evidence of the three-dimensional material forms can corroborate this, since the painted plaster head from Mycenae is congruent with the rendering of heads in two-dimensional art (Rehak 2005, 272). The characteristic gestures and positions of the *phi* and *psi* figurines also recalls the emphasis on the ritual significance of specific gestures in their Minoan counterparts (Morris & Peatfield 2004), presumably part of a broader artistic 'gesture-language'.

Circumstantial support for this interpretation can be derived from Linear B references to the decoration of metal vessels and other artefacts. This can best be seen in the Ta series of tablets from Pylos, for example Ta 722 which lists a number of footstools, one of them inlaid with the figures of 'a man', as well as 'a horse', 'an octopus' and 'a griffin' (*Documents*, 345). It may be that these motifs were intended only as simple decorative motifs, but the lack of any named human figure on these artefacts does point to a lack of recognition of named individuals on at least this material form of art. Based on this model we can then posit that the specifics of the anthropomorphic figures in expression, gestures, attributes and position within the scene is what distinguishes a human from a

[228] Even the seemingly highly personalised masks from the Mycenae Shaft Graves are not argued to have been true portraiture, as they do not conform to the facial reconstructions obtained through physical anthropology (Muskett 2007, 26-29). Furthermore, the relation between the masks and specific burials has been called into question based on a reanalysis of the accounts by Schliemann and Stamatakis, some of which may well have been associated with burials of females (Dickinson et al. 2012, 17).

[229] However, it is still possible to note certain emotional traits, such as the smile of the Mykenaia (Paschalidis 2012, 556). Younger (2011, 174-176) has used the notion of the 'gaze' as explored by Lacan to consider the subtle interplay between emotions and the socio-cultural environment in the LC IA West House miniature wall-paintings at Akrotiri. This idea is especially useful as it avoids the notion of generic individuality in favour of the seeing the constitution of individuality as located within a broader set of forces that help shape personhood.

deity, and also what distinguishes individual humans from each other in these pictorial scenes. The lack of recognition of individualised depictions of humans does not imply, however, that there was no recognition of different individuals in Mycenaean life. It is simply a specific conceptualisation of the more generic concept of personhood.

This specific issue of Mycenaean personhood has been explored by Voutsaki (2010b) for the case of the Shaft Graves at Mycenae, based on the different features of these burials (including the images) and on analogies with concepts of personhood in so-called 'heroic societies'.[230] Her conclusion is highly relevant for our purposes:

"To conclude, mainland society at the onset of the Mycenaean period scarcely conceives of the self outside the matrix of relations that hold together society and the cosmos. Notions of the person in the MH III–LH I mainland were relational, embedded, 'dividual', permeable. It is obvious that this notion of personhood is very different from our perception of the self as a distinct entity, as a demarcated and autonomous individual. However, people could set their own goals and transform their lives precisely because of this interconnectivity. They could do so because each person consisted of a unique combination of intersecting vectors of difference, had different allegiances, had a unique biography engaging with different groups and communities in different stages of his/her life, and hence positioned him-/herself differently regarding cultural traditions and social obligations. Each person contained the potential for change." (Voutsaki 2010b, 91)

While it should not be forgotten that the Shaft Graves were a more unique site because of their transitional and innovative position in the Mycenaean trajectory, it does point to a nucleus in the Mycenaean conception of personhood that was later elaborated on the walls of the palaces and other media. Whereas the wall-paintings would tend to emphasize the matrix of relations within which Mycenaean persons were located, some features of the art of the later burial monuments point to the specific circumstances of the individual. In particular there is the depiction of a winged figure on one of the *larnax* burial coffins from Tanagra that is perhaps suggestive of the *psyche* (soul) but much more likely of an *eidolon* (likeness) of the deceased person, perhaps moving to the Underworld (Immerwahr 1995, 116-117).[231] Clearly such specific terms are hard to apply without any textual references, and hence interpretation has to be limited to discussing general parameters. Interesting in this regard is that the long-term trajectory of the depictions of birds in Aegean funerary iconography shows considerable continuities between the Mycenaean and Geometric periods. Here a change occurred in the Archaic period when *eidolon*-like birds morph into a human-headed bird, or alternatively with an inscription of '*psyche*' and later into the Classical period *psyche* with wings as a 'replicating' depiction of the deceased human (Ross 2004, 72-76).

Such ideas should not be carried too far, given the interpretive limits intrinsic in the Mycenaean record. Furthermore, the meaning of images would have been subject to constant changes. Clarke (1999, 9-13) has used the distinction made by Sourvinou-Inwood between long-term *mentalités* and

[230] This should be distinguished from 'Homeric society' as a specific historical entity, which is explored in a separate literature (e.g. Crielaard 1997). The debate on 'heroic society' is more focused on generic philosophical questions raised by the agency of the characters described in Homer, a classic example of which can be found in (MacIntyre 1988). As such this discussion is less tied to the question whether Homer applies more to the Bronze or Early Iron Age. Thereby it would allow for a broader discussion on (political) agency before the emergence of the Greek *polis*. As will be discussed below, this can also incorporate the notion of bodily identity as investigated in Clarke (1999). It should not be taken as a timeless construct, but rather be incorporated (if it is applicable at all) into the specifics of the period studied.

[231] The concept of the *eidolon* occurs first in Homer, where it refers to a physical image of the dead, never the living, that can easily be mistaken for the real person, as in Achilles trying to embrace the *eidolon* of Patroclus (Bremmer 1983, 79). In that sense it is of little surprise that what is depicted on the Tanagra *larnax* is an *eidolon*, but based on this particular reference in the *Iliad*, it does not rule out the presence of the *psyche* either (*Iliad* XXIII, 77-79).

their articulations in actual art and poetic performance. The former aspect for him can be found not in doctrine but rather in traditional poetic language or *ἀοιδή*. This view has important negative consequences for those who seek to grasp a doctrine from the artistic and poetic evidence that would be valid over the *longue durée*. More fruitful is to consider the changes taking place in the Archaic-Classical world. Ross (2004, 77) points out that whereas different aspects that may be related to modern Western concept of the soul had been considered separately, they now became unified under the more philosophically-influenced unitary concept of *psyche* (cf. Clarke 1999), a move paralleled in the artistic depictions mentioned earlier. It is possible to use this Archaic-Classical development not as a parallel to the Mycenaean case, but rather as a contrast that can illuminate its prehistoric predecessor. With regard to the artistic aspect of this, the best insights from this concern the relation between words and images that will be discussed in the next section.

4.4.3: Images, words and narratives in Mycenaean art

Regarding the relation between words and images in Mycenaean art, it is important to note that there is only scant evidence for any direct connection between the various Aegean Bronze Age scripts and monumental art. The only known cases are those of three incised inscriptions on painted plaster from Ayia Triada and a painted sign from Knossos, all of them in Linear A (Cameron 1965). In itself this is not very surprising as Linear A, unlike Linear B, was applied to a much wider variety of media other than clay documents, including stone offering tables, hair pins and pottery (Weingarten, 2010). Due to the inability to read Linear A and its very limited corpus of texts, it is impossible to establish any kind of hypothesis for the use of these signs in the painted plaster. For the Mycenaean case it is clear that there is no evidence for any kind of direct connection between Linear B and the various forms of monumental art. There are, however, more indirect connections that are helpful for interpretation, as was explored for *ku-wa-no* in section 4.3.3. Such references either are to art objects or decoration, though none of which can be related to monumental art, or to figures that can also be recognised in art.[232]

Of more interest than the relation between Mycenaean images and *written* words is their relation to *spoken* words. The spoken word here refers to a hypothetical Mycenaean tradition of oral poetry, the overall parameters of which can be inferred from the later texts of the Archaic-Classical periods, as mentioned in section 3.3. In that section it was argued that the Homeric epics, as well as other texts, could be used as comparative concepts for specific aspects of Mycenaean material culture. There has been no lack of studies seeking to investigate this connection between the later texts and Minoan and Mycenaean images (e.g. Bennet 2004, 2007; Hiller 1990, 2000; Laffineur 2007; Morris 1989, 2000; Vlachopoulos 2007; Watrous 2007). Obviously, it cannot be sufficiently emphasised that the Mycenaean tradition of oral poetry is a hypothetical one for which direct insights into its content are lacking, and hence the connections between 'words potentially spoken' and the images remain highly tenuous. Furthermore, the features of society 'described' in Homer correspond more closely to those of the post-Bronze Age and early historical Aegean, as was discussed in section 3.3. The thrust of the argument here therefore focuses not on the direct connections in meaning between words and images, but instead on the structural analysis of the ways images and words were used and understood within narrative contexts (cf. Stansbury-O'Donnell 1999, 34-35).

This involves discussing the different semantic concepts used in the study of oral poetry, especially those of noun-epithets and similes, and how these can be connected to the images. The concept of *ekphrasis*, the poetic description or elucidation of visual images will be discussed as well. It will be

[232] A good example for the latter are the *ku-na-ke-ta-i* or *kun-āgetai* ('huntsmen') mentioned in a Pylos tablet and implicitly connected with (hunting) dogs (*Documents*: 132, 299, 557), and who appear on fragments of painted plaster from the same site as leading dogs into a hunt (*Aegean Painting*: 197).

argued that a generic relation can be recognised between these three concepts and Mycenaean art. As such, the investigation of these semantic concepts helps not so much with the identification of specific iconographic themes, but rather with outlining the general parameters of the indigenous ways of inferring meaning from the images. This can be seen most clearly for the noun-epithets, which have played a central role in the argument developed by Milman Parry and others that Homeric poetry was derived from a long-lasting oral tradition (Foley 1997, 147-148). Epithets such as 'lion-hearted Achilles' or 'rosy-red fingered Eos' (Dawn) would have played an important mnemonic role in the hexameter structure of the poem. More recent research has emphasised a broader consideration of such words beyond a simple mnemonic purpose:

"Instead of serving simply as counters in an elaborate board game, they are apprehended as nodes in a network of signification, as keys that unlock what Anglo-Saxon poets called the 'wordhoard' of myth and story, as signs that point the way down the Homeric oimê or song-path. In short, the recurrent phrases and scenes that characterize Homeric epic and numerous other such narratives are credited with more than mere compositional convenience; because their traditional referentiality is fully taken into account, we no longer have to contemplate sacrificing artistic depth to an adequate theory of structure, or vice versa. The 'words' – the epea of Homer, the reči of the South Slavic guslar – do more than make possible a traditional oral performance; they actively enable traditional oral art." (Foley 1997, 167)

The hypothesis that noun-epithets are not solely used as technical poetic devices brings up the possibility that they may be important for understanding images as well. A problem here, however, is that, as discussed in the previous section, Mycenaean iconographic conventions appear rather generic. This makes it very hard to recognise any kind of epithet or attribute, in clear contrast to later Greco-Roman art. On closer investigation this contrast can be argued to have derived partly from other factors than mere changes in iconographic convention. Although the imagery of the early Archaic period is different from the Mycenaean period, it is similarly lacking in specific attributes of deities (Mylonopoulos 2010, 173-174). Only in the 5th century BC do such attributes become more pronounced, eventually leading to the overload of attributes on divine images in the Hellenistic period (Mylonopoulos 2010, 203). One reason for this could be that the proliferation of alphabetic literacy would create more specificity in imagery, with more attributes depicted, sometimes in combination with textual explanations, for just this purpose. A similar case has been made for vase-painting, where images tended to become more 'fixed' with the impact of writing during the Archaic-Classical period (Bennet 2004, 96; Cain 1997, 95-105).

On this basis, one might suppose that noun-epithets are simply lacking in Mycenaean art, and that art and oral performance were completely separated at this level. However, while this is to a certain extent true, it has more to do with the different technical requirements and conventions of painting and sculpture on the one side, and oral poetry on the other.[233] What remains to be explored is the possibility that there might be a connection at the conceptual level, as part of the 'wordhoard' referred to in the quotation above. To explore this connection further two features of poetic composition, similes and *ekphrasis*, will be discussed in so far as they can be related to different features of Aegean Bronze Age art. We begin this particular analysis at the LM IA Cycladic site of Akrotiri, where the miniature wall-paintings in the West House have attracted much attention in their possible relation to early Greek historical poetry. The key interest in these wall-paintings is not so much whether the images in them can be related substantively to specific poetic passages, but rather stress is placed on the compositional similarities between the two. Morris (1989) has emphasised such connections in the way different scenes were integrated in an overarching structure, arguing not merely for common elements but for common techniques:

[233] In terms of basic syntax the difference between words and images is very clear and remains at all times distinct.

"Stylistic analyses of the Thera frescoes imply similar technical similarities between poetic and pictorial compositions, such as 'the tendency to string the figures out paratactically'. This is particularly vivid in the north frieze, whose episodic clusters of images do not imply strict dictates for narrative in art, but may a poetic account of simultaneous events arranged in a linear sequence in time, translated here into two-dimensional space. The paratactic arrangement of episodes and images required for digressions in story-telling permits the painter simultaneous juxtapositions, where the poet would be dependent on ring composition." (Morris 1989, 530-531)

This concept of 'paratactic narrative' is very useful for interpreting both poetry and images (Cain 1997, 188-189). There is a clear difference, however, between reading or listening to a sequence of words and looking at an image, and this has important implications for the role of similes in poetry and in visual art. Similes abound in early historical Greek poetry, as can be seen in the list compiled by Scott (1974, 190-205) for the *Iliad* and the *Odyssey*. In basic terms the simile simply links two phenomena with each other that are not essentially identical, but which nevertheless share a characteristic, often only in a certain context. A good example of this is the constant association between lions and fighting warriors, such as the extended lion simile used to describe Diomedes furiously fighting the Trojans in the front lines, being 'claw-mad as a wounded lion' and piling Trojan corpse upon corpse (*Iliad* V, 150-158). In compositional terms, this simile both visualises for the audience what is going on, and also forms part of the narrative word sequence.

It is hard to see how similes could have played a similar role in the composition of Aegean Bronze Age art. Both of the roles played by similes in poetic composition seem to be superfluous in art. Visualisation of something using a simile is simply hard to accomplish in a visual image since the similes are rich in detail and nuances in a way that cannot be squared with the generic character of Mycenaean iconography. It may well be that the image of a lion carries with it implications of prowess in war, or that a duellist can be seen as engaged in combat in a lion-like way, but that cannot be inferred from the way that these images are rendered in themselves. More importantly, there are no clear cases of dedicated iconographic motifs to connect different scenes together. It is rather telling that those studies that did focus on recognising similes in Mycenaean art focus either on isolated motifs such as flies (Hiller 2000) or on material forms with less complex pictorial compositions such as glyptic (Grace 2009). Yet, on most of the examples provided in these studies the images are indeed similar to the similes, but not actually deployed in a compositional setting that makes an explicit comparison of one phenomenon with another.

There are two scenes, however, that can be interpreted as similes. These are a scene on a stela from the Mycenae Shaft Graves that shows a lion chasing a deer below a scene of a warrior in a chariot, and also a dagger (see figure 28) from the same site that shows a lion attacking a deer on one side of the blade and five well-armed men in combat with a lion on the other (Morgan 1995, 173-175). These examples from the Shaft Graves might be the exception that proves the rule. Many of the other cases noted do indeed show great similarities with the subject matters of early Greek historical poetry, and may well have shared common prototypes (Laffineur 2007, 82-85). Yet very few of them are actually deployed in a similar compositional way as the similes were used in poetic compositions. That is not to say that the content of these similes is not useful for understanding some features of Mycenaean art. This can be shown for the lion simile, which is also known from art and texts from the contemporary eastern Mediterranean. Lions abound in Mycenaean art, and also in that of the preceding Minoan periods (Shapland 2010), with one of the best-informed experts counting some 920 cases in her database (Thomas 2004, note 1, p. 161).

The question is how to conceive of these images: are they simply representations of lions or might they be similes in themselves? That is, were they understood by the Mycenaean viewer as an

intrinsic comparison to something or someone else? To answer this question, there is a need to turn to the different contexts in which lions were depicted. Thomas (1999, 305-306) has traced the trajectory of lion images in Mycenaean art from the Shaft Graves through LH IIIB, on the basis of their associations with hunters, warriors, ritual activity and as emblems of power, resulting in interesting conclusions. She found that rather than the expected change toward a larger role of the ritual and power emblem role, the predominant representation of lions remained those associated with hunting. This continuity and the formulaic character of the images suggest a stock-theme, which Thomas (1999, note 61, p. 306) argues should be understood as a metaphor that would be shared by, but not dependent on, either visual art or on poetic discourse. Lions, then, would not be similes in themselves but would share a common metaphor with possible similes in the hypothetical tradition of oral poetry. On a few occasions this shared metaphor could also be turned into a similar kind of composition, as in the two examples from the Shaft Graves.

Despite sharing common metaphors to some degree, the similes are of little, if any, use in understanding the composition of the bulk of Mycenaean art. What then could link together the juxtaposed scenes in the paratactic narrative of compositions such as those from Akrotiri? It is argued here that a potential solution can be found in the concept of *ekphrasis*, the poetic 'description' of art objects and the images on them. This poetic device was also known from such Near Eastern epics such as the *ekphrasis* of the axe of Gilgamesh in the Mesopotamian epic that bears his name, as well as other examples (Winter 2010). One of the most famous examples from early Greek historical poetry was Homer's description of the Shield of Achilles (*Iliad* XVIII, 558-709). This shield, made by the god Hephaestus depicts, two cities and activities going on in them (one being at war, the other peaceful), a ploughing scene, a vineyard scene, animals, a dancing floor like that at Knossos, and all surrounded by the river Oceanus. This work of art, the actual existence of which is of little importance here, more or less represents a cosmos made up of different scenes juxtaposed together on the shield and brought together in a coherent picture through the poetic technique of *ekphrasis* as performed by Homer.

The similarity between the juxtaposed scenes in the Shield of Achilles scene and those in the miniature wall-paintings of the West House at Akrotiri have been noted already (Hiller 1990, 231; Morris 1989). What is important for the present analysis however, is not the question whether this indicates that the Homeric meter was derived from Minoan Crete, or whether any of the scenes on the shield can be substantively related to those on the paintings. It is not even important whether we are dealing here with an art object that must necessarily belong to the Bronze Age or from the period in which Homeric poetry was first written down.[234] Neither is there any need to make more than passing reference to the tradition of *ekphrasis* that was started by this, and which has been considered by great art historians and philosophers alike (Becker 1995, 9-22). The concern here is rather with the strong similarities in compositions that consisted of a series of highly generic stock-scenes or *topoi* that were juxtaposed to each other in an overall setting, which in the case of the Shield of Achilles was elucidated through *ekphrasis*. The question then, is whether this poetic technique can yield some insights for the pictorial composition.

To understand this it can be useful to turn to the period in which early historical Greek poetry first emerged in textual form, corresponding roughly to the Late Geometric through Archaic periods. The

[234] As for the likelihood of its actual existence in this period, it has been noted that in material terms it was a composite of older practices like inlay, which was not known in the 8th century BC, and contemporary material forms such as the similar layout on Phoenician bowls (Stansbury-O'Donnell 1995, 316-317). As such it represents an amalgam of material techniques from different periods and regions (Stansbury-O'Donnell 1999, note 53, p. 200). This makes it unlikely that the *ekphrasis* was of an actual object. However, neither was the shield a mere fantasy, for it can also thought of as a more ideal artefact, one that could only be shaped by a divine artist like Hephaestus: a kind of craft and material form that human artists could only aspire to (Snodgrass 1998, 42-44).

relation between poetry and art in this period has been investigated in a variety of ways, especially with regard to the emergence of a more clearly narrative visual culture (Whitley 2001, 199-204). Yet the *ekphrasis* of the Shield of Achilles may be relevant more to the starting point of this development than to its eventual outcome. For it is clear that the description of this shield has more in common with the text-less art of the Late Geometric period than with the interaction of text and image that starts in the Archaic period. In fact, a number of similarities can be noted between the *ekphrasis* of the Shield of Achilles and the composition of 8th century BC art (Stansbury-O'Donnell 1995, 320-321). The most obvious of these is the common use of continuous, circling friezes. Another can be seen in the highly generic character of both human figures and scenes as a whole. The latter may be termed stock-scenes or *topoi*. Yet such scenes should not be seen as necessarily lacking in any narrative potential, as in the notion of *Sagenbilder* that are distinct from historical events and daily life captured in *Lebensbilder.*

Stansbury-O'Donnell (1999, 31-35) has argued that the notional distinction of *Lebensbilder* and *Sagenbilder* should not be used to deny the narrative potential of what appear to be highly generic images. Instead the *ekphrasis* of the Shield of Achilles points to how images can be 'enlivened' in a specific 'viewing experience'. This does not imply that every 8th century Greek vase was an object for *ekphrasis* as such, but rather can be taken as indicating the need to take into account the fact that additional meanings could have been inferred more indirectly from images. In order to get some grip on this it can be useful to analyse the basic elements of narratives more closely, in terms of their fundamental structure.[235] Using ideas originally developed by Roland Barthes, Stansbury-O'Donnell (1999, 21) defines four key elements of narrative micro-structures:

1. The nucleus, which comprises the essential action of the narrative and the different agents that participate in them. There can be multiple nuclei in a scene. They also need to be open-ended, in the sense of alternative outcomes being possible.
2. Catalysts, these are defined as figures and elements that elaborate on the nucleus but are not essential to it. Hence they could potentially have been left out.
3. Informants, which provide labels to identify participants or provide a location and/or time.
4. Index, which refers to something outside the essential action encompassed in the nucleus.

Using these elements it is actually possible to recognise narrative elements in selected examples of Late Geometric art (Stansbury-O'Donnell 1999, 44-53). These narrative elements would have allowed for the ability to connect the visual art of this period to broader metaphors and stories. Such connections can also be brought out in narrative extension, which relates sets of images to each other (Stansbury-O'Donnell 1999, 118-124). This can be done either in a sequential way (syntagmatic narrative) or through a shared set of metaphors (paradigmatic narrative), with the index of narrative micro-structure playing an important connecting role in this. Such analytic tools for grasping narratives can be very useful for recognising meaning in 8th century Greek art better, but they can potentially also be used for the art of the Aegean Bronze Age. As discussed earlier in this section, generic stock-scenes or *topoi* can be seen across Cycladic, Minoan, and Mycenaean art, together with the notion of 'paratactic narrative' to connect such scenes. As noted by Younger (2011, 171-174), these *topoi* incorporated both the generic, related to societal order (the 'collective consciousness'), and the *ephemera* of (daily) life that enjoy a degree of autonomy from this.[236] The

[235] It is important to stress here that this focus on narrative structures does not necessarily imply a strong structuralist theoretical position, as it was espoused by Levi-Strauss and others.

[236] The examples given by Younger involve quotidian life, but it is also possible to consider as part of the *ephemera* phenomena like warriors dying in battle and other more extraordinary events. A good example of this can be seen in the warrior falling from an architectural context in a wall-painting from Mycenae (*Aegean Painting*, plate 65). In this way generic meaning and order can be contrasted with incidental events and states, which carry the possibility for subverting the established order of the *topoi*.

analytic techniques for grasping the micro-structures and macro-structures of narratives can be used precisely to investigate such complexities further.

It can be useful to give a more concrete example of how such narrative structures can be recognised in Mycenaean art. Unfortunately, much of the wall-painting record is preserved in such a state of fragmentation that it is almost impossible to carry out such iconographic analysis in most cases. Yet where more fragments are available it is possible to recognise narrative elements, as will be shown here for a procession scene from the palace of Pylos in Messenia. The fragments of this scene were found in the vestibule of the central megaron of the palace, and consists of human figures of c. 30-40 centimeters in height, a large-scale bull's head, and an architectural context (Lang 1969, 38-40). Two reconstructions of this scene have been proposed. One was by Piet de Jong in the project publication (Lang 1969, plate 119 top), and the other by Lucinda McCallum (1987, plate VIIIa) based on her re-study of the wall-painting fragments. The latter reconstruction (see figure 29) will be used here as it is based more closely on a re-study of the fragments, with the caution that the on-going work on the Pylos wall-paintings may well lead to further revisions in the near future. Both reconstructions agree, however, on the broad outlines of this scene as showing (moving from right to left) a procession of figures in two registers towards an architectural structure in which some kind of ritual activity takes place.

In terms of overall layout the presence of upper and lower framing bands are a good example of the 'bounded naturalism' of Mycenaean art. A fragment of rockwork at the upper border indicates an outdoor setting (McCallum 1987, 118) and conforms to an abridged version of 'referential perspective', possibly suggesting movement through a hillside landscape (Chapin 1995, 269).[237] Turning to the narrative micro-structure of the scene, broadly speaking two nuclei can be discerned. First there is the movement of the figures in procession on the right, followed by the ritual action that takes place in an architectural context. The bull's head that is much larger than the human figures occupies a position between these two nuclei, and it is not clear to which of the two it belongs.[238] This again shows the interpretive limits of the fragmented material. Considering the first nucleus of processional movement, there seems to be little to distinguish within it based on the actions of the figures. There is no distinction between nucleus figures and others acting as catalysts, as the scene is very much one of an unitary movement, if one split up in two registers. However, the different clothing styles and objects carried do act as informants on the (ritual) role and status of the human figures depicted here. The long robes seem to indicate priests, further enhanced by the fact that they are carrying offerings, while the figures clad in just kilts only carry equipment, suggesting different roles (McCallum 1987, 113-114).

The nucleus of the second scene is more sharply defined, being composed of a figure standing in front of an altar located in an architectural setting.[239] Below this are standing three figures: a larger male figure who rests his hand on the shoulders of a smaller male figure standing in front of him, and a female figure standing behind them. These figures can be seen as catalysts that elaborate upon the ritual action depicted in the nucleus above them, even if the fragmented state of the material does not allow for a close understanding of this relation. The costumes of the figures do again point to their social role, in particular the Minoan-style flounced skirt of the female figure. The presence

[237] The presence of vertical wavy lines here may not have been very significant in terms of signalling spatial divisions, and may rather derive from more practical considerations (Chapin 1995, note 100, p. 269).
[238] Its mere presence, however, is significant, in particular because of the provisioning of oxen or bulls for ritual events that are known from the Linear B tablets (McCallum 1987, 117).
[239] There is also an armless figure standing before a column that faces rightward in the direction of the figures in front of the altar and in the procession (McCallum 1987, plate XXXVIII). The armless figure can be compared to that on the Ayia Triada sarcophagus, but was not included in the reconstruction because of the much smaller size of the figure (only 10 centimetres in height) compared to the human figures (McCallum 1987, 84).

of such different clothing styles highlights the more detailed meaning that can be expressed through such informants. The locational informants also point to the architectural and outdoor (possibly hillside) setting of this nucleus. It is not possible on the basis of the present evidence to recognise the use of an index in this scene, nor can such a sign be seen in the procession discussed earlier. Having thus discussed the narrative micro-structure of the two nuclei, the next issue concerns the macro-structure of the scene as a whole.

One way of viewing the vestibule procession scene as a whole is as a sequential or syntagmatic narrative. This would entail viewing the procession as being the precursory activity for the later ritual action in front of the altar. Notably there is no recurrence of the same figures in both nuclei, though the limits of the evidence need to be taken into account here as well. This would seem to indicate the primacy of the actions that were depicted over the protagonists that are shown carrying them out. As stressed by McCallum (1987, 138-139) the vestibule procession scene can also be related to the themes depicted in the wall-paintings of the central megaron itself, see figure 30. The relation with these murals may be considered as a form of paradigmatic narrative extension, and will be treated as such in section 5.2.2. The analysis here has shown that, despite the clear limits of the evidence, it is possible to recognise narrative micro-structures and macro-structures in Mycenaean art. This serves to elucidate patterns rather than imposing a straitjacket on fragments, as can be seen for highlighting the role of informants such as clothing and locational markers. Like the Shield of Achilles in the *Iliad*, the generic *topoi* of Mycenaean art carry more narrative potential than might be assumed on the basis of a comparison with later text-aided Greco-Roman art.

4.4.4: The iconography of Mycenaean art

The procession scene from the vestibule of the central megaron of the Pylos palace brings together all the different aspects of the iconography of Mycenaean art discussed in the previous two sections. This is true not only for its narrative characteristics, but also for the use of 'referential perspective' to suggest an outdoor context, as well as for the use of attributes such as size and clothing to distinguish between figures. The combination of these elements to show a complex scene points to the coherence of Mycenaean iconography, even if it is in many ways derived from Minoan art and less elaborate than the contemporary art of the Near East. This coherence can be understood if the properties of rendering landscapes, anthropomorphic figures, and narratives are related to each other in more detail. First of all there is the notion of 'bounded naturalism' that frames a large diversity of scenes, both in non-monumental materials forms like vase-painting and in monumental ones like wall-painting. Within the pictorial spaces thus framed it is possible to recognise, among other kinds of iconographic elements, visual *topoi*. In its basic meaning *topos* refers to place, and the rendering of landscapes constitutes the spatio-temporal basis for Mycenaean artistic *topoi*. The spatial aspect of this can be discerned in the use of hills, seascapes, and architecture, while the temporal one can be noted in indications of seasonality.

In this spatio-temporal template the different anthropomorphic figures have to be related to each other. Because of the genericness of pictorial *topoi* the individuality of these figures is not developed, rather attributes are used to emphasise different social roles or statuses. This does not mean that these figures are completely subsumed by the *topoi*, however, as the presence of *ephemera* can create more idiosyncratic effects. Narrative provided a structure for grasping the relations between figures and their positions within landscapes. The case of the *ekphrasis* of the Shield of Achilles from the *Iliad* was held up as a model for understanding Mycenaean narratives. This was framed not as an argument for *ekphrasis* as a means through which meaning was inferred for all Mycenaean images, though for some cases this could well have occurred. Rather it showed that generic *topoi* such as the scenes on the shield can carry within them narrative meaning, which

can be analysed for Mycenaean art both for the micro-structures and macro-structures of narratives. Hence the concept of *topos* can link the landscapes, anthropomorphic figures, and the narrative actions together in a coherent framework. This framework can be seen as the 'iconographic syntax' of the representation of Mycenaean palatial society in art, and therefore comes prior to the more conscious messages that will be discussed for specific themes in section 5.2.