



Image: detail from the Hagia Triada sarcophagus, Heraklion Archaeological Museum  
(credit Wikipedia-Commons)

## *Radiant Beauty: Colour Symbolism in the Bronze Age Aegean.*

Submitted to the Joukowsky Institute 'Archaeology for the People' literary competition,  
August 2014.

By Andrea Sinclair  
Universität Leipzig

It is always with some degree of trepidation that I begin a discussion of colour theory for any prehistoric eastern Mediterranean culture. Firstly, because the evidence for colour value is usually understandably sparse, then, in addition, because perception of colour is such a culturally embedded and highly subjective experience that can vary considerably from individual to individual, but also because it is very difficult to set aside contemporary parameters for colour when attempting to address ancient colour values.

The perception of colour is equally dependant on environmental factors such as light and shade, surface reflection, texture and naturally on the viewer's own optical facilities. This problem is augmented by contemporary western definitions of colour which are largely dependant on art historical systems for defining the characteristics of colour, and finally on our own contemporary media which floods us with unsaturated and voluminous nuances of

colour, each potentially labelled with arcane, confusing and sometimes seemingly arbitrary titles that one often struggles to equate with the colours indicated.

In the eastern Mediterranean Bronze Age colour perception and symbol was a less complicated affair. They conveniently did not have art historical systems for defining colour, or complex colour charts mapping shades and saturation. In fact, at that time colour was firmly grounded in the natural environment and in natural materials and technologies. Therefore, the reader should be aware that when discussing hue here there will be no attempt to categorise colour in contemporary terms. When I refer to a hue it will be as a broad classification which goes some way towards addressing ancient perceptions, but in no way may be equated with our notions of primary, secondary and tertiary colour relationships.

If you would humour me, I request that you think of a notional world where environment and material construct your perception of colour. In addition the reader needs to be aware that in reproducing images in this or any media we are again dependant on the rigours of time, perceptual parameters and the idiosyncrasies of a digital or print medium. Naturally this does not make our job any easier, as any discussion of colour use and meaning is inherently problematic at a distance of three thousand or so years. With these reservations borne firmly in mind we may now attempt to tackle the topic.

We are largely dependant on two sources for the significance of colour in the Bronze Age eastern Mediterranean. The first is from textual evidence. This can take two forms, actual discussion of colour in documents and the metaphorical interpretation, that is, the usage and function of colour terms in texts. The second method is to examine the material output of a culture; the painting and ornamental use of colour that is extant in the archaeological record. These two methods, text and material culture contribute considerably to our understanding of colour for cultures such as Egypt and Mesopotamia, and much has been written on this topic from these cultures in the previous ten years by respected academics. However, when we turn to the Aegean we are on decidedly less firm ground.

The Aegean of the third and second millennia is therefore our setting for discussion here. It encompasses two separate cultures which, for most of our evidence, are situated in the first and second half of the second millennium (the third millennium will rate brief mention). This thousand year period approximately represents the Middle Bronze Age Minoan culture on

Crete (ca. 3000-1400 BCE) and the later Mycenaean culture from mainland Greece (ca. 1700-1200 BCE), which also represents cultural and political influence on Crete and throughout the islands in the Late Bronze Age. This productive and vibrant Aegean social and economic environment ended abruptly in around 1200 BCE under the influence of the eastern Mediterranean 'Sea Peoples' catastrophic event.

Of the two cultures represented here, the earlier Minoan culture looms heavily over all discussion of Aegean art and visual design, due in some part to the wealth of material collected in the first half of the twentieth century by the excavators of Knossos. So it is worth mentioning here that when viewing Aegean art you may need to bear in mind that the majority of examples available in many media are dubious reconstructions and not necessarily faithful or accurate models. In the past fifty years much more excavation and professional reconstruction have taken place and in addition scientific examination of pigments have contributed much to our understanding. Finally, while we still struggle to decipher the Minoan script Linear A, the Mycenaean script, Linear B, was conveniently deciphered in the mid-twentieth century and has at least nominally opened up the visual vocabulary of one of these two cultures.

In the Aegean the textual evidence is therefore quite sparse and entirely dependant on these administrative documents from the Late Bronze Age mainland of Greece. These small documents written in Mycenaean Linear B script are not convenient lexica of iconographic terms, but rather, they are account keeping records for the administration of the sophisticated Mycenaean economic system. Where colours are cited they immediately raise problems simply because we cannot at this point know precisely whether the term refers to a colour concept alone, or whether it refers to a coloured commodity like a mineral pigment, a textile or a textile dye. That being said, on the basis of this limited evidence certain conclusions may still be drawn.

### *The Textual Evidence for Colour Value*

From the evidence of the Mycenaean Linear B archives it can be established that there were at least thirty-eight terms referring to colours or coloured commodities in the Late Bronze Age Aegean. Of these, two terms specifically identify 'colour' as a designation: one term refers to the idea of 'coloured', 'ko-ro-to', the later ancient Greek Χρῶς, Χρώτός (chroos)) and the other to uncoloured 'a-ko-ro-we' (αχρώς). The term Χρῶς in ancient Greek was a designation

for the idea of colour, but it also described the surface, complexion, flesh or nature of an object, so here we have two basic words in Linear B that encompass the definition of coloured or the absence of colour in Mycenaean Greek.

After two terms for designating colour in isolation, these texts employ concepts that the cultures of ancient Egypt and Mesopotamia considered a defining factor of colour: these are words specifically associated with patterning. In the Aegean one term was po-ki-ro, which may be considered to be the predecessor of the ancient Greek word for pattern, variegation or dappling: ποικίλος (poikilos). This idea of unique vocabulary terms for ornamentation is a timely reminder that we are not 'in Kansas anymore' and must adjust our ideas accordingly.

Further, the subsequent colour terms employed in the Linear B archives do not appear to necessarily describe hues as such, but rather they appear to favour nuances of light and dark. This idea is consistent with theoretical models for the evolution of colour terms in language, where terms for brightness are the core facilities for differentiating colours in early forms of language and not hue. Therefore, it is quite common in many early languages for the word 'white' to have an original meaning of radiance or light.

Consistent with this idea, a high percentage of terms (two thirds) in Linear B appear to describe aspects of light and dark, or brightness and shadow. Interestingly, there is also emphasis on a notion that we do not associate with colour, which in antiquity held great symbolic value: that of surface shine. Almost a third of the terms in Linear B convey a notion of glistening and shimmering surface, which, incidentally, also notionally overlaps with the idea of patterning. Within this conceptual range one could also place the Linear B terms for gold and silver.

To return to hue, shades of red dominate the group, taking up almost a third of all colour terms, with a broad range of different shades from rose-red through to dark red-purple. In contrast, there are only two words identifying yellow hues, and two for blue, again, these terms may be argued as grounded in notions of brightness and darkness rather than in specific hues. Pale grey-blue and intense dark blue-purple appear in later periods to govern this blue colour range (see the Classical Greek γλαυκός/glaukos and κύανος/kuanos).

Interestingly, as an indication of considerable cultural difference, there appears to be no term whatsoever to refer to the colour green within the Linear B archives. This absence of what we would deem an important hue may simply be ascribed to a practical omission, since we are in fact viewing but a fragment of the Mycenaean textual record. However, it may equally be the outcome of embedded cultural values for this colour. So, in order to discuss this idea further we shall move on to view the material evidence.

### *Visual Evidence for the Value of Colour in the Aegean: Aegean Wall Paintings*

With respect to the Aegean visual repertoire in the Late Bronze Age an examination of approaches to colour values must first look to Minoan Crete for evidence, for it is from the vast palace complexes of Middle Bronze Age Minoan Crete that we have acquired a wealth of visual evidence from fresco paintings to decorative artefacts. Equally, it is important for the reader to be aware that we are still dealing with two distinct cultural periods in this discussion: the Minoan culture of Crete and the Mycenaean palace system of the Late Bronze Age.

With the incredible array of restored fresco paintings from villas and palaces in Crete we are on firm ground for visual evidence of symbolic constructions for colour in the Aegean. For, while Minoan frescos employed a varied colour palate over different periods, it has been possible to identify patterns of colour use in the visual repertoire. Equally, it is possible to identify exclusions from the palette which cannot alone be attributed to limited access to pigments. In addition, it is reasonable to assume that the choices for visual programs within significant Minoan structures were not purely decorative and were rather tangible expressions of elite ideology, and of ritual and cult. This also applies just as readily to Mycenaean visual design.

Rather than propel the reader headlong into a discussion of the intricacies of potential colour use and symbolism, perhaps it is first appropriate to outline the context with which we are dealing when discussing Minoan painting. Minoan frescos were created like virtual panoramas and designed to surround the spectator on four sides or as a triptych when painted on the interior walls of elite buildings. They were presented as an enveloping frieze often bordered above and below by framing bands or horizontal ornament. The themes of these friezes were predominantly focussed upon naturalistic subjects, such as lush undulating landscapes with riots of blossoming plants and abundant wildlife. In other compositions,

human figures are represented in various, highly symbolic activities. Mycenaean frescos continued the Minoan tradition, but the nature of compositions shifted slightly in the later period, and processional, more formal arrangements superseded the earlier arguably naturalistic abundance of Crete.

The evidence for frescos decorating the walls of elite residences and palaces is extensive from the Aegean, but the reader must bear in mind the inevitable caution that most Minoan and Mycenaean frescos are either modern restorations or theoretical reconstructions, as in situ examples of frescos still adhering to walls are virtually non-existent. Plaster has a tendency of becoming fragmentary over time and your average Aegean fresco is actually the equivalent of your grandmother's thousand piece puzzle in the back of her sewing cupboard, but with the edges and a much larger percentage of pieces missing (as much as 95%). This is an enormous challenge to archaeologists and restorers alike and must always be borne in mind when viewing reproductions of same.

### *Aegean Pigment Colours*

The wall paintings decorating the walls of elite villas and palaces were usually rendered using 'true' or 'buon fresco' painting technique, which is achieved by pigment painted directly on to a ground layer of wet lime plaster. However, in some instances tempera or buon secco were also employed (pigment painted onto a surface of dried plaster) to decorate walls. The pigments used for this fresco paint may vary in composition from site to site, depending on access to raw materials and on local usage patterns, but they were all based in finely ground plant and mineral pastes which may be briefly outlined as follows:

White: from powdered lime (or unpainted lime plaster).

Black: carbon based pigments (from charcoal) or black haematite (iron oxide).

Grey: carbon mixed with lime (black pigment mixed with white).

Red and yellow: iron oxide based ochres, with higher levels of haematite for red.

Orange: a blend of red and yellow ochre.

Light blue: from copper oxide, but more commonly from Egyptian Blue frit (a copper oxide, calcium and silica paste, closely related to faience and glass).

Dark blue: riebeckite, which is a blue-green silicate. However, there is one instance where a pigment has been identified as using lapis lazuli, (Hagia Triada sarcophagus) and one of the plant dye indigo (Thebes).

Purple: from layering red pigment over black, or a dark haematite, or rarely a murex dye, glaucophane, with one known instance of lapis lazuli combined with red ochre (Gla).

Pink: was achieved using a blend of ochre and lime pigment.

Brown: a blend of yellow, or red ochre, or these pigments were painted over a layer of Egyptian blue.

Green: could be achieved using copper oxide from bronze scrap (rare), malachite, or more commonly by mixing or over-painting yellow ochre and Egyptian Blue.

What this entails then, is that the Aegean paint palette was based on mineral pigments, such as ochre for red, orange, yellow, brown and purple, lime for white, with carbon for black and grey, copper derivatives for green and finally a synthetic blue, 'Egyptian Blue' for blue. It is worth noting the function of this latter pigment in producing both the colours brown and green. Egyptian Blue has its name from origins in ancient Egyptian vitreous technology, but is currently misleadingly applied to describe all subsequent examples of this synthetic compound. There is every likelihood that the Minoans acquired this technique from Egypt around the time that the pigment appeared in the Aegean, but no reason to assume it was not subsequently locally produced. Nonetheless, Egyptian Blue frit remained a prestigious pigment used for elite architecture and objects due to the technology involved in its production.

### *Minoan and Mycenaean Frescos*

To return to the frescos themselves, in the Early Minoan period (3000-2000 BCE) red dominated the choice of colour schemes for painted walls, with some occurrences of black, or a geometric pattern of white with red. With the advent of the palatial period, Middle Minoan II (2000-1700 BCE) the decoration of walls expanded with the introduction of abstract designs and imitation stonework. It is at this time that the colour blue first appears at Knossos, where the colour palette was quite wide, with nine hues represented in fresco design. The most favoured colours at this time were black, white, red and yellow.

At the beginning of the Middle Minoan III (1700 BCE) fresco designs became yet more elaborate with the appearance of the first pictorial imagery focussing on subjects and themes from nature. Subsequently the pigment palette expanded as well, with the use of brown increasing. However, the actual range contracted to employ only seven colours. At this time

the use of the colour blue ousted yellow from the top four and yellow did not make a comeback until the Late Minoan II/Mycenaean period.

At Knossos red, white and blue came to dominate the visual repertoire and were used extensively for many compositions and in background fill design. Previously, the colours favoured for backgrounds had been black, white, red or yellow. By contrast, the colours green, purple, pink and orange became virtually absent. These omissions cannot be ascribed to scarcity of pigments, since it is the synthetic blue that is the most difficult colour to procure, whereas common ochre was the source for most pigments. Instead we must assume a conscious manipulation of the Minoan colour palette.

Farther a field in the Cyclades, on the island devastated by the volcanic eruption of the sixteenth century and the perfectly preserved town of Akrotiri (destroyed ca. 1600-1500 BCE), there is a wealth of colourful frescos that seamlessly blend Minoan visual programs with Mycenaean elements, and the colour scheme reflects this fusion. There, yet again, the colour palette is dominated by white, blue and red, with a lesser, but not insignificant, contribution from yellow and black.

In the subsequent Mycenaean period (ca. 1700-1200 BCE), the composition of frescos became more formalised and backgrounds tended more towards the use of one broad colour rather than layering. However, the same colour scheme of red, blue and white was again dominant in the colouring of palace frescos. In contrast, yellow and purple played a lesser role and green continued to be noticeable by its absence. At some sites on the Greek mainland no green pigment has currently been detected from elite frescos. If one considers compositional space, red and blue virtually dominate the Late Bronze Age fresco palette, being employed as background fills and decorative ornament for fresco compositions throughout the Aegean region.

#### *Function: Aegean Fresco Colours*

Now that we have established a generalised chronological process for colour use in painting over the third to late second millennium in the Aegean, it may be possible to turn to the evidence for patterns of use and values for individual hues. These may be briefly summarised as follows:

Red was a formal convention for indicating the skin of human males, which is argued to be akin to the convention in Egyptian art. It was also employed for the natural landscape, rocky outcrops, crocus and lily flowers, blood, wild deer and was an element of ritual costume for both genders. The colours orange and brown tend to overlap in function with red.

Blue had clear associations with sacred and exotic animals such as vervet monkeys and griffins. It was also employed for portraying vegetation (again rather than green), particularly sacral ivy, rosettes, sea daffodils and crocuses. Like Egypt, blue was used for human hair (of youths), but equally for ceremonial vessels, as an element of ritual costume, with birds, water and aquatic animals. The colours purple and grey, when used, tend to overlap with the value of blue.

Yellow was used in cult scenes for depictions of the sacred Minoan double axe, perhaps as a metaphor for gold or bronze. It was employed to indicate the natural landscape, rocky outcrops, crocus flowers and animal predators such as lions, leopards and wild cats. It may have functioned as a substitute for green for vegetation and also appears to have been a significant colour element in female ritual costume.

White was dominant in background fields, was used to indicate female gender for the human figure, for antelopes and for the sacred architectural features such as horns of consecration. As a null colour (lime plaster) it may also have had an aesthetic function and as a background colour constituted a stark visual contrast for the colours red and blue.

Black functioned similarly to white and beyond its use to indicate adult human hair, it appears to have functioned primarily as a compositional tool, delineating form or outline where clarity is required.

Finally, the colour green was so neglected in fresco painting that at certain sites, like at the palace of Mycenae, it is completely absent. However, where it is extant, usually in earlier Minoan frescos, it was used for the depiction of vegetation.

### *Objects of Adornment, Memory and Cult*

When we turn from frescos to the secondary arts we are faced with a similar colour palette which favoured certain media and a restricted hue repertoire. For jewellery, inlays and

amulets the precious mineral gold was a prestige material reserved for the highest echelons of Aegean society, this mineral with the stone lapis lazuli and ivory had to be imported long distances from trading partners in the east. How these materials affect our discussion is dependant on their perceived colours: gold may be equated with yellow, however, if ancient sensibilities are any guide, it may also be viewed as a shade of red, particularly when the ore used contained copper oxides. Both the neighbouring ancient Egyptian and Mesopotamian cultures perceived gold as equated with the sun, radiance and with the colour red. This colour value could also be achieved with the red stones which take secondary place in prestige use, particularly carnelian and amber, again exotic imported materials.

The blue mineral lapis lazuli by contrast was the most valued precious stone in antiquity. Where we would describe it as a semi-precious stone and rank it well beneath gold and silver, in antiquity it ranked with silver as the most eagerly sought after mineral by ancient elites and kings. The reason for this is both the real scarcity of the stone and its visual lustre. The stones vary in intensity from deep blue to blue-purple-black. But apart from hue, in addition, high quality lapis lazuli contains small flecks of pyrite which can cause the blue surface to sparkle and this feature imbued the stone with heavenly connotations and a metaphorical connection to the celestial gods.

This lustrous visual character and its extreme rarity endowed lapis lazuli with high value for the decoration of divine statues and for luxury jewellery throughout antiquity, and the Aegean was no exception to this rule. So much so that when technology achieved a peak in the middle of the second millennium, lapis lazuli coloured synthetic materials dominated the material record and continued to do so until the economic collapse of the Late Bronze Age.

### *Synthetic Media and Colour: Faience and Glass*

#### *Minoan Faience*

In the Aegean there appear to have been two successive synthetic industries, each regionally and chronologically distinct from the other: the first was faience, a type of precursor to glass, with workshops associated specifically with palaces, such as Knossos in Crete, and the second technology was glass, and centred on the mainland administrative centres of Mycenae in the Late Bronze Age. Both faience and glass were materials suitable for moulding into beads, inlays for prestige jewellery, furniture and weapons, for small cult vessels, amulets and small figurines.

Similarly with many eastern Mediterranean cultures, Minoan faience was originally monochrome with the most common colour of the glaze being turquoise blue obtained with a mineral paste closely aligned to the copper silica pigment Egyptian Blue. This blue could then be decorated with a brown-black glaze. However, in the middle of the second millennium Minoan faience revolutionised polychrome glazing techniques and introduced a wider colour palette of purple, creamy white, red and yellow to the original repertoire of light blue and brown-black.

Minoan faience has suffered considerable weathering and loss of colour over the passage of time. This weathering has caused substantial damage to the original colours and it is only in the last decade that laboratory analysis has been able to adequately answer the question of original pigment colours. The results of these findings change our vision of Minoan faience and glass entirely. For example, the grey, green, brown and red Town Mosaic plaques of houses, trees, warriors and a ship from Knossos (MM IIIA) are now understood to be glazed with far brighter colours: turquoise blue, dark haematite red and creamy white.

In the subsequent MM IIIB to LM IA Minoan polychrome achieved its artistic peak with the faience votive figurines from the Temple Repositories at Knossos. The colours dark purple and dark blue-violet were added to the existing repertoire of turquoise blue, white and red. Consequently, it has been established that the ‘hallmark greys and browns’ and ‘subtle greens and blues’ that early excavators used to describe Minoan faience were, in fact, a significantly more colourful palette of bright turquoise blue, dark purple-black, dark blue-violet, red, creamy white and yellow. But this pales in the latter half of the second millennium with the advent of glass and the ascendancy of the colour blue.

#### *The Late Bronze Age Mainland: Mycenaean Glass*

In the Mycenaean period the rules appear to change for synthetic technology in the Aegean, and Cretan faience production dwindles in the face of a burgeoning glass industry. Vitreous technology in the form of glass paste inlays, beads and relief beads become the elite status symbol of preference for the Late Bronze Age throughout Crete, the Cyclades and the mainland.

But interestingly, not any colour of glass bead or inlay, rather only dark blue and turquoise coloured glass may be found at this time. The majority of relief beads are now understood to be dark blue with a significantly lower proportion in turquoise blue. Any glass which does not exhibit these colours has had the original colour leached away in the passage of time, but will have originally been blue, either from cobalt or from copper oxides. Blue relief beads are now considered a Mycenaean elite phenomenon, associated in particular with high status burials and with palace contexts. These blue pastes were often overlaid with gold and favoured forms which also reflect the floral symbolism of frescos, such as the rosette, sacral ivy, lily and papyrus-sea daffodil.

One more characteristic of vitreous technology must be mentioned before moving on with the discussion. Both faience and glass exhibit one further value that has been discussed in the introduction regarding Aegean colour. This value is high surface lustre or shine. Both glass and faience exhibit radiant qualities to the viewer so that their colours appear to glow and shimmer. This faculty was also equated with otherworldly or divine significance in most cultures of this region and time frame. Materials that exhibit this feature were naturally the preferred choice for cult statues, cult objects and funerary goods as visible evidences of divine presence and of divine sanction.

### *Summary of Colour Idiom in the Aegean*

In the previous discussion we have briefly looked at the textual and three forms of the archaeological evidence for colour value, predominantly for the second millennium Aegean, but with some reference to earlier third millennium models as well. From these examples it is perhaps possible to construct some rudimentary conventions for the use of colour in Minoan and Mycenaean culture.

First and foremost, the colour red dominates the textual and visual record for the entire period, both in the extensive vocabulary and in its use as the primary colour in significant areas of palatial buildings such as throne rooms and/or cult spaces. The pigment employed for red was not rare or of high value, but alternative media certainly were, such as the stones carnelian and amber, or copper infused gold. If I were to postulate on the significance of red, I would argue that it appears to have a masculine bias, not simply because it was the signifier for the male figure in painting convention, but also because in imagery that depicts male activities, like crowds of men (ritual scene from Knossos) or youthful boxers (Akrotiri), red is the colour

usually employed as fill. But more than a masculine presence, red appears the preferred colour for spaces that are imbued with power.

However, in the Late Bronze Age, red made way for another symbol of elite prestige and power with the rise to ascendancy of blue. The colour blue had associations with the metals copper and bronze, the minerals cobalt, lapis lazuli and turquoise, with vegetation, and therefore with growth and regeneration. Equally blue, as expressed by blue frit pigment, glass and lapis lazuli, was an elite emblem and symbol of power due to the wealth and political clout associated with procuring these materials. However, most of all blue had divine associations in the Aegean. It occurs ubiquitously in ritual contexts, on cult and funerary vessels, on elite figures, in jewellery, for hair and as an important component of ritual costume.

Yellow comes in a dubious third in ranking and may be equated with the crocus flower, the dye saffron which was obtained from the crocus and appears as a component of senior female costume in visual representation. By extension, the colour yellow may be connected to the elite female sphere or with female cult or rites of passage activities. There does in fact, appear to be a noticeable lack of male associations with this colour from Aegean visual representation. Male figures tend, by contrast, to wear red and white, or blue and white costumes in representations of ritual activities.

White may also be equated with the female sphere, since it was the visual convention for indicating the flesh on female figures, in contrast with the use of red for male figures. White was also the epitome of solar light, or brightness and therefore, like in Egypt and Mesopotamia, could be equated with notions of purity, radiance and divine epiphany. However, beyond these, white appears to be a compositional device for balancing broad areas of blue and red in Aegean composition. One has to recall that it was, in fact, often bare plaster wall rather than a coloured pigment where white occurs in fresco design.

Finally, there appears to be enough evidence to suggest that the colour green was suppressed or in some way taboo in most Aegean visual design. Where green would occur in compositions, blue has taken its place and where it does occur in frescos, synthetic blue is the pigment in use and never a green pigment. This argument is also nominally supported by green's absence from the Linear B administrative texts. There are two possibilities to resolve

this conundrum: one is that like other Bronze Age cultures, Aegean culture classified green and blue as one indefinite core notion, which is tenuous at best. Or one can posit that the colour green was instead somehow socially unacceptable in Aegean elite environments, perhaps as a negative symbol of decay or destruction, since the pigment used to create green contained copper and copper's capacity for corrosion may have been an influence on the value.

### *Conclusions: Radiant Beauty*

In this examination of colour for the Aegean we have viewed only a portion of the material and textual evidence. Due to issues of space I have only dealt fleetingly with the extant evidence from specific industries, with a focus on the influence of mineral and plant materials on perception and value for colour. From this evidence there appears to be considerable symbolic value placed on the colours red and blue, with blue gaining ascendancy in the Late Bronze Age Mycenaean period. This is consistent with advances in technology for the entire eastern Mediterranean at this time and a reflection of the heightened political interaction of the period, wherein many of the Mediterranean superpowers were employing technology and rare minerals as public expressions of their political power.

However, one cannot exclude the secondary colours yellow, white and black from discussion, as these too contribute to a visual aesthetic for the entire Aegean region, and it would be reasonable to argue that complex patterns of red, blue, yellow and white constitute a significant hallmark of Aegean visual design. While it is not possible to flesh out the intricacies of the meaning underlying these colour conventions, it is possible to assert that their usage for the decoration of sacred and palatial space, and for the construction of cult paraphernalia and elite funerary goods, indicates both a significant relation with Aegean religious practice and with elite ideology of power. Such a clearly defined colour convention could broadcast the power to create the organic world, and to hold it symbolically in unity and thus demonstrate to the public (and the gods) both divine sanction and personal piety.

Andrea Sinclair

Leipzig

2014

### *Core Bibliography*

- Blakolmer, F. 'Colour in the Aegean Bronze Age: From Monochromy to Polychromy'. In *Colour in the Ancient Mediterranean World*, editors L. Cleland and K. Stears, BAR 1267, Oxford. (2004) 61-67.
- Brysbaert, A.N. 'Lapis Lazuli in an Enigmatic 'Purple' Pigment from a Thirteenth Century BC Greek Wall Painting'. *Studies in Conservation* 51 (4) (2006) 252-266.
- Brysbaert, A.N. 'Painted Plaster from Bronze Age Thebes, Boeotia (Greece): A Technological Study'. *Journal of Archaeological Science* 35 (2008) 2761-2769.
- Brysbaert, A.N., Melessanki, K. and D. Anglos, 'Pigment Analysis in Bronze Age Aegean and Eastern Mediterranean Painted Plaster by Laser Induced Breakdown Spectroscopy (LIBS)'. *Journal of Archaeological Science* 33 (8) (2006) 1095-1104.
- Cameron, M.A.S., R.E. Jones and S.E. Philippakis. 'Scientific Analysis of Minoan Fresco Samples from Knossos.' *BSA* 72 (1977) 121-184.
- Chapin, A.P. 'Frescos'. *Oxford Handbook of the Bronze Age Aegean*, edited by Eric Cline, Oxford. (2010) 223-236.
- Gillis, C. 'The Use of Color in the Aegean Bronze Age'. In *Colour in the Ancient Mediterranean World*, editors L. Cleland and K. Stears, BAR 1267: Oxford. (2004) 56-60.
- Hughes-Brock, H. 'Close Encounters of Interesting Kinds, Relief Beads and Glass Seals: Design and Craftsmen.' In *Vitreous Materials in the Late Bronze Age*, Sheffield Studies in Archaeology 9, editors C.M. Jackson, and E.C. Wagner, Oxford. (2008) 126-150.
- Immerwahr, S.A. *Aegean Painting in the Bronze Age*. University Park: Pennsylvania State University Press. (1990).
- Nightingale, G. 'Tiny, Fragile, Common, Precious: Mycenaean Glass and Faience Beads and Other Objects'. In *Vitreous Materials in the Late Bronze Age*, Sheffield Studies in Archaeology 9, editors C.M. Jackson and E.C. Wagner, Oxford. (2008) 64-104.
- Maniatis, Y., M. Panagiotaki and A. Kaczmarzyk. 'Faience Production in the Eastern Mediterranean.' In *Production Technology of Faience and Related Early Vitreous Materials*, Oxford University School of Archaeology Monograph 72, editors M.S. Tite and A.J. Shortland, Oxford. (2008) 111-28.
- Peters, M. 'Colour use and Symbolism in Bronze Age Crete: Exploring Social and Technological Relationships'. In *Vitreous Materials in the Late Bronze Age*, Sheffield Studies in Archaeology 9, editors C.M. Jackson and E.C. Wagner, Oxford. (2008) 187-208.
- Rehak, P. 'Crocus Costumes in Aegean Art'. *Hesperia Supplements* 33, *XAPIΣ*, (2004) 85-100.