Original Study

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Do You See What I See? Aspects of Color Choice and Perception in Ancient Egyptian Painting

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Abstract: Color in ancient Egypt has been examined through linguistics, anthropological theory and archaeological science. In recent years, attention has focused on the application of art historical theories of reception and perception to ancient Egyptian art, but seldom on color itself. This article will examine aspects of color choice and visual perception, particularly focusing on use of the pigments yellow ochre and orpiment. Building on a growing body of art historical and archaeometric scholarship, it will demonstrate the contributions that experimental archaeology can make to the analysis and understanding of ancient Egyptian painting. Specifically, this study will examine why the Egyptian artist chose specific color combinations by taking into account the original space and lighting conditions of these paintings.

Keywords: yellow pigment, art historical theory, aesthetics, visual perception, experimental archaeology, artificial light, darkness

1 Introduction

The study of prehistoric and ancient Egyptian art has followed similar trajectories over the past 200 years. From the initial 19th century perception of crude Paleolithic figures as “art for art’s sake”, scholarship has evolved to appreciate the craftsmanship and aesthetic qualities of these pieces, while at the same time considering the environmental, magical, ritual and mundane aspects of Paleolithic art. Examination of ancient Egyptian art had similarly humble beginnings. The first scholar to specifically address the topic, Johann Joachim Winckelmann (1717–1768), suggested that the deficiency in the ancient Egyptian figural form must be due to the unappealing body shape of the Egyptians themselves (Winckelmann, 1764). As for Egyptian art in general he remarked: “The history of the art of the Egyptians is, as their land, like a large desolate plain that can be fully surveyed from two or three towers” (Winckelmann, 2006, p. 145). By the 19th century, scholars began to examine ancient Egyptian art with a more appreciative eye, albeit one rooted in a tradition of Classical thought. Perhaps the Western affinity for Egyptian art stems from a perceived similarity between ancient and post-Renaissance concepts of fine and applied arts, particularly with regard to architecture, sculpture and painting. Unfortunately, this resulted in the inappropriate application of modern, post-Enlightenment theories of art to the study of these ancient works for much of the 19th and 20th centuries. This has led, for example, to the notion that ancient Egyptians did not produce “art” because

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there is no comparable word in their vocabulary; a result of modern scholars projecting their own culturally constructed views of art back on to the ancient Egyptians (Baines, 2009, p. 299; Weeks, 1979). Thankfully, recent discussions of Egyptian art history have rectified these inappropriate interpretations by favoring a reflexive approach, which seeks to provide a broader contextualization of art in ancient Egyptian culture (Hartwig, 2015).

Figure 1. Scene from the burial chamber of Khabekhenet (TT2), Deir el-Medina, Luxor, Egypt; Author's photograph.

A significant outcome of research into ancient Egyptian art is the realization that ancient artists had a level of freedom when it came to how they would represent their work, namely by choice of draftsmanship, painting technique, figural style and, for the purposes of this article, palette (Bryan, 2001; Hartwig, 2013; Kozloff, 1990; Shedid, 1988). Recently, the role that colored surfaces played in visual perception and reception of Egyptian art has been explored (Verbovsek, 2015, Verbovsek et al., 2011). Although not new to the discipline of art history, features of reception and perception are providing new avenues for exploration of style, iconography and symbolism in Egyptian material culture. Exploring the visual perception of ancient Egyptian color allows for the incorporation of many methodological approaches from art history, archaeological science and experimental archaeology. This provides a richer understanding of previous research, while at the same time allowing for new contributions to the field of Egyptology, as well as the broader disciplines of art history, archaeology and anthropology. Egyptian material culture is particularly well-suited to this discussion as due to the inorganic materials used in the production of pigments, much of the color applied to wood, stone, papyrus and plaster surfaces is remarkably well preserved. It is not within the confines of this article to explore the perception of all colors in the ancient Egyptian palette, so I will focus particularly on the yellow pigments, ochre and orpiment. I am particularly interested in why the ancient Egyptians chose to use these two colors and how they were perceived in ancient Egyptian art. I will restrict my comments here to a consideration of how interactions between artificial lighting and darkness impacted upon the visual perception of yellow painted surfaces.

2 Review of Previous Scholarship

Archaeological science has significantly increased our knowledge of the pigments used in ancient Egyptian painting, including when certain pigments were used, how they degrade over time, and how they can be conserved (Lee & Quirke, 2000; Scott, 2016). Numerous museums have contributed to this dialogue through examination of artworks in their own collections and pioneering new techniques for analysis and investigation (Blom-Böer, 1994; Colinart, 2001; El Goresy et al., 1986; Pagès-Camagna & Guichard, 2010; Uda, 2004). Significantly for the purposes of this article, archaeometric analyses have shown that pigments, particularly orpiment and yellow ochre, were consciously chosen and applied by the artist for a desired effect (Colinart, 2001; Pagès-Camagna & Guichard, 2010).

The identification of the mineral sources used in Egyptian pigments has also generated discussion on the economics of color (Lee & Quirke, 2000; Lucas, 1962). Some pigments could be sourced from quite far afield, such as ultramarine, made from crushed lapis lazuli that was likely sourced from Afghanistan, and huntite, which could be found in the Persian Gulf and Tunisia. As a result, some pigments necessitated vast trade networks to procure, process and ship mineral resources back to Egypt. Of course the rarer the resource, the more expensive the commodity. As a result, pigments such as realgar, which came from as far afield as Asia Minor and orpiment, which could be sourced from modern day Kurdistan, Iran, Syria or Anatolia, were likely quite expensive. Subsequently, the expense of the pigments can also be used to comment on the wealth and prestige of the individual who could afford to use these colors in their tomb, or on other personal pieces of artwork.

Pigments carried not only economic value, but symbolic importance as well. The symbolic use of color has contributed to art historical studies, as well as examinations of religious texts and ritual practice (Kees, 1943; G. Robins, 2001; Wilkinson, 1994). The color black was associated with fertility and rejuvenation, particularly as it was the color of night and the underworld. The color green had similar connotations and was associated with vegetation, and qualities of freshness and vitality. Consequently, the god of the underworld, Osiris, could be depicted with green skin to signify his resurrection and regenerative powers. Colors could of course have both negative and positive symbolic meaning. The color red, for example, was seen as both a protective, life-giving color as connected with the sun and blood, but it could also be a dangerous, uncontrollable color as it was associated with the desert, realm of the god of chaos, Seth (Pinch, 2001).

One area of particularly intense debate has been the topic of color terminology in ancient Egypt. Several scholars have approached this topic from differing viewpoints, and, as a result, have highlighted the complexity of understanding ancient perspectives on color. The perception and application of color is expressed in two terms in ancient Egyptian: *jwn* and *jnm* (Erman & Grapow, 1971, p. 52, 10–17; 96, 14–20). These two words are the closest to denoting the modern Western abstraction of “color”, with *jnm* traditionally being translated as “skin color” or “hide color”. Foreshadowing the study of Berlin and Kay (1969), Schenkel (1963) proposed that the ancient Egyptian language definitely contained four “abstract color words”: red, green, black and white. Importantly, he noted that Egyptian color terms did not have the same referent as German color names, but rather corresponded more closely to “warm” versus “cool” colors. Subsequent work built on this idea and concluded that ancient Egyptian developed to Stage IIIa of the Berlin and Kay scale, while additional descriptive phrases were used to link the idea of a color to a specific object, such as “lapis lazuli-like, blue” (Baines, 1985; Schenkel, 2007). In contrast, other scholars highlight the difficulty in any purely lexicographical examination of color, due to the limitations and bias of the textual evidence (Corcoran, 2016; Warburton, 2004, 2007, 2016). Attempting to correlate ancient Egyptian words to modern, Western European color terms, i.e. white, black, red, yellow, green, blue, becomes particularly problematic when the color palette indicated by surviving polychrome objects does not correspond to ancient Egyptian terms (Quirke, 2001, p. 186). A relevant example of this is the color yellow for which three pigments were in use during the Old and Middle Kingdoms, yet no color term for yellow existed at this time. Quirke (2001) very successfully argues that ancient Egyptian color terms do not readily conform to modern European counterparts and that instead the words *jwn* and *jnm* more closely denote ideas of quality, character, or material/substance rather than color. Attempts to make ancient Egyptian color terminology, and by extension Egyptian cultural development, conform to measures such as the Berlin and Kay scale is therefore inappropriate and restrictive.

3 Layering Yellow Pigments

Throughout the course of ancient Egypt's approximate 3,500 year history, it exhibited an incredibly rich color palette including, but not limited to, black, blue, white, gray, orange, yellow, red, pink and green (Lee & Quirke, 2000). These colors could be applied directly to an object's surface, or, more likely, painted on to a ground layer. Testing of ground layers on Theban tomb walls in Luxor, Egypt has demonstrated that the mixing of these preparatory layers was quite sophisticated and sometimes included up to seven pigments to achieve a desired base color (Moussa et al., 2009). In addition to the ground layer, different white pigments could be applied to a surface in order to affect the hue or saturation of a color. In the tomb of Menna (TT69), for example, the figure of the tomb owner was frequently painted on to a layer of huntite, a bright white mineral that reflects light and increases the vibrancy of color. By painting the skin color of Menna over huntite, the artist ensured that his image would stand out from others that were painted on a layer of calcite (Hartwig, 2013). The Egyptian artist was particularly skilled at layering pigments to create certain effects, from diaphanous linen garments to the dappled patterning of a leopard skin robe (fig. 2), even opalescent fish skin and the glint in the eye of a cat who just caught his lunch (Middleton & Uprichard, 2008).

Figure 2. Leopard skin robe of a priest from the tomb of Ipy (TT217), Deir el-Medina, Luxor, Egypt; Author's photograph.

Archaeometric analysis of pigments over the past few decades indicates that inorganic yellows were commonly layered in paintings on tomb and temple walls, as well as coffins and statuary. The most common yellow pigment is yellow ochre which was used throughout the entirety of ancient Egyptian history and contains a mixture of clays, iron oxides, goethite and limonite (Lee & Quirke, 2000, p. 115). It is a fine-grained pigment with a rounded structure that absorbs light. Orpiment, a naturally occurring arsenic sulphide, produces a bright yellow color. It is most commonly identified in paintings from the Middle Kingdom (ca. 2055–1650 BC) onward, although it has also been detected on a stone stela from the Louvre (E27157) that dates to the 2nd Dynasty (ca. 2890–2686 BC) (Colinart, 2001, p. 3). Pure orpiment is observed primarily on sarcophagi of kings from the New Kingdom through the 3rd Intermediate Period (ca. 1069–664 BC), but it was also found on the walls of the tomb of Thutmose IV (ca. 1400 BC) (Blom-Böer, 1994). In contrast to yellow ochre, orpiment has a sheet-like structure which should be left coarsely ground as a pigment (Scott, 2016). As a result, orpiment has a luminous or sparkling appearance because the pigment structure reflects light. It was previously thought that orpiment was minimally used in painting. However, evidence now suggests that orpiment was more common and that earlier studies may have missed the presence of the pigment due to degradation or its inclusion with mixtures of yellow ochre (Lee & Quirke, 2000, p. 115).

Jarosite and natrojarosite, which are more lemon in color than yellow ochre, have also been attested from the early Old Kingdom through the Ptolemaic Period (ca. 2686–30 BC) (Scott, 2016, pp. 8–9).

Evidence from examination of objects in the Egyptian department of the Louvre, suggests that different yellow pigments were consciously chosen from as early as the Old Kingdom (ca. 2686–2125 BC) to not only create different shades of yellow, but to add texture and definition to figures and garments (Colinart, 2001). Analysis of the stela of Nefertabet (E15591) (ca. 2590–2565 BC), indicates that the skin of the princess is done in yellow ochre while her stunning, one-sleeved leopard print dress was painted in jarosite. This conscious choice of the artist between the two pigments speaks to the use of color to create a desired effect at a very early date in Egyptian history. This trend continues into the New Kingdom (ca. 1570–1069 BC), as suggested by analyses of wall paintings from several tombs and temple rooms in Luxor. Research by the Max Planck Institute found alternating layers of yellow ochre and orpiment in the temple of Karnak, including scenes of the female ruler, Hatshepsut from the early 18th Dynasty (ca. 1550–1295 BC) (Blom-Böer, 1994; El Goresy et al., 1986, pp. 30–31). Similar layering or mixtures of ochre and orpiment have also been found in several private nobles tombs on the west bank of Luxor (Hartwig, 2013; McCarthy, 2001).

Pigment studies will no doubt continue to increase our knowledge of the use of color in ancient Egypt. Analysis of ancient Egyptian coffins, for example, has shown that the layering and mixing of pigments exhibited on tomb and temple wall paintings was also utilized on wooden coffins of private individuals (Dawson & Strudwick, 2016). The layering or mixing of yellow ochre and orpiment seems to be a common combination, particularly from the New Kingdom onwards. It has long been thought that the ancient Egyptians utilized the color yellow, particularly orpiment, as a substitute for gold (Colinart, 2001; G. Robins, 2001). This metal was coveted not only for its inherent value but also for its symbolic association with the gods, particularly the sun god, Ra. As described in a myth, the gods were said to have: “bones of silver, flesh of gold, and hair of real lapis lazuli” (Lichtheim, 1976, p. 198). Indeed, remnants of Egyptian material culture, such as the burial mask of Tutankhamun, indicate that the Egyptians wanted to associate themselves with the gods by displaying these divine attributes. Of course not everyone was a king and had access to the materials needed to produce a solid gold death mask. It is therefore tempting to interpret the use of the color yellow as a gold substitute, but is it only pure orpiment that would achieve this effect? Or could the choice of layering yellow ochre and orpiment provide any clues as to the intended perception of these pigments? In order to consider these questions, it is important to examine the environment within which these pigments would be viewed. Specifically, it is necessary to consider the lighting which would have been cast over these painted surfaces.

4 Illuminating Ancient Color

Like the individuals who painted the caves of Lascaux, Chauvet, Altamira and others, the ancient Egyptians relied on artificial light sources to illuminate their stone canvas in tombs or temples. It is also likely that similar light sources were used in workshops that produced coffins and statuary. In contrast to their Paleolithic predecessors, we know little about the types of lighting devices employed by the Egyptians. Examination of previously identified lighting equipment in the archaeological and iconographic record makes it clear that the Egyptians did not have a single type or form of lighting device (Davies, 1924; Forbes, 1966; F. W. Robins, 1939; Strong 2018a). To further complicate the issue, they also were not particularly explicit in describing their lighting utensils. As a result, the materials used to create these objects, their shape, color, and size, and the context in which the lights were used are not always apparent. Broadly speaking, however, the Egyptians utilized either lamps or wicks attached to reeds to illuminate the underground tombs or temple interiors where sunlight would not reach (Fischer, 1977, 1980; F. W. Robins, 1939; Strong 2018a). They would have had a restricted number of vegetable oils available to use as an illuminant, primarily castor or linseed, as well as ruminant and non-ruminant animal fat sources (Copley et al., 2005; Serpico & White, 2000). My own experimentation with various illuminant sources suggests that animal fats were likely preferred as fuel due to their minimal smoke, bright flame and negligible odor (Strong, 2018a). Interestingly, these results corroborate similar experimentation carried out near Altamira cave in which bone marrow from a cow tibia

was burnt in a recreated Paleolithic, closed-circuit lamp (Perez-Seoane et al., 1999). The light emitted from a device burning animal fat is also quite warm in color, towards the yellow/orange end of the spectrum. This would emphasize warmer pigments, such as yellow ochre and/or orpiment, enriching the color and picking out the light reflecting qualities of the pigment granules. Building on Shepard's (1992) concept of "blue shift" in color perception under water, it has been suggested that visual perception of cave art is "red shifted" due to the warm color provided from artificial light (Bahn, 2016; Pettitt, 2016, p. 15). Scholars have also theorized that this may account for the prevalence of red ochre, or hematite, in cave art. The fact that artificial lighting highlights warmer colors may also account for some aspect of color selection in ancient Egyptian paintings.

The appreciation that Paleolithic scholars have for the potential effects of artificial lighting on the perception of color is a practice that Egyptologists should emulate. This could prove valuable to Egyptology as it would open a new line of inquiry as to how ancient Egyptians perceived and experienced painted surfaces, from tomb and temple interiors to individual objects. For decades the lamps found in prehistoric caves have been studied, including valuable publications on experimental archaeology, lipid analysis, and 3D modeling. Crucially, it is fully understood that artificial lighting is an essential component in understanding and appreciating cave art. In modern day, we have lost our ability to appreciate ancient Egyptian material culture in its originally intended lighting environment. Western civilization has become obsessed with electric lighting to the point where it has now become a pollutant (Bogard, 2014). This not only has social and environmental implications, but negatively affects our appreciation of cultural heritage. Only recently, for example, anthropologists, archaeologists and art historians have begun to examine how lighting, particularly artificial lighting, is used and manipulated within individual cultures to impact on material culture (James, 1996; Nesbitt, 2012). Specifically, as Bille and Sørensen (2007, p. 265) discuss in their introduction of an "anthropology of luminosity", scholars are now beginning to examine "how light is *used* socially to illuminate places, people and things, and hence affect the experiences and materiality of these, in culturally specific ways". This type of examination allows for a consideration of how light impacts upon and/or creates shadow, sheen, color and movement when interacting with different spaces and surfaces.

While not previously applied in Egyptology, this line of inquiry could provide new insights into ancient Egyptian material culture as Egyptologists rarely have the opportunity to appreciate these objects in their originally intended lighting environment. Tomb chapels and burial chambers in Egypt, for example, are lit with crude, fluorescent floor lamps that drown out color and illuminate a space in its entirety. This is far from the lighting conditions that the ancient Egyptians would have experienced. The light from lamps or hand-held lighting devices would have flickered, moved, and interacted with the carved and/or painted surfaces of the wall. They would have created shadows and varying levels of darkness, only illuminating small portions of a tomb at a time. Similarly, viewing a cult statue, a faience shabti or a burnished ceramic bowl in a glass case under static LED lighting, as opposed to a soft, flickering flame, creates a very different visual impression on the viewer. This not only would have impacted upon the viewer's experience of a space or an object as a whole, but on their perception of colors, as well. The synthetic pigment, Egyptian blue, with its large crystalline structure and quartz content sparkles even under flat fluorescent lighting (Lee & Quirke, 2000, p. 108). This effect under a flickering flame must be substantially amplified. As previously mentioned, orpiment also has quite a large granular structure which undoubtedly would be highlighted by artificial light. The application of varnishes, which was quite a common practice in ancient Egypt, would have only added to the luminosity of painted surfaces (Serpico & White, 2000).

My own research has started to investigate the impact of artificial lighting on visual perception of color, particularly yellow painted surfaces. Initial experimentation, conducted at the Fitzwilliam Museum in Cambridge with the collaboration of Helen Strudwick and Elsbeth Geldhof, indicates that surfaces painted with pure orpiment exhibit double the light reflection of surfaces painted with layers of orpiment and

yellow ochre.¹ Artificial lighting, however, seems to intensify the hue of yellow created by layering ochre and orpiment. Unlike orpiment, which has a yellow color reference of 100%, layered yellow ochre and orpiment is composed of 90% yellow and 10% red.² This yellow/red color combination is intensified under the yellow/orange light of an artificial light source, which for our experiment was composed of a linen wick attached to a reed and coated in beef tallow. Initial testing also indicates that the yellow/red hue of surfaces painted in yellow ochre and orpiment are most greatly enhanced when artificial lighting is the only light source used to view the panels. The intensifying effect of artificial lighting on the two layered yellow pigments suggests that the interaction between dark and artificial light across these painted surfaces is important for our interpretation of pigment choice in Egyptian paintings. This necessitates that the space in which these painted surfaces were seen is also taken into consideration.

5 Darkness and Light

“If light is scarce then light is scarce; we will immerse ourselves in the darkness and there discover its own particular beauty.” Jun’ichirō Tanizaki, *In Praise of Shadows*

The consideration of darkness and night as a space or context has been the focus of recent research, particularly in the discipline of archaeology (Dowd & Hensey, 2016; Gonlin & Nowell, 2018). For too long Western concepts of darkness have been entangled with Classical overtones of evil, ignorance and death (Galinier, et al., 2010). In Egyptological scholarship, it has been assumed that darkness was something that needed to be warded off. It does seem, however, that in some instances darkness and/or night was utilized by the ancient Egyptians as a sacred setting for ritual performance (Strong, 2018b). Additionally, the interaction between darkness and artificial light seems particularly important as they are commonly referenced together in ritual and liturgical texts (Haikal, 1985; Luft, 2009; Nelson, 1949). From an art historical perspective, much of ancient Egyptian art would have been viewed in darkness either in tombs, temples, or interior domestic space. Similarly, ritual performances that incorporated material culture either took place in these darkened built environments, or outside at sunset or in the evening (Insoll, 2011; Strong 2009, 2018b). Scenes from the temple of Karnak in Luxor, for example, illustrate that artificial lighting was offered daily before the cult statue of the god in his shrine—the darkest, most enclosed interior room of the temple (Nelson, 1949). Similarly, texts that describe these rituals suggest that artificial lighting was a “herald of night” and that presentation of lighting at tombs for festival occasions was intended to take place at night (Luft, 2009; Reisner, 1918). In this way darkness, and its interaction with artificial lighting, becomes a necessary component for Egyptian art, and color, to function.

My experiments with yellow pigments and artificial lighting found that darkness was essential in order to get the full visual effect of light interacting with yellow ochre and orpiment. Whereas in fluorescent or natural light, surfaces painted with these pigments appear as a matte, muddy mix of brown and yellow (fig. 3), the same surfaces viewed in a darkened space or outdoors at night under artificial lighting become visibly more brilliant and shiny (fig. 4).

¹ The experiment tested 4 wooden panels prepared by paint conservator, Elsbeth Geldhof: 1) painted in orpiment 2) painted with a layer of yellow ochre and then orpiment 3) painted in orpiment with a mastic resin varnish 4) painted with a layer of yellow ochre, then orpiment and finally a mastic resin varnish. The paints were prepared using gum arabic as a binder and applied to a white ground layer.

² These references are based on the Natural Color System (NCS).

Figure 3. Panel painted with combination of yellow ochre and orpiment in overhead fluorescent lighting; Photograph by Elsbeth Geldhof.

Figure 4. Panel painted with yellow ochre and orpiment in artificial light; Photograph by Elsbeth Geldhof.

I cannot comment on what the ancient Egyptians would have called this color, or how they would have described the change in hue or saturation when it was viewed in dark surroundings. However, I would suggest that the layering of yellow ochre and orpiment on surfaces which would have been lit by artificial lighting, may have been a conscious choice by the ancient Egyptian artist in order to enhance the visual perception of a piece. But what of the suggestion that yellow was meant to be a substitute for gold? Interestingly, the warmth of the yellow in the mix of yellow ochre and orpiment (90% yellow, 10 red%) is very similar in color to a high carat (18–22k) gold, which has a high percentage of gold (75–91.7%) and fewer inclusions of silver or copper.³ The higher gold content results in a warmer color gold with a richer hue that leans towards the red end of the spectrum. In contrast, a lower carat gold is lighter and more yellow in color. Analysis from several gold objects from ancient Egypt suggests that their native mines produced gold ranging from 17 – 23.5k, placing it at the warmer side of the color spectrum (Lucas, 1962, p. 228). It may be then that by mixing yellow ochre and orpiment the Egyptian artist was attempting to replicate this warmer gold color by introducing the reddish hue to the pigment. The additional application of a varnish would have only enhanced the sheen and metallic appearance of the paint. The experiment at the Fitzwilliam Museum shows that a panel painted with layered yellow ochre and orpiment, particularly with a layer of varnish, is a convincing proxy for gold in a darkened, artificially lit environment (fig. 5).

Figure 5. Panel painted with combination of yellow ochre and orpiment with varnish under artificial light; Photograph by Elsbeth Geldhof.

³ Percentage taken from the World Gold Council at: www.gold.org, accessed 28 April 2017.

6 All that Glitters...

Ultimately, this is only a preliminary initial experiment into the interaction of color, light and darkness. It does however suggest that investigation into the intersection of color choice and lighting conditions in ancient Egypt would repay further analysis. Thanks to advances in pigment analysis, it is becoming increasingly evident that ancient Egyptian artists consciously chose and layered pigments to express the *jwn* or *jnm*, a characteristic or quality, in their art. In the case of the color yellow, orpiment and yellow ochre may have been layered on object surfaces to create a warm golden hue that was enhanced by artificial lighting in a darkened space. This combination of yellow pigments may have been a symbol that the ancient Egyptians associated with divinity, which could explain its presence on tomb and temple walls, as well as coffins. It also speaks to the ancient artist's resourcefulness in creating color combinations that would mimic a precious material, in this case gold, which may not have been accessible or possible to use. As an archaeologist, anthropologist or art historian it is of course crucial to be reflexive and realize that we are not a member of the ancient culture that we study. Although as a modern scholar it is impossible to see color through ancient Egyptian eyes, with close examination of Egyptian texts, material culture and archaeology, I would argue that it is possible to access aspects of their culturally constructed concepts of aesthetics, color and perception. The latest studies in Egyptian iconography, style and reception seem to agree (Hartwig, 2015; Verbovsek et al., 2011). Although research into the concept and use of color in Egyptology is not new, this article demonstrates that the application of art historical theories of reception and experimental archaeology can provide fresh insight into Egyptian artists' color choices.

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