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**Abstract:**

Flat stone palettes for the grinding of pigments are particularly associated with Predynastic Egypt, when they were made almost exclusively of mudstone and were formed into distinctive geometric and zoomorphic shapes. Ceremonial palettes of the late Predynastic and Early Dynastic periods are linked with the emerging ideology of kingship, and are especially elaborate, as they are often decorated with carved relief over the entire surface. Following the Early Dynastic period, the importance of palettes diminishes significantly.



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PALETTES

الصاليا

*Alice Stevenson*

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## PALETTES

### الصلايا

Alice Stevenson

#### Schminkpaletten

#### Palettes

*Flat stone palettes for the grinding of pigments are particularly associated with Predynastic Egypt, when they were made almost exclusively of mudstone and were formed into distinctive geometric and zoomorphic shapes. Ceremonial palettes of the late Predynastic and Early Dynastic periods are linked with the emerging ideology of kingship, and are especially elaborate, as they are often decorated with carved relief over the entire surface. Following the Early Dynastic period, the importance of palettes diminishes significantly.*

عرفت الصلايا المسطحة المستخدمة لصحن الألوان في عصر ما قبل الأسرات حيث صنعت غالباً من حجر طيني فقط وشكلت على هيئة الحيوانات وعلى أشكال هندسية. ارتبطت الصلايا من عصر ما قبل الأسرات المتأخر ومن العصر العتيق بظهور الأيديولوجية الملكية وهذا النوع من الصلايا مزين أكثر من غيره فغالباً يكون سطحه منقوش كلياً. قلت أهمية الصلايا بعد العصر العتيق بشكل كبير.

**F**lat pieces of stone upon which colored mineral matter could be ground are known from Paleolithic and Neolithic times in Egypt (e.g., Caton-Thompson and Gardner 1934: pl. XII; Debono and Mortensen 1990: 58 - 59). In the Badarian period, these artifacts began to be fashioned into elongated forms with notches at each end (fig. 1; Brunton and Caton-Thompson 1928: pl. XXI) and were made almost exclusively of the greenish-grey stone procured from the Wadi Hammamat (Aston et al. 2000: 57 - 58; Klemm and Klemm 1993: 369). This material continued to be almost the sole medium for the production of palettes in the Predynastic period. This stone is often mistakenly identified as slate or schist, but it is in fact a form of greywacke, which is an umbrella term that encompasses the other geological stones siltstone and mudstone, and these stones only differ in the size of the grains that make up the rock (Harrell 2002:



Figure 1. Badarian Palette. UC 6157.

239). Such preferential selection of stone for the production of Upper Egyptian palettes, in comparison to the diversity of materials utilized by contemporary groups in Nubia (Firth 1912, 1915) and Lower Egypt (Rizkana et al. 1989: 47 - 48) for the same purpose, is suggestive of a perceived social value in the



Figure 2. Palettes from el-Amrah.

Wadi Hammamat rock (Stevenson 2007: 151 - 152). Thus, the significance and value of the palettes may have resided as much in their originating area, their visually perceptible qualities or “numina” (Bianchi 2008), as in the material’s amenability to the production of flat pieces of stone.

#### *Function*

The vivid green mineral malachite was most often ground upon the palettes of the Predynastic period, at least as far as we know from burial contexts, in which the majority have been found. Palettes thus apparently played a role in the production of cosmetics. In particular, it is often assumed, following Petrie (Petrie et al. 1896: 10), that the minerals ground upon palettes were used to prepare eye paint. Although the use of green eye paint is attested in Early Dynastic times, corroborating evidence from Predynastic contexts is limited, with a large baked clay female head with eyelids outlined with green from the Naqada I grave H97 at Mahasna (Ayrton and Loat 1911: pl. XV) being one of the few sources suggestive of the practice. More recently, direct traces of malachite on the faces of several bodies at Adaima have been observed (Crubézy et al. 2002: 463 - 464), bolstering Petrie’s original hypothesis. The symbolism of the green color prompts speculation as to a possible connection with regeneration and fertility, properties certainly appropriate for a mortuary context. Galena, hematite, and red ocher are also known to



Figure 3. Naqada I rhomboid palette. UC 4693.

have been processed on the palettes, probably mixed with resins, oils, or fats. There has been the suggestion, on the basis of the excavations at Adaima, that red ocher was more commonly used on palettes in the settlement (Baduel 2008: 1068). Smooth brown or black jasper pebbles were used to grind the pigment, and these types of pebbles often accompany palettes in Predynastic burials.

#### *Form*

There was a diversity of palette forms in the Predynastic period (fig. 2; Ciałowicz 1991); this was first presented in Petrie and Quibell’s *Naqada and Ballas* publication (1896: pls. XLVII - L), although it was not until 1921 that Petrie published his corpus (Petrie 1921). Predynastic palettes display a clear chronological development (Ciałowicz 1991; Regner 1996: 20 - 23), but their long life-histories mean that they are less reliable than ceramics for dating contexts. Many palettes exhibit evidence of a longevity of use, including deep depressions as a result of repeated mineral grinding, or smoothed-down breaks.

In the Naqada I period, palettes were primarily rhomboidal in shape (fig. 3) and could vary in size from two centimeters to large examples of over 70 centimeters in length. Some palettes have a pair of horns or a bird embellishing one end (Needler 1984: pl. 57). At the end of Naqada I and during Naqada II, palette forms proliferated. While rhomboid examples decreased in frequency,



Figure 4. Naqada II fish-shaped palette. UC 10734.



Figure 5. Naqada II-III shield-shaped palette with birds' heads. UC 6041.

animal forms such as turtles, birds, and, in particular, fish (fig. 4) appear, together with shield-shaped examples, the latter often being decorated with antithetically facing bird heads (fig. 5). These forms are repeated across different media and types of objects, appearing on contemporary stone vessels, pins, and combs, and thus, as Wengrow suggests (2006: 88 - 123) transcend strict distinctions between decorative form, medium, and function. Other animal forms, such as hippopotami, elephants, and gazelles, are far less common shapes for palettes. The appearance of such animals is as if in "silhouette" (Vandier 1952: 378), with the only interior feature commonly delineated being an eye, which is occasionally enhanced with a small shell or bone ring; occasionally, the edge of fins, feet, or tails are incised. A single hole is often drilled at the central edge



Figure 6. Naqada III rectangular palette. UC 4758.

of the palette, presumably for suspension. Rough and unworked pieces of mudstone were also used for the grinding of minerals in the Naqada I and II periods, although their frequency is more difficult to determine given that early excavation reports focusing on unusual or special-interest objects tended to be brief. There was a decline in zoomorphic forms from the Naqada III period onwards, with a concurrent proliferation of geometric types, predominately rectilinear (fig. 6), and, to a lesser extent, circular and oviform pieces. These often have incised border lines.

A minority of palettes are further elaborated with incised designs. For instance, the el-Amrah palette (fig. 7), from a Naqada IID1 grave, bears the "Min emblem," while a palette from grave 59 (Naqada IIC/IID1) at Gerzeh (the so-called "Hathor" or "Gerzeh Palette") is carved in rough low relief with a stylized cow's head surrounded by five stars. The "Manchester" or "Ostrich Palette" (Manchester Museum 5476) is particularly elaborate and is decorated with a relief of a man following a group of ostriches.

Diminutive examples of Naqada I and II palettes have been typologically distinguished from larger palettes through their designation as "magic slates" (Baumgartel 1960: 85; Petrie 1921: 38 - 39). These miniature palettes are presumed to have had no utilitarian function, rather only a symbolic one (Regner 1996: 34 - 35), although they are of the same design and material as their "normal-sized" counterparts. There is, however, a continuum in the size of



Figure 7. “Min-palette” from el-Amrah.

palettes, thus the assessment of what constitutes the distinction between functional and non-functional palettes is arbitrary (*contra* Regner 1996). Moreover, any distinction between “utilitarian” and “non-utilitarian” erroneously assumes that there is a dichotomy between the functional and symbolic meanings of palettes.

Palettes became progressively rarer towards the end of the Predynastic period, from Naqada IIIA2-B onwards, possibly because the source of the material used to make them had been appropriated by the elite and was exploited for other purposes, such as the production of bangles, stone vessels (Stevenson 2007: 157- 158), and, in particular, ceremonial palettes (see below). This reduction in the availability of palettes, together with the progressive plainness of such pieces, contrasts with the ceremonial, elite versions, which are discussed in more detail below. This phenomenon forms part of what has been termed the “evolution of simplicity” in Naqada III (Wengrow 2006: 151 - 175), and the “aesthetic deprivation of the non-elite” (Baines 1989: 476 - 477).

Attempts to interpret the “meaning” of palette forms tend to appeal to, and thus impose upon prehistory, the ideologies of later periods, such as interpreting the zoomorphic repertoire of palettes in terms of gods like Horus (e.g., Baumgartel 1960: 96), or interpreting fish-shaped palettes with reference to later Egyptian word-play (Brewer

and Friedman 1989: 9). At best, such anachronistic interpretations remain speculative. The specificity of the stones used for palettes and grinding pebbles, together with the relatively limited repertoire of designs, are qualities that can be reasonably presumed to have symbolic meanings, but the content of that symbolism currently remains obscure.

### *Context*

Palettes have been found in the graves of both children and adults alike, usually near the hands and face of the deceased. Despite being cited as the most frequent object in Predynastic graves after pottery (Needler 1984: 13; Petrie 1921: 36), palettes were certainly not standard mortuary equipment. On average, only 15% of graves in any Predynastic cemetery contained a palette (Podzorski 1994: table 18; Stevenson 2007), although grave robbing may have led to an underestimation of their frequency. From Naqada IIIA2-B onwards, this apparently low frequency decreased even further. The majority of the Predynastic palettes are not associated with richly furnished graves. One limiting factor that is often asserted is that palettes were the property of females (e.g., Brunton 1948: 28; Ellis 1992, 1996; Kroeper 1996; Petrie 1953: 1). Statistical analysis of burial contexts suggests that while palettes are more common in the graves of females, they are not exclusively associated with females (Hassan and Smith 2002: 49; Stevenson 2007), although the accuracy of sexing skeletons found on early excavations must be taken into account (Mann 1989).

### *Ceremonial Palettes*

In the Naqada III period, within the context of emerging kingship, palettes were appropriated as vehicles to convey the ideology and iconography of a small ruling elite (Baines 1993: 62, 1995: 109 - 121). Skillfully carved in elaborate relief, these palettes are referred to as ceremonial palettes (Petrie 1953), and share stylistic similarities with other ceremonial objects such as knives

and maces. Just over 25 of these ceremonial palettes are known, both whole and fragmentary, and while it is hard to assess how representative these objects are, the small numbers found in comparison to other classes of object do suggest that the ownership of such palettes was restricted.

The quintessential ceremonial palette is undoubtedly the Narmer Palette (Egyptian Museum, Cairo JE 32169), from the “Main Deposit” at Hierakonpolis. On the basis of its style, with the composition arranged using registers and with examples of some of the earliest hieroglyphs, it is considered to be chronologically one of the latest ceremonial palettes, in comparison to an earlier group, on which the images are scattered across the surface. Examples of this latter type include the Hierakonpolis Two-dog Palette (Ashmolean Museum E.3924), carved with primarily zoomorphic scenes; the Hunters’ or Lion Hunt Palette (British Museum EA 20790), depicting hunting scenes; and the Battlefield Palette (British Museum EA 20791), bearing defeated naked prisoners. Within the decorated surface, many ceremonial palettes retain a circular area bounded by a raised edge for the grinding of minerals, although indicative traces of such use are absent.

The motifs on the ceremonial palettes have been the subject of extensive scholarly debate (see in particular the summaries in Cialowicz 1991; Davis 1992; and also the important commentaries collected in Baines 2007). Early twentieth century interpretations considered palettes such as the Narmer Palette and the Cities (or Libyan) Palette (Egyptian Museum, Cairo JE 27434) to be historical documents depicting actual events (e.g., Baumgartel 1960: 91; Ranke 1925). Such literal interpretations are seldom fully accepted today; rather, more general observations on the overall representational schema on the palettes and the ideology conveyed in this medium occupy academic discourse. For instance, the dominant role of animals, in both their natural and fantastic conceptions, is one focus. These animal motifs have been variously interpreted

as ideological referents to themes such as the hunt (e.g., Cialowicz 1991; Tefnin 1979), chaos and order (e.g., Asselberghs 1961), containment and rule (e.g., Kemp 2006: 92 - 99), as well as social otherness (e.g., Wengrow 2006: 215 - 217). Notable is the inclusion of what are regarded as Near Eastern motifs on the ceremonial palettes (e.g., Kantor 1942; Moorey 1987; Smith 1992) including the serpopards on the Narmer Palette, and the palm tree flanked by two giraffes found on the Louvre Palette and the Battlefield Palette.

Often, however, such deliberations abstract the surface imagery of the palettes from the artifact itself. Recent discussions have appealed for a more holistic approach that situates ceremonial objects as historically contingent classes of artifact that draw efficacy from the role that their antecedents played in the social lives of communities throughout the Predynastic period (Köhler 2002: 505; Stevenson 2007: 157 - 158; Wengrow 2006: 178).

Unlike the common Predynastic palettes discussed above, the provenances of most of these ceremonial palettes are unknown. The final resting place of the Narmer and Two-dog palettes, while recognized as the Hierakonpolis “Main Deposit,” is clearly not the context of their original manufacture or use. Similarly, the most recently discovered palette, the Minshat Ezzat palette, despite being found in situ in an elite three-chambered First Dynasty (Naqada IIC1) mastaba (el-Baghdadi 1999), is in a poor state of preservation indicative of a longevity of use prior to its interment. A recent attempt to assess a likely context of use is provided by O’Connor (2002), who considers the possibility of a secluded temple context.

### *Beyond the First Dynasty*

The use of both plain palettes and ceremonial palettes waned from the outset of the First Dynasty and flat, shaped, mudstone palettes as a distinct category disappeared by the mid-First Dynasty. It is evident that cosmetics retained a potent symbolic role throughout Pharaonic history, as the inclusion of

malachite and kohl in tomb offering lists demonstrates. Examples of rather thick, rectangular grinding palettes, often trapezoidal in cross-section with a rectangular depression, have been recovered from later tombs, such as Old Kingdom mastabas at Giza (Kromer

1991: 30, Pl. 15/1, 27 - 33) and Middle Kingdom tombs at Beni Hassan (Garstang 1907: 114), but no standard material was used in their production, and their forms were rarely elaborate.

## *Bibliographic Notes*

The most extensive published review of palettes is provided in Cialowicz (1991), which also summarizes scholarly opinions on the decorative motifs on ceremonial palettes. Many of the ceremonial palettes are collected in Asselberghs (1961), Ridley (1973), and Vandier (1952), chapters X and XI.

## *References*

- Asselberghs, Henri  
1961 *Chaos en beheersing: Documenten uit aeneolithisch Egypte*. Documenta et Monumenta Orientis Antiqui 8. Leiden: Brill.
- Aston, Barbara G., James A. Harrell, and Ian Shaw  
2000 Stone. In *Ancient Egyptian materials and technology*, ed. Paul T. Nicholson, and Ian Shaw, pp. 5 - 77. Cambridge: Cambridge University Press.
- Ayrton, Edward, and William Loat  
1911 *Pre-dynastic cemetery at El-Mahasna*. Memoir of the Egypt Exploration Fund 31. London: Egypt Exploration Fund.
- Baduel, Nathalie  
2008 Tegumentary paint and cosmetic palettes in Predynastic Egypt: Impact of those artefacts on the birth of the monarchy. In *Egypt at its origins 2: Proceedings of the international conference "Origin of the State, Predynastic and Early Dynastic Egypt," Toulouse (France), 5th - 8th September 2005*, *Orientalia Lovaniensia Analecta* 172, ed. Béatrix Midant-Reynes, and Yann Tristant, pp. 1057 - 1090.
- Baines, John  
1989 Communication and display: The integration of early Egyptian art and writing. *Antiquity* 63, pp. 471 - 482.  
1993 Symbolic aspects of canine figures on early monuments. *Archéo-Nil (Bulletin de la Société pour l'étude des cultures prépharaoniques de la vallée du Nil)* 3, pp. 57 - 74.  
1995 Origins of Egyptian kingship. In *Ancient Egyptian kingship*, *Probleme der Ägyptologie* 9, ed. David O'Connor, and David Silverman, pp. 95 - 156. Leiden, New York, and Cologne: Brill.  
2007 *Visual and written culture in ancient Egypt*. London: Oxford University Press.
- Baumgartel, Élise  
1960 *The cultures of prehistoric Egypt II*. London: Oxford University Press.
- Bianchi, Robert S  
2008 The stones of Egypt and Nubia. In *The archaeology and art of ancient Egypt: Essays in honor of David B. O'Connor*, Vol. I, *Supplément aux Annales du Service des Antiquités de l'Égypte* 36, ed. Zahi A. Hawass, and Janet Richards, pp. 109 - 117. Cairo: Conseil Suprême des Antiquités de l'Égypte.
- Brewer, Douglas, and Renée Friedman  
1989 *Fish and fishing in ancient Egypt*. The Natural History of Egypt 2. Warminster, England: Aris & Phillips Ltd.

- Brunton, Guy  
1948 *British Museum expedition to Middle Egypt, 1929-1931: Matmar*. London: Bernard Quaritch.
- Brunton, Guy, and Gertrude Caton-Thompson  
1928 *The Badarian civilisation and predynastic remains near Badari*. British School of Archaeology in Egypt Publications 46. London: British School of Archaeology in Egypt.
- Caton-Thompson, Gertrude, and Elinor Gardner  
1934 *The desert Fayum*. London: The Royal Anthropological Institute of Great Britain and Ireland.
- Ciałowicz, Krzysztof  
1991 *Les palettes égyptiennes aux motifs zoomorphes et sans décoration: Études de l'art prédynastique*. Kraków: Uniwersytet Jagielloński.
- Crubézy, Eric, Thierry Janin, and Béatrix Midant-Reynes  
2002 *Adaïma, Vol. 2: La nécropole prédynastique*. Fouilles de l'Institut français d'archéologie orientale 47. Cairo: Institut français d'archéologie orientale.
- Davis, Whitney  
1992 *Masking the blow: The scene of representation in late prehistoric Egyptian art*. California Studies in the History of Art 30. Berkeley: University of California Press.
- Debono, Fernand, and Bodil Mortensen  
1990 *El Omari: A Neolithic settlement and other sites in the vicinity of Wadi Hof, Helwan*. Archäologische Veröffentlichungen 82. Mainz am Rhein: Philipp von Zabern.
- el-Baghdadi, Salem Gabr  
1999 La Palette décorée de Minshat Ezzat (Delta). *Archéo-Nil* 9, pp. 9 - 11.
- Ellis, Chris  
1992 A statistical analysis of the Protodynastic "valley" cemetery of Kafr Tarkhan. In *The Nile delta in transition: 4th.-3rd. millennium B.C.: Proceedings of the seminar held in Cairo, 21.-24. October 1990, at the Netherlands Institute of Archaeology and Arabic Studies*, ed. Edwin C.M. van den Brink, pp. 241 - 258. Tel Aviv: Edwin C.M. van den Brink.  
1996 Expression of social status: A statistical approach to the Late Predynastic/Early Dynastic cemeteries of Kafr Tarkhan. In *Interregional contacts in the later prehistory of northeastern Africa*, Studies in African archaeology 5, ed. Lech Krzyzaniak, Karla Kroeper, and Michal Kobusiewicz, pp. 151 - 164. Poznan: Poznan Archaeological Museum.
- Firth, Cecil  
1912 *The archaeological survey of Nubia: Report for 1908 - 1909*. Cairo: Government Press.  
1915 *The archaeological survey of Nubia: Report for 1909-1910*. Cairo: Government Press.
- Garstang, John  
1907 *The burial customs of ancient Egypt as illustrated by tombs of the Middle Kingdom: Being a report of excavations made in the necropolis of Beni Hassan during 1902-3-4*. London: A. Constable & Co.
- Harrell, James A.  
2002 Pharaonic stone quarries in the Egyptian desert. In *Egypt and Nubia: Gifts of the desert* ed. Renée Friedman, pp. 232 - 243. London: British Museum.
- Hassan, Fekri A., and Shelley J. Smith  
2002 Soul birds and heavenly cows. In *In pursuit of gender: Worldwide archaeological approaches*, Gender and archaeology series 1, ed. Sarah Milledge Nelson, and Myriam Rosen-Ayalon, pp. 43 - 65. Walnut Creek, CA: AltaMira Press.
- Kantor, Helene  
1942 The early relations of Egypt with Asia. *Journal of Near Eastern Studies* 1, pp. 174 - 213.

Kemp, Barry

2006 *Ancient Egypt: Anatomy of a civilization*. 2nd edition. London and New York: Routledge. (1st edition published 1989.)

Klemm, Rosemarie, and Dietrich D. Klemm

1993 *Stein und Steinbrüche im alten Ägypten*. Berlin and New York: Springer-Verlag.

Köhler, Eva Christiana

2002 History or ideology? New reflections on the Narmer Palette and the nature of foreign relations in Pre- and Early Dynastic Egypt. In *Egypt and the Levant: Interrelations from the 4th through the early 3rd millennium B.C.E*, New approaches to anthropological archaeology, ed. Edwin C.M. van den Brink, and Thomas E. Levy, pp. 499 - 513. London and New York: Leicester University Press.

Kroeper, Karla

1996 Minshat Abu Omar - burials with palettes. In *Aspects of early Egypt*, ed. Jeffrey Spencer, pp. 70 - 92. London: British Museum Press.

Kromer, Karl

1991 *Nezlet Batran: Eine Mastaba aus dem Alten Reich bei Giseh (Ägypten): Österreichische Ausgrabungen, 1981-1983*. Denkschriften der Gesamtkademie 12; Untersuchungen der Zweigstelle Kairo des Österreichischen Archäologischen Institutes 11. Wien: Österreichische Akademie der Wissenschaften.

Mann, George

1989 On the accuracy of sexing skeletons in archaeological reports. *Journal of Egyptian Archaeology* 75, pp. 246 - 249.

Moorey, Peter Roger Stuart

1987 On tracking cultural transfers in prehistory: The case of Egypt and lower Mesopotamia in the fourth millennium BC. In *Centre and periphery in the ancient world*, ed. Michael Rowlands, Mogens Larsen, and Kristian Kristiansen, pp. 36 - 46. Cambridge and New York: Cambridge University Press.

Needler, Winifred

1984 *Predynastic and Archaic Egypt in the Brooklyn Museum*. Wilbour Monographs 9. Brooklyn, N.Y.: The Brooklyn Museum.

O'Connor, David B.

2002 Context, function and program: Understanding ceremonial slate palettes. *Journal of the American Research Center in Egypt* 39, pp. 5 - 25.

Petrie, William Matthew Flinders

1921 *Corpus of prehistoric pottery and palettes*. Publications of the Egyptian Research Account and British School of Archaeology in Egypt 32. London: British School of Archeology in Egypt.

1953 *Ceremonial slate palettes*. British School of Egyptian Archaeology Publications 66. London: British School of Egyptian Archaeology.

Petrie, William Matthew Flinders, James E. Quibell, and Flaxman Spurrell

1896 *Naqada and Ballas: 1895*. Egyptian Research Account Memoir 1. London: Bernard Quaritch.

Podzorski, Patricia

1994 The Northern cemetery at Ballas, Upper Egypt: A study of the middle and late Predynastic remains. PhD dissertation, University of California, Berkeley.

Ranke, Hermann

1925 *Alter und Herkunft der ägyptischen "Löwenjagd-Palette"*. Heidelberg: C. Winter.

Regner, Christina

1996 *Schminkpaletten*. Bonner Sammlung von Aegyptiaca 2. Wiesbaden: Harrassowitz.

Ridley, Ronald

1973 *The unification of Egypt as seen through a study of the major knife-handles, palettes and maceheads*. Deception Bay: Shield Press.

Rizkana, Ibrahim, Jürgen Seeher, Joachim Boessneck, Helmut Kroll, and Ernst Pernicka

1989 *The non-lithic small finds and the structural remains of the Predynastic settlements*. Maadi 3; Archäologische Veröffentlichungen 80. Mainz am Rhein: Philipp von Zabern.

Smith, Harry S.

1992 The making of Egypt: A review of the influence of Susa and Sumer on Upper Egypt and Lower Nubia in the 4<sup>th</sup> millennium BC. In *The Followers of Horus: Studies dedicated to Michael Allen Hoffman*, ed. Renée Friedman, and Barbara Adams, pp. 235 - 246. Oxford: Oxbow Books.

Stevenson, Alice

2007 The material significance of Predynastic and Early Dynastic palettes. In *Current research in Egyptology 2005: Proceedings of the sixth annual symposium which took place at the University of Cambridge, 6-8 January 2005*, ed. Rachel Mairs, and Alice Stevenson, pp. 148 - 162. Oxford: Oxbow Books.

Tefnin, Roland

1979 Image et histoire: Réflexions sur l'usage documentaire de l'image égyptienne. *Chronique d'Égypte* 54(108), pp. 218 - 244.

Vandier, Jacques

1952 *Manuel d'archéologie égyptienne I: Les époques de formation: La Préhistoire*. Paris: Picard.

Wengrow, David

2006 *The archaeology of early Egypt: Social transformations in North-East Africa, 10,000 - 2650 BC*. Cambridge and New York: Cambridge University Press.

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