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# On an Incised Palette from the Metropolitan Museum of Art: Date, Suggested Provenance, and Use Practices of Grinding Palettes with Engraved Animal Figures

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## Introduction

The Metropolitan Museum of Art (MMA) holds under the inventory number 68.59 a palette engraved with animal figures from the Predynastic period; very few similar objects are known across museum collections. Of the type referred to by Petrie as “*pelta*”-shaped (boat-shaped),<sup>1</sup> the palette itself most probably represents a boat and is one of the distinctive artifacts of the Naqada culture. The palette can securely be dated to the Naqada IIA–IIB period, and most probably to the latter phase (conventionally dated ca. 3700–3600 BC). Although MMA 68.69 is exceptional in terms of the quality of its decoration (see Fig. 1) compared to the handful of similar

artifacts, it has never been published so far nor studied to a full extent, apart from one very brief mention in a list of new acquisitions by Henry Fischer.<sup>2</sup>

Purchased in Cairo in 1968, the MMA engraved palette, like most other material of this type, is of completely unknown provenance. However, based on comparison with the rest of animal iconography in the Naqada period, this paper proposes a secure dating for the palette as well as a tentative ascription to the Theban region as its place of manufacture, after recognizing some local idiosyncrasies in style which appear on other, provenanced material. Finally, detailed microscopic observation and comparison with other material of the same kind will prove useful in reconstructing the possible practices surrounding the interest in images and functional use of decorated objects.

## Identification of the Animal Figures Depicted

The palette is adorned with engravings of animals on both sides, one of them upside down—but otherwise all figures clearly share a great similarity of style and

\* I am grateful to my colleague Grégory Chaumet for his assistance and expertise in manipulating the Hirox microscope, as well as the André Chastel research center of Sorbonne University for lending this equipment. I also wish to express all my gratitude to Stan Hendrickx for allowing the publication of this palette despite its inclusion in a study in preparation, and to John C. Darnell for the unpublished material he generously communicated to me and authorized to be reproduced for the purpose of this paper. I thank Pierre Tallet as well as the anonymous reviewers for their reading and advice.

<sup>1</sup> Petrie and Quibell, *Naqada and Ballas* (1896), 43.

<sup>2</sup> Fischer, “Protodynastic period and Old Kingdom” (1995), 88.

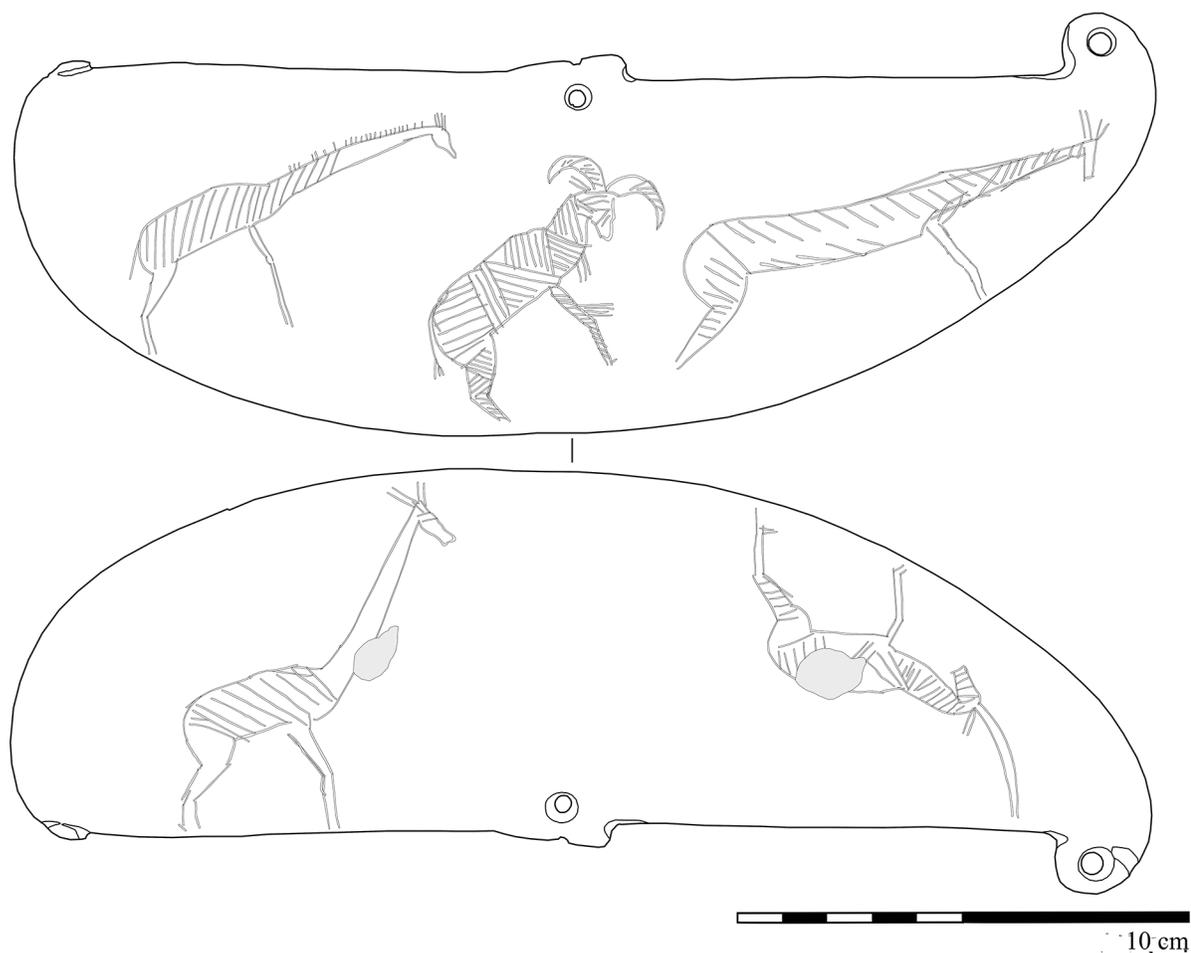


Figure 1—Facsimile of engraved palette MMA no. 68.59 (drawing by the author).

morphology. Among them are a Barbary sheep,<sup>3</sup> a distinctive giraffe, a probable scimitar-horned oryx,<sup>4</sup> as well as two long-necked animals, with both ears and short horns depicted, whose identification is not so straightforward.

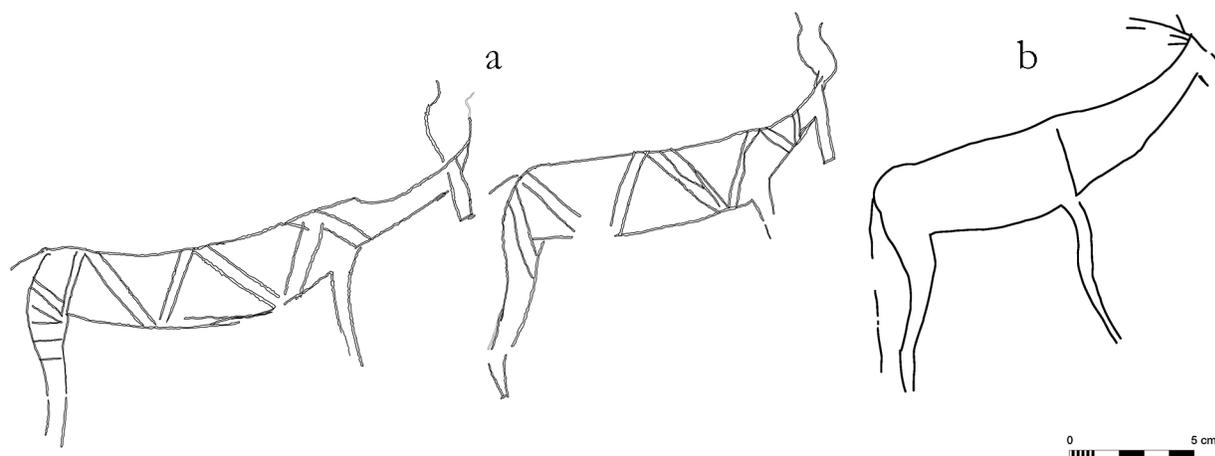
While it is clear that the ears of these figures are represented by the rearmost strokes on the head, as is the case for all of the other species depicted on this palette, it is not self-evident which species would have both such a long neck and such short horns except for a giraffe. However, they are unmistakably distinguished from the other, recognizable giraffe on this palette by their rectangular muzzle and lack of a depicted mane, as well

<sup>3</sup> Hendrickx et al., “Rock Art Scenes of Barbary Sheep Hunting” (2009).

<sup>4</sup> The scimitar-horned oryx *Oryx algazelle* is well known both from faunal remains (Pöllath, “Prehistoric Gamebag” [2009]; Pantalacci and Lesur-Gebremariam, “Wild Animals Downtown” [2009], 248–49) and from Dynastic depictions (e.g., Derchain, *Rites égyptiens I* [1962]).

as a different rendering of the neck curve. They may perhaps represent antelopes (cf. Fig. 2), as their overall morphology appears comparable with another instance of wild bovids with elongated necks engraved on an ostrich egg from Naqada t. 1480, now in the Ashmolean Museum (inv.no. 1895.990); the shape of the horns, however, does differ. There is no comparable depiction in the rest of Naqadan animal iconography apart from one rock art graffito in the Theban desert, for which identification is not evident either.

As this article is not primarily concerned with zoological identification, we might say that these two figures could be intended as a kind of antelope or, alternatively, a giraffe either deliberately or mistakenly distinguished from the other giraffe on the left. Indeed, giraffes in contemporary depictions as well as in the subsequent period (Naqada IIC–IID; see below) regularly appear with unrealistic horns and ears, depicted two-by-two, at different angles and lengths upon the head (see Fig. 3a–d). Therefore, we cannot exclude the hypothesis that the engraver



**Figure 2a–b**—Other long-neck antelopes on Naqada IIA–IIB material comparable to “antelopes” on the MET palette: **2a**. Engraved ostrich egg, Naqada tomb 1480, Ashmolean Museum 1895.990 (drawing by the author); **2b**. Theban Desert, Wadi of the Horus Qa-A, site S1–D4 (Theban Desert Road Survey, image courtesy John C. Darnell).

had never seen those animals for themselves, and, upon reproducing images of giraffes s/he had seen in another context, might have mistaken for two different animals. The possibility may also be considered that the two “antelopes” pertain to another phase of decoration and were not made by the same hand as the three other figures; there are, however, no archaeological clues, unfortunately, which would enable us to investigate this idea, and the technique used in both cases does not appear to differ at a macroscopic level.

#### Ascertaining the Authenticity of the MMA Palette

The issue of forgeries in museum collections worldwide pervades virtually every area of research in ancient history, but maybe especially in Egyptology. The Predynastic period suffers all the more from this situation, since comparative material from scientific excavations is more rare and graphic productions are less standardized than in the Dynastic period, which complicates the differentiation of suspicious artifacts from merely quirky ones. Mass-produced forgeries can even result in the opposite feeling, as underlined by Otto Kurz and Peter Ucko: “the excavated figurines appear to be entirely atypical.”<sup>5</sup> For all these reasons, several authors have rightly advocated a “healthy skepticism” regarding any and all unexcavated artifacts.<sup>6</sup>

Of course, it cannot be excluded that unprovenanced objects, even if they appear to conform to the most com-

mon formal features of the period to which they are ascribed, are in reality more or less skillful imitations of original artifacts. Several such cases are known for supposedly Predynastic material, and even for genuine Predynastic vases subsequently “enhanced” with modern drawings to increase their market value.<sup>7</sup> However, in most such cases—at least those exposed so far—forgers have made subtle stylistic mistakes, such as on the D-Ware vase Cleveland Museum of Art inv.no. 1920.1985, where the shape of the bird’s legs is highly unusual, as pointed out by Elizabeth Finkenstaedt.<sup>8</sup> Moreover, and in contrast to Dynastic art especially,<sup>9</sup> in which forgeries try to keep in line with the formal canon known for this period, fakes attributed to the Predynastic period seem to allow for more creativity, probably based on an assumption of “primitivism” and the general idea that production in Prehistoric times was not as standardized as during periods with central political authority, as Joanna Aksamit observes.<sup>10</sup>

As long as large-scale archaeometric studies are yet to be undertaken for Predynastic material, and for all the material not suitable to such chemical dating methods such as the MMA palette itself, the approach to authenticity I advocate is mainly based on statistical arguments. By examining the entire corpus of Predynastic imagery and breaking down each animal figure into morphological features, one can hope to distinguish

<sup>5</sup> Ucko and Hodges, “Pre-Dynastic Egyptian Figurines” (1963): 205, quoting pers. com. by Otto Kurz.

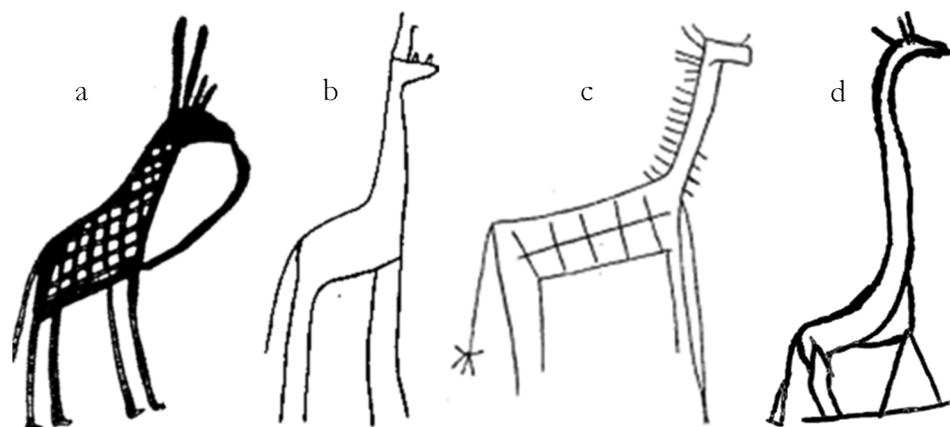
<sup>6</sup> Adams, “Elephants, Hippopotami and Pigs” (1996): 11.

<sup>7</sup> E.g., Brunton, “Modern Painting” (1934); Payne et al., “Forged decoration” (1977).

<sup>8</sup> Finkenstaedt, “Prehistoric Egyptian Pottery” (1988): 90.

<sup>9</sup> E.g. Fiechter, *Faux et faussaires* (2005).

<sup>10</sup> Aksamit, “Fake Egyptian Predynastic Antiquities” (2001), 55.



**Figure 3a–d**—Sample of giraffes with two sets of ears/horns at various angles and lengths (Nagada IIA–IIIA): **3a**. D-Ware jar, unknown provenance. Berlin Ägyptisches Museum inv.no. 15129 (after Scharff, *Die Altertümer* [1931], 150, Abb. 58); **3b**. “Potmark” on L-ware jar, Mahâsna, settlement S2. Pitt-River Museum inv.no. 1901.42.166 (after Garstang, *Mahâsna and Bet Khallâf* [1903], pl. IV); **3c**. Theban mountain, hinterland of Luxor (after Cotteville-Giraudet, “Gravures protohistoriques” [1930], pl I.4b); **3d**. Abydos temple, Protodynastic levels. Boston Museum of Fine Arts inv.no. 03.1959 (drawing by the author).

real eccentric objects from fakes which do not share the morphological features exhibited by most (and especially excavated) examples. In the light of such a method, some museum specimens can indeed be shown to be widely different from excavated occurrences, either because they bear one or several strange features or because they fail to exhibit “normal” morphological components. Multiple factor analyses are particularly helpful in identifying such “suspicious” (i.e., more likely to be inauthentic) artifacts, which tend to be located far away from the main clusters when plotted onto a visual chart. When applying this method to a corpus of one hundred fish-shaped greywacke palettes (see Fig. 4a), for example,<sup>11</sup> a few eccentric examples appear, all of them acquired on the antiquities market.

Another potential reason for suspecting a forgery comes when we find two or several identical copies of the same object: as underlined before, despite some undeniable degree of homogeneity in the Predynastic repertoire (see esp. below on “Dating propositions” and Fig. 7), no two objects are strictly identical due to the non-serial, artisanal, small-scale mode of production. Even objects conceived as pairs, such as hippopotamus-shaped twin pendants, are not absolutely identical between each other.<sup>12</sup> This is what makes perfect duplicates, such as the Louvre palette inv.no. E22731 and its twin in the former Petrie collection (Petrie Museum

inv.no. UC15781) all the more suspicious, as they share not only strange formal characteristics never seen elsewhere (oblong shape, forked tail, eye contoured with concentric circles), but also the exact same (too numerous) perforations in identical and unusual spots (see Fig. 4b).

With regard to statistical methods of appraising authenticity for these objects, the figures incised on the MMA palette do not show any strange characteristics in their morphology, nor do they appear to duplicate any other object, which would trigger suspicion. The closest parallel, an engraving on pottery I shall reference several times in this study,<sup>13</sup> is similar but not identical in its oryx and Barbary sheep depictions, while it lacks the “antelopes” and the giraffe. In addition, palettes bearing an incised decoration have been a widely-overlooked category of material up until now, and we may assume that these would have attracted less attention from forgers than better-known productions such as fish-shaped palettes and D-Ware pottery. The fact that the MMA palette shows remains of pigment (see below, “Some notes”) could also be seen as definite proof of its authenticity, were it not for some particularly egregious examples of forgeries having patina added to them in order to increase buyer confidence.<sup>14</sup>

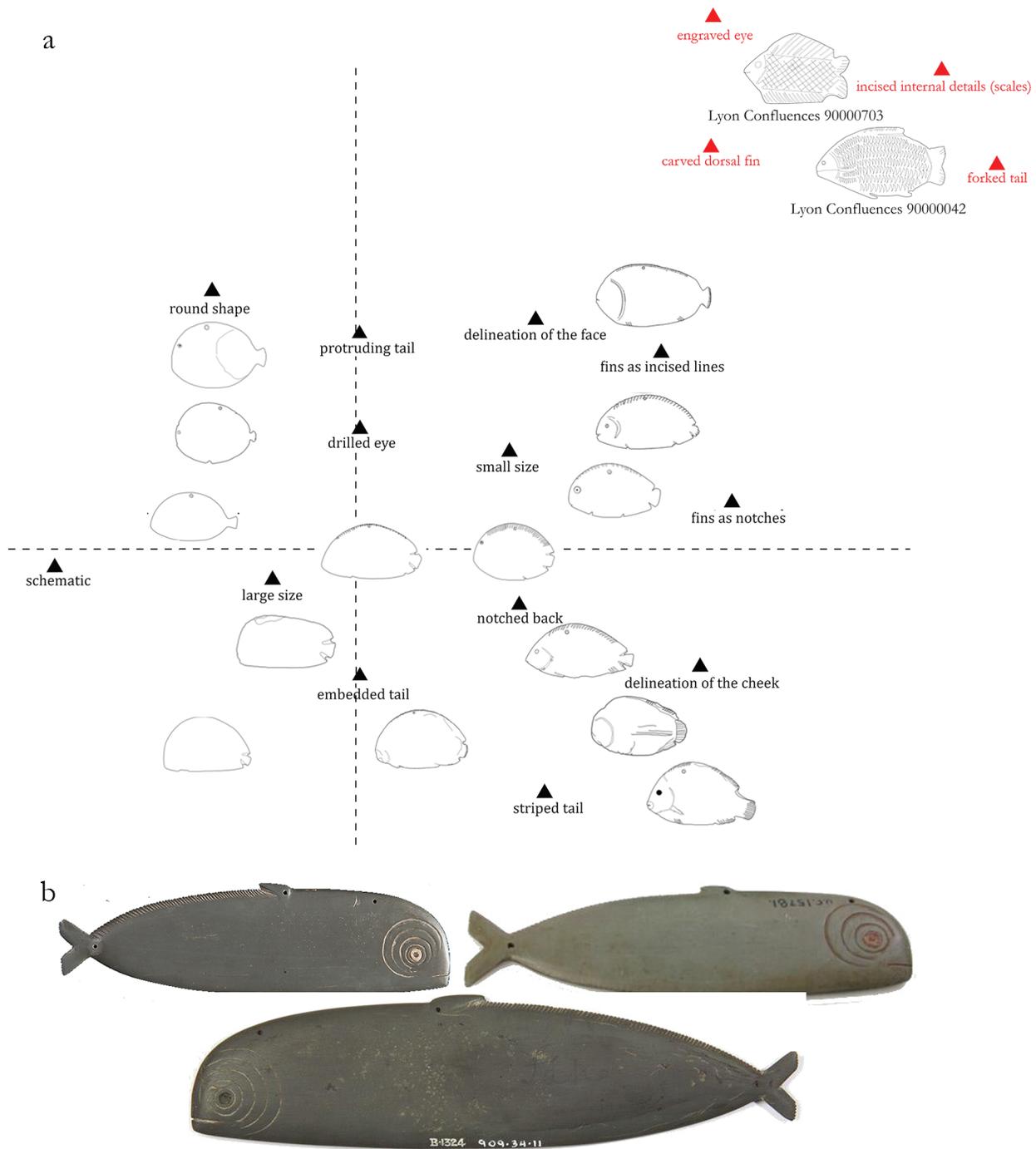
On the other hand, clear similarities with rock art imagery from the immediate environs of the Nile valley

<sup>11</sup> Brémont, “Question de mode” (2018).

<sup>12</sup> Droux, “Twinned hippopotamus Figurines” (2011).

<sup>13</sup> Petrie and Quibell, *Nagada and Ballas* [1896], pl. LI.18, current location lost.

<sup>14</sup> van der Spek, “Faked antikas” (2008).



**Figure 4a–b**—A statistical approach to forgeries in Predynastic material, as exemplified by fish-shaped palettes. Overly atypical as well as completely too identical artifacts are considered suspicious: **4a**. Plot of multiple factor analysis of morphological variables; **4b**. Three suspicious and identical fish palettes: Louvre Museum inv.no. E22731; Petrie Museum inv.no. UC15781 (Petrie, *Prehistoric Egypt* [1920], pl. XLV.10, XLIII.35; and Toronto R.O.M. inv.no. 909.34.1.

may be considered a good argument in favor of the authenticity of the MMA palette, as this corpus is probably the least familiar among Predynastic iconography (despite the homogeneity of many of its motifs with the Naqadan material culture, as has been underlined

by many specialists<sup>15</sup>) and still scarcely published. The palette can also be reasonably assumed to be almost

<sup>15</sup> E.g., Hendrickx et al., “Iconographic and Palaeographic elements” (2012); Lippiello and Gatto, “Intrasite Chronology”

entirely genuine, as no counterfeiter would benefit financially from a rock art forgery far off in the desert, and as rock patina usually attests to the antiquity of an engraving. For these reasons, I tend to consider the MMA palette, despite its late acquisition by the museum on the art market, a genuine product of Predynastic image-making specialists.

### Dating the MMA Palette and its Engravings

#### *Dating methodology*

Not only does the MMA palette appear to be genuinely Predynastic, but a narrower date within the period can be fairly confidently proposed on the basis of a thorough comparison with other iconographic evidence from known archaeological context. So far, Predynastic iconography has seldom been apprehended in a precise, internal chronology; for example, Gwenola Graff's catalogue of painted vases only envisioned a general distribution between "Naqada I" and "Naqada II" based on whether they pertained to the C- or D-ware types, without trying to reconstruct possible internal evolutions within each large category.<sup>16</sup> The same can be said of incised figures on pottery, which have never been explicitly and thoroughly dated, even though the chronological sequence of Predynastic ceramics is now for the most part well known, especially following Rita Hartmann's recent reappraisal based on the most recent excavation data from Abydos.<sup>17</sup>

In order to propose a finer dating of animal figures in the different subphases of the Naqada culture, I have first divided all figures depicting the same species into morphotypes, i.e., broken down into a sum of morphological characteristics (such as tufted tail, two legs depicted vs. four legs depicted, presence of a mane, etc.). The correlation analysis of each of these variables has then been plotted so as to delineate clusters of co-occurring morphological features. Such a seriation method was first applied to rock art in an effort to minimize the subjectivity involved in previous, stylistically-grounded categorization processes.<sup>18</sup> It proves espe-

cially useful in ranking criteria relevance without deciding *a priori* which ones matter in distinguishing morphotypes and which ones merely represent intra-type diversity, and thus without neglecting such subtle variation.

After delineating the morphotypes, a combination of dating criteria is used to match them to the period they were in use, keeping in mind that several different morphotypes can co-occur or partly overlap. The overall spirit of this approach can be compared to other methods of dating using minute iconographical details, such as that of Nadine Cherpion for Old Kingdom mastabas, whose decoration bears specific accessories or furniture ornaments, some of which are chronologically well anchored through the mention of a royal cartouche, and others possibly datable by matching their iconographic details with those of better-dated tombs.<sup>19</sup>

The dating methodology adopted here is moreover founded on four criteria, which I describe here from the most secure to the slightly less reliable. First, I assess the date from archaeological context whenever it is known. This may be discerned through the copresence of well-dated material, especially ceramics, and by cross-referencing the chronological range of each of the artifacts enclosed in the same tomb or layer. Obviously, the richer in various categories of artifacts the examined context is, the more secure the dating. Second, I infer chronological range from the period of attestation of the medium on which the figure is painted or engraved, by placing it within the general typologies of ceramics, palettes, etc. Third, I identify a *terminus post* or *ante quem* from the vertical and horizontal stratigraphy of superimpositions, especially in rock art panels (usually if inaccurately termed "palimpsests"). Fourth and finally, I create a seriation of animal morphotypes in order to evaluate their frequency of combination and their progressive replacement through time; I do this in the same way seriation is used to chronologically order various categories of artifacts within closed contexts, such as tombs.

Limits have been pointed out for some aspects of the criteria used in this study, such as the risk of underestimating staggered developments of the same artifact types in different regions.<sup>20</sup> However, the adjustments the system has witnessed in the last hundred years and its extension to various sites (Elkab, Adaïma, Abydos)

(2012), 267, 277; Darnell, "Wadi of the Horus Qa-A" (2011), 1171 and *passim*; Darnell, "Early Hieroglyphic Inscription" (2017); Luft, *Bîr Minayh* (2010).

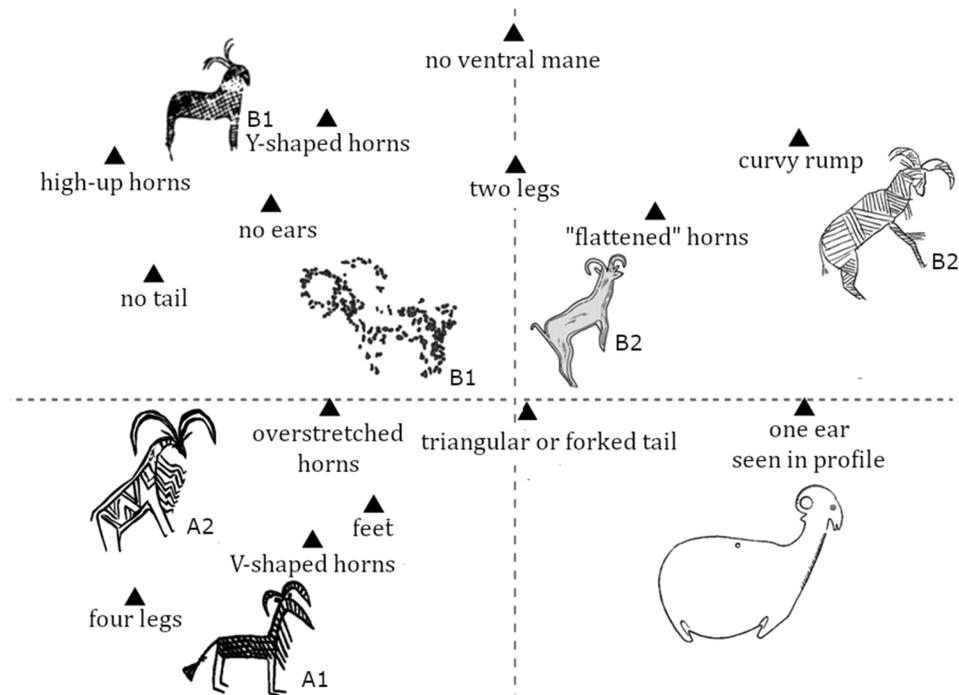
<sup>16</sup> Graff, *Peintures sur vases* (2009).

<sup>17</sup> Hartmann, *Umm el-Qaab IV* (2016).

<sup>18</sup> Bahn and Lorblanchet, *Rock Art Studies* (1993). Among many applications of such a method, see recently Huet, *Organisation spatiale* (2012).

<sup>19</sup> Cherpion, *Mastabas et hypogées* (1989).

<sup>20</sup> Hendrickx, « Relative Chronology » (1996), 39, 61–63.



**Figure 5**—Multiple Correspondence Analysis as performed on the twelve different morphological variables characterizing Barbary sheep depictions in the Naqadan corpus.

as they were being excavated ensures a satisfying general validity. Moreover, the use of multiple criteria improves the reliability of the dates proposed, as opposed to relying solely on, for example, ceramic typology.

The results produced here derive directly from my Ph.D. thesis, which examines more than one thousand Predynastic artifacts bearing animal iconography, in both tri- and bidimensional form, in which the methodology adopted and the wider typology designed are set forth in greater detail.<sup>21</sup> In the scope of this article however, I will only present the typological plates obtained for Barbary sheep, as an illustration of what this method can achieve.

#### *An example: a typology of Barbary sheep depictions*

In line with the principles outlined above, breaking down the thirty-two bidimensional and relief Barbary sheep depictions currently known in the Naqada culture into twelve qualitative variables (each represented by one in two to four modalities; e.g. curled-up tail vs. hanging tail, forked tail, no tail, etc.) enabled the distinction of three main morphotypes (A, B, and C),

thanks to the MCA (Multiple Correspondence Analysis) plotted on the chart in Figure 5.

Type A has a rectangular body (see Fig. 6), a downward-pointing and generally quite long tail, four slender legs normally ending in small feet, and two large horns usually extending below the tip of the head. They typically show a chest mane extending all the way to the front leg, while the tail sometimes terminates in a stylized triangle. The face usually ends in a pointy, downward-facing muzzle; ears are absent most of the time or, when depicted, extend on either side of the animal's head, under the horns. Their shape (round or pointy) and the orientation of the neckline support further differentiation into subtypes A1 and A2, which goes beyond the scope of this article, but seems to indicate some early form of regional style.

Although their concurrence shows that Type A is the earliest of the three morphotypes distinguished here, the evidence does not allow for an extremely precise dating. However, when matched in the general seriation to the other, better-dated animal depictions they tend to co-occur with, they confirm a more specific assignment to the Naqada IB–IC period (see Table 1).

Type B (see Figure 7), in turn, is characterized by very high-up horns, whose end does not typically reach the tip of the head's height, most of the time implanted

<sup>21</sup> Brémont, *Approches archéologique* (forthcoming).

BARBARY SHEEP – TYPE A

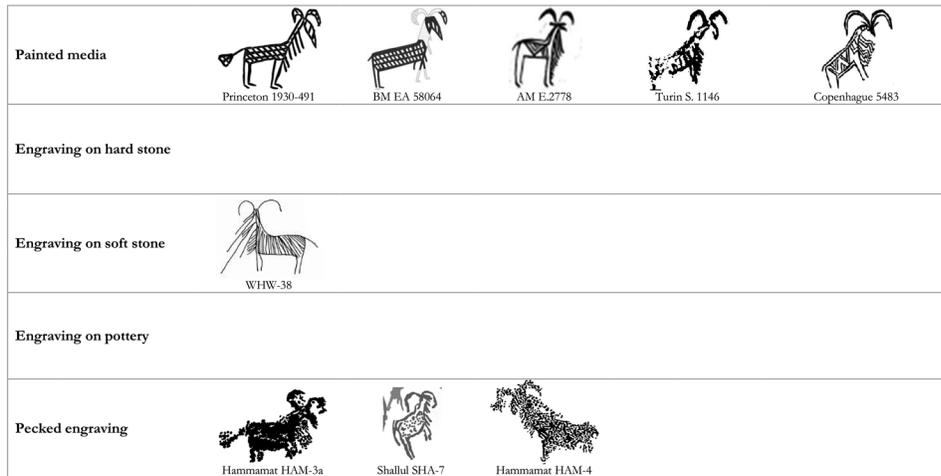


Figure 6—Typological plate illustrating Type A Barbary sheep.

Table 1—Dating evidence for Barbary sheep type A.

| Occurrence                   | Dating criterion          | Dating                 | Reliability   |
|------------------------------|---------------------------|------------------------|---|
| Ashmolean Museum 1895.482    | archaeological context    | IB – IC                |    |
| Ashmolean Museum 1895.487    | medium typology (C09.1Cd) | IA – IB ? <sup>a</sup> |   |
| Philadelphia E.1418          | archaeological context    | IC – IIA               |  |
| Princeton 1930.491           | medium typology (C21.1Ba) | IC – IIA               |  |
| Ashmolean Museum E.2778      | medium typology (C03.2Aa) | IA ?                   |  |
| Copenhagen 5483 <sup>b</sup> | medium typology (C09.1Cb) | IA – IC ?              |  |
|                              | medium typology (C09.1Bb) | IA – IIA               |  |

<sup>a</sup>Within Rita Hartmann’s typology (*Umm el-Qaab IV* [2016], Anhang 5), this shape is only attested as a *P-Ware*, but not as a decorated *C-Ware*; it is therefore not possible to ensure that the apparition of this ceramic shape and its figured decoration are perfectly simultaneous.

<sup>b</sup>Hendrickx et al., “Hunting for power” (2018).

BARBARY SHEEP – TYPE B

BARBARY SHEEP – TYPE C

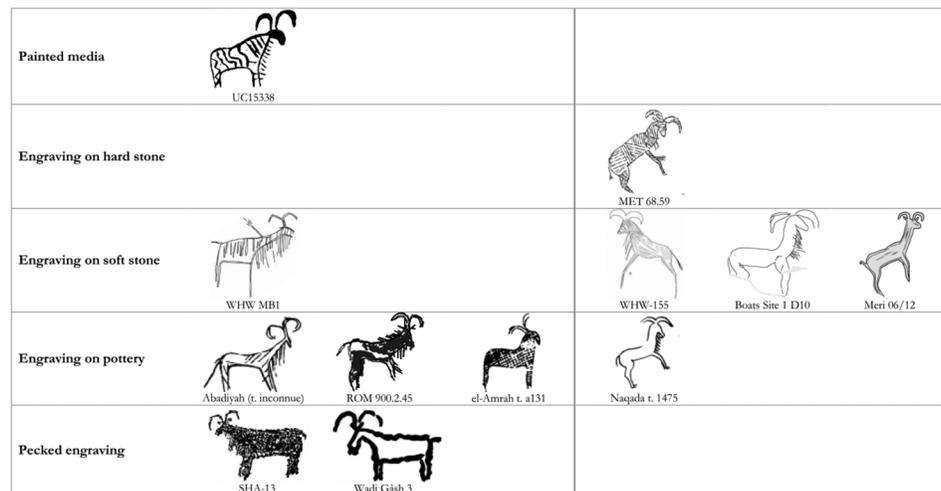


Figure 7—Typological plate illustrating Type B and C Barbary sheep.

**Table 2**—Dating evidence for Barbary sheep types B and C.

| Occurrence             | Dating criterion          | Dating    | Reliability   |
|------------------------|---------------------------|-----------|---|
| <b>TYPE B</b>          |                           |           |   |
| Petrie Museum UC 15338 | medium typology (C09.1Cd) | IA – IB ? |  |
| El Amrah tomb a131     | archaeological context    | IIB – IIC |  |
| <b>TYPE C</b>          |                           |           |   |
| Naqada tomb 1475       | archaeological context    | IIA – IIB |  |

**Table 3**—Context dates and ceramic typological range for animal figures comparable to MMA palette 68.59.

|   | IC | IIA | IIB | IIC |
|---|----|-----|-----|-----|
| Boston MFA 99.710 (Abadiya tomb B83)          | •  | •   |     |     |
| Ashmolean Museum E.3269 (Abadiya tomb B101)   |    | •   |     |     |
| Ashmolean Museum inv.no. 1909.1027            | •  | •   | •   |     |
| MET 21.2.111                                  | •  | •   | •   |     |
| Detroit Institute of Art 1900.18 <sup>a</sup> | •  | •   | •   |     |
| Ashmolean Museum 1895.990 (Naqada tomb 1480)  |    | •   | •   |     |
| Petrie Museum UC 15775                        |    | •   | •   | •   |
| Naqada tomb 1475                              |    |     | •   |     |
| Heidelberg inv.no. 1993                       |    |     | •   | •   |

<sup>a</sup>Peck, « Decorated Pre-Dynastic Pottery » (1977).

in a Y shape, but which can also be completely separate. The body is rectangular just as type A, but now only shows two depicted legs, as well as a rather horizontal neckline, while the tail is either absent or extremely short. This morphotype rarely is provided with ears, and the muzzle is somewhat more rounded than the one seen in type A.

While type C Barbary sheep share with type B the depiction of only two legs instead of four (see again Figure 7), they are distinguishable through a greater detail and *modelé*: a curvy rump and thigh, and a distinct and bended knee. This type also has characteristically “flattened” horns, contrary to the high-reaching horns of type B. The tail can be tufted but is more frequently represented by a simple and rather short downward line, while the chest mane is not as extended as it is on type A, and sometimes even omitted.

Providing a date for these two types is unfortunately trickier than regarding type A, since the attestations are for the most part unprovenanced or engraved on either unspecified media or on rock art panels, which are notoriously difficult to date (see Table 2). The rare direct, contextual, or typological dating evidence would seem to point to a general Naqada II context; but this is now confirmed by the general seriation of morphotype co-occurrences, as well as the tendency for animal figures in this period to exhibit only two legs, with or without

the curvy rump and thigh characteristic for type C. We shall now investigate this aspect by encompassing all morphotypes, regardless of the species depicted, sharing these morphological characteristics.

*Dating propositions for the Metropolitan Museum of Art palette 68.59*

This general tendency to depict animal figures with only two legs, a curvy rump and hind thigh but a very thin front leg, and a clear inflexion on the hock area in the Naqada IIA–IIB period is indeed far from limited to images of Barbary sheep alone. Figure 2 already shows two lyriform-horned antelopes which share this same morphology with the other animals in the MMA palette. This peculiarity was remarked upon by Stan Hendrickx some thirty years ago (although he did not specifically envision it as a chronological marker) while discussing the engraved vase Brussels MRAH inv.no. E.02631, which he dated to the Naqada IC–IIA period on the grounds of ceramic typology.<sup>22</sup>

Other animal figures showing the same morphological characteristics regardless of their species have been synthesized in Table 3. The ones mentioned in black are dated through their archaeological context and the

<sup>22</sup> Hendrickx, « Scène de chasse » (1992): 11.



Figure 8a–d—Hypothesized development of the “two-leg” morphotype along the Naqada IC – IIB: **8a.** C-Ware jar, unknown provenance (Petrie Museum inv.no. UC 15338, after Petrie, *Prehistoric Egypt* [1920], pl. XVIII.73); **8b.** Incised and painted long-necked jar (Abydos, t. C2. Chicago OIM inv.no. E8923 [drawing by the author]); **8c.** Incised Black-topped jar (Abadiyah t. B101, Ashmolean Museum inv.no. E3269 [drawing by the author]); **8d.** Incised turtle-shaped palette, unknown provenance (Petrie Museum inv.no. UC15775 [drawing by the author]).

ones in grey by the chronological range of the type of artifact they appear on, in keeping with the methodology detailed above. For instance, the donkey from the Petrie Museum inv.no. UC 15775 appears on a turtle-shaped palette; even though this particular artifact is unprovenanced, the distribution of turtle-shaped palettes is exclusively limited to the Naqada IIA–IIC period. This is also supported by the occurrence of a similar, curvy morphotype on flint eccentrics found primarily in Hierakonpolis and securely dated there to the Naqada IIB period.<sup>23</sup>

The “two-leg” morphotype (see Fig. 8a–d) may have developed along the following sequence: in the Naqada IC–IIA period, as exemplified by a few C-Wares (e.g. Petrie Museum inv.no. UC 15338; British Museum inv.no. BM EA49025), both legs would merely be delimited by two vertical strokes without any indication of feet nor *modelé*, the interstitial space between which is left empty or filled with geometric motifs, and the belly line linking both apparent legs. The Naqada IIA–IIB phase seems to make predominant use of a formula in which both legs appear very thin and their extremity is often closed up by the joining of both lines in a pointy end, as exemplified by the ostrich egg from Naqada tomb 1480 (above, Fig. 2) or the Barbary sheep from Abadiya, but also the C-Ware from Abydos t. U-264 (Cairo Museum inv.no. CG 2076).

It therefore seems to be predominantly in the Naqada IIB period that the curvier rump and thigh, as well as the flexed front knee and/or closing of the legs by “hooves” (as noted by Hendrickx<sup>24</sup>) develop. Indeed, the Brussels vase and its ceramic type are now assigned by Hartmann to the slightly wider Naqada IC–IIB range (type B07.2Cd), while the potmark parallel

from Naqada t. 1475, very similar to the MMA palette, is securely dated to Naqada IIB.

As to the very medium on which the animal figures are engraved, the distribution of the ‘pelta’ / boat palette (types Petrie 28d, 28n, 30) is restricted to the IIA–IIB period in all four secure contexts where it has been found (with one exception possibly in the IC–IIA period: Naqada tomb 1842 according to Hendrickx<sup>25</sup>). Armant tomb 1402, assigned by Hendrickx to the Naqada IC period,<sup>26</sup> was redated by Hartmann to the Naqada IIA–IIB phase.<sup>27</sup> Hence, it does not seem that the decoration intervened much longer after the MMA palette was made, and it may well have been contemporary with its very use as a grinder, as I shall discuss below (“Some Notes”).

Even though absolute dating remains tricky for the Predynastic period, the radiocarbon dates known from various Naqada site excavations have minimized the debates surrounding the chronological anchoring of the Predynastic period.<sup>28</sup> The catalog edited by Emily Teeter for the 2011 exhibit *Before the Pyramids* synthesized what could be called a “high” dating system as compared to that proposed by Béatrix Midant-Reynes in 1992, yielding comparatively lower dates. The Naqada IIA–IIB period is associated in the latter with ca. 3700–3500 BC, but in the former to ca. 3700–3600 BC. More recently, a study of large organic samples for bulk radiocarbon dating yielded a similar dating of probably 3600–3500 BC.<sup>29</sup>

<sup>25</sup> Hendrickx, *Grafvelden der Naqada-cultuur II* (1989), 370.

<sup>26</sup> *Ibid.*, 387.

<sup>27</sup> Hartmann, *Umm el-Qaab IV* (2016), Anhang 5.

<sup>28</sup> Hassan, “Radiocarbon chronology” (1984); Friedman, *Predynastic Settlement Ceramics* (1989), 621; Vermeersch, Hendrickx, and Van Neer, “El Abadiya 2” (2004), 229, fig. 18.

<sup>29</sup> Extrapolation based on proposed datings of 3700–3600 BC for the Naqada IB–IC period and about 3500–3500 BC for the Naqada IIB–IIC phase by Dec et al., “Absolute Chronology” (2013).

<sup>23</sup> Friedman, “Figures in Flint” (2000); Nagaya, “From Animal-shaped to Ripple-flaked” (2017): 14.

<sup>24</sup> Hendrickx, « Scène de chasse » (1992): 11.

### Can Provenance be Retraced? Local Idiosyncrasies in Animal Iconography of the Naqada II Period

As our palette was bought in Cairo, there is no indication whatsoever regarding its original provenance. Nevertheless, once again, a thorough study of all animal depictions in the Naqada period seems to reveal clues as to possible local characteristics which have previously gone unnoticed, but are especially backed up by rock art evidence. I have previously suggested the existence of local preferences in species selection as well as in depiction style in the Naqada IB–IIA period.<sup>30</sup> In this section, I will examine three clues pointing to an origin for this palette from the Theban region (from Naqada downstream to Armant upstream), working from the least to the most conclusive.

#### *Formulae for Depicting the Ears on Quadrupeds*

A first clue may reside in the way the ears of the animal figures are depicted on the MMA palette. Within the general morphotype in use during the Naqada IIA–IIB period discussed above, one can distinguish only two very consistent formulae for the notation of ears. They are either spread on each side of the head, the horns being tucked in between, or they are laid out in profile view behind the horns. This style of depiction is remarkably stable within each artifact, no matter the animal species presented. However, there is no consistency for one and the same species between various artifacts; for example, ibexes appear differently with either the former (Brussels MRAH inv.no. E.02631) or the latter (Ashmolean Museum inv.no. 1895.323) formula.

This differentiation is thus not linked to any kind of zoological reality. However, I do notice that all provenanced occurrences of the second type come from the environs of Naqada: a graffito on pottery from tomb 1475 of the Great Cemetery,<sup>31</sup> another one from tomb 1471 (Ashmolean Museum inv.no. 1895.323), and two rock art graffiti in the Theban mountain which I shall discuss in turn (see below on the “rearing oryx”).

A first solution occurs primarily with a distinctive type of gazelle with forward-curving horns. Iconographic attestations of this type are particularly limited, as they only occur on one D-Ware ovoid vase from Petrie’s excavations in Abydos (Ashmolean Museum inv.no. E.2832),

a painted pottery box said to come from el-Amrah and held at the British Museum (inv.no. EA 32639), and finally “Tomb 100” in Hierakonpolis. All of these examples slightly postdate our palette, being associated with the Naqada IIC period; one contemporary instance, however, is the engraved rhomboid palette from the Stockholm Museum (inv.no. E6000). The same palette also features a hippopotamus, which I have shown elsewhere to be characteristic of the iconography of the Abydos region.<sup>32</sup> All of these attestations thus make it tempting to see this specific depiction of gazelles as originating from the same general area.

However, at least two wild bovids with ears spread on either side of the head do occur in the desert hinterlands of the Theban region (WHQ-2 D49 and WHW 55), and also on a decontextualized sherd from Petrie’s Naqada excavations (Ashmolean Museum inv. no. 1895.1217). I suggest that the ears-on-either-side formula might be seen as a solution *by default*, as it is also much more common, while the ears-behind formula could be a variant restricted to the Nubt area. Its occurrence on the MMA palette is therefore appealing, but not quite straightforward enough to constitute evidence on its own. Let us then turn to other, more conclusive clues as to the possible Naqadan origin of the MMA palette.

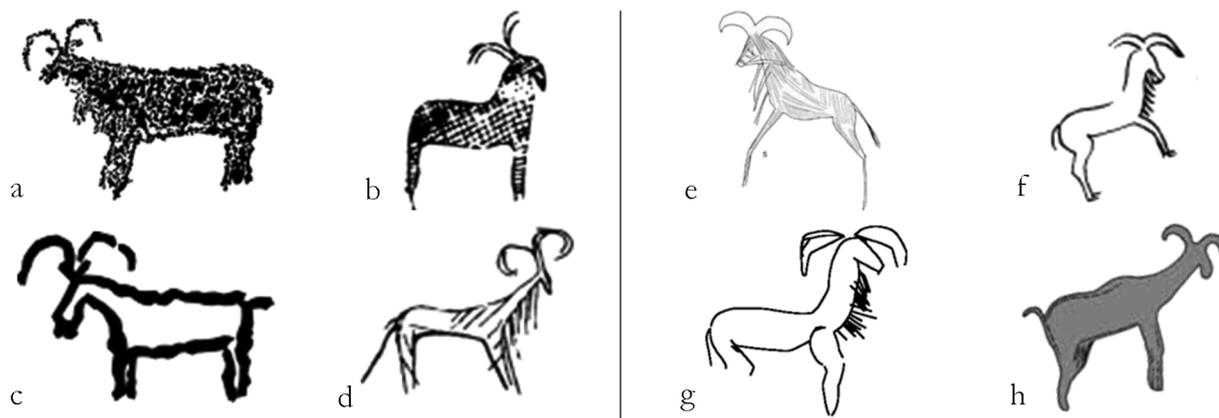
#### *The Barbary sheep’s horns*

Another clue concerns the way the horns of the majestic, central Barbary sheep are depicted on the MMA palette. As I showed earlier (see above, on a “A Typology of Barbary sheep depictions”), the major difference between Barbary sheep types B and C resides in the shape of the horns, the first one being depicted with very high, sometimes even “Y”-shaped horns; type C being in turn characterized by flattened horns spreading left and right instead of upwards from the head and then immediately descending below the animal’s eye level. It is interesting that the first type is exclusively found on three rock art panels of the Eastern Desert and only one instance from the Theban Desert (see Fig. 9), as well as one potmark from Abadiyah and another from el-Amrah tomb a131 (cf. figure 5 a–d). However, flat-horned Barbary sheep exclusively occur on material from Naqada (the potmark from tomb 1475

<sup>30</sup> Brémont, « Des éléphants, des hippopotames et des mouflons » (2018).

<sup>31</sup> Petrie and Quibell, *Naqada and Ballas* (1896), pl. LI.18.

<sup>32</sup> *Ibid.* See also brief hypotheses by Hartung, “Nile Mud and Clay Objects” (2011), 491; Droux, “Hierakonpolis Hippos” (2015): 8; Hartmann, *Umm el-Qaab IV* (2016), 241.



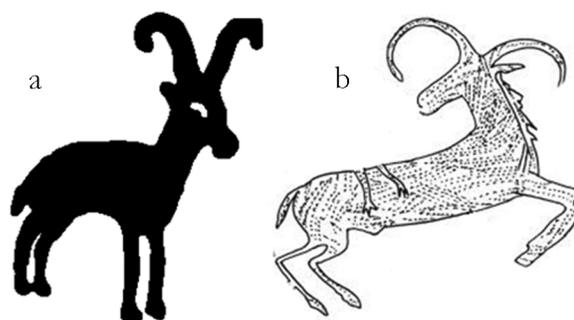
**Figure 9a–h**—Sample of Barbary sheep depictions in the Naqada IC–IIB period: **9a.** Ouadi Shallul, site SHA-13 (drawing by the author after Morrow and Morrow, *Desert RATS* [2002]); **9b.** el-Amrah, tomb al31, current location unknown (Randall-Maciver and Mace, *El Amrah and Abydos* [1902], pl. XVII.21); **9c.** Ouadi Gâsh, site 18 (after Winkler, *Rock Drawings I* [1938], pl. XIV); **9d.** Abadiyah, cemetery U<sub>B</sub> (after Petrie and Mace, *Diospolis Parva* [1902], pl. XX); **9e.** Was-Ha-Waset, site 155 (after Hendrickx et al., “Rock Art Scenes of Barbary Sheep Hunting” [2009], 222, fig. 27) **9f.** Naqada, tomb 1475, current location unknown (after Petrie and Quibell, *Naqada and Ballas* [1896], pl. LI.18); **9g.** Wadi of the Horus Qa-a “Boats Site,” site WHQ-1 D10 (Yale University Theban Desert Road Survey, image courtesy John Darnell); **9h.** Dakhla environs, site Meri 06/12 (after Hendrickx et al., “Rock Art Scenes of Barbary Sheep Hunting” [2009], 197, fig. 6).

previously mentioned), the neighboring regions (the potmark from Abadiyah t. B101 mentioned above), or the desert surrounding the Theban region (WHW-155,<sup>33</sup> WHQ-1 D10<sup>34</sup>).

In a previous article, I noticed that the contrast between Eastern and Western desert rock art appeared to be linked to a corresponding distinction between Abydenian and ‘Nubtian’ iconographic traditions already in the Naqada IB–IIA period. This notable difference seems to live on in later occurrences from the Naqada IIC–IID period (see Fig. 10a–b), since the above-mentioned D-Ware from Abydos features a Barbary sheep with horns high above the skull, while the masterfully carved tableau of the Wadi of the Horus Qa-a in the Western Desert shows the flat-horned version. One might incidentally note, with regard to the previously enounced argument, that the ‘model house’ of the Royal Ontario Museum inv.no. 900.2.45<sup>35</sup> does show the Y-shaped horns combined with ears depicted on either side of the head, adding consistency to the remarks formulated thus far.

#### *The motif of the “rearing oryx”*

Finally, I shall focus on the antelope with long, vertical horns present on the left of the verso side of the palette. This figure, which is probably to be identified as an oryx due to the shape of its horns, is reminiscent of several other identical figures that occur throughout the iconographic material of this period—and, singularly, exclusively in the Theban region (see Fig. 11a–g). While most of these occurrences have been known for a long time, it seems that their high degree of similarity has never been pointed out. One example (Fig. 11a) is the graffito on pottery from tomb 1475 of the Naqada Great

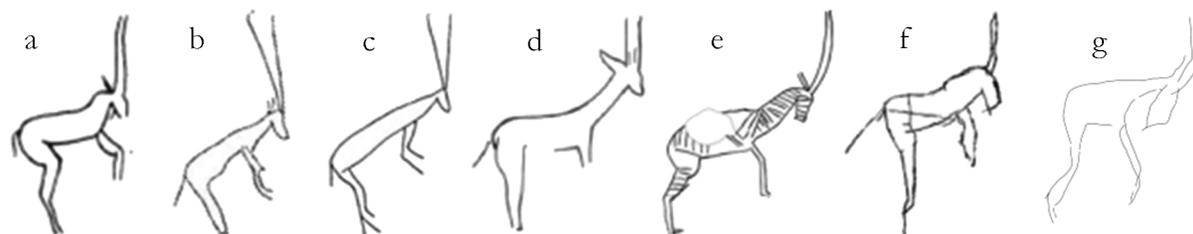


**Figure 10a–b**—Sample of Barbary sheep depictions in the Naqada IIC–IID period: **10a.** Ovoid D-Ware jar, Abydos (Ashmolean Museum inv.no. E2832, after Payne, *Catalogue* [1993], cat.no. 873); **10b.** Theban desert, Wadi of the Horus Qa-A site WHQ-1, panel B (after Hendrickx et al., “Rock Art Scenes of Barbary Sheep Hunting” [2009], 222, fig. 29).

<sup>33</sup> Hendrickx et al., “Rock Art Scenes of Barbary Sheep Hunting” (2009), 222, fig. 27.

<sup>34</sup> John C. Darnell, pers. comm.

<sup>35</sup> Published in this very journal by McHugh, “Decorated Predynastic Terracotta Model” (1990).



**Figure 11a–g**—Known attestations of the motif of the “rearing oryx”: **11a**. Naqada, tomb 1475, current location unknown (after Petrie and Quibell, *Naqada and Ballas* [1896], pl. LI.18); **11b**. Theban mountain, hinterland of Luxor, graffito no. 3275 (after Sadek and Shimy, *Graffiti de la Montagne Thébaine* [1973], pl. CCXX); **11c**. Theban mountain, hinterland of Luxor, graffito no. 3274 (after Sadek and Shimy *ibid.*, pl. CCXX); **11d**. Hierakonpolis, locality HK61 (after el-Hadidy, “Hierakonpolis, my dreamland” [2002]); **11e**. Unknown provenance, New York, MMA 68.59; **11f**. Saint-Germain-en-Laye, Musée d’Archéologie Nationale, inv.no. 77.711 (drawing by the author); **11g**. Khor Battagha, Theban Desert (site 43 in Winkler, *Rock Drawings I* [1938], image courtesy John C. Darnell).

Cemetery, already discussed throughout this article, and which represents the best direct parallel to the MMA palette; the other two (Fig. 11b–c) were first published by Rémy Cotteville-Giraudet as early as 1930 and thereafter as part of the great sum on the *Graffiti de la montagne thébaine*.<sup>36</sup> A recently-discovered petroglyph (Fig. 11d) from Hierakonpolis would seem to constitute another addition to this small corpus,<sup>37</sup> as well as another instance (Fig. 11f), if much less skillfully executed, on a late Black-topped ovoid jar of unknown provenance in the Musée d’Archéologie Nationale of Saint-Germain-en-Laye, France (inv.no. 77.711). Finally, I thank John C. Darnell for providing a hitherto unpublished example (Fig. 11g) from the Yale Theban Desert Survey work in the hinterland of Luxor, already reported but not drawn by Hans Winkler.<sup>38</sup>

It is clear that all seven instances did not originate from the same hand, although the two examples from the Theban mountain certainly did. But it is likely that these represent copies of a well-known motif, although with different levels of mastering or clumsiness. The Theban petroglyphs do show an anatomically strange bend on the front leg, whose hock flexion has been mistakenly inverted, while the Saint-Germain and Khor Battagha examples are definitely much cruder than all other occurrences.

This kind of reproduction of a motif mastered enough to be reproduced from memory, but not quite formalized enough as to represent a kind of official

symbol, is very reminiscent of the studies conducted on forms of ‘pseudo-script’, especially the markings sometimes dubbed ‘funny signs’ known from Deir el-Medineh and other Dynastic contexts.<sup>39</sup> The first Theban graffito is especially interesting in this respect (see Fig. 12), since it is not just one, but a series of three “rearing oryx” represented below one another, the hind legs of the former serving as the horns of the latter—conveying the impression that the engraver had no intention or capacity to represent anything else besides this particular symbol that they had memorized. Other instances, and a thorough study of the so-called “potmarks” in the Naqada IC–IIB period, would however be needed in order to ascertain their exact role in the context of Predynastic iconographic production.

Of the seven attestations of the motif, all those with a known provenance display a direct link with the Naqada-Thebes region, while only one (the petroglyph found in Hierakonpolis) can be said with certainty to come from another locality. I have also proposed regarding other material from the Naqada IC–IIB period that iconographic traditions from both Abydos and Nubt were to be found in Hierakonpolis, and that this might reflect a specific status of this area within the Naqada culture.

#### *Determining Provenance: A Summary*

Thus, of the three stylistic characteristics examined so far, even though perhaps not conclusive on their own,

<sup>36</sup> Cotteville-Giraudet, “Gravures protohistoriques” (1930); Sadek and Shimy, *Graffiti de la montagne thébaine III*, 5 (1973), pl. CCXX.

<sup>37</sup> el-Hadidy, “Hierakonpolis, my dreamland” (2002) : 23.

<sup>38</sup> Winkler, *Rock Drawings I* (1938), site 43.

<sup>39</sup> Among a large bibliography devoted to such signs, see, e.g., Parkinson, *Cracking Codes* (1999); Andrassy, Budka, and Kammerzell, *Non-textual Marking Systems* (2009); Budka, Kammerzell, and Rzepka, *Non-textual Marking Systems* (2015).



Figure 12—Graffito of the Theban mountain no. 3275: a series of three “rearing oryxes” below one another (after Sadek and Shimy, *Graffiti de la Montagne thébaine* [1973], pl. CCXX).

all three converge towards an attribution of the engraved decoration to the “Nubtian” region as opposed to the Abydenian iconographic traditions. I will also emphasize that the medium itself follows the same trend: so-called “pelta” (boat-shaped) palettes have thus far only been found in secure contexts at Naqada (tombs 429, 1237 and 1842)<sup>40</sup> and at Armant (tomb 1402),<sup>41</sup> with the only one exception, an example from Mesaid (tomb 896, Boston MFA inv.no. 13.3837), known to me. Although a possible documentation bias may be considered, we know of several hundreds of tombs from this period in other cemeteries (Naga el-Deir, el-Amrah, Umm el-Qaab, etc.), yet none of them have yielded this kind of artifact.

I therefore tentatively suggest that this object might have been produced somewhere in the Naqada-Thebes-Armant area, if not in Naqada itself, which seems to have been the largest settlement in the area and to have polarized most of the iconographic production activities, judging by the paucity of iconographic material excavated in the Armant cemetery.

#### Some Notes on the Use of Engraved Palettes

Finally, I wish to provide a few insights into a subject that has not been much investigated thus far:<sup>42</sup> the ways iconographic material could be used and integrated into daily tasks as part of functional objects, as exemplified by the case study of the MMA palette and comparison with other engraved greywacke palettes from the same general period. While it has been known almost since the discovery of the Naqada culture that palettes were used to prepare eyepaint, the question of the relationship between this use and the decoration of the palette has almost not been addressed, save for the richly carved ceremonial examples of the Late Predynastic

<sup>40</sup> Petrie, *Corpus of Prehistoric Pottery and Palettes* (1921), pl. LIV: 28D, 28N; Hendrickx, *Grafvelden der Naqada-cultuur II* (1989).

<sup>41</sup> Mond and Myers, *Cemeteries of Armant I* (1937), 26.

<sup>42</sup> Many pioneer, traceological studies have been conducted on Palaeolithic material in order to shed light on functional uses of decorated objects as well as reconstructing the gesture of the image-maker: e.g. D’Errico, “Identification des traces de manipulation” (1993); D’Errico, “L’expérimentation” (1994); Fritz, “Magdalenian Artistic Techniques” (1999); Tosello, *Pierres gravées du Périgord magdalénien* (2003). However, this approach has not been embraced much in regard to Predynastic material, with the exception of short reports by Piquette, “Reflectance Transformation Imaging” (2011), “Early Egyptian Imagery” (2016), and “Manufacture of Late 4th Millennium Decorated Palettes” (2018).

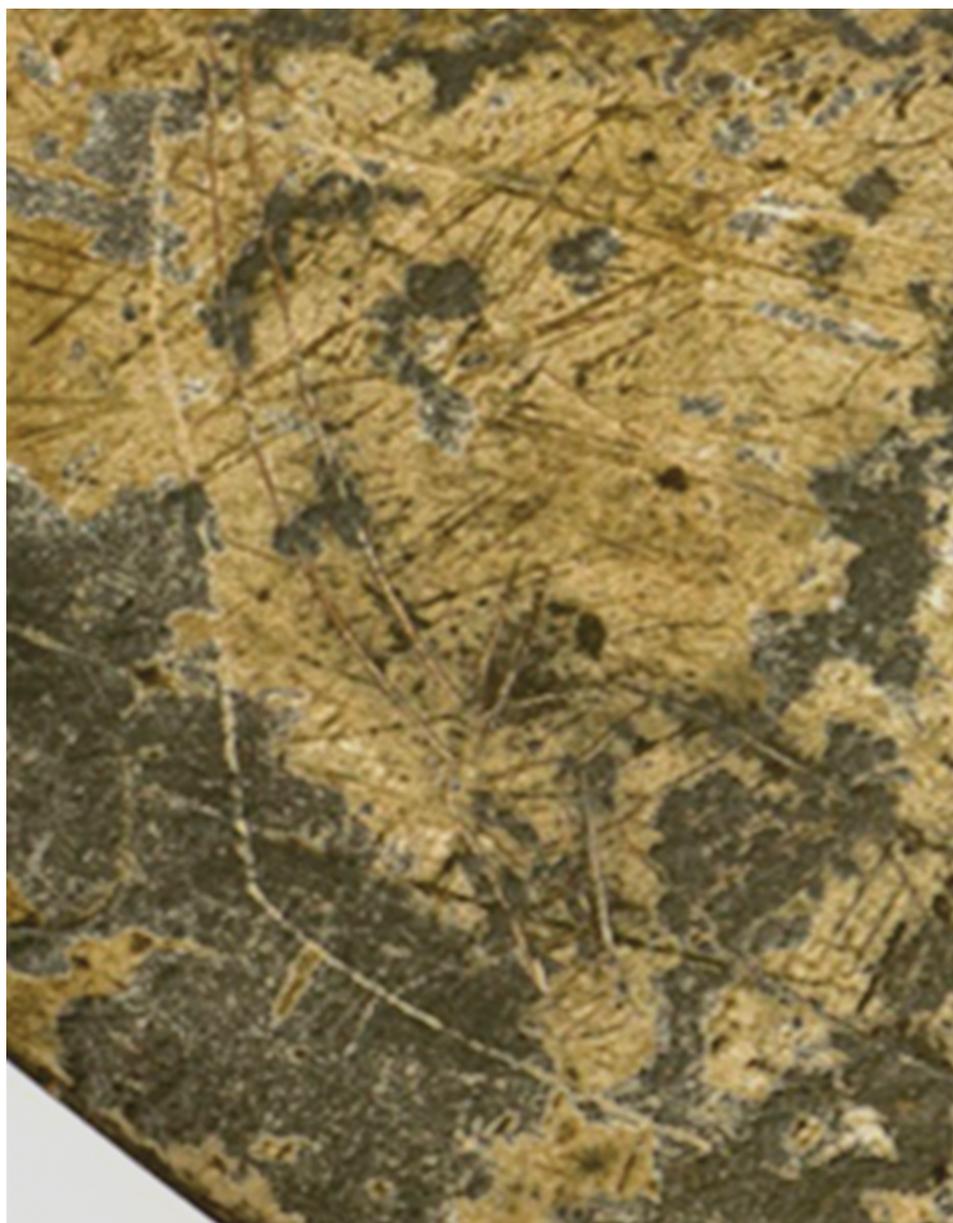


Figure 13—Detail from the MAA palette: oryx incised on top of desquamated areas.

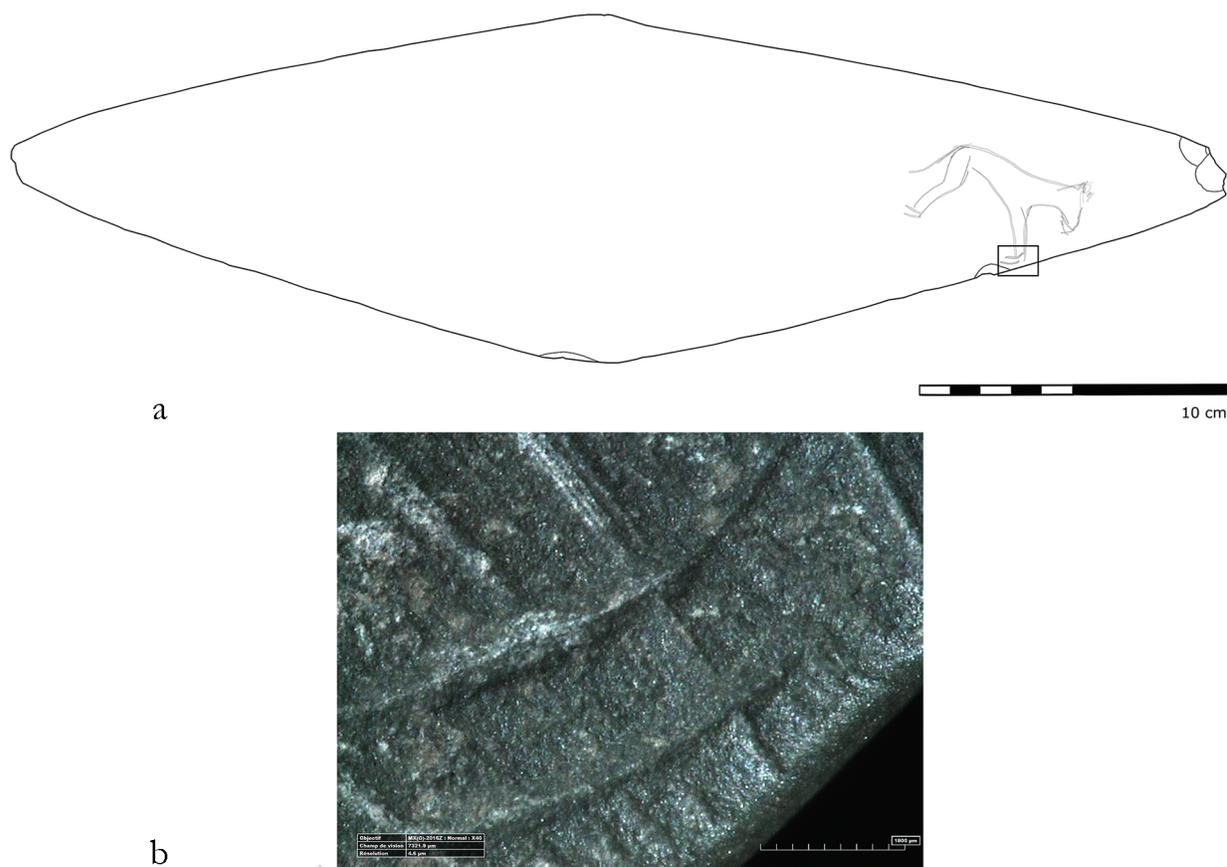
and Protodynastic period,<sup>43</sup> when the functional aspect of the object actually tends to disappear.

Many engraved palettes are highly worn and/or show large signs of desquamation of the schist surface (such as the Petrie Museum turtle-shaped palette inv.no. UC 15775 already cited); one of them, UC 15766, even features large holes in its center. The MMA palette appears as

no exception, considering the number of areas where the surface of the stone has been flaked off, as well as the numerous scratches on the surface. Although it cannot be ascertained whether some of the desquamation is not part of a taphonomic process, some figures clearly take place on top of these previously damaged areas, such as the upside-down “antelope” or the oryx.

Nevertheless, and contrary to what might appear logical, it does not ensue that such palettes would have been discarded as functional objects when they became too worn out, and then turned into decorative objects by the addition of engravings. On the MMA palette, some

<sup>43</sup> Discussed in many works, e.g., by Williams, Logan and Murnane, “Metropolitan Museum Knife Handle” (1987) and Cialowicz, *Les palettes égyptiennes* (1991), 12–17.



**Figure 14a–b**—Engraved palette from Beit Allam (Saint-Germain-en-Laye, Musée d’Archéologie Nationale, inv.no. 77.713f02): **14a**. Full drawing; rectangle indicates the scope of the microscopic magnification below; **14b**. Detail with microscopic magnification ( $\times 40$ ) of grinding grooves and scratches (photograph taken with Hirox microscope KH-8700).

of the grinding scratches definitely cut through the horns of the oryx, and thus postdate its incision on the palette (see Fig. 13). The same phenomenon has been observed on a palette engraved with a dog (see Fig. 14a–b), from de Morgan’s excavations in Beit Allam, near Abydos, now in the Saint Germain Musée d’Archéologie Nationale (inv.no. 77.713f02), on which grooved outlines are clearly superimposed onto the dog’s claws.

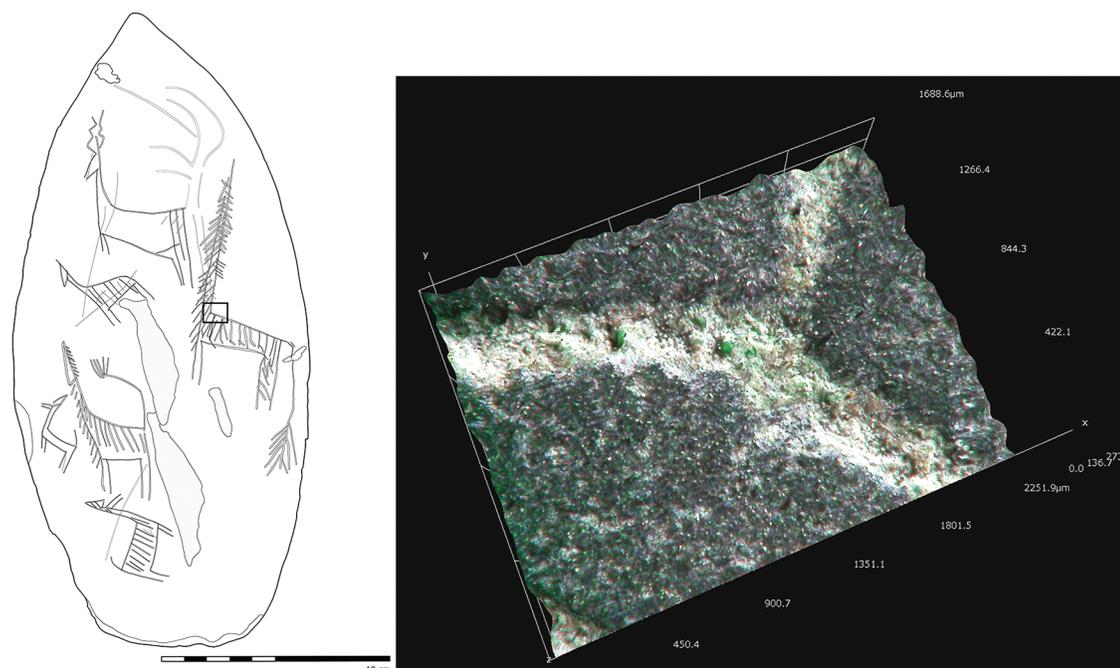
The fact that the palettes, at least some of them, were still in use when they received their animal engravings is supported by findings on the MMA palette, which show clear residue of reddish material still embedded into the geometric infill of the Barbary sheep’s body. The fact that this is the remainder of grinding activity rather than a post-depositional phenomenon is supported by the fact that these remains are only located on this area to the exclusion of any other figure. Degradation or rust due to an outdated displaying bracket may also be ruled out on the basis that the palette has never been exhibited in the museum and that

the stained area is located on the central, principal decorated figured of the palette and on none of the edges.

A newly-conducted microscopic study of the engraved palette in the Petrie Museum (inv.no. 15766; see Fig. 15a–b) has revealed similar traces, this time in a very bright green color, deep inside the incised lines forming the shoulder of the main figure, a large giraffe on the right of the palette. As in the case of the MMA palette, it must necessarily mean that these residues were trapped within them after they were engraved.

Although unfortunately no chemical analysis has been conducted so far to characterize the detected residue, grinding activities of red ochre or hematite and green malachite, known from other contexts,<sup>44</sup> are most likely responsible for these pigment deposits. Their occurrence exclusively within the incised lines as well as inside figures occupying the centre of the palette speaks

<sup>44</sup> Baduel, “Tegumentary paint” (2008), 1060–62.



**Figure 15a–b**—Engraved palette of unknown provenance with green residue inside incised figures (Petrie Museum, London, inv.no. UC15766): **15a**. Full drawing; rectangle indicates the scope of the microscopic magnification below (drawing by the author); **15b**. Detail with microscopic magnification ( $\times 40$ ) of green residue (malachite?) (photograph taken with Hirox microscope KH-8700).

in favor of these artifacts still being functional even after decoration was applied to them. Nevertheless, because the incisions do not appear to have been thoroughly damaged or gradually erased by repeated grinding, most probably these palettes only underwent very punctual use after receiving their decoration.

This behavior finds a possible explanation when one turns to excavated examples: in several Predynastic cemeteries, palettes have been reported to exhibit residue of grinding activity which likely took place immediately before deposit in the burial. In Gerzeh, for example, “at least seven palettes were found with the vivid green copper-ore malachite still adhering to the surface, suggesting that the pigment had been used in the preparation of the body for burial or during the funeral itself,”<sup>45</sup> while in Adaïma, palettes and pseudo-palettes made of shell containing eye-paint had been deposited next to the body in several instances.<sup>46</sup>

We may therefore hypothesize that the presence of the animal figures was somehow useful to the grinding act itself, perhaps infusing the pigment with specific properties ascribed to the animals, or serving some purpose in the funerary ritual. In any case, their presence

on palettes, at least for some of them, does not demonstrate their discarding as functional objects and reuse as proto-ostraca, but rather a practice in which iconography and function, image and gesture, appear to be intertwined and to enrich each other conceptually and symbolically.

### Conclusion: Re-contextualizing Predynastic Animal Iconography

Many Predynastic artifacts, especially those bearing figurative iconography—deemed more appealing by the antiquities market—suffer from the loss of any contextual information regarding their date, provenance, or function, and have consequently been studied mostly outside of any consideration of their stylistic diachronic evolution, regionalism, or the social use of decorated objects. However, provenanced occurrences are sufficiently numerous nowadays, especially when complemented by excavated artifacts with a thorough study of rock art panels, to suggest a more refined timeline for Predynastic animal depictions, as well as hints towards a regional distribution of animal depictions and stylistic features. A long-overdue and thorough examination of museum pieces might even reveal hitherto unsuspected aspects, even when these pieces, like the MMA palette, have only

<sup>45</sup> Stevenson, *Predynastic Cemetery of el-Gerzeh* (2009), 109.

<sup>46</sup> Crubézy, Janin, and Midant-Reynes, *Adaïma 2* (2002), 463.

been acquired quite recently and bear absolutely no information regarding their original context. Just like rock art, palettes with engraved decoration have been largely overlooked so far, except for several recent studies by Hendrickx, although a newly-discovered example from Hierakonpolis may help trigger more scholarly interest for this very specific category of artifacts.<sup>47</sup> Even if there are only a handful of these objects, we now know that these, together with rock art panels and a few fully engraved pots, are almost alone in maintaining a tradition of complex figurative scenes with several animals interacting with each other during the transition phase between C- and D-wares, and provide clues as to the novel ways in which Nagadian people owned, used, and enjoyed objects decorated with animal figures during this period.

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