A palette of cultural traces - A sample study of Predynastic animal depictions on palettes and D-ware pottery

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Abstract


There are no written sources available from the Predynastic period, but an array of art decorated artefacts has been found. This essay will take a closer look at one type of these artefact; the animal shaped stone palette to see what art of this artefact can tell us about the culture that made them.

I will do so by looking at the animal depictions found on the palettes, to allow comparison I will include D-wear, a decorated Predynastic pottery type. I have put together two data sets for the respective artefact that forms the base for this study. My theoretical perspective is that the art depictions of artefact as traces of the culture that made them.

The palettes show a variety of patterns that can be seen as such traces in which type of animals are most common, how the animals can be connected by habitat and which animal depiction gets decorated features. My look at the D-ware data set is only brief but shows that animals are quite rare on the pottery and includes only three different kinds of animals. These still correlates with the animal palettes by both artefacts having birds as the most common. The bovids has an almost equal occurrence on the palettes and D-ware in my data sets. Other than this the animal depictions differ notably between the two artefacts.

As the traces of culture does not provide any details, this study has given new questions that can be studied further in greater depth.

Keywords: *Predynastic Period, Egypt, Palettes, D-ware pottery, art, Naqada*
Acknowledgments

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1. Introduction

Before the first pharaohs of Egypt descended their throne, there was a long formative period spanning roughly 1000 years, called the Predynastic period. It was then that the cultural elements of the peoples living by the Nile valley started to form the raw material that would eventually build the later dynastic Egyptian culture. There are no written sources from this time, but despite that has much earlier research been done by Egyptology, a discipline that study ancient Egyptian written sources. The continuity between the Predynastic- and the Dynastic periods is uncertain, and such research there of problematic (Midant-Reynes 1992:169; Köhler 2010:26, 36; Patch 2011a:3). The Predynastic period is instead ideal for archaeological research.

Archaeology, with its large array of methods is very well suited for studying broader changes over longer period of time and is not limited by the access of written material. Archaeology can also provide a theoretical framework to the research, something witch Willeke Wendrich argues Egyptology, in general terms, has made poor use of. The use of a theoretical framework allows “a clear explanation and division of the knowledge, concepts and assumptions that scholars makes in their interpretation and recreations of the past” as Wendrich puts it (Wendrich 2010:1; Brewer 2012:1-2, 11).

1.1. Research purpose

My essay intends to look closer on the art from the Predynastic period by making use method and theory for archaeology. The purpose of this to see what the art of this period can tell us of the culture of the ancient Predynastic Egyptians. What makes this purpose relevant in a larger picture is that much of our knowledge of the time stems from excavations of mostly cemeteries, and to a lesser degree settlement, after their form and compositions (Stevenson & Simpson 1981:26).

1.2. Research Question

This essay will study the art found on Predynastic artefacts and how it can help us to understand Predynastic culture. I will look for is more general patterns in the Predynastic art as the lack of text makes a deeper meaning difficult to see. For this, I will use the Predynastic palettes artefacts, see section 1.5.3 for details. My definition of culture is the meaning that these artefacts and their art in the Predynastic society, a definition that is my own. Because of focus on broader patterns, this analysis will also give new questions regarding the observed patterns as they are not very clear of their own. With the palettes I will include D-ware pottery, see section 1.5.3 for details, to make comparison.

With this in mind, the questions for this essay can be stated as such:
What patterns can be seen in the depictions of animals on the palettes in my data sets and what can they tell about the Predynastic culture?
Can any patterns be seen between the animal depiction and the decorations found on palettes?
What patterns can be seen in the depictions of animals on D-ware pottery in my data sets and how do they compare to palettes?

The first question will identify the patterns of animal depiction and see what they can tell us. The second question adds the decorations that can be found on palettes beside their shape. The third question compares in the animal depictions of the palettes to those found on the D-ware pottery. Altogether, I hope that these questions will be able cover the important aspects of my material.

1.3. Theory

As stated earlier, the use of a theoretical framework is an advantage of archaeology. Mine builds on papers written by the British archaeologist Jeremy Tanner and his collaborators Raymond Corbey and Robert Layton. Having a simple theoretical approach might perhaps appear as a bit contradictory given the acclaim I made to archaeological theory in the introduction. However, I think that a theoretical framework does not necessarily have to be of a high abstraction level to be useful and fill its function.

I will give a brief insight in Tanner's and his collaborators view the art in the societies studied by archaeology. Tanner and his collaborator names “functions” to define art, it is patterns and objects that have been consciously produced and repeated. This objects and patterns can be divine, private or public. They have a purpose to express and communicate believes and values to others. Art can also depict, embody and accommodate spirits, gods and ancestors. A given artefact does not have to have all these properties, instead the "functions" form number of common features that connects a variety of different artefact (Corbey et al. 2004:359-361).

Art is closely connected with the local conditions where it was made, strung up in a “web” of connected meanings. The stylistic features of art can be a “passive marker” for social processes, or a “consciously tempered marker” for "strategic cultural agencies". Art has by this an active part in social relationships by acting to, and enlarge "the maker or user's agency", that is the ability to act in certain ways (Corbey et al. 2004:359, 361, 371).

Art can also function as a medium for people's expressions of their beliefs and knowledges of the surrounding, such as phenomena like religion, language and writing. Tanner uses the term “formal expressions” for this, which are projected onto works of art, like for example painted pottery. Thoughts and emotions are taking a symbolic form as they are expressed on to the art objects. (Tanner 1992:179-180; Tanner 2001:168, 182).

The theoretical framework that I will use is that the art on my artefacts reflects and has traces of the culture where it was made and used in, just as Tanner and his collaborators argues with social- and cultural markers and “expressive symbolism”. We can thereof learn something of the culture and its society in by studying these traces. My approach differs from the theory of Tanner and his collaborators by not looking the precise purpose of traces. Instead I will just look for general traces in the patterns of my selected artefacts.

This since Tanner and his collaborators argues the lack of written sources for the Predynastic art make the actual cultural meaning for its makers and users are likely lost to us. For example, they suggest that visual communication likely was a common phenomenon in ancient art, but it is very hard to interpret what are communication and what are pure
1.4. Method

I make use of the methods of archaeology in this essay by looking at a selection of artefacts. Rock carvings could potentially also have been used in my study as these are relatively plentiful in Egypt’s eastern desert. However, the continuity of the rock carvings is very long, stemming from at least Prehistoric-, and continuing in to Modern times. This together with a lack for reliable methods for dating make rock carvings problematic to study. D-ware pottery and palettes on the other hand has a fairly well attested dating. D-ware has painted art on the surface and are relatively common, there do exist other types of Predynastic painted pottery, but they are comparatively rare. Palettes, like D-ware, is a relatively common artefact type and is also generally decorated with art (Wengrow 2006:92-93, 111-112; Stevenson 2007:149; Stevenson 2011:67-68). The availability and the art on the artefacts was in other words the factors that formed my selections of artefacts.

One good demarcation to have in this study would be provenance of the artefacts. However, much of the documentation work that has been done on major Predynastic sites was sub standardly done with provenance often missing, see section 1.5.4 for details. It will not be included in the analysis, but I will look closer to showcase how bad the provenance is.

The Predynastic period spans roughly a 1000 year and a demarcation in time might appear necessary. The D-ware generally occurred during a shorter specific time (see section 1.5.3) of the Predynastic, there for, all examples are of interest. The demarcation in time for D-ware are made by its occurrence. Palettes occur continuously throughout the Predynastic period, but in different forms. I will focus on the animal shaped palettes dating from about the middle of the period, see section 1.5.3. These are fairly contemporary with the D-ware which also comparison. The animal palettes also have the most artistic shapes which make them easier to study for traces of culture (Finkenstaedt 1988:80-82, 90-91; Stevenson 2009:2-3).

To answer my questions, I have collected information for the two artefacts types and made it in to two data sets. The datasets consist of spreadsheets which are included as appendices C and D. In these I have listed all attributes and features under the grey marked column titles on the spreadsheets. There is also general information under the beige marked column titles. Different sources list different information, such “Type” which is only found at the UCL Petrie Collection, if a palette is designated a “Palette” or a “Cosmetic palette” or in precision of the dating. The datasets include a total of 219 artefacts, with 104 D-ware vessels and 115 palettes, I have added as many as the time permitted. This means that study is not representable for the entire corpus of palette and D-ware vessel. Instead, it is a small sample study.

Sources of the spread sheets, as well where the artefacts belong are listed at the bottom of appendix 3 and 4. I have mostly used internet recourses, together with the catalogues found in Emily Teeter (2011) and Diana Craig Patch (2011) books. I have not attempted on any animal or feature identification myself, they are directly taken from the sources. If depictions on the D-ware vessels have not been listed I have mostly used Teeter’s book as a reference.

The process of my analysis will be to look for patterns in shapes, decorations and depictions of animals for the questions that my essay aims to answer. I will present the patterns in tables to give a good overview. I will then discuss what traces of culture can be seen. Finally, I will make a conclusion of the traces of culture, which in turn likely will generate a set of new questions. As a small case study, I will also compare my palette dataset
to a similar study of Predynastic palettes made in Krzysztof M. Cialowicz (1991).

1.5. Research history

1.5.1. Dating and Chronology

Two types methods that has been used for dating of the Predynastic period, relative methods and absolute methods. Relative methods mean to establish chronological sequences for artefacts. This is done by looking at their “archaeological level” in the context, objects being older the deeper they are found. If this is not possible, such in a grave, the objects can be arranged after shape to find evolutionary patterns in their morphology. From this, a chronological sequence can be established (Patch 2011a:17-18).

Flinders Petrie created the first relative dating method called Sequence Dating, or S.D for short in the early 20th century. This was a true innovation for the research of the Predynastic period and it is still receiving praise for its intellectual brilliance. The first revision was made by W. Kaiser in the mid 20th century. He established chronological phases called “stufen” (stages in german). These was grouped to Naqada I, II and III, with subfaces of a-d, like Naqada IIA for example. A third rendition was made by Sten Hendrickx in the late 20th- and early 21th centuries. He made Kaiser’s phases to better match the material changes of the pottery. The perhaps most recognizable feature of Hendrickx’s relative dating as they use uppercase letters, like Naqada IIA (Hendrickx 2006:55, 62-65, 85; Patch 2011a:18-19; Stevenson 2016:4-5).

Absolute dating methods seeks to establish date in calendar years. Example of methods used for this is Radiocarbon dating and Thermoluminescence. This method as long been a bit problematic in Egypt, the country's antiquities laws that bans all export of artefacts, and domestic equipment for absolute dating has been missing. The artefacts find abroad often lacks provenance, making them unsuitable for dating. There has also been a bit of scepticism to the method in what it could contribute. In more modern times has the situation and attitudes towards absolute dating has improved and absolute dating has been possible to do successfully. Absolute dating has the advantage of not being limited by subjectivism found in relative dating selection of pottery sequences. (Patch 2011a:17; Dee et al. 2013:1-2; Stevenson 2016:5).

Table 1. Predynastic absolute dating and Kaiser’s “stufen”. Based on Dee et al. 2013:5 and Stevenson 2016:5.

<table>
<thead>
<tr>
<th>Chronological phase</th>
<th>Absolute estimate cal. B.C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Naqada IA-IIB (Naqada Ia-c)</td>
<td>3775 - 3450</td>
</tr>
<tr>
<td>Naqada IIC-D (Naqada IIa-d)</td>
<td>3450 - 3325</td>
</tr>
<tr>
<td>Naqada IIIA-IIIB (Naqada IIIa-c)</td>
<td>3325 - 3085</td>
</tr>
<tr>
<td>Naqada IIC-IIID (Naqada IIId-e)</td>
<td>3085 - 2867</td>
</tr>
</tbody>
</table>

The absolute dating uses the phases from by Hendrickx’s relative dating. It might also appear confusing why his first phases are dividing up the Naqada phases, the first phase for example consist of Naqada I and the first half of Naqada II. This is a result of the revision of Kaiser's older “stufen” Naqada phases to better match the changes of the pottery. For reference have I include Kaiser's chronology in Table 1. in parenthesis.
1.5.2. Egypt during the Predynastic period

The Predynastic period in Egypt started around 3700 B.C when small agricultural had villages established themselves around the Nile valley. With the annual floods, it was an excellent place for agriculture and with the generated surplus, trade could be established with peoples outside the river valley. Fuelled by this trade, skilfully made objects like palettes, stoneware and pottery started to appear. The stable agriculture made it possible to develop specialised crafts during Naqada II, not everyone had to work full time with agriculture (Bard 2008:91; Köhler 2010:38-39).

Small centres started to appear which was devoted to the trade and specialised craft, likely controlled by an emerging elite. To Naqada IID these centres started to resemble cities. The elite controlled the long-distance trade of valuable goods, as well as estates on the countryside that produced goods. A real bureaucracy to control their holdings developed by Naqada IIIA. The social stratigraphy was getting more complex, the society now consisting of various social classes. Some centres started to grow large and subjected its smaller neighbours. Despite the fragmented political landscape, the Nile valley shared a similar material culture by this time. (Köhler 2010:39-42, 44, 47).

The end of the Predynastic period, about Naqada IIIB, Egypt appears to consist of several small city states. What eventually led to Egypt's unification is not fully understood. Likely it stared in Upper Egypt, where the regions city states were in a stiff competition. Abydos seems to have get dominance by Naqada IIIC, sometimes refed to the Early dynastic. From thence their influence could have spread northward until all of Egypt was controlled. (Midant-Reynes 2000:252; Bard 2008:105; Köhler 2010:47).

I have mentioned that great changes came with the unification process. For example, was the capital was placed at Memphis close to the Delta, see Fig. 1. A radical and consciously made decision to form a completely new state apparatus. The art was most likely a part of this change as it appears that the final standardization and establishment of the Dynastic art happened during a relative short period (Köhler 2010:47; Hendrickx 2011:81).

Figure. 1. Map of Ancient Egypt with Predynastic and Early dynastic sites.
1.5.3.  D-ware pottery and Palettes

Elizabeth Finkenstaedt suggests that new influences reached Egypt by the long-distance trade outside the Nile valley during Naqada II. It was likely this development that gave rise to a new type pottery, called “Decorated” ware (D-ware). Judging from its shape and manufacturing, D-ware was likely made by specialized craftsmen. From the beginning the decorations was simple with spirals and wavy line patterns. The pottery is painted with an ochre pigment-based paint and D-ware saw a large proliferation throughout the entire Nile valley, shards have even been found in the southern Levant. Despite this has D-ware not been found in any larger quantities any ware. The pottery type has frequently been found as grave goods, which likely was it primary use, occasionally it does appear in settlements areas. The depictions of figures decline during Naqada IID and D-ware pottery is almost entirely gone by Naqada IIIA (Finkenstaedt 1988:80-82; Midant-Reynes 2000:191; Wengrow 2006:92-93; Hendrickx 2006:77-82; Stevenson 2011:67).

D-ware pottery had in its zenith during Naqada IIC a rich imagery with animals, humans and plants, but also various geometrical decorative patterns in lines and spirals. Boats was also a common depiction. The painting is not symmetrical over the surface, it likely has no connection to the manufacturing process of the vessels, nor to replicate another type of material such as basketry. The depictions on D-ware pottery has also a more standardise configuration than those found on the earlier painted pottery (Wengrow 2006:92-93, 102-104; Patch 2011b:66, 70; Hendrickx 2011:79).

By Naqada I palettes was already a standardized artefact with an oblong rhomboid shape, sometimes be seen decorated with two horns on one end, which likely is the first type of animal-oriented depiction on palettes. (Midant-Reynes 2000:180;KHöler 2002:505; Stevenson 2009:1-2).

Alice Stevenson points out that palettes has mostly been found in graves, but also occurs in settlements, giving them a more mixed context than D-ware. Grinding appears to have been the primary use of palettes, as traces of minerals can be seen on many. The most common mineral appears to be malachite, which is often found with palettes in graves, together with the pebble. Traces of grinded galena, hematite and red ochre has also been found. So too residue of oils, resin or fat be seen, which implements making of paint. Petrie believed that this was for cosmetic purposes as eye paint and later research has strengthen this theory. By this can palettes also be referred to as cosmetic palettes (Midant-Reynes 2000:180; KHöler 2002:505; Stevenson 2009:1-2).

Wear and tear is common to see, they had likely a long life of use. The artefact type also saw a long continuity with many changes. By the end of Naqada I a new type animal shaped palette, such as birds, turtles and fishes, starts to appear. The rhomboid palettes decline steadily during Naqada II and are almost gone by Naqada IIC. Together with animal shapes was also palettes decorated with two opposing bird heads, or sometimes horns, on the top. The surface is generally clean but can be decorated with eyes. Legs, fins or tails can be incised or portue around edge. Very common is drilled holes that likely was used for suspension. Some palettes have a specific piece for such holes. The palettes saw a general increase in numbers during Naqada II, likely driven by the same development as D-ware pottery. (Midant-Reynes 2000:180; Hendrickx 2006:77-78, 80; Stevenson 2007:149; Stevenson 2009:2-3).

From Naqada III, the animal shaped palettes decline in favour for simpler, mostly square and ovoid forms, the palettes numbers also decrease. By Naqada IIIC-D the palettes disappear as an artefact category. (Hendrickx 2006: 82; Stevenson 2007:158; Stevenson 2009:5-6).
There as long been a general confusion about the material of which the palettes are made of due to a “geological semantic” (Stevenson 2007:150). To say that palettes are mad of slate and schist are simply inaccurate. Greywacke, siltstone and mudstone are more geological correct but often misunderstood. They are all related sedimentary rock, greywacke consisting of the largest grains, mudstone has having the finest and siltstone are found in between. The prefix “meta-” is to classify a metamorphosis, wish displays in presents of chlorite and epidote minerals. Recent geological studies as shown that most of the Upper Egyptian palettes was made from chlorite rich meta-mudstone (Stevenson 2007:150-152).

1.5.4. Early Predynastic excavations in Egypt

I have mentioned that substandard field work has affected my study. I will here present some examples of the early excavations done in the late nineteenth and early twentieth century, which are the main cases for these problems. I think it is important to see the scale that these excavations were conducted to understand their impact. Another problem for provenance from this time was a thriving antiques market in Egypt, where people plundered cemeteries and tombs to sell artefacts in markets and bazaars (Finkenstaedt 1988:90-91).

See Fig. 1. for the different sites mentioned in the section. Petrie worked at Naqada, during the 1894-1895 season, with a total of 2149 graves excavated. Petrie was relatively accurate in his work, but little was published. James Edward Quibell did a similar expedition to Ballas, about 3.2 kilometres north of Naqada, were roughly 1000 additional graves was found. Nothing of Quibell’s work was documented. Diospolis Parva is located about 45 kilometres northwest of Naqada. Here Petrie excavated about 1167 graves all together. The plundering made by antique dealers was most palpable here (Hoffman 1980:105-109, 133-134; Bard 1987:84).

Henri de Morgan conducted several excavations during the seasons of 1906-1908. This was sub standardly done without any mapping or numbering and cataloguing. de Morgan incorporated an excavation technique that has later been described as “industrial”. As most Predynastic graves has been disturbed, hi regarded the context as of no interest. Instead de Morgan hired large workers crews of up to a 1000 man that he had hastily dig throw the sites in search of artefacts. de Morgan excavated a total of 526 graves (Hoffman 1980:106-109; Bard 1987:81, 83).

Henri-Euduard Narvile and Thomas Eric Peet excavated at Abydos during the 1909-1910 season, there publication was incomplete, and no mapping was done. Thereof it is difficult to say how many of the circa 4580 graves that dates from Predynastic times. A.C Mace and David Randall-Maclver excavated two cemeteries at El-Amarna in 1901 with about 400 graves, each heavily plundered. Of the work was only 108 graves listed complete with artefacts, no mapping was done (Bard 1987:85).
2. Analysis

2.1. Palette data set

There are thirteen different types of animal shaped palettes in my datasets, with nine different
types of animals depicted, see Table 2. There are also four composite depiction palettes that
depicts more than one type of animal. There are four categories of bird palettes, the palettes
with the silhouette shape of a bird (Fig. 5), with two bird's heads on top (Fig. 3), with a
silhouette shape of two bird's heads (Fig. 7) and a silhouette shape of a bird head (Fig. 15).
The “Two horns on top” type (Fig. 10) can be said to animal oriented but is not directly
depicting an animal. Birds heads and horns on top palettes can sometimes be difficult to
separate because of wear or damage to the top end, see Fig. 16. I have thereof made an own
category for those. See Appendix I for examples of the different palette depictions. The
percent has been rounded off to one decimal.

Table 2. Animals depicted in the data set in total.

<table>
<thead>
<tr>
<th>Animal depiction</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird</td>
<td>54 (+1 composite)</td>
<td>53.9 %</td>
</tr>
<tr>
<td>Fish</td>
<td>21 (+1 composite)</td>
<td>21.6 %</td>
</tr>
<tr>
<td>Turtle (1 Tortoise)</td>
<td>9 (+1 composite)</td>
<td>9.8 %</td>
</tr>
<tr>
<td>Cow or antelope</td>
<td>3 (+1 composite)</td>
<td>3.9 %</td>
</tr>
<tr>
<td>Horns on the top</td>
<td>3 (+1 composite)</td>
<td>3.9 %</td>
</tr>
<tr>
<td>Hippopotamus</td>
<td>3</td>
<td>2.9 %</td>
</tr>
<tr>
<td>Birds or horns on top (uncertain)</td>
<td>3</td>
<td>2.9 %</td>
</tr>
<tr>
<td>Goat</td>
<td>3</td>
<td>2.9 %</td>
</tr>
<tr>
<td>Elephant</td>
<td>2</td>
<td>1.9 %</td>
</tr>
<tr>
<td>Lion</td>
<td>1</td>
<td>0.9 %</td>
</tr>
</tbody>
</table>

Not that Table 2. shows the total number of animal depictions rather than the palettes. In it I
have included the “Composite depiction” palettes (Fig. 9), as marked. Birds and fish are the
most common animal depictions. Birds really stand out with a 53.9 % occurrence. Turtles
(Fig. 8), cow or antelopes (Fig. 13), goats (Fig. 11) and depictions of horns can be said to be
fairly common in the data set. Hippopotamus (Fig. 12) and elephants (Fig. 6) are rare and
lion (Fig. 2) very rare. Turtle and tortoise are similar animals, so I chose to include them to
one animal type. It is likely difficult to difficult to distinguish the two, which makes it a bit
subjective in determining which are being depicted. Likely has cow and antelope depictions
been grouped together for the same reason.

A type of palettes that are standing out among the others are boats palettes, as that are not
a depiction of animals. Two “Composite depiction” palettes (9492 and EA63415) also depicts
boats with heads of animals placed fore and aft, like figureheads. In total there are 12 boat
shaped palettes, were of one is slightly uncertain (UC4690) and two are the “Composite
depiction”. The boat palettes (Fig. 4) are interesting as they have a unique non-animal
depiction but still relatively numerous with 11.8 %.

There are other types of palettes besides those with animal depictions, why are they not
included if boat palettes are? This as boat palettes have a clear artistic depiction, the earlier
and later non-animal palettes are contrary geometrical shapes such as rhombus or square. The boat palettes are also fairly contemporary with the animal palettes, while other non-animal palettes generally occur earlier and later. Table 3. shows the boat palettes in my data set.

Table 3. Boat palettes in the data set.

<table>
<thead>
<tr>
<th>Depiction</th>
<th>Total</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat</td>
<td>10 (+2 composite)</td>
<td>11.8 %</td>
</tr>
</tbody>
</table>

The three most commonly depicted animals, birds, fishes (Fig. 14), and turtle/tortoise can all be found in the Nile valley. Boats can be added as they have a clear association to the Nile as well. Looking at the opposite end, the three rarest type of animal depiction in my dataset, lion, elephant and goat, can be associated with the desert outside the river valley. The animal's habitat appears to be connected to their occurrence on palettes. This could explain why the otherwise odd depiction of boats could be so frequent.

This is however not fully true in my data set. The biggest exception is hippopotamus, and animal with a clear association to the river, but still the third rarest animal on palettes.

“Cow/antelope” goat and horned palettes could be problematic for the association to the Nile. First, connecting these three palette types could be possible as there is no other animal in my data set with horns. This makes the “Cow/antelope”, goat and horned palettes the fourth most common type at 9.6 % in total. Antelope, and to an extent goat, are desert animals, if all these palettes would be viewed as desert associated then the pattern of Nile association is invalid. However, cows could perhaps be domesticated animals with connection to settlements and the river valley, the same is true for goats.

One other association could be with food or hunting. All five most common animal depictions can likely be used for food production. Boat palettes can similarly be fishing vessels. Hippopotamus, elephant and lion, three potentially quite dangerous animals that likely required work intensive hunting, are also all found at the lower end in frequency. There are problems with this association as well, it does not fit well in with the large representation of birds. They can of course be used for food and the Predynastic Egyptians was likely capable of catching them efficiently. But would birds be the best source of food? Perhaps it would have been more work efficient to for example fish in the river. Goats, which could have been domesticated but goat palettes are the third least common in my data set. Perhaps the biggest question is if the Predynastic Egyptians really any larger interest in food from animals had as their agriculture so efficient.

I think that a visible pattern is that animals with a habitat in the Nile valley is generally more common than animals with a habitat of the desert. This is a cultural trace that can be seen in the palettes. The animals and boats associated with the Nile valley, especially birds, had a cultural meaning that made them more numerous. The quite large diversity of the nine animals depicted also shows that animals in general, found both in the valley and the desert was relevant for palettes. It is quite interesting that these more uncommon palettes were produced that perhaps did perhaps not follow a form of consensus.

Palettes was also decorated, in my data set have three types, Inlaid eye, Drilled eye and Piece for suspension. 25 palettes are decorated with inlaid eyes, six have drilled eyes and 23 has a piece for suspension, altogether are 59 palettes, 51.3 %, with decorations. Table 4., 5. and 6. display the distribution of decorations among the palettes.
Table 4. Palettes decorated with inlaid eyes.

<table>
<thead>
<tr>
<th>Palette type</th>
<th>Palettes with inlaid eyes</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double birds head shape</td>
<td>6</td>
<td>31.6 %</td>
</tr>
<tr>
<td>Birds head</td>
<td>5</td>
<td>26.3 %</td>
</tr>
<tr>
<td>Two birds head on top</td>
<td>4</td>
<td>21 %</td>
</tr>
<tr>
<td>Fish</td>
<td>3</td>
<td>15.8 %</td>
</tr>
<tr>
<td>Turtle/Tortoise</td>
<td>2</td>
<td>10.3 %</td>
</tr>
<tr>
<td>Hippopotamus</td>
<td>1</td>
<td>5.3 %</td>
</tr>
<tr>
<td>Goat</td>
<td>1</td>
<td>5.3 %</td>
</tr>
<tr>
<td>Cow/antelope</td>
<td>1</td>
<td>5.3 %</td>
</tr>
</tbody>
</table>

Table 5. Palettes decorated with drilled eyes in the data set.

<table>
<thead>
<tr>
<th>Palette depiction</th>
<th>Palettes with drilled eyes</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird</td>
<td>2</td>
<td>28.6 %</td>
</tr>
<tr>
<td>Fish</td>
<td>2</td>
<td>28.6 %</td>
</tr>
<tr>
<td>Turtle/Tortoise</td>
<td>1</td>
<td>14.3 %</td>
</tr>
<tr>
<td>Composite of turtle/antelope</td>
<td>1</td>
<td>14.3 %</td>
</tr>
<tr>
<td>Elephant</td>
<td>1</td>
<td>14.3 %</td>
</tr>
</tbody>
</table>

Table 6. Palettes equipped with a piece for suspension in the data set.

<table>
<thead>
<tr>
<th>Palette depiction</th>
<th>Palettes with a piece for suspension</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double birds head</td>
<td>9</td>
<td>40.9 %</td>
</tr>
<tr>
<td>Boat</td>
<td>5</td>
<td>22.7 %</td>
</tr>
<tr>
<td>Two birds head on top</td>
<td>2</td>
<td>9.1 %</td>
</tr>
<tr>
<td>Birds or horns on top (uncertain)</td>
<td>2</td>
<td>9.1 %</td>
</tr>
<tr>
<td>Two horns on top</td>
<td>1</td>
<td>4.5 %</td>
</tr>
<tr>
<td>Composite boat with birds heads</td>
<td>1</td>
<td>4.5 %</td>
</tr>
<tr>
<td>Composite boat with horns</td>
<td>1</td>
<td>4.5 %</td>
</tr>
<tr>
<td>Elephant</td>
<td>1</td>
<td>4.5 %</td>
</tr>
</tbody>
</table>

As the bird palettes accounts for more than half of all the palette types in my dataset, it is to expect that they are the most decorated palette type. This correlation with occurrence can be seen for inlaid eyes on fish and turtle/tortoise palettes that can be found on second and third place for inlaid eyes. The same for drilled eye decorations with birds, fishes and turtle/tortoise as the most decorated type. A trace of the culture could be that decorated eyes do generally not appear to have any specific meaning with association as they are spread out evenly over the three largest palette types.

Other than theses, eye decorations occur on elephant, hippopotamus, goat and "Cow/antelope". If "Cow/antelope" is combined with the horned composite palette as one group, it has two occurrences of eye decorations. Still, the distribution of eye decoration outside the large groups of birds, fishes and turtle/tortoises do not show any clear pattern.

Things gets more interesting by looking how occurrences differ between different the bird palettes. Inlaid eyes are represented on “Double birds head”, “Birds head” and “Two birds on top”. No bird shape palettes have inlaid eyes in my data set. Drilled eyes show the opposite, birds shape palette is the only bird type white drilled eyes, see Table 7. This could be a cultural trace, maybe palettes with a bird’s shape had a different implementation to it. To me, an inlaid eye would be more difficult to make than a drilled one. Perhaps the birds shape a simpler type of bird palette that received simpler decorations.
Table 7. Bird palette types with their type of eye decoration in the data set.

<table>
<thead>
<tr>
<th>Bird palette type</th>
<th>Occurrence</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two birds head on top (inlaid eye)</td>
<td>22</td>
<td>42.7 %</td>
</tr>
<tr>
<td>Bird shape (drilled eye)</td>
<td>16</td>
<td>28.6 %</td>
</tr>
<tr>
<td>Double birds head (inlaid eye)</td>
<td>12</td>
<td>21.4 %</td>
</tr>
<tr>
<td>Birds head (inlaid eye)</td>
<td>4</td>
<td>7.1 %</td>
</tr>
</tbody>
</table>

Table 7. Shows the distribution of eye decoration with in the 54+1 bird palettes. The eyes are seen on both rare and common bird palette types, so the decoration can’t be connected to the palettes occurrence. What can be said is that eyes have a strong association to birds, all birds head palettes have eyes for example. It is interesting that the bird's palettes show such strong pattern in what type of eye decorations was used in my data set. It is a clear cultural trace and gives a good new question to investigate further.

The general pattern of piece for suspensions appears to be connected to the shape of the palettes, there are only two shapes with this feature. There is one exception from this which are one elephant palette. As there are only two elephant palettes in my data set, it is difficult to say if this feature was common for them or not. The elephant palette is also interesting as it is the only animal silhouette palette with this feature in my data set.

There are two large groups with pieces for suspension, the first are boat (22.7 %) and double birds head shapes (40.9 %) with the piece in the middle. The second type is the shaped “Two birds-” and “Two horns on top” shapes (22.7 % altogether), where the piece is found at the bottom. The two composite palettes in Table 6. are boat shaped. The occurrence to only these groups is it a clear pattern for piece for suspension in the data set. This could be a cultural trace; these types of palettes perhaps had a curtain meaning or connection to suspension. However, holes likely for suspension is a very common feature on all types of palettes. This special piece could also be a utilitarian adaptation to fit a suspension hole on a palette shape where it otherwise would be difficult. That might be the case for the sometimes quite slim boat and double birds head palettes. But "Two birds head- ", "Horn on top" and elephant palettes are more substantial and fits a suspension hole without a special piece.

An interesting aspect is that the piece on boat palettes appear to form a superstructure, a feature that is very common on boats depicted on D-ware pottery. Perhaps the intention was to mimic the superstructure feature on boat palettes. Similarly, could the piece on the elephant palette could be a saddle or a carrying basket. It is clear that a piece for suspension has a pattern associated with two types of palettes, with an interesting exception of an elephant palette.

One interesting type of palette are the composite depiction palettes, which there are four of in the data set. They form two types, combinations of two animals and combinations of a boat and an animal. OIM E11470 and 21.6.113 are combination of animals, with a horned animal head and tilapia fish fins, and with one turtles head and two antelopes respectively. EA63415 and 9492 are the earlier mentioned boats with figureheads looking a horned animal and birds heads. The combination of a boat and an animal is interesting, was it meant to form a type of hybrid creature of beast and boat, or was it meant as decorations like figureheads on the boats?

As there are so few composite palettes in my dataset it is difficult say how the patterns are for them. On both the animal composition palettes are an aquatic animal combined with a bovine. The palette of a boat and a horned head could perhaps be added to this pattern as boat are aquatic. Another pattern is that composite depiction palettes are only depicting the five
most common animal depictions in the data set, and none of the others. This could imply that composite depictions were only relevant for the more common animals. Similarly, this connect the use of composite depictions to the Nile valley. The combination of bovine and aquatic animals could perhaps be intended as a combination of the river valley and the desert.

There are other properties to palettes outside there depictions, that is the material they are made from, there provenance and dating. All these properties are a bit problematic in my data sets, as mentioned. The unreliability of the rock classification makes the data not representable. The provenance cannot either be studied for the same reason, 46 % of the palettes are without provenance in the data set, see Table 8. The dating is however complete enough for a closer look.

<table>
<thead>
<tr>
<th>Condition of provenance</th>
<th>No. of palettes</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>53</td>
<td>46 %</td>
</tr>
<tr>
<td>Locality only</td>
<td>30</td>
<td>26 %</td>
</tr>
<tr>
<td>Locality with a tomb</td>
<td>25</td>
<td>21.7 %</td>
</tr>
<tr>
<td>Purchased/Gift</td>
<td>7</td>
<td>6 %</td>
</tr>
</tbody>
</table>

Table 8. Condition of provenance in the data set.

<table>
<thead>
<tr>
<th>Animal Depicted</th>
<th>Naqada I</th>
<th>Naqada I-II</th>
<th>Naqada II</th>
<th>Naqada II-III</th>
<th>Naqada III</th>
<th>Dating unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bird</td>
<td>9</td>
<td>6</td>
<td>24</td>
<td>-</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>Fish</td>
<td>4</td>
<td>10</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Turtle/ Tortoise</td>
<td>2</td>
<td>-</td>
<td>5</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Cow or antelope</td>
<td>1</td>
<td>-</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>Horns</td>
<td>3</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Birds or horns on top (uncertain)</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hippopotamus</td>
<td>2</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Goat</td>
<td>1</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Elephant</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lion</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Boat</td>
<td>2</td>
<td>-</td>
<td>9</td>
<td>-</td>
<td>-</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 9. Dating for animals and boats depictions in the data set.

I had to exclude the sub phases in the data set from Table 9., as the precision of the dating varies quite a bit in accuracy, often they are not noted. I have included the composite palettes depictions in the animal categories just like in Table 2.

Overall, I think my data set correlates well the earlier research, with a zenith for animal palettes dating in Naqada II, with 39 %. This is true for all animals apart from horns and hippopotamus how in opposite, are more frequent in Naqada I than in Naqada II. Birds, turtles and "Cow/antelope" are significantly more in Naqada II, while fish and goat are more balanced between the two phases. The large decreases seen for Naqada III is also apparent in the data set, with 6,8 %. The fact that mostly birds and fish palettes are present from this phase can likely be explained that these two are the largest types. The larger the selection is the more likely it is that rarer Naqada III examples to appear. Interesting I also the very low
Another observation that could be made is that there is a relatively large number of depiction dated to Naqada I, something that would appear differentiates from the earlier research. However, it is not possible to tell from when in the phase the palettes dates from as there is no consistent sub phases for Naqada I in my data set. This lack of any precis dating makes it not possible to tell if it is differentiating from the earlier research, where animal palettes can be seen from late Naqada I.

The lack of a precise dating in the data set makes me not dare to try to make out any patterns for the development for the depictions. This as the sub phases again are needed. The palettes with an unknown date (10,2 %) is also problematic for this. The cultural traces to be found in palettes in my data set regards to dating can be said to be what the earlier research already has presented. An association with Naqada II, and to a certain extent Naqada I, with an abrupt ending by Naqada III.

A reason for me persisting with the dating is the earlier mentioned study done in 1991 by Cialowicz. It would be of interest to do a comparison, which will be a little case study in this analysis. Cialowicz used 400 palettes for his studies, of them 241 (60,2 %) was possible to date to Naqada I, II or III. For some palettes was only possible to date them to Naqada I-II or Naqada II-III, something also seen in my data set. Cialowicz has a different selection of palettes from mine, but the common types that I will compare with are fish palettes, bird palettes, “Double birds head” palettes, “Two birds on top” palettes and turtle palettes (Cialowicz 1991:20).

<table>
<thead>
<tr>
<th>Animal</th>
<th>Naqada I</th>
<th>Naqada I-II</th>
<th>Naqada II</th>
<th>Naqada II-III</th>
<th>Naqada III</th>
<th>Dating unknown</th>
<th>Animal depiction</th>
<th>All palettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>4</td>
<td>5</td>
<td>39</td>
<td>8</td>
<td>2</td>
<td>36</td>
<td>52,8 %</td>
<td>23,5 %</td>
</tr>
<tr>
<td>Bird</td>
<td>5</td>
<td>11</td>
<td>22</td>
<td>5</td>
<td>3</td>
<td>30</td>
<td>42,7 %</td>
<td>19 %</td>
</tr>
<tr>
<td>Turtle</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>-</td>
<td>1</td>
<td>4</td>
<td>7,9 %</td>
<td>2,5 %</td>
</tr>
</tbody>
</table>

Table 10. shows Cialowicz results, I have combined the birds' palettes to one category, as I did with my data set. Perhaps the most notable difference between mine and Cialowicz’s datasets is the birds and fish palettes. My data set consist of more bird palettes (see Table. 2) in opposite to Cialowicz's, which has more fish palettes. Cialowicz's are also more even in numbers of bird and fish, without the dominance that the bird palettes have in my data set. The percent is quite similar for the most common type in the data sets, birds having 53,9 % in mine. The turtle palettes have a fairly low count compared to birds and fish, just like in my data set. There percent is also quite similar. Fish palettes shows a large difference of over 20 % between mine and Cialowicz's.

The dating is similar in Naqada II being the most common one. In Cialowicz study has Naqada II a dominance at 16 %, with no other phase reaching over 5 %. In my data set are the dating more uniform in the earlier phases with Naqada I 20,3 %, Naqada II 39 % and Naqada I-II 13,6 %. Naqada II-III and Naqada III are fairly close between mine and Cialowicz's data sets, differing mainly at mine having a bit higher count for Naqada III.

2.1.1. Interpretations of palettes

Alice Stevenson (2007; 2009) has two interesting theories regarding palettes. The fact that mostly meta-mudstone was used for making palettes in Upper Egypt could suggest that this
material held a certain meaning. This type of rock appears to have been quarried at the Wadi-
Hammant, circa 90 kilometres out in the Eastern Desert, see Fig. 1. However, there were
other similar types sedimentary rocks found closer to the Nile that was just a suitable for
palettes. Meta-mudstone could have held a certain meaning by it being so specifically
selected. In contrast, palettes from Lower Egypt are seen in a variety of materials, such as
limestone (Stevenson 2007: 151-152; Stevenson 2009:1-2). This theory is strengthened by
James A Harrell and Per Storemyr. They argue that the green qualities of meta-mudstone
should have been associated with germinal vegetation and a symbolic meaning of good health
and regeneration (Harrell & Storemyr 2009:30).

Her second theory regarded palettes mortuary function. As mentioned, when palettes
were placed in graves, the associated grinding pebble and minerals was often put down
together. Traces of the green malachite has also been found on the faces of some well-
preserved bodies. If green was associated with regeneration and fertility, like Harrell and
Storemyr suggest, its characteristics was well suitable for graves according to Stevenson. One
observation to support this mortuary function is that the red ochre pigment is more common
at settlements, while the green malachite is associated with graves. The holes found on many
palettes could also be associated with this function as they could have allowed attachment to
the deceased (Midant-Reynes 2000:180; Stevenson 2009:2). In all, Stevenson suggest that a
palette was buried with its deceased owner so that it could continue to fill a function, perhaps
for a burial ceremony, or for an afterlife.

Many interpretations have been made regarding the palettes shape. Béatrix Midant-
Reynes suggests that the composite palettes of a boat and a bird implies an ideological
connection between boats and birds. She also means that the piece for suspension on boat
palettes could indeed be a depiction of a superstructure or a cabin (Midant-Reynes 2000:180).
Patch suggest that the Nile valley was the source from which the Predynastic Egyptian made
the art from, it was formed by the surrounding nature. Patch divides the Nile valleys nature
into different elements from where the art expressions was retrieved (Patch 2011b:21).

Two palette types can be derived from the river and the surrounding watercourse, fish and
turtle. Most of the fish palettes are thought to depict the tilapia. The tilapia female broods the
eggs in her body. When they hatch, the younglings swim out of their mother's mouth, as out
of nowhere. This made the tilapia fish to be a strongly associated with rebirth and
regeneration during the dynastic period. The Predynastic tilapia fish palettes could have held
a similar implication (Patch 2011b:25-26).

Patch also suggests that most turtle palettes depicts the African softshell turtle, an animal
that in dynastic times had a negative association. This could however be turned and made
positive by using the animal for symbolic protection. Palettes was likely a personal
belonging, the turtle palettes could have functioned to give protection to its owner. Another
river animal depicted on palettes are hippopotamus, which likely had a negative association
Patch suggests from being quite a danger to humans. But this too was likely turned to offer
powerful protection (Patch 2011b:26, 32, 39).

The sky is where bird palettes were derived according to Patch. It is generally not
possible to distinguish out specific species on bird palettes. In my data set this has only been
done whit five palettes. The use of two birds on palettes, such as “Two birds head on top” and
“Two birds head shape”, could be a depiction of two mating individuals. During the dynastic
period was dualism an important part of the ideology, the palettes with two birds could have
aimed at this meaning. (Patch 2011b:40, 44).

Patch identifies bovine palettes, in my dataset specify “Two horns on top”,
“Cow/antelope” and “Goat”, to come from the desert, but with no further remarks. She also
makes out boats as an element of the Nile valley. With a wide variety of uses in Predynastic
Egypt, such as trade, fishing, communication and traveling, they were something of great importance. Like Midant-Reynes, Patch identifies the piece for suspension on boat palettes as superstructures or cabins. Boat palettes could have been a form of representation of the Nile, but perhaps there was also a connection to the sun god. The concept of the sun god traveling over the sky by a boat is Dynastic. However, Patch argues that the encountered Predynastic boat graves shows that the concept of the sacred boats could have existed in Predynastic times (Patch 2011b:47, 63).

What can then be said about these palette interpretations? Patch do makes an attempt to make more detail interpretations about the meaning behind the palettes shapes. However, she does this largely by connecting the Predynastic artefacts to the later dynastic ideology. This problematic and something that should be done critically and tentatively. The transition between Predynastic and Dynastic times during Naqada III appears to have been characterized by turbulence and rapid change of the society and culture, as mentioned.

Patch even an example of this transition which regards lions. She states that this animal was rare to see in art from the Predynastic period. But from Naqada III the lion suddenly saw a large upswing and appears to have been given a connection to the ruler (Patch 2011b:56). This again implies major changes that pushes the arts of the Predynastic and Dynastic periods away from each other in regard to continuity. I do not mean to say that Patch are completely wrong in her ways of interpretation, the Dynastic art cannot have sprung out of nowhere. Instead it is likely rooted the art from the Predynastic period, they are not unrelated, have similarities, but are not the same. I do think that Patch makes the connections a bit to easily and without addressing these problems of continuity. Stevenson also states that the use of later dynastic ideology for interpretations can just be speculative (Stevenson 2009:4).

Stevenson and Midant-Reynes have a more careful approach to interpretations that are based on archaeological observations rather than making connections to the later times. I also think Stevenson's theory about the function of the palettes in a mortuary context is of good use as it displays a cultural context, something that very important when studying art, as Stevenson and collaborators argues.

Stevenson and Patch both sees the palettes as a close personal belonging. The palettes appear to have had a long life of service, perhaps they followed their owners though life and continued to do so in death. Looking past Patch’s method of dynastic connections, I think that her view of palettes as objects with a magical function for the benefit of their owners are interesting. It fits well with Stevenson's theory; this magical function perhaps could continue to function in the grave. So too in the way palettes had long life, they could have been very important to and maybe affected by their owners. Her theory of the symbolic meaning of the raw material falls in with Patch’s view of magical properties as well. So too with Harrell and Storemyr’s interpretation of the green qualities found in meta-mudstone.

It would then appear that the palettes had a sort of double cultural context, one in life and one in death. An interesting question would be if the meaning or function changed or remained the same in these contexts? Stevenson's observation of different minerals being associated with settlements and graves could suggest that there was a difference. Maybe the grinding of these minerals also had a part in the function of the palette, that is the utilitarian and magical functions was connected. By applying facial paint made on a palette with specific magical properties, these properties maybe were transferred the body. To use Patch’s interpretations could a tilapia fish palette give regeneration and a turtle or hippopotamus palette protection. This could perhaps explain why paint was applied to the deceased in the grave.

Patch’s interpretation is interesting just by this function that the depicted animal has for the palette. It gives the palette the attributes of that animal, such as protection or
reunification. They method the used by Patch to identify the attributes is problematic, but I think that the idea of a palette having the attribute of its depicted animal is very interesting. So too that the birds' palettes with two heads could depict a mating couple, in my data set there are a turtle shaped palette with two heads (10.176.78). Perhaps it has the same meaning as the palettes with double birds.

How does then the interpretations correlate with my data set? Patch’s theory of the elements of the Nile valley and its surroundings coincides well with the data set as all the animals, as well as the boats, can be connected to the Nile valley. Lion palettes are among these interesting, it is the only type with only one example in the data set. Patch states that lion depictions were very rare during most of the Predynastic period to became increasingly common in Naqada III. The lion palette (EA67650) in my data set is dated to Naqada II so it appears to be one of the rare lion depictions before Naqada III. Patch classifies lion as depiction from the dessert (Patch 2011b:56).

She also argues the falcon was being rarely seen depiction, which too correlates well with my data set as they are only identified falcon palettes among the otherwise dominating birds' depiction palettes. On opposite end, Patch says that fish and turtle/tortoise are among the most common palettes, these two animals are the second and third largest types of palettes types in my data set. But at 9.8 %, "Turtle/tortoise" cannot be said to be one of the most common types of the data set compared to birds (53.9 %) and fish (21.6 %), see Table 2. Cialowicz study does shows more fish than bird palettes, just as Patch states. But Cialowicz has an even lower number of turtle palettes at 2.5 %, see Table 11.

As the identification of material is so uncertain, it is difficult to apply Stevenson's theory about the selection of raw material to my data set. She does states that this was a practise found only in Upper Egypt. This could imply that at least most of the palettes in the data set stems from this there. This could be the case as the largest Predynastic excavations where made in Upper Egypt. However, as the provenance is incomplete it is difficult, if all possible, to really say how Stevenson’s theory about the raw material correlates with my data set.

Midant-Rayes connection between birds and boats are represented in the data set buy 9492, a composite depiction of a bird and a boat. She does not mention how important this connection would have been, if it was a common or a rare depiction on palettes, but that similar connections can be found D-ware pottery. Perhaps composite palettes had the function of a double representation, on 9492 the Nile and the sky.

2.2. D-ware data set (Figs. 17-31)

I would very much have liked to study the D-ware pottery in the same detail as I have done with the palettes. However, that would go outside the parameters for this essay as the focus is on animals. I also lacked time and range of words for a such analysis. Instead, I will make a brief overview of the animals and the other depictions found on the D-ware in my data set. The D-ware pottery will in this analysis function to comparison to make against the palettes. See Appendix 2 for examples of the D-ware depictions in my data set.

There is a total of 104 D-ware vessels in my data set with a total of 18 different depictions. Out of them are three depiction of animals, “Tall birds” (Fig. 29), “Addax/gazelle” (Fig. 30) and “Antelope” (Fig. 19).
Table 11. Animals depictions in the D-ware data set.

<table>
<thead>
<tr>
<th>Animals</th>
<th>No. of vessels</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tall birds</td>
<td>22</td>
<td>21.5%</td>
</tr>
<tr>
<td>Addax/gazelle</td>
<td>8</td>
<td>7.8%</td>
</tr>
<tr>
<td>Antelope</td>
<td>4</td>
<td>3.8%</td>
</tr>
</tbody>
</table>

The birds are dominating in numbers as they make out a good bit over half of the animal depictions, see Table 11. But there are still only seen on 21.5 % of the vessels. Addax/gazelle and antelope could perhaps be associated as being bovidae depictions. Both the number of depictions and the animals that are being depicted can be said to be quite scarce on the D-ware in my data set.

Just as I have done with the palettes, it could have been interesting to look at the dating for the animal depictions on the D-ware. However, as it is so associated with the later part of Naqada II, I do not think it is fully necessary as it really would not say much. The only a few exceptions from this in the data set is vessel 12,128.41, dating to Naqada IIIA-B and has an addax/gazelle depiction. If most of the vessels in the dataset had a more price dating with Naqada II sub phases it would have been of a much larger interest, similar to the palettes. Sadly, roughly half of all the datasets vessels are only dates to Naqada II or Naqada II-III, some are also missing dating completely.

To avoid a very large and cluttering table I split the none animal D-ware depictions up between other depictions and geometrical patterns.

Table 12. Other depictions in the D-ware data set.

<table>
<thead>
<tr>
<th>Depictions</th>
<th>No. of vessels</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat</td>
<td>38</td>
<td>36.5%</td>
</tr>
<tr>
<td>Fan shaped plant</td>
<td>22</td>
<td>21.5%</td>
</tr>
<tr>
<td>Palm tree</td>
<td>18</td>
<td>17.3%</td>
</tr>
<tr>
<td>Male figure</td>
<td>13</td>
<td>12.5%</td>
</tr>
<tr>
<td>“Apparatus on pole”</td>
<td>11</td>
<td>10.6%</td>
</tr>
<tr>
<td>Female figure</td>
<td>10</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

Table 13. Geometrical patterns in the D-ware data set.

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<tr>
<th>Patterns</th>
<th>No. of vessels</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wavy line</td>
<td>67</td>
<td>64.4%</td>
</tr>
<tr>
<td>Line of Z-shapes</td>
<td>25</td>
<td>24%</td>
</tr>
<tr>
<td>Cross hatching</td>
<td>25</td>
<td>24%</td>
</tr>
<tr>
<td>Spirals</td>
<td>22</td>
<td>21.1%</td>
</tr>
<tr>
<td>Row of triangles</td>
<td>18</td>
<td>17.3%</td>
</tr>
<tr>
<td>Wavy lines swag</td>
<td>17</td>
<td>16.3%</td>
</tr>
<tr>
<td>Square group of wavy lines</td>
<td>9</td>
<td>8.6%</td>
</tr>
<tr>
<td>Square group of straight lines</td>
<td>8</td>
<td>7.7%</td>
</tr>
<tr>
<td>Hooked strokes</td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td>Checked pattern</td>
<td>1</td>
<td>1%</td>
</tr>
</tbody>
</table>

From Table 12. and 13., it is clear that the other depiction of living things, that is humans and plant depictions, are roughly in the same ranges as animal depictions. It is the geometrical patterns that are the most common depictions on the D-ware in my data set. There is an exception to this which are boat depictions (Fig. 17) with 36.5 % occurrence, only the dominating Wavy lines pattern (Fig. 23) with 64.4 %, has a larger frequency than the boat depictions.
2.2.1. Interpretations of D-ware

Despite me only briefly looking at the D-ware, I think it would be interesting to present some interpretations made by other scholars. The rich depictions of D-ware pottery offer a much larger ground for interpretations that the simpler decorated palettes.

A common interpretation that the depictions thought forms a landscape scene. Midant-Reynes says that the potteries motives likely had standardise elements that formed a system where these elements could be combined in different ways. These elements had been formed out of the Egyptian landscape, much like Patch's view for palettes. One example Midant-Reynes is the Nile, which the boats would represent. On many vessels they form a centrepiece of the imagery, surrounded by other depictions that appears to be “floating” around them. These other depictions can be animals with connection to both the river and the desert. The tall birds, which Midant-Reynes identifies as flamingos, are associated with the river and antelopes and gazelles are associated with the desert. The decorations that surrounds the scene, Midant-Reynes suggest would be “schematic indications” of brown and white land, representing the Nile valley and the surrounding desert (Midant-Reynes 2000:189-191). The animals on D-ware would then be part of a larger scene where they themselves are representations of their habitat.

The human figures depicted on D-ware is often found just above the deck of the boats, the genders can be identified by the body shape. In most common is a female accompanied by about two or three males. The females appear to have a privileged position as they float slightly above the males, the hands always raised over the head. The males appear to present the female with something as they have their hands stretched out to her. There has been many interpretations and discussions regarding the meaning of these human figures (Midant-Reynes 2000:191).

D-ware have generally has been found in graves, and Hendrickx suggests that all the D-ware imagery is to be seen in the context of funeral and the afterlife. He argues the boat are meant for a funeral purpose and could possibly be divine. The females on board represent life and the enigmatic “Apparatus on poles” in my data set are suspended animal hides, which connect to the actual Predynastic burial practices of wrapping the dead in hides. The "Fan shaped plant" and addax are often seen together with a female human figure, which implies a meaning of life for them (Friedman et al. 1999:67; Hendrickx 2011:79). Teeter agrees with Hendrickx that the “Apparatus on poles” could be suspended animal hides set up to dry. The depiction could however also be a depiction of an apparatus of sort, such as a trap, Teeter suggest. She also connects the boat to the afterlife but from a Dynastic point of view where the boat sails west to the sunset land of the dead. Teeter also agrees with Hendrickx in regard to the human figures. The female represents life and death which is why she is worshiped by the males in the grave context (Teeter 2011:155, 177-178).

Patch too see depictions of scenes of landscapes. The very frequently occurring wavy lines could be representation of water. This as the later dynastic hieroglyph for water was just three such stacked lines. The tall birds are identified by Patch as either flamingos or ostriches. The plants, "Fan shaped plant" and "Palm tree" in my data set, is implicating that the scene takes place around the Nile as they likely were commonly found there. The "Palm tree" depiction is explained by being depicted from the side and from a bird's perspective at the same time, a very common convention in Dynastic times. The same motive could also depict sedges, a common plant in the valleys flora and used as a symbol for Upper Egypt in Dynastic times (Patch 2011b:67-69).
Patch interpret the Row of triangles as mountains or hills in the desert, these together with depictions of desert animals like ostrich and antelope establish a desert landscape. The lines consisting of Z-looking characters can be flying birds. Teeter instead interpret this depiction as sandbanks. A small number of D-ware vessels depicts a desert landscape, without any reference to the river valley, showing depictions of rows of triangles and bovines. Patch suggests that this could be scenes of a ritual hunt. Dogs can sometimes be seen, so to bands of squares with cross hatching, a possible reference to hunting nets. Human figures can also sometimes be seen in the desert scenes, depicted in the same manner as in the boat scene. This might suggest that human figures are making a performance (Patch 2011b:67-68, 70, 72-73; Teeter 2011:180-181).

David Wengrow agrees that landscapes likely are what is being depicted on D-ware but argues for carefulness when it comes to make specific conclusions of motives and meaning (Wengrow 2006:103-104). There are no dog depictions in my data set, which would imply that it is a rare depiction. Likely it is only seen I these rare desert scenes, which would explain its rarity.

All the interpretations that I have presented suggest that the D-ware depict a collective and coherent scene, as opposed to having several independent and isolated depictions. They are taking place in Egypt, or at least based upon its environment. Patch, and to an extent Teeter, uses the method of connecting Predynastic and Dynastic Egypt a bit to uncritical in my opinion. The best example would be the connection of wavy lines and the hieroglyph for water. Hendrickx and Teeter’s interpretation is interesting as they seek to explains the function rather than just identifying what the images are depicting. Patch dose this to an extent with the desert scenes and the human figures activity. Hendrickx and Teeter interpretation also goes well with the archaeological observations as D-ware are primarily found as grave goods.

2.3. Palette and D-ware comparison

The perhaps the largest difference between the artefact types is the frequency of animal depictions. Except for the boat palettes are animals the only form of depictions found on palettes in my data set. On the D-ware, there is only three of animals out of a total of 18 depiction types, the most common animal, tall birds, is still just seen on 20,6 % of all the vessels in the data set, see Table. 12.

The animals that are being depicted also show differences, on both palettes and D-ware vessel are birds the most common animal type. As mentioned are identifications of species on palettes difficult but it does still appear that the types of birds seen differ. Palettes has smaller birds such as falcon and Guinea fowl while D-ware shows larger ostriches and flamingos. But something that palettes and D-ware have in-common is depictions of antelope, or cow/antelope in the case of palettes. The accuracy for this animal is radar similar with 3,9 % on palettes and 3,4 % for the D-ware, see Table. 3 and 12. All bovids related depictions two artefacts can be put together, that is horned-, goat- and cow/antelope palettes and antelope- and addax/gazelle D-ware depictions. Then there are bovids depictions 12 (11,7 %) for palettes and 12 (11,2 %) as well for the D-ware.

The bovine depictions very equal between palettes and D-ware in my data set. This is quite interesting that just these types of depictions are so similar when the rest differs significantly between the two artefact types. This with the exception of birds being the most common groups. One question that would arise against this is that antelope is the only bovids animal that occurs on both artefacts. However, as the identification of animals is not easy,
proven by the grouping together of “Cow/antelope” and “Addax/gazelle”, I think that it is reasonable to use a more general identification of bovine. Beside this almost striking similarity, not much else in correlation can be seen regarding animal depictions. This can be said to be a clear trace of culture.

The difference of animal depiction can likely be seen to that they were to different types of medium for art. Palettes and D-ware pottery are two quite different types of objects that likely had different functions and symbolic implications. They had a common factor in that they both functioned as grave goods, but with perhaps different roles to play in the funeral and the afterlife.
3. Conclusion and future questions

The animals with a connection to the river valley appears to be more common as palettes, birds stand out for making out more than half (53.9%) of the entire data set. These animals with a habitat related to the Nile valley appears to have held a certain meaning or relevance for palettes that made them more common, included in this group are boat palettes. This is a trace of the culture. To refer back to Tanner and his collaborators, could the frequency of birds and the connection to the river valley be cultural markers and "expressive symbolism" for the Predynastic Egyptians (Tanner 2001:260; Corbey et al. 2004:359, 361, 371).

The quite large diversity of animal depictions on palettes displays not the most common once, and species found in the surrounding desert, was relevant to depict on palettes as well. A question for another future study could be to look closer at these more rarer depictions, was they part of a common ideology for palettes or are they more of exceptions to it? Another question would be to look closer at the birds' palettes to see what traces of culture can be found for them specifically.

Another trace of the culture that can be seen for palettes are the eye decorations in my dataset that does not appear to have any specific association to any palette type. However, among the different bird palettes can a different pattern can be seen, "Birds shape" only has drilled eyes and the other types has only inlaid eyes. This forms another trace of culture for eye decorations and leaves a question of why the bird palettes has this division when it comes to eye decorations.

Palettes with a piece for suspension are limited to "Double birds heads" palettes, boat palettes and composite boat palettes. This could be a trace of culture as these palettes having a special connection or relevance regarding suspension. At the same time could the piece perhaps just be a utilitarian adaptation for these specific shapes, this as suspension holes are commonly found in on palettes. A future question would be why generally these shapes has this suspension piece?

Composite depiction is rare in my data set with only four examples. As they are rare in the data set it is difficult to determent patterns. The combination boats and animals as well as bovine whit aquatic animals, could however imply a connection between these types of animals or habitat. These enigmatic palette types are interesting and leaves many future questions. Why would two animals be combined and even more why would an animal be combined with a boat?

As the information was incomplete and missing in my data set, I did not look any closer on provenance, similarly I did the same for the palettes materials as the classification of the rock types are too uncertain. I did however look closer on the dating of the data sets palettes. It did generally correlate well with the earlier research with a main point at Naqada II and to slightly lesser degree Naqada I, with a sharp cut of in Naqada III. Cialowicz study showed this correlation as well.

Sadly, only a brief look was taken at the D-ware pottery, so not much could be said what its art can tell. This gives the question of how the depictions on the D-ware would appear if study in the same detail as the palettes? By comparing the D-ware to the palettes, animals are quite rare on the vessels in my data set. With the exceptions of boats, the various geometrical patterns the most common depictions, more than the plant and human figures as well. The art
found on palettes and D-ware pottery in my data sets quite different, which likely can describe to them being different medias with different functions. This itself can be said to be a quite clear trace of culture, different medium for art had different conventions. One large exception to this are the bovidae type of depictions, when these are grouped together they have a very similar occurrences between the artefact types. A question from this would be if this similarity is something that can be seen outside my data sets and to study the bovids depictions more in depth. Another smaller similarity is that bird depictions are the largest animal groups on both palettes and D-ware vessels. A question could be if birds held a similar value as an animal on D-ware pottery as it did on palettes. It is also interesting that the bird species appears to differ between the two objects.

To summarize the presented interpretations and theories, they overall fit well with my data sets. I do think that Patch uses the Dynastic period too easily and uncritically in interpreting the potential meaning of the palettes. With that aside, I think that the presented theories and interpretations of Predynastic palettes are very interesting. Palettes could have hold magical properties that was transferred to its owner, and this might have continued in death. Different animal depictions maybe had different magical properties for this purpose. Also interesting is the theory for the selection for the palette material which would have held a meaning. So too the function of colour green for palettes.

The general idea behind the interpretations of the D-ware is that they are depicting scenes of a coherent landscape, which appears to be showing the river valley and the surrounding desert, with depiction of the fauna and flora. Hendrickx and Teeter’s ideas of a mortuary purpose for the depictions fits well together with D-ware grave context. They also give an explanation the enigmatic boat and human depictions on the pottery, as well as suggesting that the depiction held a meaning rather than being decorative landscape scenes.

The animal palettes have traces of the culture that made them. They are not very detailed but instead shows small hints of the ideas behind there making. The D-ware, with its more complex depictions has likely more to tell with more detailed traces. This study has focused on animal palettes and they compare to D-ware pottery, it has given several new questions that would be interesting to study more in depth. It would be interesting to do a similar study with another focus such as humans or geometrical patterns. Similarly, there are also more Predynastic artefacts with art depictions then palettes and D-ware and it would be interesting to make similar studies with these other Predynastic artefacts.
4. Bibliography


5. Illustration index

Figure 1. Map of Ancient Egypt with Predynastic and Early dynastic sites, page 12. (Patch 2011a:7).

Figure 2. Lion palette EA67650, Appendix 1. (Patch 2011b:56)

Figure 3. Two birds head on the top palette EA32503, Appendix 1 (British Museum).

Figure 4. Boat palette UC10789, Appendix 1 (The Petrie Museum).

Figure 5. Bird palette UC15779, Appendix 1 (The Petrie Museum).

Figure 6. Elephant palette OIM E12170, Appendix 1 (The Oriental Institute).

Figure 7. Double birds head palette EA58339, Appendix 1 (British Museum).

Figure 8. Turtle palette EA20910, Appendix 1 (British Museum).

Figure 9. Composite depiction palette EA63415, Appendix 1 (British Museum).

Figure 10. Two horns on top palette EA36366, Appendix 1 (British Museum).

Figure 11. Goat palette EA20910, Appendix 1 (British Museum).

Figure 12. Hippopotamus palette EA29416, Appendix 1 (British Museum).

Figure 13. Cow or antelope palette UC17770, Appendix 1 (The Petrie Museum).

Figure 14. Fish palette UC4374, Appendix 1 (The Petrie Museum).

Figure 15. Birds head palette UC4122, Appendix 1 (The Petrie Museum).

Figure 16. Two horns or two birds on top palette, uncertain identification UC5499, Appendix 1 (The Petrie Museum).

Figure 17. Boat with two men and a woman depiction from OIM E10581, Appendix 2 (The Oriental Institute).

Figure 18. Line of Z-shapes depictions from OIM E5234, Appendix 2 (The Oriental Institute).
Figure 19. Antelope depiction from EA58216, Appendix 2 (British Museum).

Figure 20. Square group of straight lines depiction from EA64385, Appendix 2 (British Museum).

Figure 21. Square group of straight lines depiction from UC6330, Appendix 2 (The Petrie Museum).
Figure 22. Fan shaped plant depiction from UC6343, Appendix 2 (The Petrie Museum).

Figure 23. Row of triangles and wavy lines depictions from UC6336, Appendix 2 (The Petrie Museum).

Figure 24. Wavy lines swag depiction from EA26637, Appendix 2 (British Museum).

Figure 25. Hooked strokes depictions from OIM E734, Appendix 2 (The Oriental Institute).

Figure 26. Spirals depictions from UC6325, Appendix 2 (The Petrie Museum).

Figure 27. Cross hatching depictions from EA35502, Appendix 2 (British Museum).

Figure 28. Palm tree depiction from UC6344, Appendix 2 (The Petrie Museum).

Figure 29. Row of tall birds depiction from OIM E5234, Appendix 2 (The Oriental Institute).

Figure 30. Addax/Gazelle depiction from UC6339, Appendix 2 (The Petrie Museum).

Figure 31. “Apparatus” on pole depiction from 07.228.136, Appendix 2 (THE MET).
Appendix 1: Palette types

EA67650 (Removed by copyright)

Figure 2. Lion palette. Patch 2011b:56.

UC10789 (Removed by copyright)

Figure 3. Two birds head palette. British Museum.

UC15779 (Removed by copyright)

Figure 4. Boat palette with piece for suspension in the middle. The Petrie Museum.

OIM E12170 (Removed by copyright)

Figure 5. Bird palette. The Petrie Museum

Figure 6. Elephant palette with piece for Suspension. The Oriental Institute.

Figure 7. Double birds head palette with inlaid eyes and piece for suspension. British Museum.
Figure 8. Turtle palette with inlaid eyes. British Museum.

Figure 9. Composite depiction palette, boat with horned animal head. Piece for suspension. British Museum.

Figure 10. Two horns on top palette. British Museum.

Figure 11. Goat palette with inlaid eye. British Museum.

Figure 12. Hippopotamus palette with inlaid eye. British Museum.

Figure 13. Cow/antelope palette. The Petrie Museum.

UC17770
(Removed by copyright)
Figure 14. Fish palette with inlaid eye. The Petrie Museum.

Figure 15. Birds head palette with inlaid eye. The Petrie Museum.

Figure 16. Two birds head or two horns on top Palette (uncertain identification). Piece for Suspension at the bottom. The Petrie Museum.
Appendix 2: D-ware depictions.

OIM E10581 (Removed by copyright)  EA58216 (Removed by copyright)

Figure 17. Boat with two men and one woman (hands over her head). Wavy lines above. The Oriental Institute.

Figure 18. Line of Z-shapes. The Oriental Institute.

Figure 19. Antelope. British Museum.

Figure 20. Square group of straight lines. British Museum.
Figure 21. Square group of wavy lines.  
The Petrie Museum.

Figure 22. Fan shaped plant.  
The Petrie Museum.

Fig. 23. Row of triangles with wavy lines below.  
The Petrie Museum.

Fig. 24. Wavy lines swag. British Museum

Fig. 25. Hooked strokes. The Oriental Institute.  

Fig. 26. Spirals. British Museum
Fig. 27. Cross hatching. British Museum.

Fig. 28. Palm tree. The Petrie Museum.

OIM E5234 (Removed by copyright)

UC6339 (Removed by copyright)

Fig. 29. Row of tall birds. The Oriental Institute.

Fig. 30. Addax/Gazelle. The Petrie Museum.

07.228.136 (Removed by copyright)

Fig. 31. "Apparatus" on pole. THE MET.
Appendix 3: Palette Data set
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<th>Name</th>
<th>Source</th>
<th>Material</th>
<th>Dating</th>
<th>Type</th>
<th>Provenance</th>
</tr>
</thead>
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Goat's shape
Hippopotamus's shape
Elephant shape
Lion's shape
Boat's shape
Composite depiction
Inlaid eyes
Piece for suspension
Drilled eye
Appendix 4: D-ware Data set
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<th>Row of tall birds</th>
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<th>Female figures</th>
<th>Addax/Gazell Antelopes</th>
<th>Palm tree</th>
<th>Fan-shaped plant</th>
<th>Wavy lines</th>
<th>Boat</th>
<th>Row of triangles</th>
<th>&quot;Apparatus&quot; on pole</th>
<th>Cross-hatching</th>
<th>Wavy lines</th>
<th>s wagLine of Z shapes</th>
<th>Spirale Hooked s trokes</th>
<th>Square group wavy line</th>
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