

## Hunting and social complexity in Predynastic Egypt

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In a recent article, Linseele and Van Neer (2009) showed that hunting had hardly any economic relevance in Egypt during the 4th millennium BC. Among the animal remains from Predynastic settlement sites, wild animals generally make up around 1% or less of the archaeozoological material. Only during the Badarian and the very beginning of the Naqada period (ca. 4400-3800 BC) do wild animals represent a significant portion of the faunal assemblage, around 10%. This indicates a strong decrease of the importance of hunting over a relatively short period. The main exception is the ceremonial centre HK29A at Hierakonpolis, where wild animals make up about 15% of the meat consumption during the Naqada II period (Linseele et al. 2009), which will prove to be of exceptional importance for the discussion presented here. In this article I suggest that hunting was an important aspect of the elite manner of living, and that its implications went far beyond food procurement, and into the realm of social status and hierarchy.

The scarcity of wild animals remains from Predynastic settlement sites is in strong contrast with the importance of hunting scenes in contemporaneous iconography. On White Cross-lined pottery, characteristic for Naqada I - early Naqada II, both hunting in the Nilotic and the low desert environments are represented (Graff 2009, p. 83-86; Hendrickx 2006, 2010) (Figs. 1-2). This apparent contradiction between the economic importance and the depiction of hunting is not at all unique to Predynastic Egypt. For example, hunting was a popular concept for the Medieval aristocracy in Europe. But at that time, only about 5% of the meat alimentation originated from hunting (Guerreau 2000, p. 27; Morsel 1997, pp. 257-258). As for Predynastic Egypt, a very important discrepancy between iconography and real life can be observed (Audoin-Rouzeau 1994).



Fig. 1. Provenance not recorded. White Cross-lined plate (New York, MMA 35.10) (Hayes 1953 : 18, fig. 10)



Fig. 2. Gebelein. White Cross-lined bowl (Princeton, Art Museum 30-493) (Kantor 1953 : fig. 4B)

Together with a few very exceptional scenes of military triumph, hunting representations are the only topics that are rendered in more complex early Predynastic scenes (Hendrickx 2010; Hartung 2010). Moreover, these two topics are strongly related through the concept of order over chaos. Although never narrative in the strict sense of the word, these scenes are nevertheless loaded with information.<sup>1</sup> The scenes of military triumph are characterised by bound prisoners and victorious persons with raised arms and/or mace heads (Figs. 7-8). The actual fighting is never shown, only the expression of victory as a result. A similar principle can be recognised for the hunting scenes in which the hunt is not shown as an action resulting in the killing of animals. In most cases, the hunter himself is not even represented. He can be “replaced” in desert hunting scenes by one or more hunting dogs (Fig. 3). For the hippopotamus and crocodile hunt, a harpoon and a net act respectively as symbols for the hunters. The frequent absence of the hunter is of course remarkable and already

<sup>1</sup> The absence of narrative details in Predynastic representations is not limited to hunting or victory scenes, but applies to all of the visual representations of that period. The reason for this is complex and falls beyond the scope of the present article, but it is beyond doubt that Predynastic representations are highly symbolic and part of a visual language that becomes more and more structured over time (Graff 2009; Hendrickx & Eyckerman in press).

indicates that the recounting of particular hunting events is not the subject of the representations. In this respect, the occasional combination of desert and nilotic hunting into one image should also be mentioned. Although rare, this combination occurs on a palette preserved in the Medelhavsmuseet at Stockholm (Fig. 4), a White Cross-lined bowl from Abydos (Hartmann 2008, pp. 168-179, Abb. 4-5) (Fig. 5) and a rock drawing from the desert west of Luxor (Darnell 2009, fig. 8) (Fig. 6). The latter is especially remarkable because a single hunter is capturing at the same time a hippopotamus with a harpoon and a desert animal with a lasso. Furthermore he holds a mace head and has his arms raised similar to the victorious persons in military scenes. The simultaneous performance of all these actions is of course impossible and not only reiterates that these depictions can not be considered imitations of reality, but also confirms the relationship between hunting and military action.





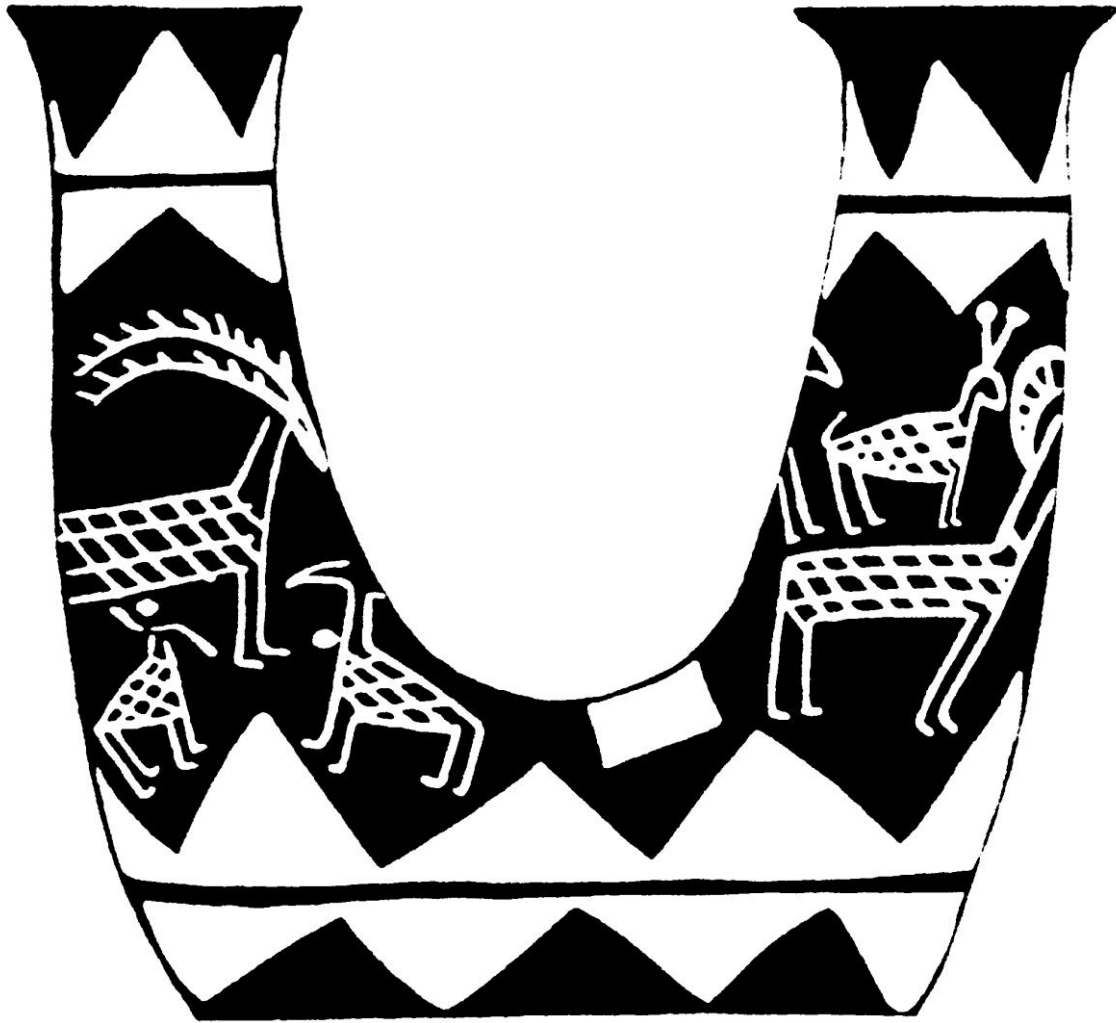


Fig. 3. Naqada. White Cross-lined vessel (Philadelphia E.1418) (photo courtesy ???)

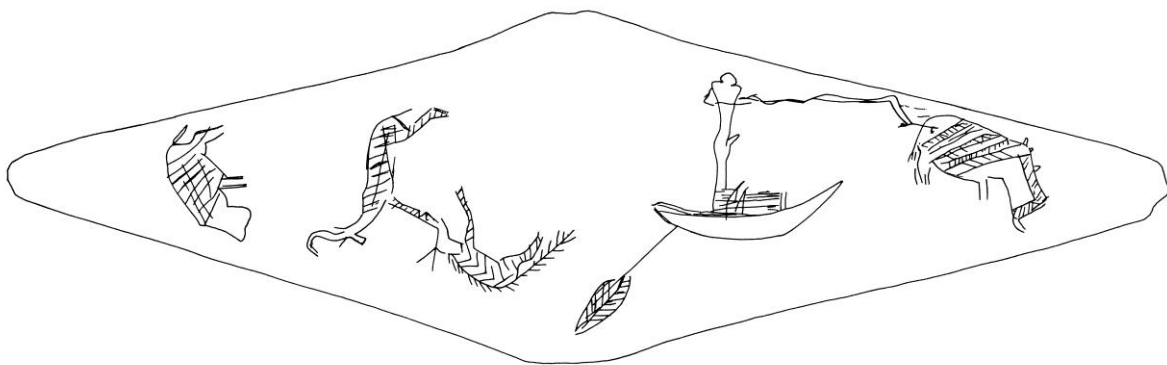


Fig. 4. Provenance not recorded. Decorated rhomboid palette (Stockholm Medelhavsmuseet E.M.6000) (drawing Merel Eyckerman)

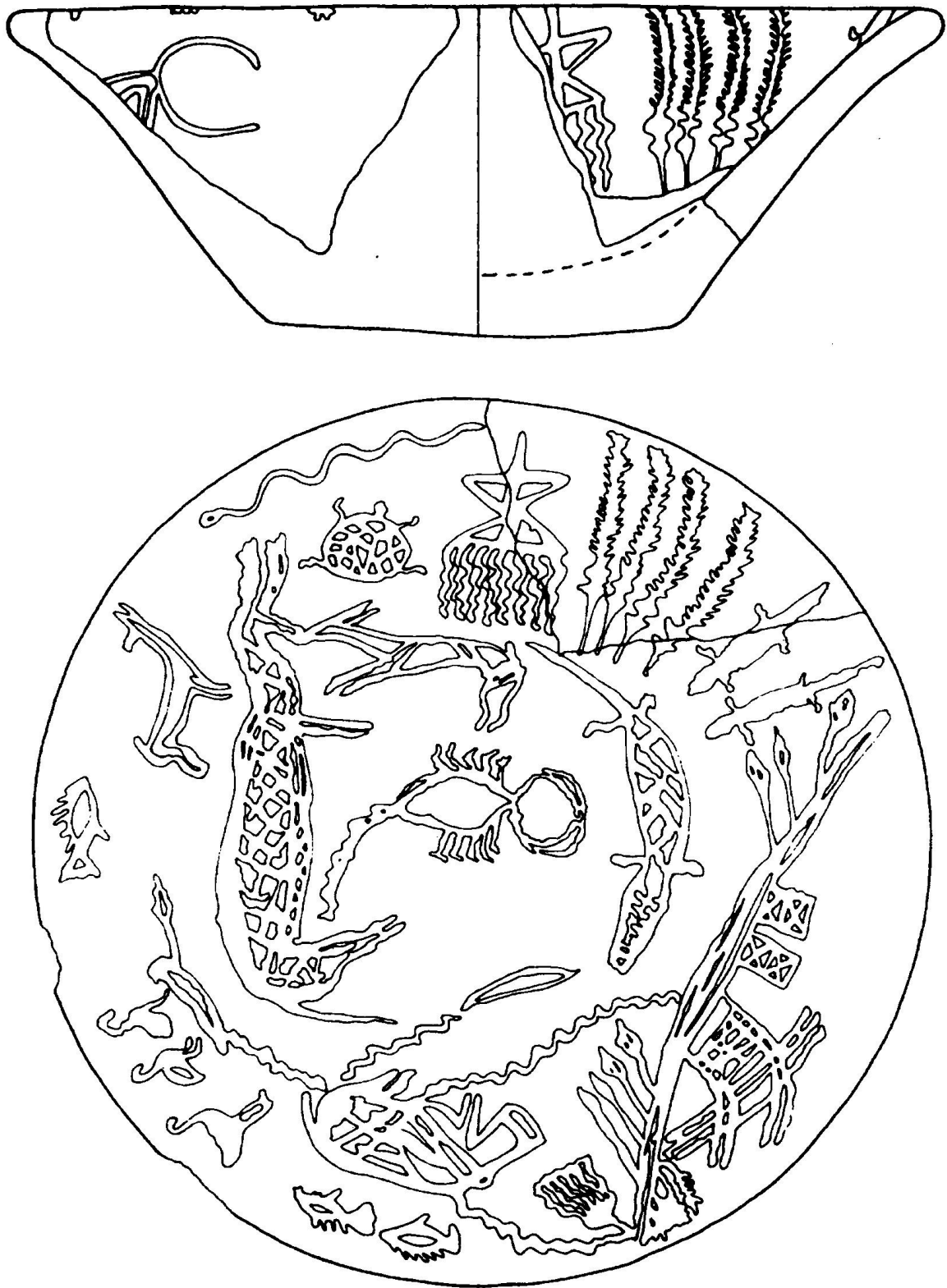


Fig. 5. Abydos U-264. White Cross-lined bowl (Cairo CG 2076) (Hartmann 2008, Abb. 5)

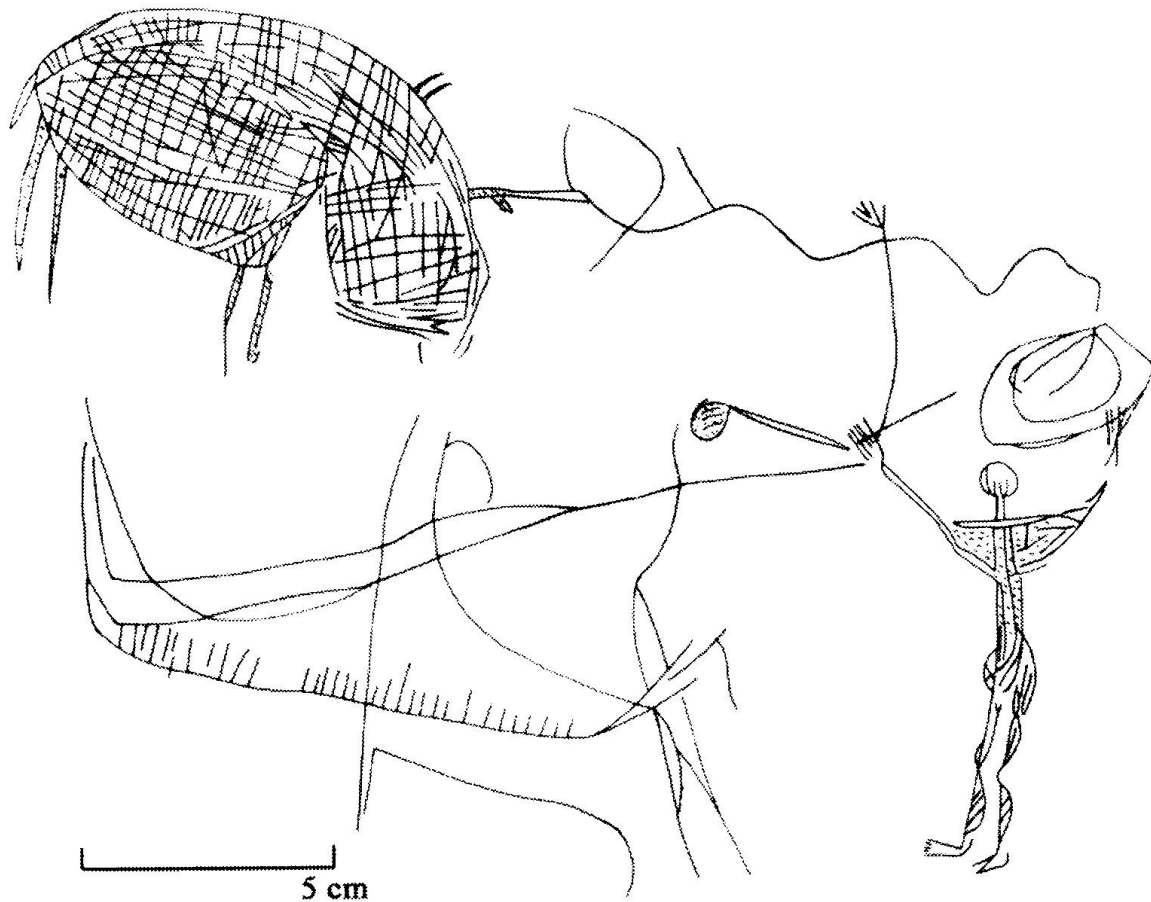


Fig. 6. Was-ha-Waset. Rock drawing WHW cat. no. 353 (Darnell 2009, fig. 8)

A few items make the parallel between hunting and warfare more explicit by combining their depictions into one scene. Desert and Nilotic animals followed by a dog occur in combination with bound prisoners on a White Cross-lined jar from tomb U-415 in the elite cemetery U at Abydos (Dreyer et al. 2003, p. 83, Abb. 6, see also Hartung 2010, p. 118, fig. 4c; Hendrickx & Eyckerman in press) (Fig. 7). The combination between a hunting and a military scene is more explicit on another jar from the same tomb U-415 (Dreyer et al. 2003, p. 81, Abb. 5) (Fig. 8). Although at first sight the decoration of this remarkable jar consists of two independent registers, a parallel can be made between the victorious person with a mace head between prisoners and the bull in the middle of the hippopotamus hunting scene (Hartung 2010, pp. 110-111; Hendrickx & Eyckerman 2010, p. 123).<sup>2</sup> In real life, bulls are in no way related to hippopotamus hunting, but the animal is nevertheless prominently represented and the oversized horns emphasise its power. During dynastic times, the bull is one of the most important royal symbols, a concept that can already be found on the decorated palettes of late Predynastic times. Both on the “Narmer palette” (Cairo JdE 32169) and on the “Bull palette” fragment (Louvre E.11255), bulls are depicted overthrowing enemies. Despite the significant chronological difference, bulls on White Cross-lined pottery of the Naqada I period must also have been the personification of a “ruler”(cf. also Navajas 2009), although

<sup>2</sup> On the published drawing (Hartmann in Dreyer et al. 2003, Abb. 5), the bull seems hardly related to the hippopotamus hunt. However, when compared with the available photographs (Hartmann in Dreyer et al. 2003, Tf. 15; Dreyer & Polz 2007, Abb. 261), it can be seen that the position of the lower animals, including the bull, was slightly shifted in the drawing to make the rounded surface of the vessel accord with the flatness of the drawing. In reality the bull is an integrated part of the scene.

the definition and extent of his power remains to be defined in detail. The combination of the hippopotamus hunt and the bull would in this way be a forerunner of the royal hippopotamus hunt of the Early Dynastic period (Säve-Söderbergh 1953, pp. 15-19; Müller 2008) (cf. infra).

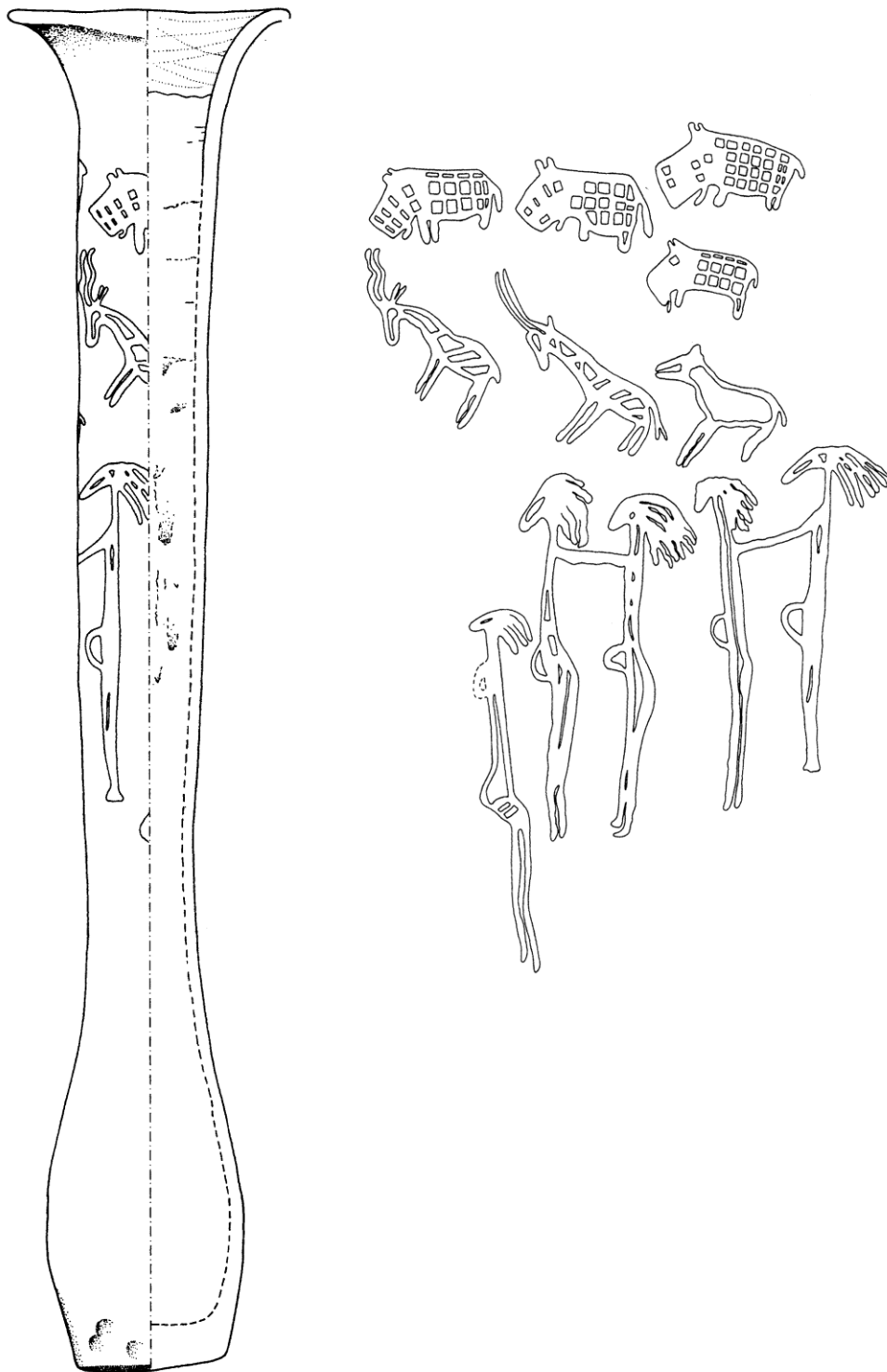


Fig. 7. Abydos U-415. White Cross-lined jar (Hartung 2010, fig. 4c)

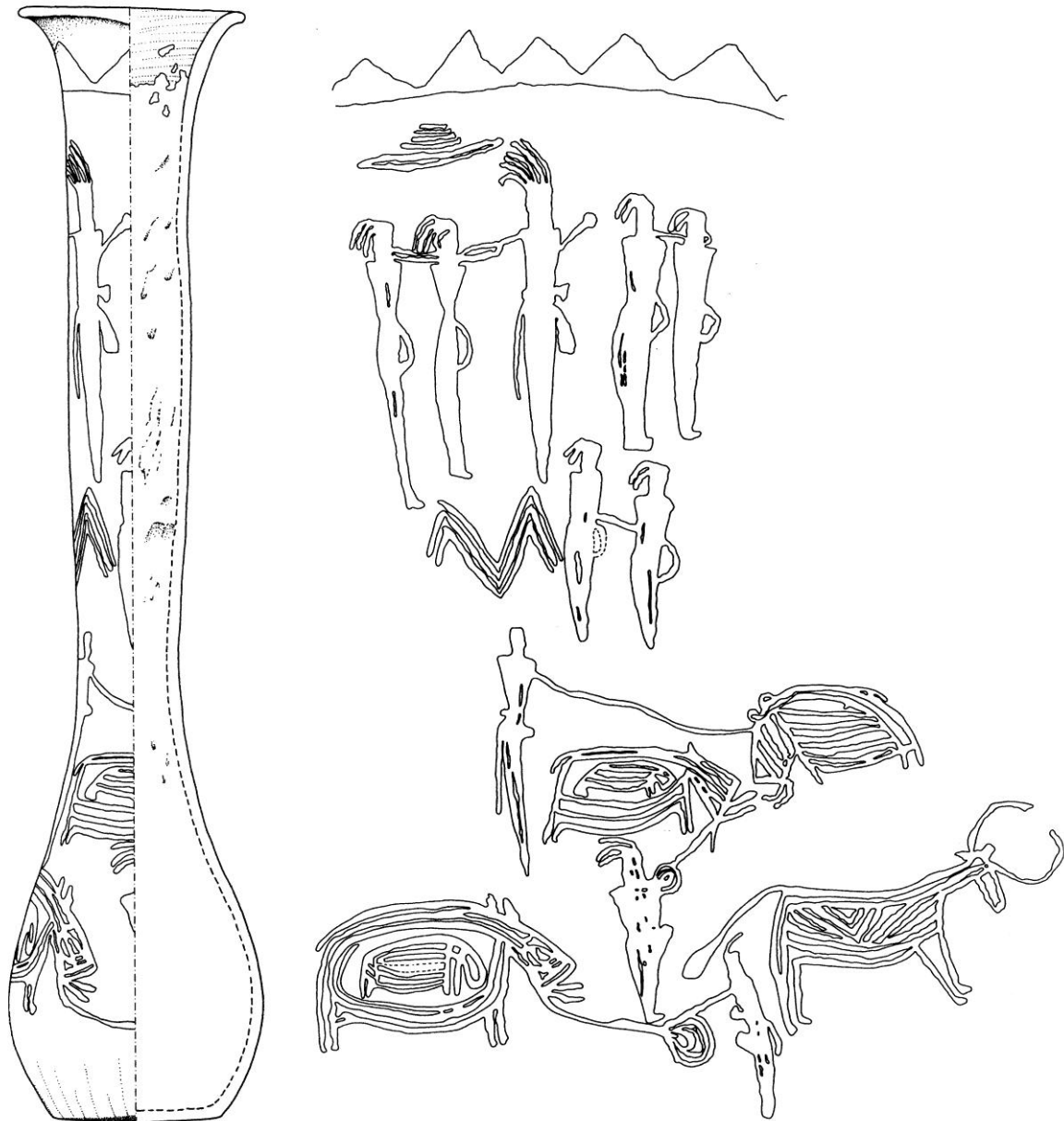


Fig. 8. Abydos U-415. White Cross-lined jar (Dreyer et al. 2003, Abb. 5)

Also at cemetery U, a White Cross-lined jar with a military domination scene was found in combination with two hippopotamus figurines in tomb U-239. Remarkably, one of the figurines was painted red and shows a deliberate incision on the neck, in the same spot as the impact of the harpoons in the painted hunting scenes. There can be no doubt that the hippopotamus figurine was ritually killed (Hartung 2010, pp. 110-111). The presence of the figurine and the White Cross-lined jar in the same tomb is another example of hunting combined with military triumph. It is also important to note that the tombs U-239 and U-415 are among the most important of their period in cemetery U,<sup>3</sup> confirming the direct link between hunting and social power.

The fact that on White Cross-lined and Decorated pottery the hunters can be replaced by their dogs indicates their association with elites, and that much importance was given to these animals. The selection and breeding of dogs must have been an aspect of the elite

<sup>3</sup> Hartmann 2011, p. 924 attributes tombs U-239 and U-415 respectively to phase Ia3 and Ia2, which correlate with the Naqada I period.

manner of living (cf. Baines 1993, pp. 64-65). The upturned tails characteristic for dog representations can only be the result of selective breeding. Dog burials occasionally found in settlements and cemeteries (Flores 2003, pp. 56-57) confirming the importance of the animal. The most remarkable examples are the numerous dog burials found at the early Naqada II “royal” burial place HK6 at Hierakonpolis (Friedman et al. 2011, pp. 180-181). Dogs are only a portion of the animal burials at the site. Many kinds of wild animals, including young elephants, were buried in tombs surrounding the main human burial (Linseele & Van Neer 2009, pp. 62-64; Friedman et al. 2011, pp. 175-186). The number and characteristics of the animal burials in the earliest “royal” context known for Egypt reflect the social relevance and symbolism of hunting. The importance given to dogs is, for example, also obvious through the exquisitely worked Early Dynastic bone and ivory dog figurines (e.g., Scharff 1929, Tf. 17, n° 87; Kahl & Engel 2001, Abb. 30-31). Most of these are gaming pieces, with lion figurines as counterparts, although they were probably not part of the same sets.<sup>4</sup> Both the lions and the dogs are shown with collars, severing to some extent the difference between wild and domesticated. The “tame” lions may symbolise the containment of aggression (cf. Baines 1993, p. 66) but in a more direct manner, both lions and dogs can be considered animals related to the king, eventually acting as guards. This interpretation seems problematic because the lion is well attested as a royal symbol during dynastic times, which is not the case for the dog. However, on the most important tableau from the Nag el-Hamdulab royal cycle, a dog figures prominently behind two standard bearers but in front of the king who is followed by a fan bearer (Hendrickx et al. in press b, fig. 4). Parallels for such an important role of the dog are not known from dynastic Egypt. On the “Scorpion mace head” (Oxford AM E.3632), the “Narmer palette”, and the “Narmer mace head” (Oxford AM E.3631), all dated immediately after the Nag el-Hamdulab cyclus, the dog has disappeared from the procession including standard bearers, fan bearers and the king. In my opinion, the dog in the Nag el-Hamdulab scene represents the same idea of power and control as the dogs in Predynastic hunting scenes. Although the Nag el-Hamdulab tableaux contain different iconographic elements that became part of the formal royal iconography of Early Dynastic and dynastic times, the dog was not among them.

The relationship between hunting and militarism is certainly not restricted to Predynastic Egypt and considering the relationship between hunting and militarism in other cultural contexts is useful in order to highlight certain aspects of the Predynastic case. Ancient Greek hunting scenes are often paired with battle images (Barringer 2001, pp. 32-37). In Greek antiquity, hunting was considered a sport of the elite and an element of military training (Anderson 1985, pp. 17-29; Barringer 2001, pp. 10-59). As Xenophon stated in the middle of the fourth century BC, “Hunting brings bodily health, improves sight and hearing, is an antidote to senility, and excellent training in the art of war” (Anderson 1985, p. 17). Many centuries after Xenophon, the Austrian noble man Wolf Helmhard von Hohberg (1622-1688) expresses in his *Georgica curiosa* (1682) almost the same ideas “Es ist das Jagen eine tapffere und ritterliche übung, und dem Adel gleichsam ein Praeludium belli” (Rösener 2000, p. 133).<sup>5</sup> However, the Greek hunting representations can be quite anecdotic, showing the action of catching and killing animals, and even hunting accidents. This is also the case for the well known Neo-Assyrian reliefs such as those of the palace of Ashurbanipal (ca. 685-627 BC) (Barnett 1976). They show staged hunts in game parks in great detail and the killing of

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<sup>4</sup> Contra Kahl & Engel 2001, p. 26. The game set depicted in the tomb of Hesyra (Quibell 1913, pl. 11) consists of three male and three female lions. This was also the case for the set composed of three lions and three lionesses found in tomb VIII at Abu Roach (Montet 1946, pp. 186-189).

<sup>5</sup> For a more differentiated view on the military relevance of Medieval hunting, see Morsel 1997, pp. 259-260; Guerreau 2000, p. 27.

animals is the essential element of the scenes. On the other hand, the Assyrian royal hunt is paralleled by the royal victory in these scenes (Weissert 1997), similar to the concept of the early Naqada representations under discussion. However, the latter stand out in antiquity because of their unrealistic rendering and lack of “bloody” details.

Dynastic Egyptian hunting scenes are somewhat more realistic than Predynastic ones, occasionally showing the killing of animals, although still without an emphasis on wounds or blood (e.g., Vandier 1964, fig. 443, 452-455, 458-459, 462-463). Despite mentioning huge numbers of captivated desert animals (Herb & Förster 2009, p. 32), the economic importance of hunting is nevertheless as limited as it was for the Predynastic period (Linseele & Van Neer 2009, pp. 64-70). On the other hand, much effort was invested in capturing animals and keeping them temporarily in game parks during the dynastic period (Herb & Förster 2009). Even though the animals were, in the end, certainly intended for consumption, the traditional view of pharaonic hunting exclusively for the procurement of food (e.g., Vandier 1964, p. 787) has been abandoned for some time (e.g., Staehelin 1978; Altenmüller 1980, 1989; Decker 1992). Staehelin discussed the hunting scenes in the religious context of the tombs. The animals represent the forces of chaos, to be destroyed in order to perpetuate life in the hereafter. The origin of the hunting iconography is considered by Staehelin as royal, but during the Old Kingdom the royal prototypes are integrated into the decorative schemes of non-royal elite tombs. Along the same lines, Baines (1995, p. 111) considers the late Predynastic and Early Dynastic hunting scenes as likely symbolising the maintenance of order and the containment of disorder. The “order over chaos” interpretation has meanwhile gained wide acceptance (e.g., Hendrickx 2006; Hendrickx & Eyckerman 2010; Friedman et al. 2011; Raffaele 2010), and it is important to point out that this does not necessarily contradict the idea of providing the deceased with game, but can be complementary.

The combination of military domination and hunting is of essential importance for the interpretation of all Predynastic animal representations. Hunting and military scene can be traced throughout the Naqada period, although their prevalence and media vary. After the White Cross-lined pottery disappears during the early Naqada II period, the hippopotamus hunt nevertheless continues to be represented on Decorated pottery, be it only exceptionally. The few examples are limited to hippopotamus shaped vessels on which harpoons or hunters with their harpoons are depicted (Hendrickx & Depraetere 2004, p. 819) (Fig. 9).<sup>6</sup>

Desert hunting scenes are also exceptional on Decorated pottery (Hendrickx 2006, p. 726, tab. 1) and are not part of the “regular” Decorated iconography, which includes mainly boats and elements such as the so-called “Naqada-plant” (cf. Graff 2009). The rarity of hunting scenes and the complete absence of the military victory theme at first view seems to indicate a rupture between the iconography of Naqada I-IIA/B and Naqada IIC-D. However, this only reflects the development of a specific iconography related to the hereafter on Decorated pottery (Graff 2009, pp. 122-124). Most Decorated vessels have been discovered in Predynastic tombs and their preferential preservation compared to settlement contexts biases our view of the iconography. Several hunting scenes are depicted in the Naqada IIC “Decorated Tomb” at Hierakonpolis (Hendrickx 2010, pp. 115-117), where there is also a well-known representation of the king smiting three bound captives with a mace (Fig. 10). This is a continuation of the victory scenes on the White Cross-lined pottery and a direct predecessor of the smiting scene on the “Narmer palette”. Victory and hunting scenes continue to be depicted throughout the Predynastic period and into Early Dynastic times, but a shift in media from pottery to perishable materials results in very limited documentation for

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<sup>6</sup> Droux (2011, p. 350 n.5) questions the identification of these vessels as hippopotami without presenting an alternative interpretation. However, the body shape of the animals, short tails and bulging eyes point to hippopotamus, despite the rather pointed face. This is corroborated by the depiction of harpoons used for hippopotamus hunting on the body of the animals although this is of course to some extent a circular argument.

the Naqada IIC-D period.<sup>7</sup> During the Naqada III / Early Dynastic period, both hunting and military victory again became prevalent iconographic themes on different types of non-perishable media, including greywacke palettes and ivory / bone objects. One of the most interesting depictions for that period is a seal impression from the tomb of Den, 4<sup>th</sup> or 5<sup>th</sup> king of the 1<sup>st</sup> dynasty, at Umm el-Qaab (Fig. 11). It shows a scene in which a royal hippopotamus hunt is combined with decapitated captives (Müller 2008, pp. 481-483, Abb. 1-2). The king raises a spear in one hand, a weapon not directly related to the decapitation of captives, and in his other hand he holds a coil of rope with attached float(s), presumably to be used in combination with the spear for the hippopotamus hunt. As Müller (2008) argues, the king represents order over the chaotic forces symbolised both by the hippopotamus and the decapitated enemies. The depiction of decapitated captives in combination with the royal hippopotamus hunting scene shows that the enemy in the natural environment and the enemy in the social environment have been equated. In my opinion, all of the Predynastic hippopotamus hunt representations should be considered in this context.<sup>8</sup> The desert hunting scenes have the same meaning because the desert itself and the animals living in it are elements of chaos, opposed to the order guaranteed by the king. Integration of hunting into royal iconography related to military victory represents the formal version of symbolism that originated in the (early) Naqada I period and continued to be important during dynastic times (e.g., Schulz 2000).



Fig. 9. Badari, tombe 3759. Fragment de vase Decorated en forme d'hippopotame (Oxford, AM 1924.326) (Payne 1993, n° 928)

<sup>7</sup> Accepting that perishable materials were already decorated during the Naqada I period, this “shift” may have been limited to the disappearance of victory scenes from Decorated pottery.

<sup>8</sup> Because the hippopotamus hunt is not part of “regular” iconography on Decorated pottery, considered as funerary, there is no reason during Predynastic times for an interpretation of the animal in a funerary context, although such a meaning seems to have been developed out of the royal iconography during the Old Kingdom (Stahelin 1978; Altenmüller 1989).

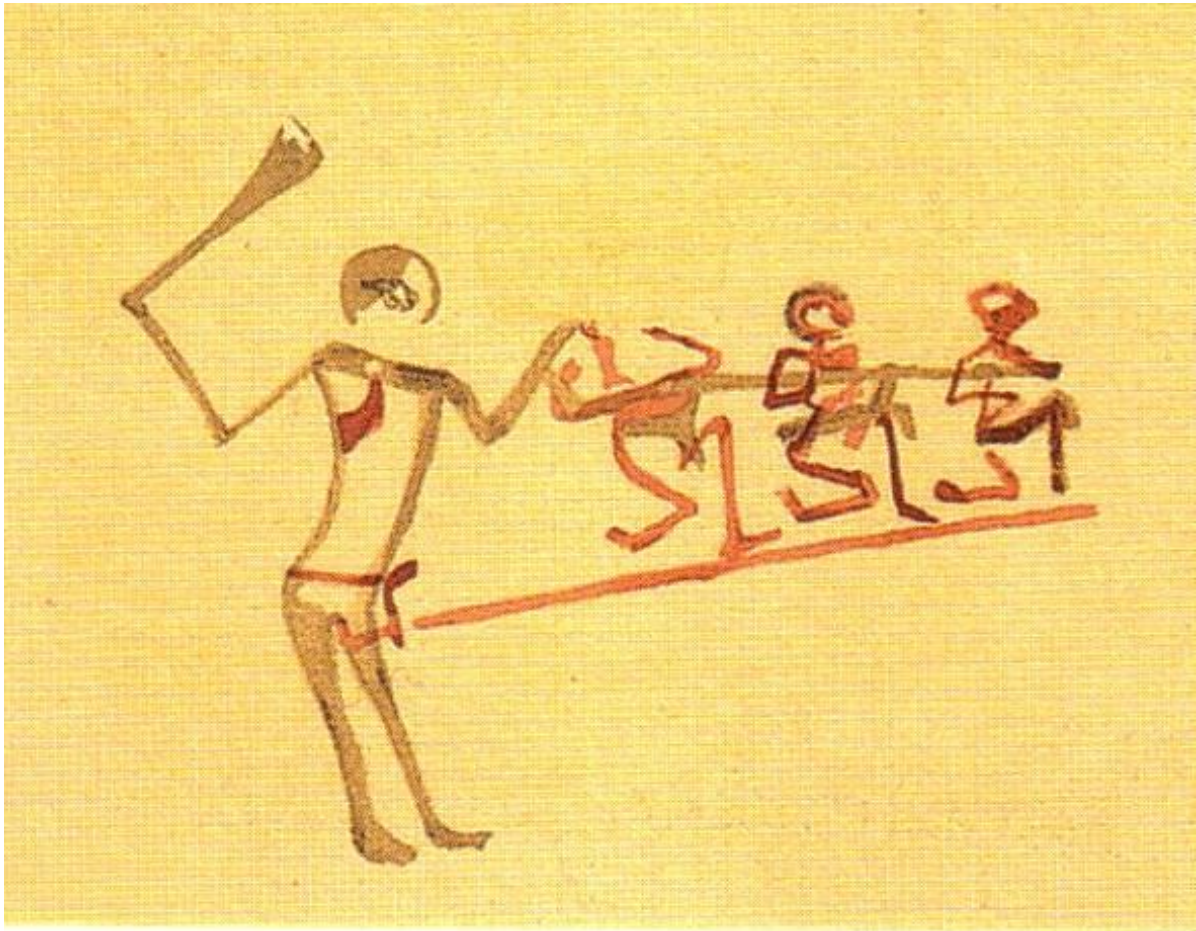


Fig. 10. Hierakonpolis, “Decorated tomb” (detail). Quibell & Green 1902, pl. XXVI)

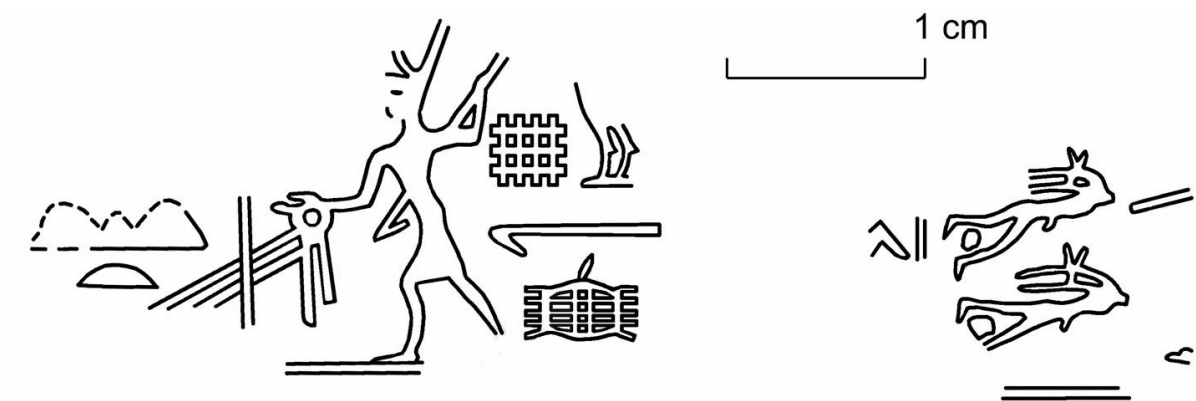


Fig. 11. Abydos, tomb of Den. Reconstruction of seal impression (Müller 2008, Abb. 3)

The symbolic importance of hunting can be demonstrated by examining the depiction of killing and capture. As mentioned before, the actual killing of animals is not shown in Predynastic hunting scenes, neither are slain animals.<sup>9</sup> The most frequently represented action is that of catching animals by lassos or traps. However, two important exceptions to this principle should be noted, namely the hippopotamus and the wild ass. As already mentioned,

<sup>9</sup> A possible exception could be on a Decorated jar from Gebel Silseleh (Graff 2009, n° 191). Dead animals are exceptionally also be represented in rock art (e.g., Almagro Basch & Almagro Gorbea 1968, fig. 71b; Darnell 2002, 146-147, fig. 16).

the hippopotamus hunting scenes show hunters with spears actually hitting the animals.<sup>10</sup> In some cases, only the spears hitting the animals are shown, not the hunters. Capturing a mature hippopotamus would have been a very difficult undertaking,<sup>11</sup> but this may not have been the primary reason for depicting the killing of the animal. In the royal hippopotamus hunt, the spearing is essential, as is shown through the title Hrw-msnw, “Horus the Spearer” (Müller 2008, p. 482). Hippopotami are very harmful for agriculture because of their nightly foraging, and they are most dangerous when disturbed. In this respect, it is not difficult to understand why they represent chaotic forces to be controlled by the king, responsible for establishing order over chaos (Säve-Söderbergh 1953, pp. 12-16; Müller 2008, p. 488).

The wild ass is the other animal whose slaughter rather than capture is depicted, although this is not shown directly but in a rather symbolic manner. Among representations of the wild ass in rock art, the very large majority have an oblique line at the back of the head, apparently representing an arrow or a spear (Huyge 2009). Similar representations are not known from White Cross-lined or Decorated pottery, but a single potmark on a Black-topped jar,<sup>12</sup> identical to the rock art representations, confirms the Predynastic date of the latter. Also, the wild donkey occurs exceptionally on White Cross-lined pottery (Graff 2009, n° 112; Hartmann 2008, Abb. 5). The ritual killing of (wild) donkeys is attested in reality for the 1<sup>st</sup> dynasty at Abusir and Helwan (Huyge 2009, pp. 299-300), while more recent documents refer to the wild donkey hunt as symbol for the destruction of enemies (Kemna 1992). Obviously, a strong parallel can be observed between the hunt for the hippopotamus and the wild donkey, focussed on the destruction of enemies. However, it should be noted that although attacked with spears / arrows, both the hippopotamus and the wild donkey are never shown as dead. On the contrary, they are in the same static position as all other Predynastic animal representations. The case of these two animals nevertheless confirms the symbolic importance of hunting, both in the Nilotic and the desert environments.

Despite the remarkable case of the wild donkey, it nevertheless remains a fact that all other desert animals are shown as captured. This of course avoided the reality that hunters had to carry their catch, but this practical reason will not have been the only one. Evidence from Hierakonpolis shows that captured animals could be kept in captivity for some time (Linseele & Van Neer 2009, pp. 63-64). This was evidenced by pathologies on the skeletal material of a swamp cat (Linseele et al. 2007), and several baboons (Van Neer et al. 2004, pp. 111-112). Furthermore, the gut content of a young elephant also indicates that it was kept in captivity (Marinova & Van Neer 2009). These examples probably strongly underrepresent the actual number because in most cases only long term captivity will be observable in animal remains. The slaughter of wild animals seems to have been saved for the right moment and the right place. One such place was the ritual site HK29A at Hierakonpolis where a huge amount of animal bones were found as accumulated food waste deposited just outside the oval enclosure in which festivities must have taken place (Friedman 2009; Linseele et al. 2009). The material consists on average of 14,7 % wild animal remains (excluding carnivores), which stands out against the average of 1,6 % at Hierakonpolis (without HK29A) (Linseele & Van Neer 2009, p. 55, Tab. 2).<sup>13</sup> In addition to the remarkable meat consumption, large amounts of fish were part of the festival meals. Again, the characteristics of the fish consumed are different from those in settlement sites. Particularly large fish were selected while the strong

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<sup>10</sup> For the available documentation, see Behrmann 1989; Hendrickx & Depraeter 2004; Droux 2011.

<sup>11</sup> Behrmann 1996 on the other hand considers the capturing of hippopotami possible and presents evidence that this may have actually taken place.

<sup>12</sup> It concerns a Black-topped jar in the SCA storeroom at Ashmunein, said to be from Deir Abu Hinnis. The publication is planned but has been delayed because of the recent political events in Egypt.

<sup>13</sup> But Linseele et al. 2009, p. 120 mention 1-3% of hunted animal remains for settlement sites at Hierakonpolis and an average of 8% for HK29A. The difference between domesticated and hunted nevertheless remains marked.

underrepresentation of heads and tails indicates that the fish was not prepared on the spot but only consumed (Linseele et al. 2009, pp. 115-118). A similar but less well documented situation existed at el-Mahasna (Anderson 2011, pp. 19-22) and a few Decorated vessels also bear testimony of animals being brought to ritual places (Graff et al. 2009).<sup>14</sup> The actual nature of the activities remains elusive to us, but there can be no doubt that they had an important social impact. This certainly would have reflected on the hunters who provided the exceptional foodstuff.

Hunting was not only a symbolic concept but also an actual activity. Although desert hunting camps do not leave many traces and are notoriously elusive to archaeologists,<sup>15</sup> numerous rock art sites in both the Eastern and Western desert testify to frequent human presence. Hunting scenes are often depicted in rock art which could be considered as a direct illustration of what actually happened at a particular place in the desert, unlike the hunting scenes on other media. In some cases, the rock art sites coincide with very favourable hunting locations, facilitating an interpretation of the rock art sites as occurring in the context of hunting expeditions (e.g., Gatto et al. 2009, pp. 159-165).

However, there can be no doubt that the iconography of hunting scenes at rock art sites should be integrated in the broader conceptual context of the Predynastic period and should not be considered solely as renderings of actions taking place at specific locations. Boats occur most frequently in rock art, even in the sites considered hunting locations. Obviously boats have no direct relation to the local environment, and of course can not be a rendering of reality at the site. Furthermore, the meaning of boats in rock art can hardly have been funerary, contrary to the boats on Decorated pottery. Between these two groups of boat representations, important differences exist. In rock art, boats are frequently occupied by men armed with bows, and/or throwing sticks or maces, which is never the case for Decorated pottery. Occasionally, roped animals are linked with boats which indicates that in the context of rock art, the boats are elements of power and symbols of status (Hendrickx & Eyckerman 2010, pp. 130-131). Boats also occur in combination with prisoners, as can be seen on two of the Qustul incense burners<sup>16</sup>, and in an especially obvious manner on the Gebel Sheikh Suleiman rock art tableau where a prisoner with an arrow in his chest is tied to a boat without an occupant (Murnane 1987, fig. 1B). In these cases, boat scenes are placed in a royal context. The use of boats as symbols of power in relation to both hunting and military violence reiterates their interlinked relationship. Furthermore, nautical processions shown in rock art sites at the Wadi of the Horus Qa-a (Darnell 2009, pp. 97-99) and especially at Nag el-Hamdulab (Hendrickx et al. in press a) are combined with prisoners and hunting scenes. The Nag el-Hamdulab sites are dated to just before the time of Narmer (Hendrickx et al. in press b), but the “Painted Tomb” at Hierakonpolis already shows the combination of boats, hunting, and military violence in the Naqada IIC period.

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<sup>14</sup> The rows of wild animals figuring on Decorated pottery can be considered in the same way (Graff et al. 2011, pp. 456-457). In a related manner, the animal rows on decorated ivories are regularly “controlled” by dogs or other symbols of power at the end of the row (Hendrickx 2006, pp. 736-739). This should be seen as the combination of the reality of animals being brought out of the desert with the theoretical concept of control over chaos. For Baines (1995, p. 111), the iconography of these ivories is not yet standardised although he considers them in an elite and possibly even royal context. However, there can be no doubt that these representations are part of well structured visual language.

<sup>15</sup> Most recently, Colleen Manassa identified a few very small scale Predynastic sites consisting of merely a few sherds, as hunting camps in the Eastern desert beyond Moalla [Manassa, pers. com. and presentation at the “Egypt at its Origins 4” conference at the Metropolitan Museum (30-07-2011)].

<sup>16</sup> Qustul, tomb L24, Chicago, OIM 24069 (Williams 1986, pp. 138-145) and Qustul, tomb L11, Chicago, OIM 24058 (Williams 1986, pp. 145-146). See also Hendrickx & Eyckerman 2010, p. 131.

The visual, as opposed to archaeological, documentation of Predynastic hunting practice is very limited. Although a few individual hunters are represented on decorated pottery and in rock art, there can hardly be any doubt that hunting was a collective event. For hippopotamus hunting, this is an obvious necessity. Hunting in the desert also would have had to happen in groups when the distance from the alluvial plain was substantial. The most informative representations are found on the “Hunters’ palette” (London, British Museum EA.20790 / Paris, Louvre E.11254, Spencer 1980, n° 577) (Fig. 12), and on a rock drawing from “Was-ha-Waset” (WHW cat. no. 86) in the desert west of Luxor (Darnell 2002, pp. 145-146) (Fig. 13). The “Hunters’ palette” is an object of great craftsmanship and clearly an elite document. The hunters line the palette on both long sides, surrounding a number of desert animals.<sup>17</sup> Most of the hunters are not engaged in any kind of action, they are only holding their weapons. However, one hunter is lassoing a gazelle<sup>18</sup>, and another hunter is, remarkably, aiming his bow at a lion followed by a cub. The impressive male lion has been hit in the head by two arrows, but has also “overthrown” a hunter in front of him who unrealistically still holds his bow and mace head. The only possible parallel for this scene is on the pointed lower part of the “Hunters’ palette, which shows another male lion hit by arrows”, but there are no directly related hunters. The fact that lions are being killed becomes even more remarkable in comparison to a lion represented on the roughly contemporaneous “Battlefield palette” (London, British Museum EA.20791, Spencer 1980, n° 576). The meaning of the lion dominates the prisoners lying on a battlefield and beyond doubt represents the king. On the “Hunters’ palette”, while shooting the fierce lion emphasises the importance of the hunting action, it remains an open question whether the lions are part of the desert animals representing chaos in the central part of the palette. This is certainly not the case on the “Battlefield palette”. In pharaonic times, the lion can be hunted on one hand, but on the other hand it can also represent the king (Kleinsgütl 1997, pp. 29-50).<sup>19</sup> Above the two lions being attacked on the “Hunters’ palette” is the combination of a “double bull” and a building, the former probably identifies the latter. The “double bull” places the hunting scene in a religious context and illustrates once more the symbolic importance of hunting scenes.

Despite the religious context, the “Hunters’ palette” allows a glimpse into the reality of hunting parties. The hunters wear caps with feathers and have animal tails attached to their belts. They have different types of weapons and four of them wear backpacks.<sup>20</sup> The (leather?) cap<sup>21</sup> and the backpack would have been functional, but this is of course not the case for the feathers and the tail. These elements must indicate that hunting included an element of display that had symbolic meaning. The tails can be identified as those of *Lycaon pictus*, an animal well known for its organised manner of hunting in group (Hendrickx 2006, pp. 739-742). On several late Predynastic decorated palettes, large representations of *Lycaon pictus* line the edges of the palette, identical to the composition of the hunters on the “Hunters’ palette” (Hendrickx 2006, fig. 10). The analogy between the animals and the hunters is in the organised manner of group hunting that they both practised. But it remains unknown to what extent the Predynastic hunters identified themselves with the *Lycaon pictus*. The animal disappears from the visual record after Predynastic times, leaving us without

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<sup>17</sup> For a structuralist reading of the “Hunters’ palette”, see Tefnin 1979. See also Hendrickx 2006, pp. 740-742.

<sup>18</sup> At least one more hunter seems to have been involved in this action, but because of a missing fragment it is not entirely clear how this was depicted.

<sup>19</sup> A similar observation can be made for the bull representing the king, for example on the “Narmer palette”, but frequently shown as being hunted in rock art.

<sup>20</sup> Starting with the earliest descriptions of the “Hunters’ palette” (e.g., Legge 1900), the backpacks have generally been considered shields (cf. Nibbi 2003). However, this should be rejected for several reasons, the most important being the loop handles that can be recognised in several cases on top of the backpack, the imitation of stitching along the edges and the uselessness of shields for hunting.

<sup>21</sup> For a more detailed discussion of the leather caps, see Darnell 2002, p. 146.

pharaonic parallels that might have provided additional information. Finally it should be noted that the hunters carry weapons which are not well suited to capturing animals alive: bows, mace heads, throwing sticks, and spears. A few hunters carry a bow in one hand and a mace head in the other, but no arrows. The most important aspect of the weaponry is the manner in which they are held. Except for the two hunters lassoing a gazelle, and the two other hunters involved in the lion “incident”, all of the hunters hold one weapon on each side of the body, with the arms bent and the hands upwards in an attitude similar to the raised arms of victorious persons on the much older White Cross-lined jars mentioned earlier (cf. Fig. 8). This attitude and the choice of the weapons indicates that the “Hunters’ palette” is not only about hunting (in a religious context) but also has a military aspect. This might also be the reason for the two types of hunt shown on the palette, lassoing the desert animals and killing the lions.

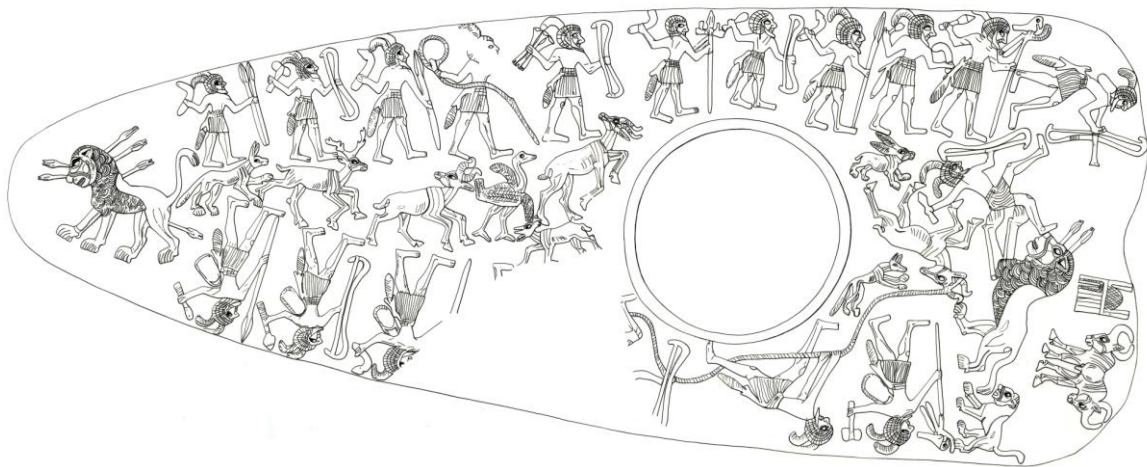


Fig. 12. Abydos (?). “Hunters’ palette” (London, British Museum EA.20790 / Paris, Louvre E.11254) (drawing Merel Eyckerman)

The rock art panel from “Was-ha-Waset” provides a far more informal picture of a group of hunters (Fig. 13), although it might be considerably older than the “Hunters’ palette” (Darnell 2002, p. 147). A group of hunters “walk” with at least two dogs and a few other animals among which a gazelle and a barbery sheep are clearly recognisable. As on the “Hunters’ palette”, most of the hunters have feathers on their heads and tails attached to their belts. Several of them hold a looped object, probably the abridged rendering of a lasso. Weapons such as bows or mace heads are absent. The presence of dogs and lassos (?), which are essential attributes for capturing animals, makes the scene more realistic than the “Hunters’ palette”. Moreover, this confirms the relevance of bows, mace heads etc. as the military aspect of the “Hunters’ palette”. Other representations of hunters from the same site have hippopotomous images on their chests (Darnell 2002, pl. 88; Hendrickx et al. 2009, fig. 23), even though the drawings are located far from the Nile. Hunting in the desert and in the Nilotic environment are to be considered as complimentary.



Fig. 13. “Was-ha-Waset”. Rock art panel no. 86 (Darnell 2002, fig. 17)

The location of the rock art has implications for considering the hunters' status. Many rock art hunting scenes occur far out in the desert, often at distances that can not be covered in a single day.<sup>22</sup> Hunting expeditions to these areas must have taken several days. The possibility for absence from agricultural or other work and the lack of economic importance of hunting in itself point to the elite status of the hunters which is underlined by the juxtaposition of hunting and military action. The circumstances of hunting required cooperation, and could have fostered the sense of belonging to a group, allowing the participants to strengthen their contacts and organise their interests as an elite group. The return of the hunters, with their dogs and game, could have been an event that attracted much

<sup>22</sup> The Was-ha-Waset site with the scene of the group of hunters is located at 14,3 km as the crow flies from the Nile valley but that would be a horrendous trip of scaling the mountain where it is unassailable. Using the major track, the Alamat Tal Road to Gebel Tjauti, and then to WHW, the distance is 21km from the closest Valley point, more like 30 to 35 from the closest major settlement, and probably a good long day's journey by foot, considering the terrain (pers. com. John C. Darnell). In the Eastern Desert, rock art sites are located at even greater distances. In the Wadi Hammamat, the Wadi Minah / Wadi Abu Wasil and Wadi Barramiya, rock art sites can be located up to about a 100 km (following the wadi beds) from the valley (cf. Winkler 1938, map; Morrow & Morrow 2002, pp. 23-27).

attention. The feathers and animal tails worn by the hunters certainly would have emphasised this. The impact was not restricted to the moment of return, but was continued by the attraction of animals kept temporarily in captivity. Hunting parties would have been an opportunity for elite display, and the religious festivals when the wild animals were slaughtered and consumed would have provided a second occasion for such display. Logically, these important socio-religious events would have been organised by the elite, of which the hunters are part.

A point that has hardly been raised for the Predynastic period is hunting as a means of delineating and occupying territory. In Medieval Europe, defining and marking space were important aspects of hunting as elements for structuring and dominating the surrounding world (Morsel 1997; Guerreau 2000). Of course the environmental situation of Medieval Europe and Predynastic Egypt are very different and the (partial) overlapping between agricultural land and hunting areas is not relevant for Egypt. But in both contexts hunting would have emphasised the geographical difference between the farming activities of ordinary people which took place in the immediate vicinity of their living places, and the hunting expeditions of the elite into remote areas. Exploring the deserts implies control over them. The rock art representations bear permanent testimony of this in the desert, while the game returned to the Nile valley confirms this control for, and over, the whole of society. Hunting stories and music also may have been aspects of great social importance which are not materially evident.

As part of marking space, types of animals on Predynastic pottery and other objects may have indicated specific geographic areas.. This is straightforward for hippopotami and crocodiles, but for other animals it may be inferred from the quantitative importance of desert animals represented on Decorated pottery, which does not agree with the archaeozoological record.<sup>23</sup> For example, the frequently depicted addax is not attested on Predynastic sites while the equally frequent ibex is only attested occasionally (Linseele & Van Neer 2009, pp. 58-60). On the other hand, the most frequent desert game animal, Dorcas gazelle, is very rare on Decorated pottery (Graff 2009, p. 157, Ab15-16). It is striking that the habitat of the two desert animals dominating the visual imagery on Decorated pottery is limited to the Eastern desert for the ibex (Osborn & Helmy 1980, pp. 515-521), and to the Western desert for the addax (Manlius 2000, pp. 262-263; Osborn & Helmy 1980, pp. 482-484). It can therefore be suggested that the selection of addax and ibex on Decorated ware refers to the identification of two distinct desert environments. In the context of “order over chaos” concept, this can be taken as a demonstration that all of the desert is concerned.<sup>24</sup> A comparable point is made with the inclusion of mythological animals in animal rows on decorated ivories and palettes (Huyge 2004), which indicate that the concept applies to all of the known and unknown world.

However, not all animal representations can be interpreted this way. The regularly depicted Barbary sheep occur on both sides of the Nile and are relatively frequently identified in archaeozoological remains (Linseele & Van Neer 2009, p. 60). Barbary sheep have a particular iconographic position, being especially important in hunting scenes on White Cross-lined pottery and on decorated female figurines (Hendrickx et al. 2009). Barbary sheep are among the caprids which are best adapted to desert environments, and are the largest animals found far out in the desert. This could have made them a suitable symbol for desert

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<sup>23</sup> For a more detailed discussion, see Graff et al. 2011, pp. 457-459.

<sup>24</sup> When the addax is part of a ritual scene that also includes humans, its meaning should be considered in the context of the renewal of life (Graff 2009, pp. 106-108). This does not necessarily contradict the reference to the Western Desert suggested because the actual meaning of elements within the Naqada IIC-D visual language strongly depends on the context of the elements (Graff 2009; Hendrickx 2002; Hendrickx & Eyckerman in press).

hunting in general. The female figurines decorated with hunting scenes have been considered the predecessors of the women of the “Acacia House” as known from the beginning of the Old Kingdom onwards (Hendrickx et al. 2009, pp. 212-219). These women are associated with hunting and butchering in the context of meat sacrifice and offering ritual, including also music and dance. This fits very well with the interpretation of the rituals at the much older site HK29A at Hierakonpolis - and probably many other places - that can be considered the origin of the women of the “Acacia House”.

All in all, hunting was an important aspect of the elite manner of living but not from the simplistic view of food procurement. Hunting allowed the elite to identify, structure and control the environment far beyond the Nile valley and therefore to transcend the daily lifestyle of the farmers dominated by agriculture. The organised life of work in the fields and animal husbandry was the opposite of hunting wild animals in the extreme environmental conditions of the desert or the spectacular hunt for hippopotami and crocodiles on the Nile. On a more symbolic level this expressed control over chaos. The conceptual aspect of hunting was from the very beginning of the Naqada culture paralleled by military victory. Their iconographic materialisation became an important element for the establishment of hierarchic social structures. The integration of the hippopotamus hunt into royal iconography and the disappearance of the dog as symbol of power just before Narmer confirm the importance of the hunting concept on the highest level. Possibly, the conceptual importance of hunting results during the Old Kingdom in a funerary meaning, derived from royal prototypes. But for Predynastic times, hunting should be considered one of the most important, if not the most important, iconographic elements outside the funerary atmosphere.

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### **Bibliography**

- Almagro Basch, M. & Almagro Gorbea, M. 1968. Estudios de arte rupestro nubio. I. Yacimientos situados en la orilla oriental del Nilo, entre Nag Koloradna y Kasr Ibrim (Nubia Egipcia). Memorias de la Mision arqueologico Espanola en Egipto 10. — Ministerio de Asuntos Exteriores / Ministerio de Educacion Nacional, Madrid, 327 pp. + 49 pls.
- Altenmüller, H. 1980. Jagdritual. — In: Lexikon der Ägyptologie. Bd. III. Harrassowitz, Wiesbaden, pp. 231-233.
- Altenmüller, H. 1989. Nilpferd und Papyrusdickicht in den Gräbern des Alten Reiches. — Bulletin de la Société d’Égyptologie de Genève, 13: 9-21.
- Anderson, J.K. 1985. Hunting in the ancient world. — University of California Press, Berkeley, 192 pp.
- Anderson, D.A. 2011. Evidence for early ritual activity in the Predynastic settlement at el-Mahâsna. — In: Friedman, R.F. & Fiske, P.N. (eds.), Egypt at its Origins 3. Proceedings of the International Conference “Origin of the State. Predynastic and Early Dynastic Egypt”, London, 27<sup>th</sup> July - 1<sup>st</sup> August 2008. Orientalia Lovaniensia Analecta 205. Peeters, Leuven, pp. 3-29.

- Audoin-Rouzeau, F. 1994. Bêtes médiévales et familiarité: animaux familiers de l'esprit, animaux familiers de la vie. — *Anthropozoologica*, 20: 11-40.
- Baines, J. 1993. Symbolic roles of canine figures on early monuments. — *Archéo-Nil*, 3: 57-74.
- Baines, J. 1995. Origins of Egyptian kingship. — In: O'Connor, D. & Silverman, D.P. (eds.), *Ancient Egyptian Kingship. Probleme der Ägyptologie*, Bd. 9. Leiden - New York - Köln: 95-156.
- Barnett, R.D. 1976. Sculptures from the North Palace of Ashurbanipal of Assyria (668-627 B.C.). — *British Museum Publications*, London, 75 pp.
- Barringer, J.M. 2001. *The hunt in ancient Greece*. — John Hopkins University Press, Baltimore, 312 pp.
- Behrmann, A. 1989. Das Nilpferd in der Vorstellungswelt der Alten Ägypter. Teil I, Katalog. Europäische Hochschulschriften. Reihe XXXVIII. Archäologie. Bd. 22. — Peter Lang, Frankfurt am Main, XIII + 500 pp.
- Behrmann, A., 1996. Das Nilpferd in der Vorstellungswelt der Alten Ägypter. Teil II, Textband. Europäische Hochschulschriften, Reihe XXXVIII Archäologie, Bd. 62. — Peter Lang, Frankfurt am Main, 203 pp.
- Darnell, D., 2002. Gravel of the desert and broken pots in the road: Ceramic evidence from the routes between the Nile and Kharga Oasis. — In: Friedman, R.F. (ed.), *Egypt and Nubia. Gifts of the desert*. — British Museum Press, London, pp. 156-177.
- Darnell, J.C. 2009. Iconographic attraction, iconographic syntax and the tableaux of royal ritual power in the Pre- and Proto-Dynastic rock inscriptions of the Theban Western Desert. — *Archéo-Nil*, 19: 83-107.
- Decker, W. 1992. *Sports and games of ancient Egypt*. — Yale University Press, New Haven, 212 pp.
- Dreyer, G., Hartmann, R., Hartung, U., Hikade, T., Köpp, H., Lacher, C., Müller, V., Nerlich, A. & Zink, A. 2003. Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhof 13./14./15. Vorbericht. — *Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo*, 59: 67-138.
- Dreyer, G. & Polz, D. (eds.) 2007. *Begegnung mit der Vergangenheit - 100 Jahre in Ägypten. Deutsches Archäologisches Institut Kairo 1907-2007*. — von Zabern, Mainz, XVI + 348 pp.
- Droux, X. 2011. Twinned hippopotamus figurines of the Predynastic period. — In: Friedman, R.F. & Fiske, P.N. (eds.), *Egypt at its Origins 3. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, London, 27<sup>th</sup> July - 1<sup>st</sup> August 2008. *Orientalia Lovaniensia Analecta* 205. Peeters, Leuven, pp. 349-378.
- Flores, D.V. 2003. Funerary sacrifice of animals in the Egyptian Predynastic period. *British Archaeological Reports* S1153. — Archaeopress, Oxford, VIII + 160 pp.
- Friedman, R.F., 2009. Hierakonpolis locality HK29A: The Predynastic ceremonial center revisited. — *Journal of the American Research Center in Egypt*, 45: 79-103.
- Friedman, R.F., Van Neer, W. & Linseele, V. 2011. The elite Predynastic cemetery at Hierakonpolis: 2009–2010 update. — In: Friedman, R.F. & Fiske, P.N. (eds.), *Egypt at its Origins 3. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, London, 27<sup>th</sup> July - 1<sup>st</sup> August 2008. *Orientalia Lovaniensia Analecta* 205. Peeters, Leuven, pp. 157-192.
- Gatto, M.C., Hendrickx, S., Roma, S. & Zampetti, D. 2009. Rock art from West Bank Aswan and Wadi Abu Subeira. — *Archéo-Nil*, 19: 151-168.

- Graff, G. 2009. Les peintures sur vases de Nagada I - Nagada II. Nouvelle approche sémiologique de l'iconographie prédynastique. *Egyptian Prehistory Monographs* 6. — Leuven University Press, Leuven, 432 pp.
- Graff, G., Eyckerman, M. & Hendrickx, S. 2011. Architectural elements on Decorated pottery and ritual presenting of desert animals. — In: Friedman, R.F. & Fiske, P.N. (eds.), *Egypt at its Origins 3. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, London, 27<sup>th</sup> July - 1<sup>st</sup> August 2008. *Orientalia Lovaniensia Analecta* 205. — Peeters, Leuven, pp. 437-465.
- Guerreau, A., 2000. Les structures de base de la chasse médiévale. — In: Bagliani, A.P. & Van den Abeele, B. (eds.), *La chasse au Moyen Age. Société, traités, symboles. Micrologus Library* 5. Sismel, Firenze, pp. 25-32.
- Hartmann, R. 2008. Zwei fragmente der White Cross-lined Ware aus dem Friedhof U in Abydos zu Gefässen aus dem Ägyptischen Museum Kairo. — In: Engel, E.-M., Müller, V. & Hartung, U. (eds.), *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer. Menes* 5. Harrassowitz, Wiesbaden, pp. 163-182.
- Hartmann, R. 2011. The chronology of Naqada I tombs in the Predynastic Cemetery U at Abydos. — In: Friedman, R.F. & Fiske, P.N. (eds.), *Egypt at its Origins 3. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, London, 27<sup>th</sup> July - 1<sup>st</sup> August 2008. *Orientalia Lovaniensia Analecta* 205. Peeters, Leuven, pp. 917-938.
- Hartung, U. 2010. Hippopotamus hunters and bureaucrats. Elite burials at cemetery U. — In: Raffaele, F., Nuzzolo, M. & Incordino, I. (eds.), *Recent discoveries and latest researches in Egyptology. Proceedings of the First Neapolitan Congress of Egyptology, Naples, June 18th-20th 2008*. Harrassowitz, Wiesbaden, pp. 107-120.
- Hayes, W.C. 1953. The scepter of Egypt. A background for the study of Egyptian antiquities in the Metropolitan Museum of Art. 1. From the earliest times to the end of the Middle Kingdom. — Harper, New York, XVIII + 399 pp.
- Hendrickx, S., 2002. Bovines in Egyptian Predynastic and Early Dynastic iconography. — In: Hassan, F.A. (ed.), *Droughts, food and culture. Ecological change and food security in Africa's later Prehistory*. Kluwer Academic / Plenum Publishers, New York: pp. 275-318.
- Hendrickx, S. 2006. The dog, the Lycaon pictus and order over chaos in Predynastic Egypt. — In: Kroeper, K., Chłodnicki, M. & Kobusiewicz, M. (eds.), *Archaeology of Early Northeastern Africa. In Memory of Lech Krzyżaniak. Studies in African Archaeology* 9. Poznań Archaeological Museum, Poznań, pp. 723-749.
- Hendrickx, S. 2010. L'iconographie de la chasse dans le contexte social prédynastique. — *Archéo-Nil*, 20: 106-133.
- Hendrickx, S., Darnell, J.C. & Gatto, M.C., in press a. The earliest representations of royal power in Egypt: The rock drawings of Nag el-Hamdulab (Aswan). — *Antiquity*, (submitted)
- Hendrickx, S., Darnell, J.C., Gatto, M.C & Eyckerman, M., in press b. Iconographic and palaeographic elements dating a Dynasty 0 rock art site at Nag el-Hamdulab (Aswan, Egypt). — In: *The signs of which times ? Chronological and palaeoenvironmental issues in the rock art of Northern Africa*. Royal Academy for Overseas Sciences, Brussels.
- Hendrickx, S. & Depraetere, D. 2004. A theriomorphic Predynastic stone jar and hippopotamus symbolism. — In: Hendrickx, S., Friedman, R.F., Ciałowicz, K.M. & Chłodnicki, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Krakow, 28<sup>th</sup> August – 1<sup>st</sup> September 2002. *Orientalia Lovaniensia Analecta* 138. Peeters, Leuven, pp. 801-822.

- Hendrickx, S. & Eyckerman, M. 2010. Continuity and change in the visual representations of Predynastic Egypt. — In: Raffaele, F. Nuzzolo, M. & Incordino, I. (eds.) *Recent discoveries and latest researches in Egyptology. Proceedings of the First Neapolitan Congress of Egyptology. Naples, June 18<sup>th</sup>-20<sup>th</sup> 2008.* Harrassowitz, Wiesbaden, pp. 121-144.
- Hendrickx, S., Friedman, R.F. & Eyckerman, M. 2011. Early falcons. — In: Morenz, L., Kuhn, R. (ed.), *Vorspann oder formative Phase ? Ägypten und der Vordere Orient 3500-2700 v. Chr.* Philippika 48. Harrassowitz, Wiesbaden, pp. 129-162.
- Hendrickx, S., Riemer, H., Förster, F. & Darnell, J.C. 2009. Late Predynastic / Early Dynastic rock art scenes of Barbary sheep hunting from Egypt's Western Desert. From capturing wild animals to the women of the 'Acacia House'. — In: Riemer, H., Förster, F., Herb, M. & Pöllath, N. (eds.), *Desert animals in the eastern Sahara: Status, economic significance and cultural reflection in antiquity. Proceedings of an interdisciplinary ACACIA workshop held at the University of Cologne December 14-15, 2007.* Colloquium Africanum 4. Heinrich-Barth-Institut, Köln, pp. 189-244.
- Herb, M. & Förster, F. 2009. From desert to town: The economic role of desert game in the Pyramid Ages of ancient Egypt as inferred from historical sources (c. 2600-1800 BC). An outline of the workshop's inspiration and objectives. — In: Riemer, H., Förster, F., Herb, M. & Pöllath, N. (eds.), *Desert animals in the eastern Sahara: Status, economic significance and cultural reflection in antiquity. Proceedings of an interdisciplinary ACACIA workshop held at the University of Cologne December 14-15, 2007.* Colloquium Africanum 4. Heinrich-Barth-Institut, Köln, pp. 17-44.
- Huyge, D. 2004. A double-powerful device for regeneration: The Abu Zaidan knife handle reconsidered. — In: Hendrickx, S., Friedman, R.F., Ciałowicz, K.M. & Chłodnicki, M. (eds.), *Egypt at its Origins. Studies in Memory of Barbara Adams. Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Krakow, 28<sup>th</sup> August – 1<sup>st</sup> September 2002.* *Orientalia Lovaniensia Analecta* 138. Peeters, Leuven, pp. 823-836.
- Huyge, D. 2009. Detecting magic in rock art: The case of the ancient Egyptian 'malignant ass'. — In: Riemer, H., Förster, F., Herb, M. & Pöllath, N. (eds.), *Desert animals in the eastern Sahara: Status, economic significance and cultural reflection in antiquity. Proceedings of an interdisciplinary ACACIA workshop held at the University of Cologne December 14-15, 2007.* Colloquium Africanum 4. Heinrich-Barth-Institut, Köln, pp. 293-307.
- Kahl, J. & Engel, E.-M. 2001. Vergraben, verbrannt, verkannt und vergessen. Funde aus dem "Menesgrab". — Jochem Kahl, Münster, 32 pp.
- Kantor, H.J. 1953. Prehistoric Egyptian pottery in the Art Museum. — *Record of the Art Museum Princeton University*, 12: 67-83.
- Kemna, K. 1992. Bemerkungen zu den Darstellungen der Wildeseljagd. — In: *Sesto Congresso Internazionale di Egittologie. Atti, vol. I.* International Association of Egyptologists, Torino, pp. 365-370.
- Kleinsgütl, D. 1997. Feliden in Altägypten. *Beiträge zur Ägyptologie*, Bd. 14. — Afro-Pub, Wien, 159 pp.
- Legge, G.F., 1900. The carved slates from Hierakonpolis and elsewhere. — *Proceedings of the Society of Biblical Archaeologists*, 22: 125-139.
- Linseele, V. & Van Neer, W. 2009. Exploitation of desert and other wild game in ancient Egypt: The archaeozoological evidence from the Nile valley. — In: Riemer, H., Förster, F., Herb, M. & Pöllath, N. (eds.), *Desert animals in the eastern Sahara: Status, economic significance, and cultural reflection in antiquity. Proceedings of an interdisciplinary ACACIA workshop held at the University of Cologne, December 14-15, 2007.* Colloquium Africanum 4. Heinrich-Barth-Institut, Köln, pp. 47-78.

- Linseele, V., Van Neer, W. & Friedman, R.F. 2009. Special animals from a special place? The fauna from HK29A at Predynastic Hierakonpolis. — *Journal of the American Research Center in Egypt*, 45: 105-136.
- Linseele, V., Van Neer, W. & Hendrickx, S. 2007. Evidence for early cat taming in Egypt. — *Journal of Archaeological Science*, 34,12: 2081-2090.
- Manlius, N. 2000. Historical ecology and biogeography of the addax in Egypt. — *Israel Journal of Zoology*, 46,4: 261-271.
- Marinova, E. & Van Neer, W. 2009. An elephant's last meal. — *Nekhen News*, 21: 10-11.
- Montet, P. 1946. Tombeaux de la Ire et de la IVE dynasties à Abou-Roach, deuxième partie: inventaire des objets. — *Kemi*, 8: 157-227.
- Morrow, M. & Morrow, T. (eds.) 2002. Desert RATS. Rock Art Topographical Survey in Egypt's Eastern Desert. Site catalogue. — Bloomsbury Summer School, Department of History, London, 246 pp.
- Morsel, J. 1997. Jagd und Raum. Überlegungen über den sozialen Sinn der Jagdpraxis am Beispiel des spätmittelalterlichen Franken. — In: Rösner, W. (ed.), *Jagd und höfische Kultur im Mittelalter*. Veröffentlichungen des Max-Planck-Instituts für Geschichte 135. — Vandenhoeck und Ruprecht, Göttingen, pp. 255-288.
- Müller, V. 2008. Nilpferdjagd und geköpfte Feinde - zu zwei Ikonen des Feindvernichtungsrituals. — In: Engel, E.-M., Müller, V. & Hartung, U. (eds.), *Zeichen aus dem Sand. Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer*. Menes 5. Harrassowitz, Wiesbaden, pp. 477-493.
- Murnane, W.J., 1987. The Gebel Sheikh Suleiman monument: Epigraphic remarks. — In: Williams, B.B. & Logan, T.J. *The Metropolitan Museum knife handle and aspects of pharaonic imagery before Narmer*. *Journal of Near Eastern Studies*, 46: 94-95.
- Navajas Jiménez, A.I. 2009. *Bos primigenius / Loxodonta Africana*. Iconographie et symbolisme au travers de la céramique White Cross-lined. — *Chronique d'Égypte*, 84: 50-87.
- Nibbi, A., 2003. Some remarks on the ancient Egyptian shield. — *Zeitschrift für ägyptische Sprache und Altertumskunde*, 130: 170-181.
- Osborn, D.J. & Helmy, I. 1980. The contemporary land mammals of Egypt (including Sinai). *Fieldiana Zoology n.s.* 5. — Field Museum of Natural History, Chicago, XIX + 579 pp.
- Quibell, J.E. 1913. Excavations at Saqqara (1911-1912). The tomb of Hesy. — *Imprimerie de l'Institut français d'Archéologie orientale, Cairo*, 40 pp + 32 pls.
- Raffaele, F. 2010. Animal rows and ceremonial processions in late Predynastic Egypt. — In: Raffaele, F. Nuzzolo, M. & Incordino, I. (eds.) *Recent discoveries and latest researches in Egyptology. Proceedings of the First Neapolitan Congress of Egyptology*. Naples, June 18<sup>th</sup>-20<sup>th</sup> 2008. Harrassowitz, Wiesbaden, pp. 245-286.
- Quibell, J.E. & Green, F.W. 1902. Hierakonpolis II. *Egypt Research Account* 5. — Quaritch, London, 57 pp + 39 pls.
- Rösener, W. 2000. Adel und Jagd. Die Bedeutung der Jagd im Context der adeligen Mentalität. — In: Bagliani, A.P. & Van den Abeele, B. (eds.), *La chasse au Moyen Age. Société, traités, symboles*. Sismel, Firenze, pp. 129-150.
- Säve-Söderbergh, T. 1953. On Egyptian representations of hippopotamus hunting as a religious motive. — C.W.K. Gleerup, Lund, 56 pp.
- Scharff, A. 1929. Die Altertümer der Vor- und Frühzeit Ägyptens. II. Bestattung, Kunst, Amulette und Schmuck, Geräte zur Körperpflege, Spiel- und Schreibgeräte, Schnitzereien aus Holz und Elfenbei, Verschiedenes. *Staatliche Museen zu Berlin. Mitteilungen aus der ägyptischen Sammlung* 5. — Staatliche Museen zu Berlin, Berlin, XI + 194 pp + 38 pls.

- Schulz, R. 2000. Remarks on the composition of hunting and battle scenes on the chest of Tut-ankh-amun. — In: Sherratt, S. (ed.), *The wall paintings of Thera – Proceedings of the First International Symposium*. Archaeological Society at Athens and the Thera Foundation, Athens, pp. 247-266.
- Spencer, A.J. 1980. *Catalogue of Egyptian antiquities in the British Museum. V. Early Dynastic objects*. British Museum Press, London, 110 pp + 80 pls.
- Stahelin, E. 1978. Zur Bedeutung der Jagd im alten Ägypten. — In: Triet, M. (ed.), *Spiel und Sport im alten Ägypten. Beiträge und Notizen zur Ausstellung im Schweizerischen Sportmuseum Basel, 1.9.-30.10.1978*. Schweizerisches Sportmuseum, Basel, pp. 23-35.
- Tefnin, R. 1979. Image et histoire. Réflexions sur l'usage documentaire de l'image égyptienne. — *Chronique d'Égypte*, 54: 218-244.
- Vandier, J. 1964. *Manuel d'archéologie égyptienne. IV. Bas-reliefs et peintures. Scènes de la vie quotidienne*. — Editions A. et J. Picard, Paris, 858 pp + XL pls.
- Van Neer, W., Linseele, V. & Friedman, R.F. 2004. Animal burials and food offerings at the elite cemetery HK6 of Hierakonpolis. — In: Hendrickx, S., Friedman, R.F., Ciałowicz, K.M. & Chłodnicki, M. (eds.), *Egypt at its origins. Studies in memory of Barbara Adams. Proceedings of the international conference "Origin of the State. Predynastic and Early Dynastic Egypt"*, Kraków, 28th August - 1st September 2002. *Orientalia Lovaniensia Analecta* 138. Peeters, Leuven, pp. 67-130.
- Weissert, E. 1997: Royal hunt and royal triumph in a prism fragment of Ashurbanipal (82-5-22,2). — In: Parpola S. & Whiting, R.M. (eds.), *Assyria 1995. Proceedings of the 10th Anniversary Symposium of the Neo-Assyrian Text Corpus Project. The Neo-Assyrian Text Corpus Project*, Helsinki, pp. 339-358.
- Williams, B.B. 1986. *Excavations between Abu Simbel and the Sudan frontier*, Keith C. Seele, Director. Part 1: The A-Group royal cemetery at Qustul: Cemetery L. *Oriental Institute Nubian Expedition*, vol. III. — The Oriental Institute of the University of Chicago, Chicago, XXXVIII + 388 pp + 110 pls.
- Winkler, H.A. 1938. *Rock drawings of southern Upper Egypt. I. Sir Robert Mond Desert Expedition. Archaeological Survey of Egypt 26*. — Egypt Exploration Society, London, VIII + 44 pp + 41 pls.