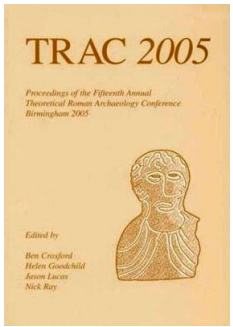

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Wild animals and domestic animals in the Roman sacrificial ritual: Distinctions between 'human' and 'animal' animals?

Günther Schörner

Introduction

The distinction between wild animals and domestic animals plays an important role in the discussion of ancient sacrificial violence (for animals in the Roman world in general see Toynbee 1973 and 1983). According to the written sources it is domestic animals, especially pigs, sheep and cattle, that are predominantly sacrificed (Stengel 1910; Ziehen 1939; Burkert 1997). The different reasons for this restriction as quoted by modern scholars (Stengel 1910: 197-202; Nilsson 1955: 145; Gladigow 1971: 7–16; Durand 1986: 12–14; Burkert 1997: 20–24, 53–56; for the economy of sacrifices of domestic animals: Jameson 1988: 87–119) are that:

- wild animals could not be caught alive and/or without injury.
- wild animals are not under permanent human control.
- wild animals are not suitable for the sacrificial meal, because they are not as palatable

This distinction is effective for most cases, but there are some exceptions. As Graf pointed out (2002: 117), each deviation from the regular performance in ancient religion can become semantically relevant and helps to a better understanding of the ritual concerned. Applying this point of view to sacrificial practices, in particular the distinction between wild and domestic animals, may therefore be interesting. The starting point of this investigation was the iconography, predominantly different representations of sacrifices. As an archaeologist mainly working in a deductive way, I will start with some iconographical examples followed by ancient literary references. Subsequently, I will investigate the zooarchaeological evidence as a different (i.e. immediate) approach to ancient rituals. Finally, I will draw comparisons to sacrifices in other cultures or ritual systems to analyse the general impression of such selective practices.

The iconographical evidence

Depictions in which wild animals or game are sacrificed, or at least such a sacrifice is suggested, are sporadic. It is interesting that in this context the examples belong both to the mythical and the real world. This distinction could be considered insignificant, however, because the important factor here is that the ritual could actually be conceived as existing in both planes.

A mosaic found at Lillebonne in *Gallia Lugdunensis* (Fig. 1) shows a hunt and sacrifice in honour of Artemis (Darmon 1994: 90–102 pl. 67–89). It depicts the sacrificer pouring a libation on a burning altar in front of a statue of the goddess. A juvenile *minister* with vessels used for ritual purification stands beside an altar, and next him is another servant holding a deer by a bridle. By comparison with many other Roman images of sacrifice, the deer pictured must be the intended victim for the next stage of the ritual.

Figure 1: Mosaic of Lillebonne. Musée des Antiquités de Rouen (after Darmon 1994: pl. 73)

A relief from the villa of Venanzano, now at Sorrento, also belongs to the world of hunting (Simon 1990: 57f. Fig. 73). Though it is impossible to say whether most of the animals depicted had already been killed before the sacrifice, it seems that the small wild boar, at least, is (still) alive. The difference is important; 'sacrifice' requires that a living victim must be killed *during* the ritual, whereas the presentation of a dead animal (or parts of it) to a god is a 'votive' offering. For example, the well-known mosaic from Carthage with the crane fixed at the shrine of Artemis illustrates an *anathema* or *donum* (votive offering) rather than a sacrificial victim (Dunbabin 1978: 253 Carthage 41, Fig. 37). A sarcophagus found at Aizanoi, now in the museum of Kütahya, depicts *putti* with different sacrificial animals (Türktüzün 1993, 525f. Figs. 10–12). A deer (recognized by its antlers) beside a sheep are both driven towards the altar.

Further representations of game in a sacrificial context belong to the iconography of the myth of Iphigenia. The first example is the substitution of Iphigenia with a deer brought by Artemis during the sacrifice at Aulis. This is evidenced, for example, in the 'Casa del Poeta Tragico' at Pompeii (Linant de Bellefonds 1990: 719 no.38). A relief in Bonn (Fig. 2) shows Iphigenia as well as Orestes and Pylades in Tauris (Linant de Bellefonds 1990, 725 no. 73). In this example they are fleeing from the sanctuary, where an animal is lying in front of an altar. It can be identified as a female deer because of the large ears and the form of the muzzle.

All of the examples discussed so far date from the Roman period, but there are of course also Greek representations, if only a few. For example, an Apulian red-figured vase (now at the British Museum in London, Inv. F 159) depicts Iphigenia being substituted by a deer (van Straten, 1995: 114, 267 no. V397). A votive relief from Aigina depicts the sacrifice of a deer and a goose in a way referring to the non-mythical cult (van Straten, 1995: 84f., 293f. no. R76).

To summarize, fundamentally there are both mythical and realistic-historical representations of wild animals or game as offerings. Functionally, the following groups can be distinguished:

- Sacrifice during a hunt (Lillebonne: Sorrento)
- Sacrifice as a substitute for a human (Aulis: Pompeii)
- Sacrifice in barbarian societies (Tauris: Bonn)
- Sacrifice as a motif in mythological genre, e.g. dealing with *putti* (Kütahya)
- Real sacrifice with unknown specific context

In a theological respect, Artemis is the goddess to whom most of the sacrifices are dedicated but she is not the only deity to be honoured. Geographically there is an emphasis on the Greek east in the Roman period, but the number of examples is too scarce to draw any definitive conclusions.

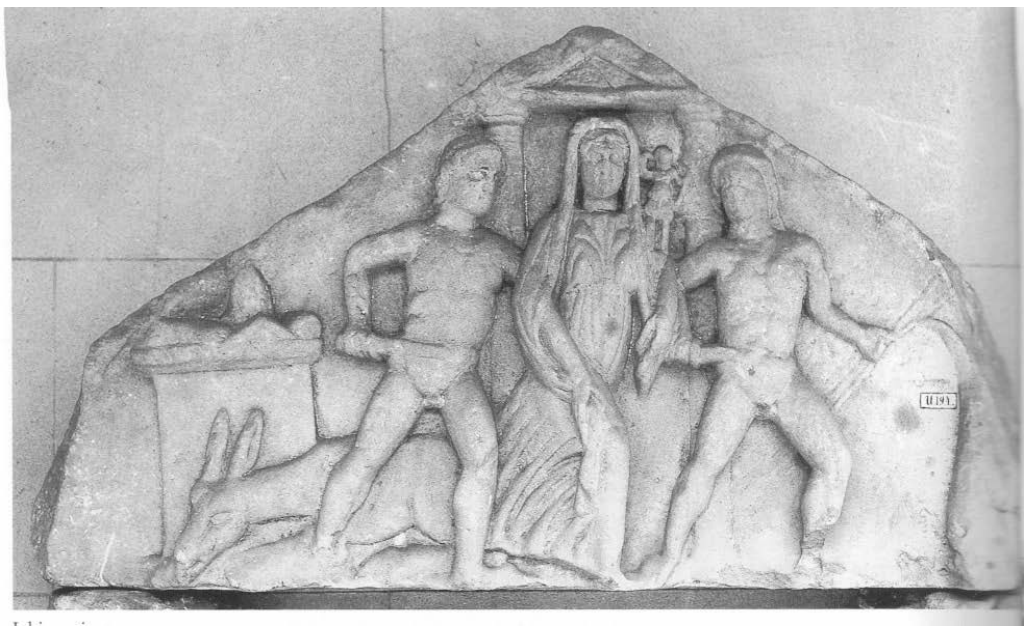

Figure 2: Pediment relief. Rheinisches Landesmuseum Bonn (after Linant de Bellefonds 1990: pl. 478)

The written evidence

Sacrifices of wild animals attested in written sources form a substantial addition to these first impressions. It is necessary to restrict these to the most significant examples, excluding the myth of Iphigenia at Aulis already cited. The reports referring to contemporary rituals are most interesting. Of course, Pausanias must be mentioned first, in particular the festival for Artemis Laphria at the Roman *colonia* of Patras:

> 'Every year too the people of Patrai celebrate the festival Laphria in honour of their Artemis, and at it they employ a method of sacrifice peculiar to the place. Round the altar in a circle they set up logs of wood still green, each of them sixteen cubits long. On the altar within the circle is placed the driest of their wood. Just before the time of the festival they construct a smooth ascent to the altar, pilling earth upon the altar steps. The festival begins with a most splendid procession in honour of Artemis, and the maiden officiating as priestess rides last in the procession upon a car yoked to deer. It is, however, not till the next day that the sacrifice is offered, and the festival is not only a state function but also quite a popular general holiday. For the people throw alive upon the altar edible birds and every kind of victim as well; there are wild boars, deer and gazelles; some bring wolf-cubs or bear-cubs, others the full-grown beasts. They also place upon the altar fruit of cultivated trees. Next they set fire to the wood. At this point I have seen some of the beasts, including a bear, forcing their way outside at the first rush of the flames, some of them actually escaping by their strength. But those who throw them back in drag them back again to the pyre. It is not remembered that anybody has ever been wounded by the beasts'
>
> (Paus. VII 18, 11–13)

The same author gives a report on another sacrifice of non-domestic animals at Tithorea in Phokis:

> 'In the country of the Tithoreans a festival in honour of Isis is held twice each year, one in spring and the other in autumn. On the third day before each of the feasts those who have permission to enter cleanse the shrine in a certain secret way, and also take and bury, always in the same spot, whatever remnants they may find of the victims thrown in at the previous festival. We estimated that the distance from the shrine to this place was two *stades*. So on this day they perform these acts about the sanctuary, and on the next day the small traders make themselves booths of reeds or other improvised material. On the last of the three days they hold a fair, selling slaves, cattle of all kinds, clothes, silver and gold. After mid-day they turn to sacrificing. The more wealthy sacrifice oxen and deer, the poorer people geese and guinea fowl. But it is not the custom to use for the sacrifice sheep, pigs or goats. Those whose business it is burn the victims and send them into the shrine … having made a beginning must wrap the victims in bandages of coarse or fine linen; the mode of preparing is the Egyptian. All that they have devoted to sacrifice are led in procession; some send the victims into the shrine, while others burn the booths before the shrine and themselves go away in haste.'
>
> (Paus. X 32, 14–17)

Further examples could be stated; not least the deer sacrifice of Agesilaos in Aulis, attested by Xenophon (*Hell*. III 3,3), Plutarch (*Agis*. 6) and Pausanias (III 9, 3). There, the character of the sacrifice is explicitly noted as *thysia*, in contrast to the ritual of Patrai. The Elaphebolia at Athens were also originally a deer sacrifice followed by a sacrificial meal, although the animal could be replaced by a cake (Athen. *Deip*. XIV 646f.).

In addition to these sacrifices, enclosures are attested in sanctuaries where deer and other game or wild animals are raised, most probably for the purpose of sacrifice. Such 'menageries' are mentioned by Arrian (*Anab*. VII 20, 4) in Mesopotamia, by Strabo (V 215) on the banks of the river Timavus in the country of the Heneti (north-eastern Italy), although the latter possesses unrealistic-utopian features. This raising of originally non-domestic animals in

enclosures essentially signifies a kind of taming comparable to the treatment of the 'animals of the desert' in Egypt (see below). There is no substantial literary evidence for the sacrifice of wild animals in Rome (with the exception of the sow of Lanuvium); on the contrary, an obligatory sacrifice of a deer to Diana was replaced, by the historical period, with the sacrifice of a sheep (Fest. 57). The situation, however, is different in the north-western parts of the empire; Strabo describes a relevant ritual in Gaul, surely with the intention of characterizing the cult as barbaric and superstitious:

> 'We are told of still other kinds of human sacrifices; for example, they would shoot victims to death with arrows, or impale them in the temples, or having devised a colossus of straw and wood, throw into the colossus cattle and wild animals of all sorts and human beings, and then make a burnt-offering of the whole thing'
>
> (Strab. IV 4, 6)

The written sources confirm the first impressions given by the iconographical evidence: Artemis is the goddess most often honoured. In a ritual respect both of the fundamental forms of sacrifice can be discerned: sacrifices with the destruction of the offerings like the holocaust (whereby offerings are entirely consumed by flames), or sacrifices with a following feast**.** Most sources are relating to the Greek-speaking East. Sacrifices of wild animals are also attested for non-Greek areas, both for the Orient and for the Celts (critical: Brunaux 2000: 134f.), but the Greek rituals are described as exotic and unusual. A utopian element might also be added.

The archaeozoological evidence

These observations on the basis of iconographical and literary evidence can be proven by means of archaeozoological evidence. This is necessary so that we are not dependent on self-statements like images and texts as a case of an inner discourse, but can instead use material evidence directly linked to the reality of rituals. As the number of appropriate analyses of excavation material constantly increases, we can suppose that the results are quite representative.

In Greece sacrifices of game or wild animals were rare, but did occur. Deer constitute the majority of offerings, but other species of animals were also used. The remains originate predominantly from sanctuaries of Artemis or the Letoids (Hägg 1998: 49–56; Kotjaboboulou *et al* 2003).

Regarding Rome and Italy, appropriate evidence is lacking (cf. MacKinnon 2004). Sacrifices of game and wild animals can be observed, however, in the north-western provinces of the Empire these are in different contexts. According to Grant, ritual depositions and burials of deer together with horses and dogs were found at different sites in Roman Britain, for example London's Eastern cemetery and at Staines (Grant 2004: 386f.). This attests the cultic significance of game in different contexts, whereby the ritual depositions should be considered as a specific kind of destruction sacrifice, like the holocausts in Greece. It is assumed in most cases that a pre-Roman ritual was maintained or taken up again, and this is confirmed by the excavation of a red deer burial in Raalte Helten in the Netherlands, north of the Roman border (Lauwerier 2004: 69). The liminal character of deer in the Late Iron Age, however, must be taken into consideration, as Aldhouse Green points out (2001: 85–89). Bones of game were found in the cult pits of the Bliesbruck type in Gaul, but again in small numbers. The most

ritually significant are complete skeletons such as the hedgehogs and martens at Chartres, or the wild boar at Le Mans (Petit 1989). These are, with all probability, the remains of destruction sacrifices, for only domestic animals were used for sacrificial meals. A very special example of the use of non-domestic animals in ritual can be presented from the area of the Batavians in *Germania Inferior*: based on excavations at sites such as the temple of Fortuna at Nijmegen or at Maastricht, remains of quails were always found in a non-economic setting, and so it appears that these birds were predominantly used in a ritual context (Lauwerier 2004: 68f.).

In these examples overtly indigenous forms of religious practice were still performed in a certain way during Roman occupation. They stand in contrast to the absence of remains of game or wild animals in ritual contexts in the very centre of the Empire itself. This impression is emphasized by the cult of Mithras. By comparing the archaeozoological finds from the Mithraeum of the Crypta Balbi at Rome on the one hand (de Grossi Mazzorin 2004) and the Mithraic sites of Tienen (Belgium), Martigny and Orbe Bosceaz (Switzerland) on the other (Lentacker *et al.* 2004: 90–92; Olive 2004), significant differences in type, spectrum and quantitative distribution can be determined, although the same god was worshipped. It is especially interesting that only in the three provincial Mithraic sites were bones of game found: as well as the remains of pigs and above all chicken, the bones of foxes, wolves and wild boars were also excavated.

The material evidence – first conclusions

From this evidence we can initially conclude that sacrifices of non-domestic animals were scarce but not impossible or even forbidden. The reasons stated against these rituals are not sound: unpleasant flavour does not play any role; Agesilaos included deer into the list of possible offerings because he wanted to denounce the thirst of pleasure. The examples attested in written sources showed especially that wild animals could be sacrificed unwounded and alive, i.e. it was possible to have wild animals available for ritual purpose. Therefore there must be other, more appropriate explanations for the relative rarity and the different restrictions.

The categorization of animals I: Antiquity

The next stage is to widen the field of enquiry.

Egypt

Many authors treat sacrifices of so-called ‘animals of the desert’ in Egypt as counterpart to Greek and Roman rituals. Burkert (1997: 23) used these Egyptian examples in order to prove the connection between the sacrifices of the Classical World and the rituals of Palaeolithic hunters. Animals of the desert comprise gazelles, antelopes, ibex, wild sheep and hyenas, according to the numerous depictions in tombs of the Old and Middle Kingdom (Kees 1942; Boessneck 1988). These animals of the desert, however, can only to some extent be addressed as wild since they were caught whilst young and then treated as domestic animals, such as livestock. Both iconographic details and osteological deformations (including deformations of

the bones and articulations, such as arthritis or arthrosis, and excrescences of the hooves caused by the lack of natural run) point to long stays in enclosures and tethering. The animals were fed and therefore marked with the hieroglyphic sign 'RN', like oxen or other domestic animals. There are even representations of fattened hyenas (Fig. 3).

Thus the animals of the desert must be called semi-domestic. The killing of truly wild animals such as hippopotamus, crocodile or lion takes place in a different context, that of a hunting ritual, and cannot be seen as a parallel to the sacrifice of the animals of the desert.

Figure 3: Relief (detail), Tomb of Kagemni (6th Dynasty) (after Boessneck 1988: Fig. 55)

Zoroastrianism

The next example, animal sacrifice in ancient Zoroastrianism, demonstrates remarkably different characteristics (de Jong 2002). Although the relevant Pahlavi texts are late, approximately sixth to eighth century A.D., a broad scholarly consensus confirms the ancient origin of the written evidence. According to the dualistic concept of this religion, two groups of animals are directly attributed to the two main forces of the world: Ahura Mazda and the evil spirit Ahriman. Certain animals were particularly sacred because they helped Ahura Mazda in the battle against evil. These included the cockerel, dog, hedgehog, beaver, otter and so on. The evil animals, called *xrafstras* and created by Ahriman, are made to harm good. The *xrafstra*-category includes reptiles, insects, wolves, felines and other carnivores. The sacred animals must not be killed or sacrificed because they are taboo. The *xrafstras,* however, must be killed but they must not be sacrificed because the offering of such an animal in sacrifice is considered to be worship of the evil spirit. So, both categories of animals are therefore excluded from sacrifice. Apart from these creatures, Zoroastrians further distinguished between domestic

animals and game. Only domestic animals were regularly suitable for sacrifice, but caught and tamed game could also be offered to Ahura Mazda. Altogether there are four categories of animals, which are differentiated according to two different criteria – ritual and cosmogony/myth – which do not correlate. Thus, the sacred animals of Ahura Mazda are partly domestic animals, like the cockerel and dog, and partly wild animals, like the beaver and hedgehog. The distinction of domestic–wild animal is only present in a ritualistic sphere and not in this mythical-cosmogonic sphere. Game and wild animals, which are not *xrafstras*, are considered as neutral and can be offered after semi-domestication comparable to the Egyptian custom.

These examples of two other cultures or cult systems emphasize the uneasiness regarding the stated reasons for the absence of sacrifices of game and wild animals. Neither in Egypt nor in Zoroastrianism are 'soundness' (i.e. the sacrifice being in perfect condition, unharmed) or direct control subject for further consideration. The Egyptian example proves how game and wild animals can be handled whilst still alive and made suitable for sacrifice by semi-domestication. The categorization of animals in Zoroastrianism shows how a strict religious prohibition of a group of animals operates. Above all, the two examples demonstrate that the crucial category is taming or better domestication.

The categorization of animals II: recent examples

The way animals are classified by the means of language is a classical theme of anthropology. An essay by Leach (1972: 38–52) shows the different and far reaching possibilities of this topic. One example is the discrepancy between English and German in naming the different categories of animals. Whilst English has a fourfold terminology (pets – livestock – game – wild animals), in German only two categories are used: 'Haustiere' and 'Wildtiere', because the difference between 'Wild' and 'Wildtier' is nearly nonexistent and the noun 'Schoßtier' has a negative connotation not comparable to 'pets'. Latin can be compared with German rather than English because it uses two main categories to specify the general *bestia*: *fera* (wild) and *pecus* (domestic). Further items are strictly functional like *iumentum* (draught animals) (Amat 2002).

In order to clarify the most important categories of 'edibility', 'domestication' and 'suitability for sacrifice' and their relation to each other, the results of Tambiah (1969) made during ethnological research in Northern Thailand are very important. Tambiah worked in the small village Baan Phraan Muan, inhabited by peasant rice growers, in north-eastern Thailand. Whilst investigating the concepts of marriage ceremony and the categorization of human beings in relation to sex and marriage, he also examined the classification of animals. They are classified into *sad baan* (domesticated animals) and *sad paa* (forest animals). The domestic animals *par excellence* are the dog, cat, ox, buffalo, pig, chicken and duck. All these animals have wild counterparts: the wild buffalo, wild ox, wild boar, wolf, civet cat, wild fowl and wild duck. In terms of edibility all these animals can be eaten, only the dog and cat and their wild counterparts are excluded because they have traits very similar to men. In terms of 'suitability for sacrifice', however, only the domestic animals are allowed for the annual rituals (again with the exception of the cat and dog). No wild counterpart or any other edible forest animal, like the different kinds of deer, can be offered in sacrifice. Thus the precondition for the suitability to sacrifice is domestication, not edibility or anything else because the categories 'availability' or 'soundness' are not even mentioned.

Results: Greece versus Rome

Although the sacrifice of wild animals is an infrequent phenomenon in classical antiquity documented only by sparse evidence, the general impressions fit perfectly to other features of the ritual and can help to characterize 'sacrifice' more accurately (Graf 2002; Scheid 1998). Thus, in comparison with other cult systems the sacrificial customs can be specified in a more analytical way.

1) Greece and Rome should not be regarded as a unit: Greece, with its several attested sacrifices of real wild animals, must be distinguished from Rome where sacrifice of non-domestic animals is generally rejected.

2) The *Imperium Romanum*, however, is not a homogenous entity, of course, but shows different local sacrificial traditions, as well as many other ritual practices. This applies to the Greek east or the Celtic (and Germanic) north-west. The sacrifice of game and wild animals is a barbarian and barbaric custom, as shown by the description of Celtic rituals: game, wild animals and human beings are sacrificed together. In Roman eyes, sacrifice of humans and sacrifice of wild animals are both expressions of barbarian *superstitio*. Not only must the sacrifice of wild animals (or of humans) be rejected, but also the mixture of categories.

A reason for the rigorous restriction on domestic animals can be found in the Roman legal system and the Roman myth on the origins of sacrifice as punishment of domestic animals by the gods. The sacrifice is seen as a compensation for divinity. Analyzing the *Fasti* of Ovid, Gladigow has suggested that the legal argument of the so-called *noxae datio* (jurisdiction in questions of guilt) should be applied to the Roman sacral laws (Gladigow 1971: 6–14). This *noxae datio,* however, is restricted to the *domus* including family members, slaves and livestock. Even if this aetiologic myth is an explanation *a posteriori*, it clarifies the consequent separation from domestic animal and wild animal in Roman ritual. This strict categorization of nature has a parallel in the classification of trees and other plants in *arbores felices* (lucky trees) and *arbores infelices* (unlucky trees) where only the former may be offered to the gods (André 1964: 45). The boundaries are blurred only in the context of hunting; see for example the mosaic of Lillebonne and the deer with a bridle, like a domestic animal. The Roman attitude to the sacrifice of game or wild animals is perfectly shown by the representations of the sow of Lavinium: though Virgil is speaking of a wild sow, a *domestic* pig is depicted in all cases (cf. Schäfer 2002; domestic pigs in Roman Italy: MacKinnon 2001). In order to better understand the Roman mind-set to wild animals the *venationes* (hunts as spectacles) should be considered. Hunting in a ritual context, however, is mainly attested in the Greek part of the empire, the Taurotheria in Thessally and the Taurokathapsia in Asia Minor (Burkert 1997: 23 n.16).

I will close with a brief look to Greece, as it is only there that the sacrifice of wild animals is attested, for example at Patras in Roman times. The reasons for this specifically Greek custom must mainly be recognized by two characteristics:

1) Artemis as the receiver of the sacrifice: most sacrifices are offered to Artemis as the deity of hunting and the 'outside'. The characterization by Vernant (1988: 9–12, 19–22) is appropriate. Artemis as the goddess of the boundaries and margins on the one hand guarantees the adherence to these borders. On the other hand, she enables the assimilation of foreign elements. Thus, Artemis is the goddess to receive sacrifices with animals crossing the border from wild to domestic during the ritual.

2) The conception of the Greek animal sacrifice itself: the Roman sacrifice is a meditation on the right of disposal, power and the order of things. The Greek sacrifice emphasizes the voluntary nature of the animal in a very explicit way (van Straten 1995: 100–102; Burkert 1997: 10f.). As Graf has pointed out, Greek animal sacrifice represents the evolution from uncivilized beginnings to the *polis* society in food categories (Graf 2002: 121f.): barley as primeval food is replaced by roasted and cooked meat. As a further significant difference between Greek and Roman sacrifice *mola salsa*, a kind of salted meal (that is to say a prepared food), is used in Rome instead of 'natural' barley grain as in Greece. Thus, the Greek sacrifice refers to a pre-cultural stage, enabling the integration of animals in a pre-domesticated state. The Roman sacrifice, however, emphasizes the cultural condition. The ritual is used to foster the order of things, thus game and wild animals do not occur.

I will end by returning to my starting point. Looking at the general conditions and conceptions of sacrifices it is clear that the depictions of these rituals in Greece and Rome are different. The preference of showing the killing of the sacrificial victims in the Roman iconographical evidence can be explained by the way that the animals are sacrificed principally in legal terms: the killing of the offering is the ultimate expression of the right of disposal. In Greece, however, the civilizing aspect of the sacrifice is fostered by the representations with the repetitive community of humans and animals in the presence of the different gods.

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Bibliography

Ancient Sources

Pausanias (Translated by W.H.S. Jones 1933). *Description of Greece Books VI–VIII*. Cambridge (MA): Harvard University Press.

Pausanias (Translated by W.H.S. Jones 1935). *Description of Greece Books VIII.22–X*. Cambridge (MA): Harvard University Press.

Strabo (Translated by H.L. Jones 1923). *Geography Books III–V*. Cambridge (MA): Harvard University Press.

Modern Sources

Aldhouse Green, M. 2001. Animal iconographies: Metaphor, meaning, and identity. In G. Davies, A. Gardner and K. Lockyear (eds.) *TRAC 2000: Proceedings of the Tenth Annual Theoretical Roman Archaeology Conference, London 2000*. Oxford: Oxbow Books: 80–93.

Amat, J. 2002. *Les animaux familiers dans la Rome antique.* Paris: Les Belles Lettres.

André, J. 1964. Arbor felix, arbor infelix. In M. Renard and R. Schilling (eds.) *Hommages à Jean Bayet*, *Collection Latomus 70*. Bruxelles: Latomus: 35–46.

Boessneck, J. 1988. *Die Tierwelt des Alten Ägypten*. München: Beck.

Brunaux, J.-L. 2000. *Les religions gauloises (Ve-Ier siècles av. J.-C.). Nouvelles appoches sur les rituals celtiques de la Gaule indépendante*. Paris: Editions Errance.

Burkert, W. 1997. *Homo necans.* RGVV 32. 2nd edition. Berlin: De Gruyter.

Darmon, J.-P. 1994. *Recueil général des Mosaïque: La Gaule II: Lyonnaise 5*. Gallia Supplement 10. Paris : CNRS Editions.

de Grossi Mazzorin, J. 2004. I resti animali della Crypta Balbi. In M. Martens and G. de Boc (eds.) *Roman Mithraism: The evidence of the small finds*. Brussels: Instituut voor het Archeologisch Patrimonium: 179–181.

de Jong, A. 2002. Animal sacrifice in ancient Zoroastrianism: A ritual and its interpretation. In A.I. Baumgarten (ed.) *Sacrifice in religious experience*. Leiden: Brill: 127–148.

Dunbabin, K.M. 1978. *The mosaics of Roman North Africa. Studies in iconography and patronage.* Oxford: Clarendon Press.

Durand, J.-L. 1986. *Sacrifice et labour en grèce ancienne. Essai d'anthropologie religieuse.* Paris: Gallimard.

Gladigow, B. 1971. Ovids Rechtfertigung der blutigen Opfer. Interpretationen zu Ovid, fasti I 335–456. *Der Altsprachliche Unterricht* 3: 5–23.

Graf, F. 2002. What is new about Greek sacrifice? In H. Horstmanshoff, H.W. Singor, F.T. van Straten and J.H.M. Strubbe. (eds.) *Kykeon. Studies in honour of H.S. Versnel.* Leiden: Brill: 113–126.

Grant, A. 2004. Domestic animals and their Uses. In M. Todd (ed.) *A Companion to Roman Britain*. Malden, MA: Blackwell: 371–392.

Hägg, R. 1998. Osteology and Greek sacrificial practice. In R. Hägg (ed.) *Ancient Greek cult practice from the archaeological evidence, Proceedings of the Fourth International Seminar on Ancient Greek Cult, Athens 22–24 October 1994*. Stockholm: Åström: 49–56.

Jameson, M.H. 1988. Sacrifice and animal husbandry in Classical Greece. In C.R. Whittaker (ed.) *Pastoral economies in Classical Antiquity*. Cambridge: The Cambridge Philological Society: 87–119.

Kees, H. 1942. Bemerkungen zum Tieropfer der Ägypter und seiner Symbolik. *Nachrichten der Akademie der Wissenschaften zu Göttingen. Phil.–Hist. Klasse, Heft 2*: 71–88.

Kotjaboboulou, E., Hamilakis, Y., Halstead P. and Gamble C. (eds.) 2003. *Zooarchaeology in Greece. Recent advances.* London: The British School at Athens.

Lauwerier, R. 2004. The economic and non-economic animal: Roman depositions and offerings. In S. Jones O'Day, W. Van Neer and A. Ervynck (eds.), *Behavior behind bones. 9th ICAZ Conference, Durham 2002.* Oxford: Oxbow Books: 66–72.

Leach, E. 1972. Anthropologische Aspekte der Sprache: Tierkategorien und Schimpfwörter. In E.H. Lenneberg (ed.) *Neue Perspektiven in der Erforschung der Sprache*. Frankfurt am Main: Suhrkamp: 32–73.

Lentacker, A., Ervynck, A and Van Neer, W. 2004. Gastronomy or religion? The animal remains from the *mithraeum* at Tienen (Belgium) In S. Jones O'Day, W. Van Neer and A. Ervynck (eds.) *Behavior behind bones. 9th ICAZ Conference, Durham 2002.* Oxford: Oxbow Books: 77–94.

Linant de Bellefonds, P. 1990. Art. Iphigeneia (Roman). In *Lexicon Iconographicum Mythologiae Classicae V*. Zürich: Artemis: 719–729.

MacKinnon, M. 2001. High on the hog: Linking zooarchaeological, literary, and artistic data for pig breeds in Roman Italy. *American Journal of Archaeology* 105: 649–673.

MacKinnon, M. 2004. *Production and consumption of animals in Roman Italy: Integrating the zooarchaeological and textual evidence.* Journal of Roman Archaeology Supplement 45. Portsmouth: Journal of Roman Archaeology.

Nilsson, M. P. 1955. *Geschichte der griechischen Religion I.* 2nd edn. München: Beck.

Olive, C. 2004. La faune exhumée de Martigny (Valais) et d'Orbe Bosceaz (Vaud) en Suisse. In M. Martens and G. de Boc (eds.) *Roman Mithraism: The evidence of the small finds*. Brussels: Instituut voor het Archeologisch Patrimonium: 147–155.

Petit, J.-P. 1989. Bliesbruck et les grands ensembles de puits et fosses cultuels de la Gaule romaine. Aspect d'un rituel où l'animal occupe une place prédominante. In *L'homme et l'animal. Anthropozoologica Numero special 3*. Paris: Laboratoire d'Anatomie comparée: 99–107.

Schäfer, Th. 2002. Äneas in Latium. Ein Mythos und zwei Fälschungen. *Römische Mitteilungen* 109: 159–164.
Scheid, J. 1998. L'animal mis à mort. Une interpretation romaine du sacrifice. *Études rurales* 147–148: 15–26.
Simon, E. 1990. *Die Götter der Römer*. München: Hirmer.
Stengel, P. 1910. *Opferbräuche der Griechen.* Leipzig: Teubner.
Tambiah, S.J. 1969. Animals are good to think and good to prohibit. *Ethnology* 8: 423–459.
Toynbee, J.M.C. 1973. Animals in Roman life and art. Cornell: Ithaca University Press.
Toynbee, J.M.C. 1983. *Die Tierwelt der Antike.* Mainz: Zabern.
Türktüzün, M. 1993. Zwei Säulensarkophage aus der Südwestnekropole in Aizanoi. *Archäologischer Anzeiger*: 517–526.
van Straten, F.T. 1995. *Hierà kalá. Images of animal sacrifice in Archaic and Classical Greece*. Leiden: Brill.
Vernant, J.-P. 1988. *Tod in den Augen. Figuren des Anderen im griechischen Altertum: Artemis und Gorgo*. Frankfurt am Main: Suhrkamp.
Ziehen, L. 1939. Art. Opfer. In *Reallexikon der Altertumswissenschaften* XVIII 1. Stuttgart: Druckenmüller, 579–627.