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Castration, cult and agriculture

Perspectives on Greek animal sacrifice

Abstract
The castration of most male animals seems to have been the rule in ancient Greece when rearing cattle, sheep, goats, and pigs; only very few adult males are needed for breeding purposes and flocks of bulls, rams, billy-goats and boars are difficult to keep, since they are too aggressive. Castrated males yield more and fattier meat, and, in the case of sheep, more wool. Still, sacred laws and sacrificial calendars stipulate the sacrifice of uncastrated victims, and vase-paintings frequently represent bulls, rams and billy-goats in ritual contexts. This paper will discuss the role of uncastrated male animals in Greek cult in the Archaic, Classical and Hellenistic periods, both from a religious and an agricultural perspective. Of particular interest are the relations between the practical, economic reality and the theological perception of sacrifice. These issues will be explored using epigraphical, literary, iconographical and zooarchaeological evidence.

Keywords: Cult, agriculture, vase-painting, castration, sacrifice, bull, ram, billy-goat, boar, eunuch

Introduction
A basic given fact when raising animals is that one needs much fewer males than females, and therefore most males are either killed before becoming mature, or castrated.1 Uncastrated males cannot be kept together in herds, since they are too aggressive and competitive, and if grazed with the females, uncontrolled breeding will occur.2 However, animals may also be castrated for other reasons. Although an uncastrated male has a bigger muscle mass than a castrated male, castration causes the production of fat to increase substantially, which leads to castrated males having fattier meat, a condition clearly desired in many cultures, antiquity included.3 This goes for all species; cattle, sheep, goats or pigs, as well as humans, and eunuchs are in fact often described as being obese.4 Another effect of castration can be noted in relation to sheep: wethers produce more wool than rams or ewes.5

For pigs, the removal of the testicles hinders the development of boar taint, an unpleasant smell and taste in pork that occurs when the meat is being heated; interestingly enough, this is most disagreeable to women.6 Boar taint is caused by the pheromone androstenone, which is produced by the boar’s testicles, and skatole, a by-product of the pig’s digestive tracts, which cannot be broken down by uncastrated pigs. Uncastrated mature male pigs are rarely eaten in modern societies due to the occurrence of boar taint, and most male piglets are therefore castrated or slaughtered at a young age, apart from in England, Ireland, Australia and Spain.7

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1 This article was directly inspired by a question once posed to me by the late Berit Wells, “Did the Greeks eat uncastrated animals?” — a matter I had never considered before. I dedicate this article to her memory, as both a stimulating and demanding teacher and colleague. I would also like to thank Lotta Rydhmer, professor in animal breeding at the Swedish University of Agricultural Sciences, Uppsala, for kindly sharing her expertise on modern castration, as well as Susanne Berndt-Ersöz, Lovisa Strand and Kerstin Silfwerbrand for fruitful discussions, and Robert Parker for sending me his unpublished manuscript discussing a Hellenistic funerary foundation from Lydia.

2 Frandson, Lee Willke & Fails 2009, 408; Rydhmer et al. 2006; Lacroix 1915. Castrated wethers can be used as flock leaders, unlike rams, which do not obey the shepherd, see Tani 1989.


5 On wethers being kept for wool production, see Killen 1993.


7 Warriss 2010, 92.
Castrated animals are easier to control and produce meat of a better quality, and these were of course well-known facts of animal husbandry in the ancient world. Galen, for example, states:

"In our part of the world people cut out (ἐκτέμνειν) the testicles of young pigs and oxen, but not for the same purpose; rather, those of the pigs for the sake of eating (for the flesh of castrated pigs is also more tasty, more nutritious and better concocted), and those of oxen for their usefulness in farming (for bulls are difficult for them to manage). But they remove the testicles of goats and sheep for both reasons."8

He further comments that meat of male goats is unwholesome and bitter, as is that of rams and bulls, and on the whole the meat of castrated animals is better.9 Aristotle also speaks of castration as a part of flock management and for improving the quality of the animals, and so do other ancient authors.10

As for the techniques used, the castration of young bulls and swine in antiquity usually seems to have been performed by opening or cutting away the lower part of the scrotum and then squeezing out the testicles and removing them.11 Aristotle states that for bulls, the roots were then pushed as far up as possible into to the body.12 The testes of calves could be crushed, thus not causing any open wound.13 The result of these procedures would be animals which had none or very little of the empty scrotum visible between the legs. The same or similar methods are still used today both for ruminants and pigs.14

Modern scholars are unfortunately often a bit sloppy as to the terminology used when referring to ancient animals, including sacrificial victims, and any bovine tends to be called a bull, even if there is nothing to substantiate this specification.15 Considering the scarcity of bulls in comparison to cows and oxen, we should really pay attention to whether an animal is fully male, female, or castrated. The animals depicted on the parapet of the Athena Nike bastion on the Athenian Acropolis can serve as a case in point. A seated Athena and winged Nikai setting up trophies and performing animal sacrifice are represented here. Three bovines were originally depicted, one on each side of the parapet. These animals have, out of habit, been labelled bulls, for example by Erika Simon, who builds her interpretation of the motif as a chthonian sacrifice to Theseus precisely on the identification of the animals as bulls.16 A closer look at the three victims shows, however, that one on the west side is lost, the second animal, on the southern frieze, is male, but we cannot tell if it was a bull or an ox, and as for the third one, on the northern side, the artist has avoided revealing the sex of the victim—the drapery around Nike’s left knee hides the genitals.17 Michael Jameson has demonstrated that the ritual shown must be a kind of sphagia—a sacrifice performed on the battlefield before the armies clashed, in order to divine the outcome of the struggle.18 Though this ritual often seems to have made use of uncastrated victims, the specification of the sex of the animals was apparently of less importance in this particular case.

This article will explore the role of uncastrated animals in Greek cult in the Archaic, Classical and Hellenistic periods, both from a religious and an agricultural perspective: how often do we encounter the full males, where and why? The relations between the practical reality of raising animals and the religious ideas and beliefs connected to sacrifice are of particular interest. The focus of the discussion will be on the epigraphical and iconographical evidence and, to a lesser extent, the literary texts and zooarchaeological material.

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10 Martial 3.24 describes the castration of a goat at a sacrifice in order to improve the taste of the meat. If castration is to have any affect on the quality of the meat, it has to be done at least two weeks before the animal is killed (pers. comm. prof. Lotta Rydhmer). Also, the meat of billy-goats and rams is usually more tasty, more nutritious and better concocted, and on the whole the meat of castrated animals is better.9 Aristotle also speaks of castration as a part of flock management and for improving the quality of the animals, and so do other ancient authors.10
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12 Arist. HA 632a; see also Xen. Cyr. 7.5.62–63, bulls become calmer if castrated, though still remain strong and suitable for work; Plut. fig. 106; Varro, Rust. 2.2.18 and 2.5.17; Georgoudi 1990, 281–282; van Straten 1987, 169–170.
13 Arist. HA 632a; Columella, Rust. 6.26.2 and 7.11.1; Adams 1990. This technique limits the danger of haemorrhage.
14 See Lacroix 1915. Other techniques for ruminants include crushing the spermatic cords with a Burdizzo or placing a rubber ring above the testicles, which will make them fall off after two weeks. Both of these methods are to be used on young animals.
15 See the comments by Jameson 1994, 313–317 and Georgoudi 1990, 280–282, on the importance of carefully considering the victim’s sex in detail. On the problems of the opposite mistranslation, every boustrophedon being an ox, and running the risk of hiding the fact that many must have been females, see Chandezon 2003, 100n. 239.
17 Jameson 1994, 313–317, figs. 18.5–6; see also Brouskari 1999, pls. 2–4, no. 972, and 61–62, nos. 7098 and 7099.
Inscriptions

The importance of paying attention to what kind of animal we are actually encountering is obvious from the rich and varied Greek terminology, which is evidenced in particular in the sacred laws and sacrificial calendars.19 Starting with the vocabulary for cattle, let us consider the generic term for cattle, βοῦς, which can be masculine or feminine. A βοῦς can be specified as ἄρσην or ἄρρην, male, and these terms presumably refer to an ox rather than a bull because there is the term ταῦρος, which indisputably refers to a full male, though in Homer there is θῆλυς, female, identifying the term for cattle, let us consider the generic term for cattle, βοῦς, which can be masculine or feminine. A term like θῆλυς, female, identifies the

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We can note that the uncastrated male animals have their own particular terms, taurus, krios, tragos, chimaros and kapros, while the females are usually identified only by the adjective theleia, “female” or by the fact that they are pregnant.27 More puzzling is, therefore, the occasional specification of a ram, a krios, being sacrificed, as ἐνόρχης, “uncastrated”.28 An uncastrated ram sounds like a tautology, but apparently the masculine quality of these victims was of prime importance. Possibly, these males were not only uncastrated but had also been used successfully for breeding. In that sense they could represent the equivalent of the pregnant victims occasionally listed in sacrificial calendars, be they ewes, heifers or sows.29

How often do we encounter uncastrated animals in inscriptions concerning religion? As a case study, we can take the four best preserved sacrificial calendars from Attica, dating from around 450 to 350 BC, from the demes of Thorikos, Marathon and Erchia, as well as the genos of the Salaminioi.30 In these four documents, a total of 172 animals are mentioned, and if their spread as to species, ages and sex is considered, it is striking that there is not one single taurus to be found.31 Admittedly these inscriptions reflect sacrifices on a deme or gentilic level, and since cattle were the most expensive victims, such animals were rarely sacrificed outside state sacrifices.32 Still, at Thorikos two bovines were among the sacrificial victims, and one taurus was sacrificed by the genos of the Salaminioi, while the rich deme of Marathon was able to pay for seven cattle, one of which was a pregnant heifer.33 There are four rams, krios, among the victims, three in Marathon and one in Erchia, as well as at least one tragos, a billy-goat, and one chimaros, a young male goat.34 On the other hand, among the 23 victims mentioned in the sacrificial calendar inscribed

27 It has been suggested that the Linear B ideogram *170 marks young bulls selected for sacrifice or tribute, see Landenius Enegren 2004, 14–15. Sometimes the inscriptions call for the sacrifice of an uncastrated victim, without naming the species, as is the case in the Molpoi inscription from Miletos where a sacrifice is to consist of an uncastrated victim, a female one, and a third which is unspecified, see LSA 50, lines 18–20; Herda 2006, 218–220.


29 On pregnant victims, see Bremmer 2005.


31 For an overview of the animals mentioned, see van Straten 1995, 176; Ekroth 2002, 168, table 30.

32 On the economic, as well as the social and political level of these texts, see Dow 1968; Mikalson 1977; Parker 1987; Jameson 1988; Rosivach 1994; van Straten 1995, 170–181; Ekroth 2002, 150–169.

33 Thorikos: NSGL 1, lines 28 and 55; Salaminioi: LSS 19, line 85; Marathon: LS 20 B, lines 6, 8, 9 (pregnant), 20, 21, 35 and 43.

34 Krios: LS 20 B, lines 27, 44 and 51 (Marathon); LS 18, col. V, line 52 (Erchia). Tragos: LS 20 B, line 18 (Marathon); cf. NSGL 1, line 45 (Thorikos). Chimaros: NSGL 1, line 20 (Thorikos).
by the *genos* of the Salaminioi, there is not one single animal marked as male, in the sense of being uncastrated. In all, the uncastrated victims are not many and make up only around 4% of all animals listed for sacrifice in these four documents.35

The epigraphical evidence regarding religious practices at large confirms the impression that uncastrated animals were unusual sacrificial victims. In Sokolowski’s three volumes of *Lois sacrées* from the Greek world and Lupu’s *Greek sacred law*, 429 inscriptions are included, some of which are very brief, while others span more than 100 lines. Although far from all of these include mentions of sacrificial victims, the uncastrated animals are on the whole very few: five bulls, around 30 rams, ten billy-goats or young male goats and four boars.36 Occasionally, an inscription contains a concentration of mentions of uncastrated animals, such as a fragmentary calender from Miletopolis in the Kyzikos region. In this, three of the 14 victims are bulls, and all are to be sacrificed within the same month, a singular occurrence.37 The particular and unusual character of the uncastrated males is also reflected in their price, as they are generally more expensive, which also must have contributed to their infrequency as sacrificial victims. In the 4th-century Athenian inscriptions, the wethers and ewes cost between ten and 15 drachmas, while the rams cost 17 drachmas.38 The prices for castrated goats and nanny-goats are ten to twelve drachmas, while the billy-goats are 15 drachmas.39

Uncastrated males clearly were uncommon as sacrificial victims, which is not surprising and fits well with the low number of such animals among the real herds.40 The epigraphical evidence dealing with the elevation of animals, pasture rights and trade in flocks in the Classical and Hellenistic periods has been studied in a most interesting volume by Christophe Chandezon.41 In these inscriptions, there is no reference to uncastrated males. Herds of cattle and sheep and goats are mentioned, frequently covered by the terms *bokemata* or *probata*, as well as a few swine. The sex of the animals is rarely specified, but in those cases where it is, we encounter cows or ewes—this reflects the importance of the females in the reproduction of the herds and the increase of their value.42 The bulls, rams, billy-goats and boars were of course present, or no reproduction of the flocks would have occurred, but there was neither a need for nor an interest in mentioning them.

The predominance of female animals is further underlined by the zooarchaeological evidence from both sanctuary and domestic contexts. At the Heraion on Samos, in the Archaic period, the ratio of male to female cattle was approximately one to eight, while for sheep and goats it was one to 48, and for pigs it was one male to ten females.43 On Delos, on the Classical and Hellenistic farms, there was one ram for every nine ewes, and one billy-goat for every seven nanny-goats.44 At Lousoi, at the Hellenistic settlement, the cattle were mainly female, and there were double as many female goats as compared to the males ones, and five to ten times more female sheep than male sheep.45 This distribution of cattle, sheep and goats resembles the picture presented by modern ethnographic studies.46 From the Greek sanctuary at Kommos on Crete, the teeth from the swine indicated the presence of 14 males and 12 females, but only three of the males were more than two years old, thus also suggesting that boars were rare.47 It is seldom possible to ascertain from the zooarchaeological evidence whether or not the males were castrated, but oxen and wethers have been identified at Samos and Kalapodi.48

Modern scholarship has sometimes remarked upon the lack of correlation between the agricultural and the sacred calendars in ancient Greece.49 The low number of uncastrated males could have been to get rid of superfluous males could have been to sacrifice them, and if that was the case the low number of uncastrated victims would be surprising. On the other hand, the males are likely to have been killed off before they became adults and may therefore not have been designated with the terms for full-grown male animals.

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35 The term *teleion*/*teleon* (*NGSL*, 1. lines 11, 21–22, 24, 26–27, 37–38 and 40 and commentary p. 129), a complete victim, should not be understood in the sense of uncastrated, but rather as a full-grown victim, see Casabona 1966, 37; Georgoudi 1990, 280; Rosivach 1994, 24 n. 42 and 150–151; van Straten 1995, 173 n. 53, or as a victim of the right age, see Brulé & Touzé 2008, 116–120.

36 These figures are based on the indexes and include only the instances where the terms are preserved or can be safely restored. If the remaining inscriptions mentioning sacrifices in the PHI epigraphy database online are considered as well, around 20 bulls, 20 rams, eight boars and two goats can be added (http://epigraphy.packhum.org/inscriptions).

37 Schwertheim 1983, no. 1, 4th/3rd century BC; Parker 2005, 484–485. The bulls are sacrificed to Alešikas, Eirene and Apollo Karneios, and the latter also received an ox and a kid. The sacrificial calendar from Mykonos (*LS*, 96, c. 200 BC), which lists five uncastrated victims, will be discussed further below.

38 van Straten 1995, 175–186, esp. 182.


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41 Chandezon 2003.

42 Chandezon 2003, 65 and 288–293, see in particular nos. 1, 12, 14, 20, 25, 26, 27, 48 and 51. The *eperoi* that are mentioned together with ewes in no. 51 (p. 200), and interpreted as rams, are better taken as wethers, since they are exempt from the tax on wool.


44 Seguilloux 2003, 253.


46 In the east African pastoralist societies studied by Dahl & Hjort (1976, 28–33 and 88–89) the ratio of cows–bulls varied from 1:20 to 1:60, for sheep–rams between 1:10–1:20 and for goats–billy-goats 1:30, the proportions being due to both cultural and ecological factors.

47 Reese & Ruscillo 2000, 477–481.

48 At the Heraion on Samos, occasional bones from oxen, bulls, wethers, rams, billy-goats and boars have been indentified, see Boessneck & von den Driesch 1988, 10, 23, 28, 33 and 40. At Kalapodi, one castrated *ovis* from the earliest levels was recovered, see Stanzel 1991, 24.

49 Burkert 1985, 226; Chandezon 2003, 131–132, stating that not all sacrificial calendars follow the pastoral rhythm.
animals, however, suggests the opposite. Michael Jameson has shown that there was an evident adaptation in the choice of sacrificial animals, not only as to the sex, but also when they were to be killed, in order to suit the supply. Lambs, for example, are prescribed after the ewes have given birth, but pregnant females very seldom, because the killing of such animals depletes the herd.\(^{50}\) The inscriptions, both sacred and secular, and the zooarchaeological material seem to reflect the reality of animal husbandry—many females and castrated males, in addition to a few uncastrated males. In fact, Jonathan Z. Smith has suggested that animal sacrifice can be explained as arising from a kind of regularized and ritualized flock management.\(^{51}\)

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**Iconography**

Let us now turn to another important category of evidence for Greek religion, iconography. Vase-paintings, predominantly Attic ones, as well as votive reliefs, offer a rich source of information on sacrificial practices, which should be compared with the epigraphical evidence.

From the inscriptions, it is evident that the most common sacrificial animals were sheep, followed by piglets, goats, pigs and, as the least frequent victim, cattle.\(^{52}\) The vase material presents a very different picture. If we consider the evidence collected in Folkert van Straten’s and Jörg Gebauer’s volumes on the representations of animal sacrifice on Attic vases, there are c. 200 animals depicted in these scenes.\(^{53}\) Of these 60% are

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\(^{50}\) Jameson 1988, esp. 102–103 and 106–107.


\(^{53}\) van Straten 1995; Gebauer 2002; see also Durand 1986.
bovines, around 20% are sheep, 15% are goats and 10% are pigs. Cattle clearly dominate the iconographical evidence, and several scenes depict not just one but several such animals as sacrificial victims.54

This difference between the inscriptions and the vases (and the votive reliefs), as to the choice of sacrificial animals, has been convincingly explained by van Straten as being linked to the purpose and character of each category of evidence.55 The vase-paintings rarely or never depict a precise, real sacrifice: they depict imaginary situations, contrary to the votive reliefs, which reflect private sacrifices performed within a particular cult. The inscriptions, on the other hand, in the form of sacrificial calendars and cult regulations, provide us with more reliable evidence for what was actually sacrificed. If the epigraphical material reflects the ritual reality of state and deme sacrifices, and the reliefs reflect private cult practice, the vases depict the ultimate, most desired sacrificial situation, where the most prestigious and expensive animal could be offered, no matter the cost involved.

The popularity of cattle on the ceramic evidence constitutes one remarkable distinction from the inscriptions, but

54 See, for example, Ferrara, Museo Nazionale T 57 c VP, van Straten 1995, V78, fig. 13; Boston, Museum of Fine Arts 13.195, van Straten 1995, V74, fig. 17.
what about the sex of the animals? Of interest here are the sacrificial scenes where the hindquarters and stomach of the animals can be observed, that is, in those scenes where any worshippers participating in the ritual do not cover this area, and the back legs of the animals are rendered so that the presence of the scrotum and the sheath or the udder may be detected. A careful inspection of the evidence at hand proves that there is a notable number of testicles to be seen, and one gets the impression that the vase painters intentionally depicted uncastrated animals.

If we leave aside those representations that are too damaged, or those where only the front part of the animal is rendered, there are c. 165 vases left, which produce a surprising result. Of the c. 90 cattle, 35 have a scrotum that is clearly visible and must be bulls (Fig. 1), while on an additional 12, the sheath can be seen (but not the scrotum), that is, they are male, but it is not possible to tell if they are meant to depict bulls or oxen. Of the 35 sheep, 17 are rams (Fig. 2), while of the 30 goats, 7 are billy-goats (Fig. 3). None of the 19 pigs can be definitively classified as boars because of the representation of a scrotum, though some of the animals have been depicted with what may be a sheath. There are also a few evidently marked females: three cows and three sows (Fig. 4).

Thus, of the animals included in van Straten’s and Gebauer’s sacrificial corpora, more than one-third must be considered as depicting bulls, rams or billy-goats. Even though the

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56 On the reliefs, usually only the head of the animal victim is seen, and when the body is visible details for identifying the sex can rarely be distinguished. A 4th-century BC relief from Athens dedicated to Héraclès depicts a bull (Athens, Epigraphical Museum 3942; van Straten 1995, R90, fig. 93), while a relief from the Amphiparion seems to depict a ram (Athens, National Museum of Athens 1395, 4th century BC; van Straten 1995, R37, fig. 72). A well-known Early Classical relief from the Athenian Acropolis (inv. no. 581) definitely renders a sow, perhaps even a pregnant one, see van Straten 1995, R58, fig. 79.

majority of the animals shown in ritual contexts are simply rendered as neutral cattle, sheep, goats or pigs, which may have been male or female, the number of uncastrated males is remarkable. This should be compared with the epigraphical evidence, where in the four extensive Athenian sacrificial calendars considered previously, uncastrated males constituted around 4% of the victims.

A few of these scenes show rituals where uncastrated males were preferred, such as the depiction of a battlefield sphagia on a famous red-figure cup in Cleveland (Fig. 5), and an intriguing stamnos that is now in Basel depicting Achilles and Hektor framing a dead ram—perhaps referring to either battlefield sacrifices or oath rituals (Fig. 6). In most cases, however, it is regular thysia sacrifices that are represented, i.e., the same kind of sacrifice as those listed in the sacrificial calendars. A most remarkable case of the urge to show the uncastrated nature of the victim is found on a red-figure head vase in Ferrara, depicting two men butchering a billy-goat (Fig. 7). The animal is lying on its back on a table, legs raised in the air. The mageiros, the sacrificial butcher/chef, is standing to the left, while his young and naked assistant is holding the goat’s back legs to the right. The goat's scrotum rises prominently between its legs, defying all laws of gravity. Here, the artist clearly wanted to stress that the animal is uncastrated.

We can note that the preference for uncastrated animals in vase-paintings goes even further, if we consider other types of scenes aside from those connected to sacrifice. In representations of the myth of Io being transformed into a cow, a bovine with testicles (and not an udder) is sometimes depicted (Fig. 8). Vase scenes showing Theseus’ struggles with the Krommyonian sow, which is clearly a female pig according to the literary tradition, occasionally render this animal as male with a sheath (Fig. 9). An early 5th-century red-figure cup in the Vatican depicts the infant Hermes in a liknon and the upset Apollo among a herd of cattle, which are apparently the animals that had been stolen by the young god. Of these, four are definitely bulls and at least one is an ox (the shean can be seen but not the hindquarters), while none of the animals are represented as heifers (Fig. 10). This is a very different composition than that of the herd described in the Homeric hymn to Hermes, where Apollo explicitly says that the cows that Hermes stole were grazing separately from the bull, and that the missing animals were only the females, while the bull and the dog had been left behind.

Another example of the preference for uncastrated animals is the Parthenon frieze and its impact on vase-painting. The animals being led in the frieze’s depiction of the Panathenaic procession consist of 14 bovines and four sheep, which are all to be sacrificed to Athena. The cattle that have visible hind-quarters and stomachs exhibit no trace of scrotum or sheaths,

58 Around one-fifth of the victims, for which the hindquarters and stomach are clearly visible, bear no signs of scrotum or sheath. Some of these animals may be depictions of castrated animals, but it is also possible that the vase-painter simply choose not to specify the sex.

59 Cleveland, Museum of Art 26.242, van Straten 1995, V144, fig. 112; Basel, Antikenmuseum und Sammlung Ludwig, BS 477, Gebauer 2002, Sv 11, fig. 146. For the prominence of male victims in representations of battlefield related rituals, see Gebauer 2002, Sv 7, Sv 7a, Sv 8 and Sv 10, figs. 141–143 and 145.
all in accordance with the tradition that Athena was to receive only female victims.66 The animal procession of cattle on the south side of the frieze has been excerpted on a number of Attic vases, but here, interestingly enough, the cattle are clearly represented as bulls and not as cows, even though the rest of the composition follows the iconographic scheme of the frieze in detail (Fig. 11).67 As a last illustration of this male iconographic preference we may take depictions of ploughing. A real Greek farmer would not have used bulls to work his fields, considering them too difficult to handle, a point made by many ancient authors.68 Vase-paintings showing this agricultural activity are not numerous, but it should be noted that at least two scenes render the yoked animals as bulls, one of them even depicting the hero Bouzyges, the inventor of the plough (Fig. 12).69

We are clearly facing a discrepancy between inscriptions and images as regards the presence of uncastrated animals. This preference for uncastrated male animals noted on the vases is in fact also found in the literary sources, in particular in accounts of mythic or imaginary sacrifices. In the Iliad (23.146), Peleus has vowed that at his home-coming Achilles should sacrifice, not only a hecatomb, but also 50 rams, enorcha melai, to the river Spercheios. This is an outstanding offering, matching an extraordinary and very unlikely event—that Achilles would ever return alive home to his father, instead of dying at Troy and achieving immortal fame and glory. In fact, ancient texts provide us with many instances of sacrifices that owe their extraordinary character to the use of uncastrated males. They may encompass an unrealistic number of victims, such as the 81 black bulls sacrificed on the beach at Pylos by Nestor (Od. 13.172–184). In other instances, the animals are

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66 Neils 2001, 150–154. See also IG II1, 334, regulating the Lesser Panathenaia, the animals sacrificed to Athena are specified as cows (line 19); cf. Brulé 2007, 231–254.

67 Neils 2001, 208–213, see also a well-known volute krater in Ferrara, where two large bulls are solemnly led in a procession approaching a seated Apollo (Ferrara, Museo Nazionale T57 c VP; Neils 2001, 213, fig. 149; van Straten 1995, V78, fig. 13).


Fig. 8. Io turned into a bull. Attic red-figure neck amphora, Eucharides Painter, c. 480 BC, Hamburg, Museum für Kunst und Gewerbe 1966.34. Photo: Museum für Kunst und Gewerbe, Hamburg.

Fig. 9. Theseus struggling with the Marathonian bull and the Krommyonian sow. Attic red-figure cup, Painter of Louvre G 36, c. 520–510 BC, London, British Museum E36. © Trustees of the British Museum.
handled in a manner far removed from the caution necessary in real life: for example, the bulls that roamed freely together in the precinct of Poseidon on Atlantis and could be caught with the help of staves and nooses, with no need for iron weapons, and then calmly led away to be sacrificed.70

The use of uncastrated victims: castration in cult?

In real life, uncastrated male animals were rarely sacrificial victims, but the vases and literary sources, which do not have to relate to the cultic reality in the same sense, present them in abundance. If the epigraphical material reflects what victims were actually offered at state and deme sacrifices, the images and texts seem to render the ultimate, most desired sacrificial situation, when the most prestigious and expensive animal could be chosen, no matter the practicalities involved nor the cost. The next issue to address is why uncastrated victims were chosen at some sacrifices. Did they fulfil a particular role in Greek cult?

To some extent, the choice of an uncastrated male could depend on the recipient. Most uncastrated victims found in the sacred laws and sacrificial calendars are given to prominently male gods, such as Zeus, Poseidon, Dionysos, Apollo and Hermes, as well as a few locally important heroes, such as Erechtheus.71 The link between Dionysos and the uncastrated state may have been perceived as particularly strong, as

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70 Pl. Gri. 119d–120a.

71 The following list is far from comprehensive. Bulls: IG II’, 1146 = LS 31, line 8 (Poseidon and Erechtheus); LS 94, line 3 (Poseidon); LS 96, line 30 (Apollo), LSA 32 (Zeus). lines 7 and 12; IG II’, 1006, line 13 (Dionysos). Rams: IG II’, 5, line 4 (Poseidon and Triptolemos); Jameson, Jordan & Kotansky 1993, 14, line A 17 (Zeus Meilichios); LS 20 B, line 51 (Galios); LS 18, col. V, lines 49–52 (Hermes); LS 96, lines 5–6 (Poseidon Temenites) and lines 8–9 (Poseidon Phyktos); LSA 72, lines 36–37 (Zeus Patroos and Apollo Telemessos); ID 440 A, line 61 (Poseidon Aspalaioi and Orthosios). Billy-goats: NGSL, no. 1, line 20 (Apollo); LS 96, line 27 (Dionysos Bacheus); LS 90, line 4 (Dionysos). Boars: LSS 89, line 3 (Zeus Amalos); ID 440 A, line 61 (Poseidon); Audania, 31, lines 34, 35 and 69 (Apollo Karneios). See also Jameson 1994, 316 n. 13; Stengel 1910, 191–195.
he was even called *Enorches*, “uncastrated”, in certain cults. The head vase with the conspicuous depiction of goat testicles mentioned above (Fig. 7) demonstrates multiple connections to Dionysos; the scene on the opposite side shows the god reclining, the two plastic heads represent Dionysos and a satyr, and the vase is a kantharos (the god’s particular drinking vessel). On the other hand, we should be careful not to over-stress the link between the sex of the victim and the character of the deity receiving them, since uncastrated males were also sacrificed to Kore, Eirene, Ge and Demeter. To show that the match between divinity and sacrificial victim should not be simplified, it can be noted that Jupiter, who was certainly a major Roman male god, never received bulls, but only castrated cattle, that is, oxen. Apparently this rule was considered as surprising even in antiquity and was commented upon in the sources, and it has also been discussed by modern scholars.

Uncastrated victims seem to have been preferred at some rituals of a particular nature; this is evident from the literary, epigraphical and iconographical sources. Battlefield *spagia* were often performed with rams, judging from extant representations (Figs. 5–6). Purifications, which were usually accomplished with piglets, could be undertaken with uncastrated males in particularly severe cases, as, for example, when a sanctuary on Delos was purified after the removal of a human corpse using a bull, a boar and a ram, which were burnt. This combination of three male animals, a *tritoia*, was also used at oath takings. An early 3rd-century BC inscription from Kos, recording an oath, specifies that the bull, ram and boar, which are here called the *borkomasia*, should be fully grown, presumably to ascertain that they were proper males. The written evidence has recently been corroborated by a spectacular find on Thasos, near the agora, where a young bull, a ram and a boar were found cut in half and deposited in two heaps, presumably as part of a ritual connected with purification or an oath.

Is it possible that the uncastrated animals may have been castrated as part of these rituals? Paul Stengel, the father of the study of Greek ritual practice, was convinced that the testicles were the crucial part of the animal victim used at oath takings and also at purifications. The ancient sources speak of the oath victims as *tomia*, “that which is cut up” and explain that

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72 Perhaps at Phigaleia, Lycoph. Alex. 5.212, and on Samos, Hesychios E 3255 (*Latte*), s.v. *enorches*. On the close relation between Dionysos and bulls in art and texts, see Bérard 1976.

73 Ferrara, Museo Nazionale T 256 b VP.

74 Kore: *IG* II, 847, line 25, bull; *LS* 10 A, lines 63–64, ram (Pherephate); *LS* 20 B, line 44, ram; *IG* II, 1673, line 72, ram; Engelmann & Merkelbach 1973, no. 207, lines 47 and 78 (= *LSA* 26), ram; *LS* 96, line 17, boar. Eirene: Schwertheim 1983, no. 1, line 12, bull. Cf. *LS* 20 B, line 18, a black billy-goat most likely to Ge. Demeter: *IG* II, 847, line 75, bull; *LS* 20 B, line 27, a ram for (Demeter) Achaia. For bulls’ testicles hung on the statue of Artemis at Ephesos, see below.

75 Prescendi 2007, 32–33, esp. n. 118. For pregnant victims sacrificed to Athena and Artemis, both virgin goddesses, see Bremmer 2005, 161–162.


77 *IG* XI: 2, 199 A, lines 70–72, 274 BC; Clinton 2005, 172. See also the regulations for the mysteries at Andania (91/90 BC), where the sanctuary is purified with a ram and two white lambs (*Andania*, 35, lines 67, and 129–130), and the purification of the Asklepieion on Delos using a boar, *ID* 290, lines 115–116, 246 BC; cf. *ID* 444, line 34, 177 BC.


80 Stengel 1910, 78–85; 1924, 172; Maass 1925, 462–463; Ziehen 1939, 593; Burkert 1983, 36.
the oath takers were to hold these parts or stand on them while they took the oath. If they broke it, they would end up just like the animals that had been killed. Stengel identified the tomia as not just any part, but more precisely as the animals’ cut-off testicles. However, Jean Casabona’s careful and sophisticated study of the Greek sacrificial terminology has shown that this interpretation is not correct and testicles were of no particular importance at oaths.\(^{81}\) The importance of the uncastrated victims at purifications, oath takings and battlefield sphagia lies instead in the fact that bulls, boars and rams were “marked” victims that were unusual and prestigious, suitable for high-intensity rituals or powerful actions performed on occasions of stress and danger.\(^{82}\) The fierceness of an uncastrated animal and then deposited at the Hekataia could apparently be removed and eaten by the young and reckless, see Dem. 54.39; Casabona 1966, 223. The Thasos deposit, where the animals had been cut in half, may constitute one way of accomplishing the tomia, see Blondé et al. 2001; Blondé et al. 2003; Blondé et al. 2005.

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\(^{81}\) Casabona 1966, 220–225. Rudhardt (1992, 283), Faraone (1993, 68 n. 37) and Berti (2009, 194) also remain sceptical as to Stengel’s interpretation. The testicles of the piglets which had been used for purification.

\(^{82}\) See Jameson 1994, 315–317. For high-intensity rituals and powerful actions making use of unusual sacrificial actions or victims, see Ekroth.
may also have made it an appropriate victim at particular sacrifices, where this trait was exploited for ritual purposes. This was the case at a ritual for Aristomenes at Messene, which is described by Pausanias (4.32.3–4). The bull chosen for sacrifice was tied to a column on the hero's grave and, as the animal was untamed and not used to being restrained, it moved the column—an outcome taken as a good sign.

In Homo necans, Walter Burkert argued for the importance of castration rituals within Greek animal sacrifice and explained that the rarity of mentions within the sources to such actions was due to them largely belonging to the unmentionable category of ritual actions, or aretē. Two texts are put forward by Burkert as explicit evidence. An epigram by Martial tells of a goat that was to be castrated at a sacrifice to Dionysos because it had eaten of the vines. A simple farmer is asked to help the priest to cut off the goat's testicles, so that the odour of the meat should go away. When the priest struggles with the animal he has a hernia (in his scrotum?), which the farmer mistakes for the goat's scrotum and therefore cuts it off, thus turning the priest, and not the goat, into a gelding, a Gallus. The second instance of ritual castration is found in the Anatolian mysteries of Demeter or Deo, as described by Clemens of Alexandria. The goddess was enraged at Zeus having raped her, an action that called for various kinds of supplications, such as the drinking of bitter potions, the tearing out of the victims' hearts, and unspeakable obscenities. According to Clemens, the same rituals were performed in the Phrygian cult of Attis, Kybele and the Korybantes, where it was said Zeus had torn off the testicles of a ram and thrown them into the lap or onto the bosom of the goddess, pretending to have castrated himself in order to atone for his act.

Burkert takes Martial's story as demonstrating that castration played a central role in sacrifice and that the he-goats sacrificed to Dionysos or Aphrodite were as a rule castrated, such was the procedure. Clemens' account is also interpreted as a reflection of what was done with the sacrificial animal in ritual, namely castration, though in this case set in the sphere of the gods. However, the fact that both texts clearly echo an Eastern tradition of castration as a cultic action should not be overlooked. In Martial, the castrated priest becomes a Gallus, the title for the eunuchs in charge of the cult of the Mother of the Gods in Anatolia, while the story of Zeus tearing off the ram's testicles, pretending to castrate himself, can be seen as a reference to the self-castration in the myth of Attis and the self-castration performed by cult attendants in a state of religious frenzy so as to become eunuchs, a motif that seems to have become more prominent in the Hellenistic and, most of all, Roman sources. Furthermore, the rituals described by Clemens may be connected in particular to the taurobolium or kriobolium which in the Roman Imperial period (2nd and 3rd centuries AD) had started to focus on the castration of a bull (or a ram), and the dedication of its testicles when the ritual became incorporated into the cult of Magna Mater.

Castration within a religious context clearly seems to have been more established in Asia Minor than in Greece, being part of Anatolian custom. A ritual handling of scrota has been convincingly argued for in the cult of the Ephesian Artemis, whose famous statue displays a multitude of rounded objects. These were usually taken to represent breasts (Fig. 13) until Gerhard Seiterle suggested that they are in fact scrotal sacs, which had been cut off at sacrifice and hung onto the goddess' image. Seiterle's reconstruction of bulls' scrota has been criticized, however, due to the low frequency of cattle bones recovered at Ephesos. Gerhard Forstenpointner, the zooarchaeologist in charge of the animal bone material, has instead proposed that the objects are goats' scrota, because goats are prominent in the zooarchaeological evidence and their scrota are large enough to match the pendants on the goddess' statue. On the other hand, if these items are testicles from bulls that were only castrated as part of the ritual, but not killed, they would not have left any trace in the zooarchaeological evidence. We should remember here that the stan-

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85 Roller 1999, 237–259, points out that the castration of Attis seems like a late addendum to the myth, even though eunuch priests were an Anatolian tradition; see also Lancellotti 2002, 96–105 and 112–115; Casadio 2003, 235–248; Munn 2006, 160–161; Berndt-Ersöz 2006, 12–14. Also, the motif of the sacrifice of a billy-goat as punishment for consuming the god's sacred plant, though found in Classical texts and images, becomes more frequent in Hellenistic and Roman times; see Strocka 1998, 93–96.

90 On the phases of the taurobolium, which was originally a bull chase that in its third phase in the 5th century AD had become a ritual centered on the shower of a bull's blood, see Rutter 1968; Borgeaud 2004, 110–119.


92 Seiterle 1979, 9–14; Munn 2006, 164–165. For alternative explanations linking the objects to representations of prehistoric goddesses and, in particular, a type of Hittite ritual leather bag, see Helck 1984; Morris 2001; Morris 2008.

93 Fleischer 1999, 605 and 609; Forstenpointner et al. 2013.

94 Personal communication, G. Forstenpointner.

95 Fleischer 1983, 87; Munn 2006, 165 and n. 104. Cf. the Roman taurobolium where the bull's testicles were cut off during the ritual and later
standard method for castrating a bull was to cut open the scrotum, bare the testes and remove them whole.

Dedications of testicles were apparently also made to Zeus Labrandeus in Karia; a 4th-century stele depicts an image of the god adorned with the same rounded objects as the statue of Artemis. Furthermore, the fact that castration played a different and more significant religious role in Anatolia than in Greece is manifested also by the fact that the priests of some major cults were eunuchs, for example, at the Artemision at Ephesos and the cult of Kybele at Pessinus. Such practices may be connected also to the castration of the sacrificial animals.

For the Greeks, on the other hand, castration of the victim does not seem to have had any ritual significance. It was the uncastrated nature of the victim as a whole that was of importance when a bull, ram or boar was sacrificed, not the act of castration nor the cut-off testicles. Moreover, the castration of humans and eunuchs alike was viewed with dislike, as an Eastern, "non-Greek" practice, in particular one which was associated with Persia, and as an act committed by "the others".

This is evident from a number of stories in Herodotos, the most horrific one concerning the Karian Hermotimos, who was castrated by the Chian slave-trader Panionios and sold to the Persian king. After a spectacular career, Hermotimos managed to get his hands on the perpetrator and his family, and he took a terrible revenge by forcing Panionios to castrate his four sons with his own hands and then having the sons castrate their father. In Greek mentality, to castrate someone was to rob them of all power, as Kronos does when he cuts off his father Uranos' genitals with a sickle and throws them into the sea, resulting in the birth of Aphrodite. Castration was also the most terrible way to mutilate a human body, whether dead or alive, and subsequently had no place within religion. In the Odyssey, the goatherd Melanthios is killed by having his ears, nose, hands and feet cut off and his private parts torn off and thrown raw to the dogs, while Priam expresses his fear of having the genitals of his corpse eaten by...
the dogs (II. 22.75). Considering this attitude, it is doubtful whether human castration among the Greeks should be connected conceptually with animal castration at all, in cult or elsewhere. The prominent linking by Martial and Clemens of the castration of an animal to that of a human or divine figure who loses his entire scrotum reflects a cultural and cultic context different from the Greek one and should not be taken as representative of the treatment of male sacrificial victims during the Archaic, Classical and Hellenistic periods.

The ideal of the uncastrated male animal

Neither the act of castration nor the cut-off testicles and scrotum themselves seem to have had any particular role in Greek cult. A sacrificial victim, a hieieion, was supposed to be pure and perfect, katharon kai enteles, but the lack of testicles did not mean that the victim was considered maimed and therefore unsuitable for sacrifice. The practice of castrating animals required in animal husbandry was apparently so prevalent that it did not interfere with the concept of sacrificial victims having to be unblemished. There are even rare occasions where a castrated victim is required, a tomias, without specifying the species, as in a recently published funerary foundation from Hellenistic Lydia stipulating the annual sacrifice of a three-year-old gelding to Helios, probably a pig.

On the other hand, although practical religion was adapted to the agricultural reality in terms of the choice of animal, there seems at the same time to have existed a notion of the uncastrated male as an ideal or even the ideal. Even if in reality the bull, ram, billy-goat or boar was a rarity in the flock as well as at the altar, a fascination with the uncastrated male is evident. The profusion of uncastrated animals in vase paintings, not only in sacrificial images but also in scenes where cows and sows would be expected, suggests that uncastrated males were an iconicographic norm. The ferocity of the uncastrated males and the fact that they were difficult to control or even dangerous must further have contributed to their standing. A number of red-figure Attic cups show Theseus capturing the Marathonian bull, and interestingly the rope used to restrain the animal is tied, not only around the bull’s feet but also around his scrotum (Fig. 9). A similar appeal is reflected by the mass sacrifices of bulls and rams found in the literary sources, in particular those referring to myth or fiction. The fact that Columella (Rust. 6.26.3) advised the farmer to leave the empty scrotum on the castrated bull so that he would not look too feminine suggests that even if castration was a necessity, it was not the ideal.

The inscriptions, which are closer to the ritual reality, show that the uncastrated males had their own particular terms—sometimes these terms were even reinforced by the addition of the term enorches, “uncastrated”—and that they were rare and expensive animals. These victims were used in high-intensity rituals, where a lot was at stake, such as sacrifices on the battlefield, at major purifications and at oath-takings. Within the context of regular thyia sacrifice, the choice of a bull, ram, billy-goat or boar constitutes a powerful action, distinct and different from the offering of an ordinary animal, and can therefore be used to mark both the importance of the situation and the status of the recipient. After having raided Polyphemos’ flocks and escaping the blinded Cyclops, Odysseus divides the sheep equally among his men, but he alone is honoured with

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103 Od. 22.474–477, cf. 18.85–87, where king Echecos, who maimed people the same way, is mentioned. The fact that the menstrua, i.e. both the penis and the scrotum, are ripped off suggests that the action is meant to be lethal, as this procedure often leads to major haemorrhage. Regular castration usually entails the removal of the testicles or the cutting or breaking of the spermatic cords, a fact often overlooked by modern scholars; see the discussion in Taylor 2002. At the emasculation of the bijas in India, both the penis and the scrotum are separated from the body, see Nanda 1999, 26–29.

104 Another distinction is that the two instances of ritual castration in Martial and Clemens are undertaken to remedy a misdeed, the goat having eaten of Dionysos’ vines and Zeus having raped Demeter. To perform an animal sacrifice or ritual action as a punishment was never part of the Greek cultic tradition, though goats had a bad reputation among the Greeks due to the destruction they caused to the crops and plants, see Chandezon 2003, 149 n. 173, and 413–414; Brulé 1998.


106 Köse & Tekoglu 2007; for the reading tomian, see Parker 2010, 105, line B 17 and commentary p. 117, see also Nauot 1977, 276–278, no. 6. Robert Parker (pers. comm.) suggests that tomias may have been a general term for a castrated pig, just as hieieion was more or less equated with a sheep. Cf. also van Straten 1995, 181–186, on the presence of castrated sheep and goats in the Attic sacrificial calendars.

107 Perhaps the view of the male Greek citizen’s body as a whole and inviolable entity affected the conception of the uncastrated as the ideal. On the attitude towards the male body as the ideal in art, see Stewart 1997, 7.

108 On the preference for uncastrated animals also among animal figures in Greek sanctuaries, especially in the earlier periods, see Schmitt 1983.

109 See, for example, London, British Museum E 36 (my Fig. 9), LIMC VII (1994), 926, s.n. Theseus. no. 34 (J. Neilis), Beazley Archive, no. 200794; Florence, Museo Archeologico Etrusco 3920, CVA Firenze 3, pl. 96:1 & 3 (Italia 30, tav. 1360), Beazley Archive, no. 203520; Florence, Museo Archeologico Etrusco, 70800, CVA Firenze 3, pl. 98:1 (Italia 30, tav. 1362), Beazley Archive, no. 204507; Paris, Louvre G 104, LIMC VII (1994), 926, s.n. Theseus. no. 36 (J. Neilis), Beazley Archive, no. 203217.

110 The sacrifice of uncastrated males can in this sense be compared with the offering of pregnant victims, since both actions affected the reproduction of the flocks and resulted in a fertile male or a fertile female being removed. See also the prominently rendered testicles of the calf on the Moschophoros from the Athenian Acropolis, see Hurwit 1999, 103, fig. 71.
the gift of the ram, which he then sacrifices to Zeus. The ram enhances the particular position and status of both Odysseus and Zeus within their respective contexts.

The notion of the uncastrated state marking the exceptional can be illustrated by a sacrificial calendar from Mykonos, which dates to around 200 BC. This document is highly interesting because it was inscribed after the island had undergone a synoikism and lists the cultic changes or additions that were made after this major event. It is striking that, of the 14 full-grown victims mentioned, there are five uncastrated males of five different kinds: a ram (which is even specified as enarches), a male lamb, a young billy-goat, a boar and a bull. The extraordinary character of this list of sacrifices is also evident from the inclusion of two pregnant victims, both sows, one of which must be pregnant for the first time. Here, we get an impression that the refounded community of Mykonos is marking this new and important phase of its existence by choosing sacrificial victims of the most prestigious and expensive kind.

To conclude, the attitudes towards the castration of animals are not only a question of the agricultural reality, they also reflect religious and cultural notions. For us, the uncastrated or castrated animal brings with it few ritual implications, because cattle, sheep, goats and pigs are perceived by us predominantly as food—meat. From an alimentary point of view, castrated animals may have been more attractive to many cultures in the past, as there would have been more fat and a less offensive taste or smell, especially in relation to pigs. In our contemporary, Western European, affluent society, uncastrated animals would be preferred, especially in relation to beef, since the meat is leaner and this is something we desire; also, today bulls are raised solely for meat production, which was hardly the case in antiquity. Other periods and cultures make different choices. Leviticus stipulates that no castrated victims were to be sacrificed to Yahweh, as they were considered imperfect. In Muslim countries the preferred meat comes from uncastrated males, mainly due to the prominence of rams in religious contexts.

For the ancient Greeks the perspective was different again, but the cultic sphere still had to negotiate the agricultural reality. The castrated male animals were easily accessible and less costly, and they also gave a fatter and better tasting meat, circumstances that may have been of central concern for the actual participants in the sacrifice. The uncastrated males, on the other hand, were considered the most prestigious victims because they were not only perfect but also rare and expensive, thus marking the sacrifice as exceptional in some sense. However, we should perhaps consider a third option: that the occasional offering of a bull, ram, billy-goat or boar may have been an elegant way of disposing of the old, worn-out males that nobody really wanted to eat.

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111 Hom. Od. 9.548–553. The text underlines the singular position of the ram in the flock, and its prestigious role is evidenced also by Odysseus escaping from the cave by holding onto the ram’s fleece, and Polyphemos letting this animal leave the cave as the last one after stroking its back and wishing that it could speak.
112 LS 96.
113 For the political changes on Mykonos, see Butz 1996, 88–92, esp. n. 64. The inscription must have supplemented another list of sacrifices which has not been found, unfortunately.
114 LS 96, lines 5–6, a most beautiful uncastrated white ram to Poseidon Temenites, lines 8–9, an uncastrated white lamb to Poseidon Phyikios, line 17, a full-grown boar to Kore, line 27, a most beautiful young billy-goat to Dionysos Bacheus, and line 30, a bull to Apollo Hekatombios.
115 LS 96, lines 11–12, to Demeter Chloe, and line 16, to Demeter.
116 Leviticus 22:24–25; for the interpretation of this passage as only concerning victims to be offered at the altar, and not animals in general, see Milgrom 2000, 1879–1880. The zooarchaeological evidence from Iron Age Tel Dan suggests that the wethers were kept for wool production, see Wapnish & Hesse 1991, 33–34.
117 The frequent emphasis in the ancient sources on the fatness of sacrificial animals as well as of high-quality meat suggests that castration was a manner of improving the meat, see Georgoudi 1990, 292–294; Brulé & Touzé 2008, 118–120.
118 Columella, Rust. 7.6.3 recommends that billy-goats should not be used for breeding after their fifth year, because they were worn out. They may certainly have been used for sacrifices after that.
Abbreviations


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