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Forelegs in Greek cult

Abstract*

In Greek animal sacrifice, the victim's body was divided between the divine and the human participants. The back leg was of particular importance, as the thighbones were cut out and burnt on the altar, and the meat used as honorary gifts for both gods and men. The forelegs of the victims have received less attention, however. This paper discusses the ritual uses of forelegs in Greek cult by reviewing the epigraphical, osteological and iconographical evidence, as well as orienting this part of the body of the sacrificial victim within a wider mythic and ritual context. Shoulders or forelegs of sacrificial animals are mentioned as perquisites for priests or religious personnel in a small group of inscriptions, while recently published osteological material indicates a particular use of this part at some sanctuaries. The representation of forelegs is very slight and seems to consist of only one Attic red-figure vase painting.

The division of the sacrificial victim between gods and men constituted the fundamental part of Greek animal sacrifice of the *thysia* kind. By these actions contacts were established between the divine and the human spheres, but the handling of the meat and bones of the sacrificed animal also served to define and distinguish immortals from mortals within the ritual.[1]

In this process, the back leg of the victim was of particular importance. The thighbones (femora), *meria* or *meroi* in Greek, were among the parts cut out and burnt on the altar to create a fragrant smoke for the gods to enjoy.[2] Also burnt as the god's share was the *osphys*, a term which in religious contexts usually signifies the sacrum bone and the tail, a section that is anatomically adjacent to the back leg.[3] The entire back leg had a role to fulfil within the cult as well, as it could be used as an honorary offering, placed on the god's sacred table as part of a *trapezomata* ceremony.[4] Moreover, the back leg was the priestly perquisite *par excellence*, specified in a number of Greek sacred laws as a significant part of the payment for the priest or priestess, who usually was also entitled to take the meat from the god's table when the

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1 For the role of the division of the animal victim at *thysia* sacrifice, see Detienne & Vernant 1989; Ekroth 2007; Ekroth 2008.

2 As described in Hesiod's account of Prometheus' dealings with Zeus at Mekone, *Theog*. 535–557, see the discussions by Vernant 1989; Rudhardt 1970; Pötscher 1995; Specht 1995; Berthiaume 2005.

3 On the terminology, see van Straten 1995, 118–141; Dimitrova 2008, 251–257. For the osteological evidence, see Ekroth 2009.

4 On the *trapezomata*, see Gill 1974; Gill 1991; Jameson 1994, 56.

sacrificial ritual had been concluded.[5] On vase paintings, back legs are often depicted as being used as honorary gifts, a further indication of their importance both inside and outside the immediate setting of animal sacrifice.[6] The explanations for the prominence of the back leg of the animal in sacrificial contexts may be diverse, but one reason could have been the fact that this section constitutes a very good part as regards meat quality. Some of the best cuts are located here, and the back leg makes up a substantial part of an animal, around one tenth of the meat yield of a sheep and one sixth of the weight if the bones are not removed.[7]

The importance of the back leg within Greek animal sacrifice, both for divinities and humans, is thus beyond dispute, and this part has therefore received a lot of attention. But what about the forelegs? How was this part of a sacrificial animal handled within cult? In what follows I will explore the epigraphical, osteological and iconographical evidence for the ritual uses of forelegs, as well as try to orient this part of the body within a wider mythic and ritual context.

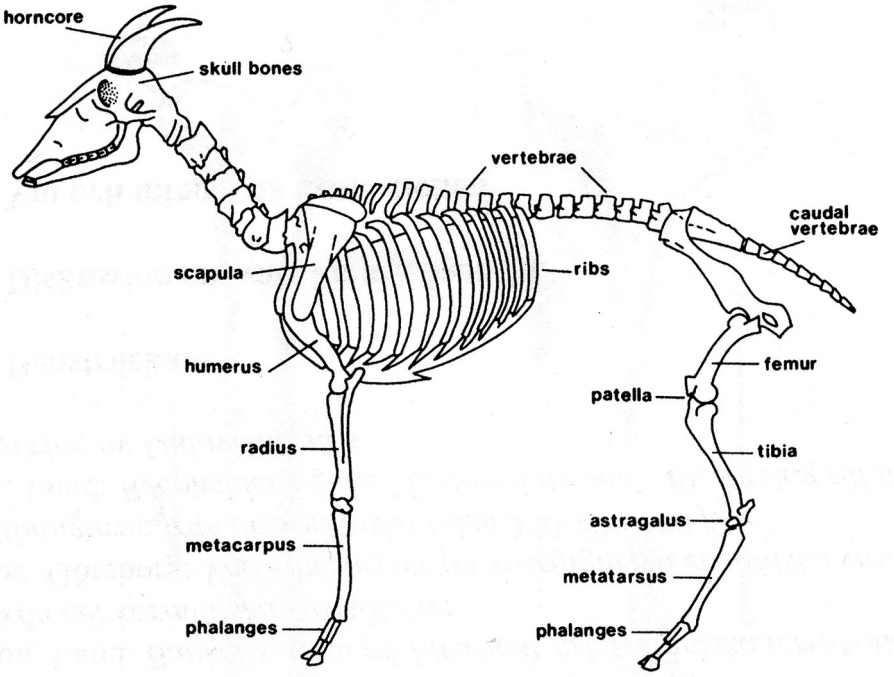

Fig. 1. Skeleton of goat. After Reese 1989, 65, fig. 1.

[5] Le Guen Pollet 1991a; Gill 1974, 127–133; Tsoukala 2009, 5–10.

[6] Durand 1984; Gebauer 2002, 332–337; Tsoukala 2009, 14–38.

[7] Ekroth 2002, 332, n. 81. Also in other cultures back legs are prominent within the ritual, as at the buffalo sacrifice (*kodru parbu*) among the Kond in the highlands of Orissa, India, see Hardenberg 2008, 125.

Anatomical definition: what makes up a foreleg?

In osteological and anatomical terms, the foreleg of a quadruped such as a bovine, sheep, goat or pig, consists of the shoulder blade (scapula), the humerus, the radius-ulna, the metacarpals and phalanges (*Fig. 1*). The foreleg is not fused to the vertebral column and is therefore easy to detach, unlike the back leg, which is firmly attached to the trunk of the body at the pelvis by the femur joining the acetabulum. The humerus, the upper bone of the foreleg, connects with the scapula by a shallow joint, the glenoid cavity. The shoulder blade itself, which covers the upper part of the first ribs, is also very easy to remove at butchering, as it can be cut free both from the humerus and the surrounding meat by a simple action.

In modern butchering, the front section of the animal, i.e. the neck, foreleg, shoulder and the first ribs are often separated from the rest of the body in one section. Forelegs of cattle and pigs are usually divided into smaller segments, corresponding to particular cuts suitable for specific dishes. The meat from the shoulder blade is removed and the humerus and radius-ulna divided into parts. Forelegs of sheep, (young) cattle and goats (though the latter are less frequently sold commercially) are often butchered with the shoulder blade still in place. The meat of the shoulder and the foreleg is a good part of the animal which can be used for a variety of purposes. Shoulders of lamb, beef and pork can be grilled or roasted in the oven, though meat from the foreleg is usually recommended for various stews and *pots-au-feu*, where it is gently boiled for a long period of time in order to be tender.

Terms and their contents

The obvious starting point for defining the role of the foreleg in Greek cult is the terminology, in particular as we encounter it in the sacred laws and sacrificial calendars. The relevant evidence comes from inscriptions specifying the perquisites to be given to priests or other religious personnel in connection with sacrifices.

There are two main terms for legs in ancient Greek, σκέλος and κωλῆ, which can refer to both the front and the back leg. In inscriptions connected with religion, both terms seem mainly to be used for the back leg and, in particular, the thigh, though *kole* may be more neutral in the sense of "limb".[8] *Meria* and *meroi* are terms for the thigh bone, but also the entire thigh with the meat still attached, though these words are rarely found in the sacred laws and sacrificial calendars.[9] It is of interest here to note that the Greek anatomical terms refer to both the bone and the entire body part where this bone is located.[10] As for the foreleg, Aristotle states in his *History of animals* that the arm or foreleg, τὸ βραχίων, consisted of the shoulder—ὦμος, the upper arm—ἀγκών, the elbow—ὠλέκρανον, the forearm—πῆχυς, and the hand—χείρ.[11] The bones of the shoulder, ὦμος, more specifically were made up of the shoulder blade—ὠμοπλάτι, and the bones of

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[8] Le Guen-Pollet (1991a, 17–19) identifies *kole* as the thigh and *skelos* as the lower leg (Fr. *jarret*). Hermary *et al*. 2004, 119, defines *kole* as the front knee/lower leg (radius) and back knee/lower leg (tibia) and *skelos* as the foot or the entire limb. Chantraine 1968–1980, s.v., explains *kole* as the thigh of a sacrificial victim and *skelos* as the "leg" from the hip down to the foot. In one inscription, the two terms are found together but used for different victims, *LSA* 71, line 5–9, no date, sale of priesthood of Zeus at Kasossos. Late sources such as the *Suda* (s.v. κωλή) and scholia (ad Ar. Plut. 1128 [Chantry]) explain *kole* as foreleg or even shoulder blade.

[9] Berthiaume 2005, 242; Ekroth 2009, 127–130.

[10] See Poplin 1995, 262; Berthiaume 2005, esp. 242.

[11] Arist. *HA* 493b.

the arms, τὰ ὀστᾶ τῶν βραχιόνων.[12] If we look at the epigraphical evidence there are terms which refer to the shoulder, the shoulder blade, the entire foreleg or parts of it. Although the number of instances in the inscriptions linked with the foreleg is fewer than those concerning the back leg, the terminology of the former is more varied.[13]

A shoulder of a sacrificial victim was usually labelled ὦμος, a term which would correspond to the region of the shoulder blade, the humerus and the radius-ulna.[14] At the sacrifices to Amphiaraos at Oropos the priest received the ὦμος, usually translated as "the shoulder", from each sacrificial victim offered by private individuals, while at the festival, presumably the Amphiareia, he was given the same part from the public victims.[15] The animals sacrificed could be of any kind but the meat had to be consumed within the sanctuary.[16] As no other parts are mentioned as being part of the priestly *gera* (even the skins belonged to the sanctuary and not to the priest at these sacrifices), it seems likely that the term referred to the entire foreleg from the shoulder blade and below, just as priests in a number of other sacred laws are accorded the back leg, the *skelos*.

The term *omos* is also found in the substantially later 2nd century AD cult regulation of Men Tyrannos from Attika. Here the person performing the sacrifice will receive the *skelos*, that is, the back leg, as well as the shoulder, *omos*.[17] This individual would certainly be well provided at this sacrifice if he received both the front and the back leg.[18] The rest of the meat was to be divided in the sanctuary and presumably also eaten there.[19] In the so-called Nikomachos calendar from Athens, from around 400 BC, at a sacrifice of a young sheep, the *keryx* is given a monetary compensation of four obols instead of the ὦμος, the feet and the head of this animal.[20]

A short inscription on a marble block from Ialysos, dating to the 2nd century BC, lists three meat portions from the right shoulder, ὤμου δεξιοῦ κρῆ τρία, as well as a number of other animal parts, such as τρίπλευρον, ὀσφῦς, ἀκρίσχιον, κεφαλὰς, ἤμυσυ γλωσσᾶν and ἐγκέφαλον.[21] The precise meaning of all these terms is not clear, but among the parts mentioned seem to be the *osphys*, the upper part of the back leg, the head, half the tongue and the brain.[22] The fact that portions of meat are to be cut from the right ὦμος constitutes a further argument for this term referring to the entire foreleg, though it is not evident from where on the leg the meat was to be taken nor the size of the portions.

The nature of this inscription is unclear but it has been taken to be an extract from a sacred

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12 Arist. *HA* 516a.

13 See Le Guen-Pollet 1991a, 17–19.

14 *LSJ*, s.v.

15 *LS* 69, lines 30–36; *SEG* 31, 1981; 416; Petropoulou 1981, 42–50; Petrakos 1997, no. 277; Rhodes & Osborne 2003, no. 27.

16 Lines 30–32. On the prohibition of removing sacrificial meat from sanctuaries, see Ekroth 2002, 313–325; Scullion 1994, 98–119; Scullion 2000, 165–166.

17 *LS* 55, line 18 = *IG* II² 1366.

18 Or perhaps simply one whole leg, i.e. *omos* and *skelos*, if the latter term also could refer to the front leg. I owe this suggestion to Scott Scullion.

19 The fact that this was a private cult may have affected the prescriptions of this regulation as well. For example, sacrifices were not to take place unless the founder was present.

20 *LSS* 10, line A 42. It is not clear to what divinity this sacrifice is made, but the sheep is apparently to be given in its entirety to the *trittys* of the Leukotaniai of the tribe Gleontis, cf. Parker 1996, 112. On the designation of the victim as *leipognomon*, presumably specifying a "young" animal, see van Straten 1995, 177, n. 60; *NGSL*, no. 1, commentary to line 34. In the same inscription (lines A 55–56), at another sacrificial occasion of two young bovines, the herald is given two drachmas and three obols as compensation for the χέλυς (presumably the breast), the feet and the head.

21 *LSS* 93; Pugliese Carratelli 1955–1956, 165.

22 For the meaning of the terms, see the discussion by Le Guen-Pollet 1991a, 19–21.

law.[23] The inscription begins and ends at the same distance from the sides of the block, indicating that the stone was probably used independently and not as part of a larger construction. The upper surface has a cutting "as for a plinth of a statue" according to the publisher.[24] The sections of meat and offal mentioned are likely to have been priestly perquisites and it is possible that the depression served as a receptacle for the parts specified in the inscription.[25] A recently published funerary foundation from Hellenistic Lycia also mentions meat portions from the front leg of a sacrificial victim to be given to the founder's wife, μερίδα ἐπίκωλον ἐμπροσθίαν, while he himself will receive meat from the back leg.[26]

Omos definitely is a part rich in meat, corresponding to the shoulder including the shoulder blade, as well as the upper part of the foreleg, or less likely the foreleg with the shoulder blade removed. The shoulder blade, πλάτη, is mentioned in the great sacrificial calendar from Mykonos, dating to around 200 BC, which regulates the religious changes having taken place on the island after the synoecism.[27] At a sacrifice of a beautiful, white uncastrated ram to Poseidon Temenites, the back and a shoulder blade are to be cut out, and a libation performed on the shoulder blade, νῶτογ καὶ πλάτη κόπτεται˙ ἡ πλάτη σπένδεται. The priest is given the tongue and the βραχίων. Πλάτη here possibly only means the shoulder blade, that is the scapula, which has been cut away from the leg, and perhaps also been cut free of meat, to be used for a particular ritual purpose. Βραχίων would then constitute the rest of the foreleg after the removal of the scapula, a meaning which is in accordance with the use of this term also in other contexts where it covers in particular the humeral or upper section of the foreleg.[28] What happened to the back meat cut out at the same time as the scapula is not stated, but it is possible that this choice portion may have been placed on the god's table in a *trapezomata* ceremony. Also at another sacrifice in the same document, of a bull to Apollon Hekatombios, the priest was given the *brachion* and the tongue from the victim.[29]

Ὠμοπλάτη is found in a 3rd century BC decree relating to the priesthood of Poseidon Helikonios at Sinope.[30] The right hand side of the text is missing, which complicates its understanding. At the public sacrifices to the god, the priest was to receive all the skins or the right leg (depending on how the text is to be restored), the tongue and the πρότμησις, a term of unclear meaning which may refer to the meat on the stomach, the flanks or the lower back.[31] At the private sacrifices to the same divinity, the priest was given the *protmesis* or the *omoplate*.[32] The type of victims is not specified either at the public or the private sacrifices.

Omoplate usually means the scapula, that is, the bone. It seems strange if the priest at the private sacrifices would have had a choice between two so very different commodities, such as a bone and a piece of meat (though the

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23 Pugliese Carratelli 1955–1956, 165.

24 Pugliese Carratelli 1955–1956, 164.

25 Possibly, the meat listed may have been the god's share and the stone served as his *hiera trapeza*.

26 Köse & Tekoglou 2007, 64, A 5–9; the ritual meaning of the terminology has been clarified by Parker 2010. I want to thank Robert Parker for drawing my attention to this inscription.

27 *LS* 96, lines 5–8.

28 *LSJ*, s.v.; cf. Arist. *HA* 516a. Chantraine 1968–1980, s.v. explains the term as especially the upper part of the arm, that is the humerus section, as opposed to the lower arm.

29 *LS* 96, line 32.

30 *LSA* 1, line 8. The same term is restored by Sokolowski in a regulation for a priesthood of a goddess in Chios, *LS* 120, lines 7–8, 4th century BC.

31 *LSA* 1, lines 6–7. For the restorations, see commentary by Sokolowski in *LSA*; Robert 1935, 432–433. For the meaning of *protmesis*, see *LSJ*, s.v.; Chantraine 1968–1980, s.v.; Parker 2006, 75–76; Robert 1935, 433–434; Puttkammer 1912, 12.

32 *LSA* 1, line 7–8: πρότημσιν ἢ ὠμοπλάτη[ν] καὶ στ[εφανηφορήσει].

precise definition of *protmesis* is not evident). There is some meat on top of the shoulder blade, however, and in this case the *omoplate* presumably meant bone and meat, or perhaps even the entire shoulder. Line 8 runs πρότμησιν ἢ ὠμοπλάτη καὶ στ[...] and Puttkammer here suggested the restitution στῆθος, breast or thorax.[33] If this is correct, the priest would have had the possibility to choose either the meat from the *protmesis* (the flank, stomach or lower back?) or the shoulder blade and a section of the ribs, perhaps the front part which is covered by the shoulder blade.[34] However, this restoration is impossible, as it leaves the next sentence lacking a verb, as was pointed out by Louis Robert.[35]

Another term of interest in this context is ὑπώμαια, used in the well-known and extensive sacrificial calendar from Kos, dating to the mid-4th century BC.[36] At the sacrifices to Zeus Polieus of a selected ox, specific parts are to be given to a number of persons. The priest will get the skin, a *skelos*, half of the breast and intestines, the person carrying the *thymiaterion* will receive the hip-end of the *skelos* given to the *hieropoioi*, the heralds get a double portion of meat from the back, the ὑπώμαια and a share of blood sausage, the Nestoridai a double portion of back meat, the doctors and pipe-player also receive meat (*kreas*), while the brain is given to the smiths and the potters.[37]

The term ὑπώμαια is usually identified as the meat "under the shoulder", more specifically the foreleg below the shoulder blade, i.e. humerus and radius-ulna or simply the radius-ulna.[38] Possibly, the *hypomaia* also designated the section of the ribs covered by the shoulder blade, a part which is also "under the shoulder".[39] If this latter suggestion is correct, the *hypomaia* would resemble one of the possible shares that could be given to the priest at private sacrifices to Poseidon at Sinope, discussed previously.

A second stele, being part of the same Koan inscription, also mentions a piece of the sacrificial victim which has been linked to the foreleg. At a sacrifice to Zeus Machaneus of three full-grown sheep and an ox, which was selected in the year in which the Karneia took place, the priest was given back legs and the skins.[40] The Phyleomachidai, who provided barley groats and wine for the altar, were given the horns of the ox and the hooves, and from the three sheep τὸ ὠμόν ἐξ οὗ ἁ θεομοιρία τάμνεται (the *omon* from which the god's share, *theomoiria*, is to be cut) and the muzzle (unclear if from the sheep or the ox).

Τὸ ὠμόν has to be a fleshy part, or the share for the divinity could not have been cut from it (unless *theomoiria* here referred to the bones that were to be burnt on the altar, but this seems less likely). It must have been fairly substantial, as it both resulted in the *theomoiria* for the god and some meat for the Phyleomachidai to eat, as the rest of their share was made up only of horns, hooves and the muzzle.[41] The term ὠμόν has been taken to have something to do with the shoulder, possibly having the same meaning as ὦμος. Le Guen-Pollet's translation "shoulder

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33 Puttkammer 1912, 9, n. 5.

34 Robert 1935, 434–436.

35 Robert 1935, 434–435.

36 *LS* 151, lines A 46–55, esp. 52; *IG* XII 4, 278, line 47–56, esp. 53.

37 For the identification of the various parts, see Rhodes & Osborne 2002, no. 62; Svenbro 1987.

38 *LSJ* s.v.

39 Ribs are covered by the terms τὸ πλευρόν and τὰ τρίπλευρα, see *LS* 28 = *IG* II², 1356, lines 11, 19 and 23; *LSS* 93, line 1; Le Guen Pollet 1991a, 19–20. The term χέλυς refers to the breast and is listed in the same sacred law from Kos among the shares given to the priest, but this part does not seem to be attached to the foreleg, see *LS* 151, line A 50 = *IG* XII 4, 278, line 51. Cf. *LSJ*, s.v. In Eur. *El.* 837 this term is used for the breast bone, the sternum, to be cut open in order to access the innards.

40 *LS* 151, lines B 19–20 = *IG* XII 4, 274, lines 18–20.

41 As the *theomoiria* could be given as the priest's share, it cannot simply have been bones, see Dimitrova 2008, 254–257.

blade" is, however, problematic, as it is hard to see how meat portions substantial enough for a divinity were to be cut from the three sheeps' scapulas.[42] Rhodes and Osborne translate the term as "the shoulder", while Herzog suggested the meaning "meat, perhaps the shoulder".[43] On the other hand, τὸ ὠμόν may here be connected with ὠμός, "raw", instead of ὁ ὦμος, "shoulder". *To omón* would then be a raw section of meat of the sheep from which the god's part was cut, as proposed by the editors Paton and Hicks.[44] What part of the body this section came from was apparently not necessary to define, as it was common knowledge, and it does not have to be related to the shoulder.[45] Of importance was rather to ensure that the god was given his *theomoiria*.

A final document which should be considered here is the decree of the Attic deme of Phrearrioi (*c.* 300–250 BC), which contains the highly unusual term *maschalismata*, which may have a connection to forelegs as well.[46] The text seems to be a set of regulations concerning a public cult, most likely the Eleusinian gods and Demeter Thesmophoros, but understanding is complicated by the fact that the right hand side of the stone is missing. The section of interest is lines 15–17:

15 ... ἐπὶ δὲ τοὺς βωμοὺς [- - - - - - - - - - -]
I μηροὺς μασζαλίσματα ἡμίκ<ρ>α[ι
ραν - - - - - - μ]
ηροὺς μασχαλίσματα ἡμίκραιρ[αν - - -
- - - - - -]

... But/And upon(?) the altars [- - -]
thighs, pieces cut off from the shoulders, half the head [- - -]
thighs, pieces cut off from the shoulders, half the head [- - -]
(Translation Lupu, *NGSL*, no. 3)

The term *maschalismata* is apart from this epigraphical instance only known from the lexicographical sources and apparently had two meanings, 1) the placing of small pieces of raw meat on top of the thighbones and burning them on the altar, a practice very similar to the one described in Homer by the verb *omothetein*, and 2) the custom among murderers to cut pieces of the corpse and tie them on a string under the victim's armpit (*maschale*) or, less likely, to cut or tear off the arms of the corpse.[47] The connection between these two meanings is difficult to clarify. Eran Lupu has recently argued that *maschalismata* in a sacrificial sense meant in particular the cutting of pieces from shoulder of the animal victim.[48] The ancient lexicographers' explanation of *omothetein* as the cutting of meat from the shoulder, *ômos*, and placing it on the thighbones, has been taken to derive from confusion between the word for shoulder and *omós*, raw. Lupu suggests that the lexicographers' link with shoulders when explaining *maschalismata* rather derives from the fact that the *ômos*, shoulder, and the *maschale*, armpit, can be taken to belong to the same section of the animal when it is butchered, the chuck.[49]

If we follow the interpretation of *maschalismata* in the sacrificial sense as an equivalent to *omothetein* (though with the precision that the meat came from the shoulder of the vic-

[42] Le Guen-Pollet 1991b, 187, no. 62.
[43] Rhodes & Osborne 2003, no. 62 B, line 19. Herzog 1928, 11, commentary to line 19, proposing the analogy ὠμον–ὠμος with νῶτον–νῶτος.
[44] Paton and Hicks (1891, 90, commentary to line 19) understood *theomoiria* as the meat burnt for the god on the altar, similar to the Homeric *omothetein*.
[45] Victoria Tsoukala (pers. comm.) suggests that τὸ ὠμιον, the diminutive of ὁ ὦμος, may have been intended.
[46] *NGSL* no. 3, ca 300–250 BC.
[47] For the ancient sources discussing the term and their interpretation, see Kittredge 1885; Rohde 1925, 582–586; Parker 1984; van Straten 1995, 127 and n. 38; Lupu 2003, 73–76; *NGSL*, 166–168.
[48] Lupu 2003, 76.
[49] Lupu 2003, 74–75.

tim), the μηρούς, μασχαλίσματα and ἡμίκραιραν of the Phrearrioi inscription are to be taken as listing the god's part of the sacrifice to be placed in the altar fire.[50] This would then be a very rare case of a sacred law stipulating not what would be deposited on the god's table or what was to be given to the priest, as the inscriptions often do, but the parts that were actually to be burnt on the altar, in this case the thighbones, some pieces of meat (from the shoulder region) and half of the skull from which the meat had been removed.[51] The *meroi* and *maschalismata* to be burnt can be taken to correspond to the Homeric version of a *thysia*, where the god's part consisted of fat-wrapped thighbones topped by small pieces of meat. Perhaps the inclusion of the rare and "old fashioned" *maschalismata* ritual called for the details to be spelled out in detail in the inscription in this highly uncommon manner. The specification of the burning of the head is not known from any written source, thought burnt osteological deposits from altars occasionally include parts from the skull.[52]

Another possibility is to see the parts mentioned here as the god's share of the animal victim placed on the sacred table or the altar at a *trapezomata* ceremony, or the *gera* to be given to the priest or priestess, as such priestly perquisites are mentioned elsewhere in the inscription.[53] *Hemikraira* as a share for the religious personnel is found in the sacred law from Aixone, though the interpretation of the term is not entirely clear.[54] The use of the term *meroi* for a leg to be given as an honorary portion of meat is not epigraphically attested, however, the terms usually applied to this part being *skelos* or *kole*, though in the literary sources *meros* means a thigh including all the meat.[55] Within a context of meat offerings, *maschalismata* would refer to portions of meat, presumably cut from the shoulder. In this sense, *maschalismata* would be similar to the ὤμου δεξιοῦ κρῆ τρία, "three portions of meat cut from the shoulder", mentioned in the inscription from Ialysos discussed previously, which most likely constitutes a list of priestly perquisites.[56] Either interpretation of *maschalismata* clearly offers its own difficulties.

Osteological evidence

The second category of evidence to consider is the osteological material from Greek cult-places, which has enormously increased in the last decades.[57] Most of the recovered bones are fragmented and unburnt, and derive from leftovers after meals taking place in the sanctuaries, but there is also a group of deposits of carbonized

[50] Lupu 2003, 74.

[51] The term *meroi* occurs in a fragmentary sacred law from Miletos concerning Herakles (*c*. 500 BC), where it may refer to thighbones to be burnt, *LSA* 42, line B 2. There is also a 2nd century AD sacred law from Phanagoria, which mentions the burning of *meroi*, *LS* 89, lines 6 and 9. For the meaning of *hemikraira* either as "half-head" or "half-measure" of something, see Scullion 2009, 154, n. 5; Ackermann 2007, 120, n. 34.

[52] See, for example, Gebhard & Reese 2005, 147 (Isthmia), and Reese & Ruscillo 2000, 441, Table 6.2 and Pl. 6.3 (Altar U, Kommos). The Mycenaean burnt ritual deposits from the Palace of Nestor at Pylos consisted predominantly of mandibles, thigh bones and upper front legs of cattle and red deer, see Isaakidou *et al*. 2002, 86–92; Halstead & Isaakidou 2004, 136–154.

[53] *NGSL* no. 3, lines 5, 19 and 21.

[54] *IG* II2, 1356, line 5; Scullion 2009, 154, n. 5.

[55] Ekroth 2009, 129–131; Berthiaume 2005; Le Guen Pollet 1991a, 17–19.

[56] *LSS* 93. Also the *theomoiria* cut from τὸ ὠμόν at the sacrifice to Zeus Machanaeus found in the sacrificial calendar from Kos (*LS* 151, lines B 19–20 = *IG* XII 4, 274, lines 19–20) may be linked to *maschalismata* if the term τὸ ὠμόν actually had a connection with shoulders (see the discussion above).

[57] For overviews see, for example, Kotjabopoulou *et al*. 2003; Leguilloux 2004, 64; Reese 2005, 121–123; MacKinnon 2007a, 490–491; MacKinnon 2007b, 17–19.

and calcined bones, which can be identified as remains of the god's share burnt on the altar.[58]

Remains of bones from the forelegs, such as humeri and shoulder blades, are found in many osteological deposits interpreted as consumption debris recovered in Greek sanctuaries.[59] In most cases there is no marked lower or higher frequency of this part of the body which could correspond to the foreleg having been handled in any particular manner, such as removed to be used for specific purposes, as part of the god's share burnt on the altar or as priestly perquisites.

At the sanctuary of Poseidon at Isthmia, however, the situation is different. Here two kinds of bone assemblages have been found, the burnt bones from around the altar of Poseidon and the unburnt bones from the Large Circular Pit which constitute leftovers of the meals that took place to the south-west of the temple.[60] Among the burnt bones from the altar area, there is an over-representation of femora typical for altar debris, but interestingly also parts from the rest of the skeleton are present, with one exception—the forelegs.[61] In the consumption debris from the Large Circular Pit, on the other hand, unburnt bones consist of fragments of all parts of the animals' bodies, though there is a lower quantity of thigh bones, presumably as they were burnt on the altar, while the forelegs are over-represented.[62] Isthmia thus offers an unusually specific and interesting match between debris from sacrificial activity and consumption. The missing forelegs among the burnt bones can be explained as having been removed when the animals were butchered. They could have been used in a *trapezomata* ceremony and displayed on the god's sacred table or on a part of the long altar where there was no fire. But these forelegs may also have constituted priestly perquisites (though the priest often was entitled to take the god's share from the sacred table in the end) and they definitely seem to have been consumed in the dining area to the south-west.

The situation at Isthmia is very fortunate, as we here have access to both debris from the altar and from the meals. At other sites, there are occasional indications among the unburnt bones of a particular handling of the foreleg. The bone evidence from the Hellenistic sanctuary of Poseidon and Amphitrite on Tenos, analysed in detail, may be taken to indicate a particular use of the forelegs of the bovines. The cattle shoulder blades and long bones of the forelegs (humerus, radius and ulna) were butchered at the joints but the bones were kept intact, while the long bones of sheep, goats and pigs were divided into three sections, probably corresponding to a pot-size division into suitable meat portions.[63] These large meaty choice portions of the cattle forelegs may have been used both as gifts for the gods and as priestly perquisites consumed in the sanctuary.

At the sanctuary of Aphrodite at Amathous on Cyprus osteological evidence representing leftovers from meals have been found in a pit or *bothros* and a cave.[64] Both contexts are Archaic, the material from the pit being earlier than that from the cave.[65] In the pit, back

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58 For the evidence, see Ekroth 2009.

59 See for example the material from the Heraion on Samos, Boessneck & von den Driesch 1988, 4–5, Tables 1–2; Kalapodi, Stanzel 1991, 33, Table 9, 50, Table 18 and 61, Table 23; Eretria, L'Aire sacrificielle Nord, Studer & Chenal-Velarde 2003, 177, Table 2; Tenos, Leguilloux 1999, 439–443.

60 Gebhard & Reese 2005.

61 Gebhard & Reese 2005, 126 and Tables 1 B–H.

62 Gebhard & Reese 2005, 139–140.

63 Leguilloux 1999, 439–443 and 454; Ekroth 2008, 270.

64 Columeau 2006, 171–172.

65 There is also a distinction as to species, the *bothros* evidence containing predominantly fragments of bovines and sheep, while the cave material came from these two kinds of animals as well as from goats and a small quantity of pig, Columeau 2006, 167–168 and 170–171. The *bothros* sample is substantially smaller, less than 5% of the osteological material in total.

legs of cattle clearly dominate over the forelegs, while in the cave, the opposite is the case, as forelegs are more common than back legs, not only from cattle but also from sheep and goat.[66] The material from the pit and the cave at Amathous indicates that fore- and back legs of cattle and ovicaprines for some reason were distributed, consumed and at least discarded differently between the two find contexts, perhaps corresponding to different groups of participants or a change in cult practice, as there is a time difference between the two contexts. An interesting case is also found in the acropolis sanctuary at Minoa, Amorgos, where the activity dates from the Late Geometric to the Hellenistic/Roman period. A series of deposits outside the small roofed sanctuary have yielded pottery, metal objects, charcoal, ash and animal bones (which seem to be unburnt), among which were goat horns and parts of shoulder blades and long bones.[67] The evidence has not yet been fully published, but if the bones are unburnt, the forelegs may correspond to some kind of handling of honorary meat gifts.

At Kommos, the osteological remains from the Greek sanctuary, which have been published in great detail, allow us to make additional observations as to the use of forelegs. Bovines, sheep and goats, as well as pigs, show butchering marks that indicate that the forelimb was separated from the trunk of the body by cutting through the glenoid of the scapula, i.e. the lower part of the shoulder-blade where it joins the humerus.[68] These bones, as well as other remains from forelegs, derive from various deposits constituting debris from meals.[69] But the evidence from Kommos also includes burnt bones from the forelimbs of cattle, found among the 35 kg of osteological material recovered inside Altar U, dating to around 700–600 BC.[70] Most of the cattle and ovicaprine bones from this deposit are remains of back legs, that is the parts that were usually burnt for the gods. However, the burnt cattle bones also included fragments of other parts of the body, such as shoulder blades and metacarpals, while the sheep and goat bones comprised a humerus fragment as well as segments of the lower foreleg. The material from Kommos seems to constitute an exceptional case as the altar remains usually consist of thigh bones, knee caps, parts of the sacrum and caudal vertebrae.[71]

Finally, two more unusual bone finds should be mentioned. At Kalapodi, in a mixed Geometric-Archaic level, a lion scapula with traces of fire and chopping marks was recovered.[72] In the Athenian Agora, in an Early Geometric well, a fragment of a scapula of a fin whale has been unearthed.[73] Judging from its appearance, it seems to have been used as a cutting surface before it was discarded.

Iconographical evidence

Let us now finally look at the iconographical evidence. Depictions of butchering and the

[66] Columeau 2006, 171–172.

[67] Marangou 1990, 260–265; Marangou 2002, 255–257; cf. Marangou 1998, 19–23.

[68] Reese & Ruscillo 2000, 459, 481 and 488–490.

[69] For example from the burnt remains from Hearth 2 inside Temple B, Reese & Ruscillo 2000, 439, Table 6.2, or a dump from the upper floor of Building Q, Room 31, Reese & Ruscillo 2000, 423, Table 6.1.

[70] Reese & Ruscillo 2000, 441, Table 6.2 and pl. 6.3 and 6.4.

[71] At the sanctuary of Apollo Hylates at Kourion, Cyprus, the bones from the partially excavated Semicircular Altar included a burnt scapula fragment, see Davis 1996, 182; Reese 2011, 236. In the Palace of Nestor at Pylos ritual deposits of burnt mandibles, thigh bones and upper front legs of cattle and red deer has been recovered, see Isaakidou *et al*. 2002, 86–92; Halstead & Isaakidou 2004, 136–154. For composition of altar debris, see Ekroth 2009, 136–139.

[72] Stanzel 1991, 114; Felsch 2001, 196.

[73] Papadopoulos & Ruscillo 2002. The bone comes from a fill dumped into the shaft when the well had gone out of use.

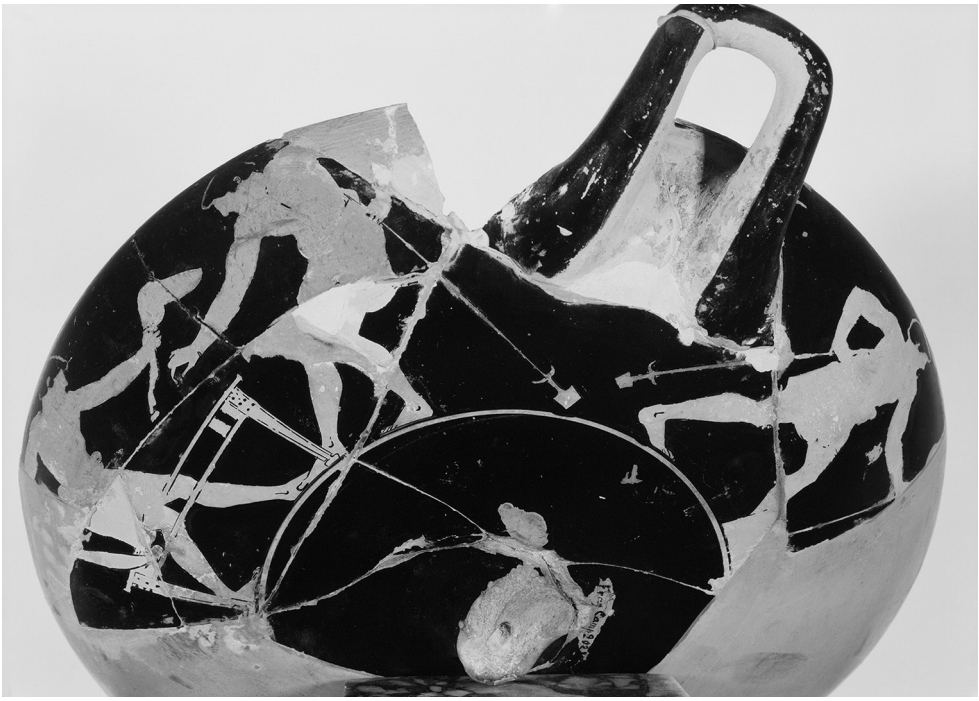

Fig. 2. Paris, Louvre CP 10918, Attic red-figure cup by Makron, c. *480 BC. © Musée du Louvre.*

division of meat are found on a small group of vase paintings, predominantly Attic ones, where the animal victim is shown being flayed and sectioned, and the meat divided into smaller parts.[74] Among these images, a specific motif is the representation of figures carrying or holding legs from animals, most likely sheep, goat or small bovines. In all, there are more than 50 representations of such legs on Attic vases, and judging by the appearance of the lower part of the leg, they seem to represent the back leg.[75] These legs are rendered with the lower section hanging down with a very limp appearance ending in a point or two distinctly pointed segments.[76] This characteristic iconography is probably meant to indicate that the thighbone has been removed to be used for ritual purposes, in particular to be burnt on the altar as a part of the god's share of the animal victim, the result of which would be a limp and elongated leg of meat, a feature pertinently la-

[74] For the evidence, see Durand 1989a and 1989b; van Straten 1995, V150–V154, V212–V240; Gebauer 2002, Z 1–Zv 91.

[75] Durand 1984; Gebauer 2002, Zv 3, Zv 5–Zv 7, Zv 10, Zv 17, Zv 28, Zv 41–Zv 89; Tsoukala 2009, 14–30. For non Attic examples, see Gebauer 2002, Zv 37–39 and Zv 90–91.

[76] The limp back legs can be compared with the back leg shown on the butchering scene on the Corinthian "Erytos" krater (Louvre CP 33) which due to the manner it is held clearly must be a representation of a back leg where the bones have not been removed, see Gebauer 2002, Zv 37, fig. 199.

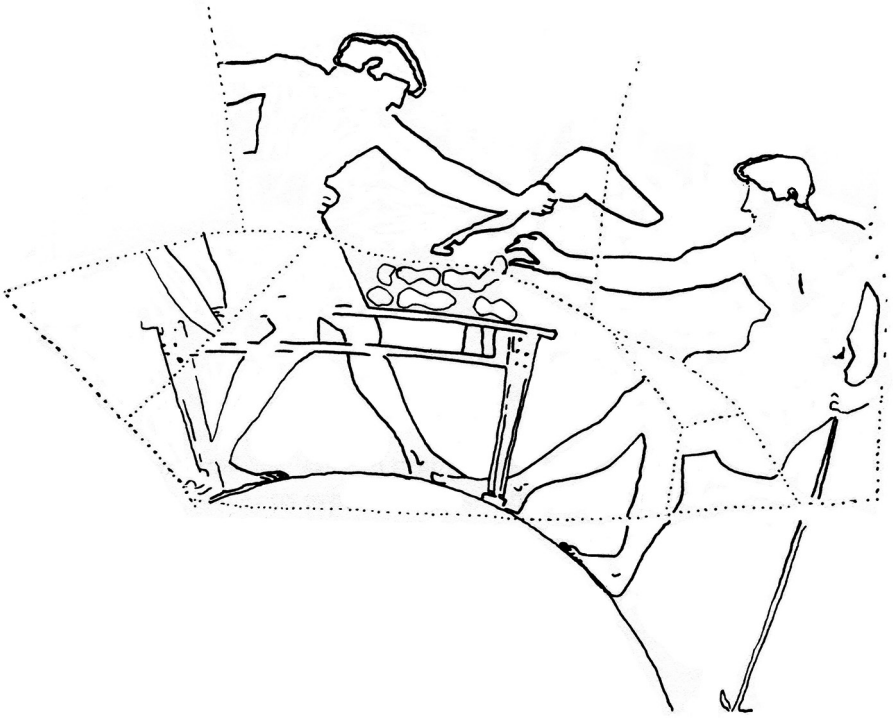

Fig. 3. Drawing of Louvre CP 10918. After Durand (1989a) 117, fig. 23.

belled *le gigot mou* by Durand.[77] This floppiness and malleability of the deboned legs makes it unpractical or even impossible to hold them in any other way than with the hoof pointing upwards or by carrying them over the shoulder, the meat hanging down the back of the person transporting it, in a manner only possible if the femur has been removed.[78]

An exceptional leg representation is found on a fragmentary red-figure cup by Makron in the Louvre, which on the outside renders a butchery scene involving two young men at a table (*Fig. 2*).[79] The youth to the right holds a spit in his left hand and with his right hand reaches for small pieces of meat lying on the table, apparently to spit them (*Fig. 3*).[80] To the left, the second young man with a large *machai-*

[77] Durand 1984, 32; Durand 1989a, 101. For the use of the thigh bones, *meria* or *meroi* in Greek, for ritual purposes, see Ekroth 2009. Judging by the length of the soft part of the leg, possibly also the tibia may have been removed in some instances, see, for example, red-figure cup, London E 62, Kunisch 1997, pl. 78, no. 234. On the other hand, to completely disengage the tibia seems to be a process very difficult to execute without cutting off the lower part of the leg with the hoof (the metatarsus and the phalanges).

[78] See, for example, Gebauer 2002, S 3a, fig. 137 and Z 5 – Z 7, figs. 167–169.

[79] Louvre CP 10918, *c.* 480 BC; Kunisch 1997, pl. 90, no. 270; Gebauer 2002, Z 21, fig. 185.

[80] The pieces of meat have been added in red paint and are no longer visible on the photograph.

Fig. 4. Shoulder and foreleg of lamb with scapula, humerus and radius-ulna still in place. Photo: author.

ra in his right hand is positioned behind the table and in his outstretched left hand he holds a leg of an animal, presumably a sheep, a goat or a calf. The appearance of this leg differs from the other legs shown on the Attic vases and we here seem to have a representation of a foreleg. The upper part of this leg has an angular shape, which probably is to be taken as the bones still being intact inside the meat. This impression of firmness or stiffness is distinct from the other legs, which are characterized by the limp appearance of the meat. Furthermore, the hoof of the leg on the Makron cup points downwards, a marked difference from the other leg representations.

If the leg depicted on the Makron cup is compared with a real foreleg of a lamb, there are striking similarities (*Fig. 4*).[81] When the shoulder and foreleg are separated from the trunk of the body by cutting around the shoulder blade so that the scapula is still attached to the humerus, the result will be a leg with a shape similar to that on the vase painting (*Figs. 4* and *5*). A back leg, even with the thighbone still intact, would not have the distinct angular shape of the foreleg, which is caused by the angle of the scapula-humerus joint. This difference is particularly apparent if a real foreleg and a back leg are compared side by side (*Fig. 6*). Furthermore, the presumed foreleg on the Makron vase does not have the characteristic protrusion of the back leg, the hock, where the tibia joins the metatarsus at the calcaneus, a feature often clearly rendered on the other leg representations on the vases (*Fig. 7*).[82]

Fig. 5. Shoulder and foreleg being cut free from lamb's body. Photo: author.

The cup in the Louvre is unusual for many reasons, not only since it seems to be the only certain representation of a foreleg, but also since it combines different elements of butchery and handling of meat which are rarely shown and,

[81] Note that the metacarpals and the hoof have been removed from this leg.

[82] See, for example, black-figure oinochoe, Boston, MFA 99.527, Gebauer 2002, Z 10, fig. 172; red-figure cup by the Briseis Painter, at Brunswick, Bowdoin College 1920.2; red-figure cup, St. Petersburg, Hermitage 4509, Gebauer 2002, Z 17, fig. 179.

Fig. 6. Foreleg of lamb, to the left, and backleg of lamb, to the right. Photo: author.

if depicted, then shown separately.[83] The youth holding the foreleg is brandishing a large knife, while the young man to his right is picking up small sections of meat to spit them: this combination of an entire leg of meat and an *obelos* being loaded with meat is unique.[84] The inside of the vase bears a representation of a bearded man placing oblong objects in a cauldron on a stand. The identification of the objects has been disputed, but they are probably sections of meat about to be boiled.[85] Boiling is a cooking method that is rarely depicted, though it seems to have been the most frequent way of preparing meat at sacrificial meals.[86] On this vase, the vase painter Makron has clearly focused on some specific and rarely represented aspects of sacrificial butchery and meat preparation. This may be coincidental and simply a result of the artist's desire to vary the motifs shown, especially since there are four other Makron vases that show de-boned back legs.[87] On the other hand, it may be possible that a particular ritual or event, real or mythic, may have been intended or referred to.

What about the foreleg?

If we sum up the evidence reviewed, it is clear that the foreleg of a sacrificial victim and, in particular, its shoulder, could be used for specific purposes within Greek cult, though less frequently than the back leg. As it is less rich in meat, the foreleg is an inferior part compared to the back leg and this fact may be one explanation of its relative scarcity as a choice portion in the sacred laws. But the prominence of the back leg in cultic contexts is also clearly due to the importance of the burning of the thighbones on the altar for the gods, as it is likely that these bones came from the same leg as that

[83] The so-called Ricci hydria (Rome, Villa Giulia) is a rare example of a scene including both the division of meat and cooking, see Gebauer 2002, Zv 38, fig. 200.

[84] For similar representations, see St. Petersburg, Hermitage 4505, a woman at basin holding a spit without meat and an oblong object (a piece of meat or the hoof of the animal?), a leg being suspended in the background, Gebauer 2002, Z 17, fig. 179; Rome, Musei Vaticani 17924 (Astarita 574), a youth at chopping block with large bovine head on top of it, a spit loaded with meat to the left, Gebauer 2002, Z 24, fig. 186.

[85] For an identification of the objects as meat, which seems to be the most plausible interpretation, see Durand 1989a, 103; van Straten 1995, 152; Kunisch 1997, 188, no. 270. Sparkes 1965, 163, suggested dough, while Gebauer 2002, 316 finds them too imprecise to be identified.

[86] For representations of boiling, see Gebauer 2002, Z 1 and Zv 38. On the bone evidence indicating boiling, see Ekroth 2007, 266–268; Ekroth 2008, 274–276.

[87] Depictions of back legs by Makron, see Kunisch 1997, pl. 21, no. 47, private, Toronto and Florence PD 317; pl. 22, no. 49, private, Centre Island, N.Y.; pl. 78, no. 234, London, British Museum E62; pl. 174, no. 533.2, private, Switzerland.

Fig. 7. Bowdoin College Museum of Art 1920.2, Attic red-figure cup by the Briseis Painter, c. 480–470 BC. © Bowdoin College Museum of Art, Brunswick, Maine, Gift of Edward Perry Warren, Esq., Honorary Degree, 1926.

given to the priest as part of his *gera*.[88] Such a connection between god and priest is less obvious as regards the forelegs, but a similar division may be discerned in the *lex sacra* from Mykonos.[89] Here the shoulder blade of a ram was to be cut out and used at a libation ritual, while the rest of the leg (the same one presumably) was given to the priest.

The occasions when forelegs were singled out are likely to be related to local traditions concerning particular sacrifices, deities and cult places, for which our sources are too limited to provide us with an understanding of the context. The evidence is dispersed in time and place, and concerns a variety of divinities. However, it is interesting to note that Poseidon is encountered in connection with shoulders and forelegs in at least four instances. The sacrifice to Poseidon Temenites on Mykonos, at which the shoulder blade was libated on was just mentioned, and to this case we can add the shoulder blade appearing among the *gera* for the priest in the cult of Poseidon Helikonios at Sinope. At the sanctuaries of Poseidon at Isthmia and on Tenos the osteological evidence indicates that the foreleg was used for particular purposes, as an honorary gift to the god or to the priest, or both. Why Poseidon may have had a penchant for shoulders is difficult to tell, but this god had a link with the most famous shoulder blade in antiquity, that of Pelops.

[88] The manner of representing back legs on the Attic vases clearly seem to indicate that the thigh bone had been removed, see Durand 1984.

[89] *LS* 96, lines 5–8.

According to the myth, Pelops' father Tantalos butchered him (as a sacrificial victim), boiled him in a cauldron and served him to the gods when they were invited to dinner at Sipylos.[90] None of the gods tasted the meat apart from Demeter, who confused by her grief for her missing daughter ate Pelops' shoulder.[91] The gods brought Pelops back to life again and equipped him with a new, shining ivory shoulder. The boy immediately attracted the attention of Poseidon who fell in love with him and gave him a winged chariot, which was fundamental to Pelops' future victory over king Oinomaos of Pisa.[92] After Pelops' death his shoulder blade was apparently first kept at Pisa, but when loaned to the Greeks in order for them to capture Troy, it was lost at sea on its way back home.[93] A fisherman, Darmarmenos, eventually caught the shoulder blade in his net and was amazed by its size. An inquiry to Delphi led to the bone being returned to the Eleans and Darmarmenos and his descendants becoming its guardians.[94]

Pelops was slaughtered as an animal victim and his shoulder eaten, and the divine ivory shoulder contributed to his beauty and attracted the attention of the god of the sea, where the shoulder blade was lost but eventually found. This story brings out the importance of this particular part of the body in both a mythic and ritual context, and may to some degree be connected to the handling of forelegs, and especially shoulders, in the cult of Poseidon. The account of how Pelops was cut up and boiled and had his shoulder consumed may perhaps also be related to the red-figure cup by Makron in the Louvre, which was discussed above. This vase bears both a unique representation of the shoulder of a sacrificial victim and the boiling of meat, elements which are essential to the Pelops myth. The unusual motif of this cup may perhaps be explained as a reference to a particular sacrifice, real or mythic, though the meat on the vase painting comes from an animal, as is evident from the hoof shown.

Modern scholars have suggested that the stories behind Pelops' shoulder blade may have originated in the finding of a fossil from a large prehistoric land mammal, such as an elephant or mammoth, or from a whale, such as the fragment of a fin whale recovered in an Early Iron Age context in the Athenian Agora.[95] The astonishment caused by the size and appearance of the bone may have to led to its identification as the missing shoulder blade of Pelops, in particular as very old bones often resemble ivory, especially when polished.[96] Also the lion scapula recovered at Kalapodi may have been singled out as a particular object due to its appearance or the fact that it came from a kind of animal with a high symbolic value.

The shoulder blade is one of the most prominent bones of the body and also easy to remove, a fact which may have led to them being used for a variety of purposes, for example as tools. The fin whale scapula fragment from the

[90] Pind. *Ol*. 1.49–51; Apollod. *Ep*. 2.3; Luc. *De salt*. 54.
[91] Schol. ad Pind. *Ol*. 1.40a, c and e; Lykoph. *Alex*. 155; schol. ad Lykoph. *Alex*. 152; Hyg. *Fab*. 83.
[92] Pind. *Ol*. 1.25–27: *elephanti phaidimon omon*; Apollod. *Ep*. 2.3; Luc. *De salt*. 54; Nonnus, *Dion*. 18.25–30; Hyg. *Fab*. 83; schol. ad Pind. *Ol*. 1.40c; schol. ad Lykoph. *Alex*. 152; Ov. *Met*. 6.404–411. For the sources, see further Halm-Tisserant 1993, 261–263. Whether Pelops actually received a new shoulder or a shoulder *blade* is not evident, as in Greek the same term was used for both the anatomical region and the actual bone of that part, see Poplin 1995, 262.
[93] Paus. 5.13.4–6.
[94] When Pausanias visited Olympia, the shoulder blade had gone missing, though the rest of the hero's bones were kept in a small sanctuary in the countryside, Paus. 5.13.6; 6.22.1. For the particular role of the shoulder blade as a relic, see also Zografou 2004/2005.
[95] Mayor 2000, 105–110; Papadopoulos & Ruscillo 2002, 205.
[96] Mayor 2000, 105.

Athenian Agora was probably used as a cutting surface before being discarded.[97] A number of cattle scapulae, and to a smaller extent sheep and goat shoulder blades, bearing incisions have been recovered on Cyprus, in Turkey and the Near East in Late Bronze Age and Iron Age contexts, predominantly religious ones.[98] The notches have been given various explanations, such as use as musical instruments or for record keeping. The notched scapulae are particularly common on Cyprus, where they have been recovered together with unincised specimens as well as other bones, such as horns.[99] A possible use of these shoulder blades may have been for divination, a procedure documented in Greece in the 11th century AD, when Michael Psellus composed an account of *omoplatoskopeia*, but also practiced in China in the 14th to 16th centuries.[100] The methods used were either the observation of the surface while exposing it to fire or heat, or simply the appearance of the bone once stripped of meat. Even in the 19th and 20th centuries scapulomancy was practised in certain parts of Greece.[101]

Bearing this use of shoulder blades in mind, it is possible that the libation on the shoulder blade from the ram sacrificed to Poseidon Temenites on Mykonos could have had some kind of divinatory function as well. Another tentative link between shoulders and divination may be found at the Amphiareion at Oropos where the priest was given the shoulder of the sacrificial victims as his *gera*, and not the more common back leg. The divinity worshipped, Amphiaraos, was a *mantis* while alive and his sanctuary had oracular functions, something which may explain the importance of the foreleg in this cult.[102]

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[97] Papadopoulos & Ruscillo 2002.
[98] Webb 1977; Reese 2002; 2009.
[99] See Reese 2002; 2009, for a review of the evidence.
[100] Hopfner 1939; Papadopoulos & Ruscillo 2002, 205; Mayor 2000, 300, n. 2; Drew Griffith 2000; Zografou 2004/2005, 136–139.
[101] Papadopoulos & Ruscillo 2002, 205; Mayor 2000, 300, n. 2.
[102] On the oracular and mantic qualities of Amphiaraos and his cult, see Schachter 1981, 19–25; Kearns 1989, 147; Sineux 2007, 29–38.

Bibliography

ABBREVIATIONS

LSA = F. Sokolowski. *Lois sacrées de l'Asie Mineure* (École française d'Athènes. Travaux et mémoires, 9), Paris 1955.

LS = F. Sokolowski. *Lois sacrées des cités grecques* (École française d'Athènes. Travaux et mémoires, 18), Paris 1969.

LSS = F. Sokolowski. *Lois sacrées des cités grecques. Supplément* (École française d'Athènes. Travaux et mémoires, 11), Paris 1962.

NGSL = E. Lupu. *Greek sacred law. A collection of new documents (NGSL)* (Religions in the Graeco-Roman world, 152), Leiden 2005.

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