

# From snout to tail

Exploring the Greek sacrificial animal  
from the literary, epigraphical,  
iconographical, archaeological,  
and zooarchaeological evidence

Edited by Jan-Mathieu Carbon  
& Gunnel Ekroth

## EDITORIAL COMMITTEE

Prof. Henrik Gerding, Lund, Chairman  
Dr Mikael Johansson, Gothenburg, Vice-chairman  
Mrs Kristina Björkstén Jersenius, Stockholm, Treasurer  
Dr Susanne Carlsson, Stockholm, Secretary  
Prof. Gunnel Ekroth, Uppsala  
Dr Therese Emanuelsson-Paulson, Stockholm  
Dr Johan Eriksson, Uppsala  
Dr Ulf R. Hansson, Rome  
Prof. Christer Henriksen, Uppsala  
Dr Jenny Wallensten, Athens  
Mr Julian Wareing, Stockholm  
Dr Lewis Webb, Gothenburg

## EDITOR

Dr Julia Habetzeder, Stockholm

## SECRETARY'S & EDITOR'S ADDRESS

Department of Archaeology and Classical Studies  
Stockholm University  
SE-106 91 Stockholm  
secretary@ecsi.se | editor@ecsi.se

## DISTRIBUTOR

Eddy.se AB  
Box 1310  
SE-621 24 Visby

For general information, see <https://ecsi.se>  
For subscriptions, prices and delivery, see <http://ecsi.bokorder.se>

Published with the aid of grants from the Royal Swedish Academy of Letters, History and Antiquities, Birgitta Bergquists stipendiefond and Vilhelm Ekmans Universitetsfond.

The English and French text was revised by Jan-Mathieu Carbon, Queen's University

ISSN 0586-0539

ISBN 978-91-7916-069-2

© Svenska institutet i Athen and authors

Printed by PrintBest (Viljandi, Estonia) via Italgraf Meda AB (Stockholm, Sweden) 2024

Cover and dust jacket: illustrations by Julia Habetzeder.

## ABSTRACT

Animal sacrifice fundamentally informed how the ancient Greeks defined themselves, their relation to the divine, and the structure of their society. Adopting an explicitly cross-disciplinary perspective, the present volume explores the practical execution and complex meaning of animal sacrifice within ancient Greek religion (c. 1000 BC–AD 200).

The objective is twofold. First, to clarify in detail the use and meaning of body parts of the animal within sacrificial ritual. This involves a comprehensive study of ancient Greek terminology in texts and inscriptions, representations on pottery and reliefs, and animal bones found in sanctuaries. Second, to encourage the use and integration of the full spectrum of ancient evidence in the exploration of Greek sacrificial rituals, which is a prerequisite for understanding the complex use and meaning of Greek animal sacrifice.

Twelve contributions by experts on the literary, epigraphical, iconographical, archaeological and zooarchaeological evidence for Greek animal sacrifice explore the treatment of legs, including feet and hoofs, tails, horns; heads, including tongues, brains, ears and snouts; internal organs; blood; as well as the handling of the entire body by burning it whole. Three further contributions address Hittite, Israelite and Etruscan animal sacrifice respectively, providing important contextualization for Greek ritual practices.

*Keywords:* Greek animal sacrifice, anatomy, division, butchery, body part, multi-disciplinary approaches, zooarchaeology, iconography, epigraphy, texts, cross-cultural comparisons

<https://doi.org/10.30549/actaath-4-60>

## BOOK EDITORS

Jan-Mathieu Carbon, Department of Classics, Queen's University  
501 Watson Hall, 49 Bader Lane, Kingston, ON, Canada K7L 3N6  
([jmc32@queensu.ca](mailto:jmc32@queensu.ca)) & Gunnel Ekroth, Department of Archaeology and Ancient History, Uppsala University, Box 626, SE-751 26 Uppsala, Sweden ([gunnel.ekroth@antiken.uu.se](mailto:gunnel.ekroth@antiken.uu.se)).

## 6. Taking the bull by the horns

### Animal heads in scenes of sacrifice on Greek vases

But as the bull has no hands and cannot possibly have its horns on its feet or on its knees, where they would prevent flexion, there remains no other site for them but the head; and this therefore they necessarily occupy. In this position, moreover, they are much less in the way of the movements of the body than they would be elsewhere.

Arist. *Part. an.* 3.2.8–12, transl. W. Ogle in Barnes 1995, 1034.

#### Abstract

While a great deal has been written about the choice and types of animals shown in scenes of sacrifice in ancient Greek art, there has thus far been no study of heads and horns as an isolated category. Many vases portray horned animals as victims and there is surely much to be gleaned by careful observation of their body postures, function in the scenes, and interaction with other figures, be they human or animal. Thus, this paper investigates horned animals in representations of sacrifice in the artistic repertoire of Archaic and Classical Greece, with careful attention to their heads. The evidence will be drawn from the black- and red-figure vases of Athens, with a few examples and comparisons drawn from other regions, such as Corinth, Boeotia, and East Greece. After reviewing the evidence of horned animals on the “animal style” vases of the 7th century BC, the various positions of horned heads in pre-death sacrificial scenes are presented, as well as the ways that the humans and objects present in the scenes interact with and draw attention to these particular animal parts.\*

**Keywords:** Greek vase-painting, iconography, “animal style” decoration, Attic vases, head vases (rhyton), bovine/bull, horns, motion, posture, animal-handling, interaction with animals

<https://doi.org/10.30549/actaath-4-60-06>

#### Sacrifice, vases, heads

While a great deal has been written about the choice and types of animals shown in scenes of sacrifice in ancient Greek art, there has thus far been no study of heads and horns as an isolated category. Indeed, many vases portray horned animals as victims and there is surely much to be gleaned by careful observation of their body postures, function in the scenes, and interaction with other figures, be they human or animal. Thus, this paper investigates horned animals in representations of sacrifice in the artistic repertoire of Archaic and Classical Greece, with careful attention to their heads. The evidence will be drawn from the black- and red-figure vases of Athens, with a few examples and comparisons from other regions, such as Corinth, Boeotia, and East Greece. In order to limit the scope, our concern will exclusively be living creatures in the “pre-kill” or—as I prefer to say in this context—*pre-death* stage of the proceedings: that is to say, the focus will be on

---

\* This paper derives from ongoing research on the relationship between ancient Greek art and religion. My sincere thanks are extended to conference organizers, Gunnel Ekroth and Jan-Mathieu Carbon, for their invitation to contribute to this project, and for their assistance throughout. I am also grateful to the following individuals for their help with various aspects of animals, bulls, and religion related to this paper: Elizabeth Bartlett, Alicia Dissinger, Stella Georgoudi, Dionysios Kavadias, the late François Lissarrague, Elizabeth Oltenacu, David Reese, and Vasso Zachari. Date completed: 24 July 2017; updated: 10 November 2021.

concept rather than on action or process.<sup>1</sup> By isolating this specific part of the sacrificial animal, the head and horns, and selecting this particular class of evidence—one that is both visual and material (image and thing)—it is hoped that we may better understand not only some of the mechanism employed by vase-painters to reveal the subject of sacrifice, but also what meaning and significance there is in observing horn-headed species in this context from the neck up.<sup>2</sup>

Let us begin with the obvious question: why heads, or more to the point, why horned heads? Previous scholarship on animals has emphasized the symbolic significance of horns, such as their possible associations with plenty, fertility, virility, and cuckoldry, their function as “secondary products” (cf. milk, wool), or their contribution to zooarchaeology; and it bears reminding that the head (both with and without horns) has been considered in both ancient and modern cultures as a prized part of the animal for consumption and/or display.<sup>3</sup> Aristotle distinguishes the head as one of “the chief parts into which the whole body is divided”, viewing the head as both a physical and sensory centre (along with the heart) of individual animals; in particular, he places hearing, sight, and smell “to be lodged as a rule in the head” as a result of the “character of their sense-organs”.<sup>4</sup> Horns he treats in some detail as “appendages of the head”, useful for defense, security, or as decoration.<sup>5</sup> For the four-legged creatures under discussion here (cattle, sheep, goats), their horned-heads steer and direct their body.<sup>6</sup> Where the head goes, the body follows. For activities as disparate as eating and fighting these animals must use

their heads. Their head controls and concentrates their senses. Although not exclusive to this group of animal species—and despite Aristotle’s view—, sight, smell, hearing, taste, and even touch originate from and centre on the head. The head controls behaviour, movement, and interactions. What role, then, do heads and horns play visually? The head, and especially the horned head, is iconic, even diagnostic; recall how Agamemnon is described by Homer (*Il.* 2.518–521): “Picture a bull that stands out from the herd, head and horns above the milling cattle, Zeus on that day made the son of Atreus a man who stood out from the crowd of heroes.”<sup>7</sup> In Greek art, and no doubt in other traditions, head and horns identify the variety of animal being depicted. To quote Gunnell Ekroth, the head is one of the “choice portions” and one the “best suited for iconographical representation”; among the flocks and herds themselves, the horns in particular may reveal hierarchy and status.<sup>8</sup> In art as in life, it is accurate to consider the horned head a “visual supercue”.<sup>9</sup>

Before looking closely at horned heads in scenes of sacrifice, let us first consider a few of the issues and limitations inherent in using figure-decorated pottery, or “vases”, as evidence, and especially as documents of ancient religious practice. The vases produced in the black-and-red-figure techniques, in Athens or elsewhere, were (for the most part) highly conventionalized in their decoration; that is to say, visual details of anatomy, clothing, composition, and embellishment are established by one or more painters and repeated in multiple examples, often regardless of the subject matter at hand. The difficulty of portraying figures in motion, especially in black-figure painting, has been a focus of my previous research on komast dancers, and it is safe to say that some of the same rules and problems apply here.<sup>10</sup> How does the painter show a figure, animal or human, dancer or bull, as a dynamic animated figure in the midst of movement? Representing a given animal in an action-pose, such as a ram walking, a goat springing, or a bull nodding its head, would have proved challenging (indeed as challenging as depicting the nuances of dance motion); yet such actions are often critical to understanding a precise activity, moment or narrative. Particular visual solutions were reached by painters to communicate with and appeal to the audience or viewer, and it is those on the receiving end of the imagery (as best as we can determine who they were) who must be kept constantly in mind. At the same time, and again due to the limitations of technique and style, there are certain,

<sup>1</sup> On the descriptive terminology and stages of sacrificial ritual, see van Straten 1995 and Smith 2016, 128–132. For the exploration of dead bodies, see Durand 1989, esp. 87–89, and Sykes 2014, 121–126. The scenes have been classified recently by time and type in Bundrick 2014 and a useful breakdown of the iconographic evidence is Ekroth 2014. Horned animals, especially bulls, decorate shield devices on vases, see Calder 2012, 42–43.

<sup>2</sup> While important, neither the shape of the vessels nor the archaeological context of individual objects will be considered here. See now Paleothodoros 2012.

<sup>3</sup> The bibliography on these topics combined is vast. For zooarchaeology, horn representation, and display see Sykes 2014, 122; MacKinnon 2007, 477–479; Ekroth 2007, 257 (“horns ... could have ended up in a sanctuary when an animal skin was dedicated”); Chenal-Velarde & Studer 2003, 215–220. On skull display: Insoll 2011, 156. On symbolism: Conrad 1957 (cross-cultural); Blok 1981 (rams/goats); Ebbinghaus 2018, 37–41, and Douglass 1999, 8–11 (bulls); Werness 2006, 56–61, 218, and Viscardi 2016 (goats). On Acheloo (man-faced bull in Greek myth), see Aston 2014, 368–369, and on “bovine epiphanies”, Petridou 2015, 96–98. On horns as secondary products: Isaakidou 2003 and Davis 1987, ch. 7.

<sup>4</sup> Arist. *Hist. an.* 1.7 (transl. d.A.W. Thompson in Barnes 1995, 783), and see 1.15; and Arist. *Part. an.* 2.10, where he differs from others who place all the senses in the head (transl. W. Ogle in Barnes 1995, 1022).

<sup>5</sup> Arist. *Part. an.* 3.2 (head, transl. W. Ogle in Barnes 1995, 1033–1035).

<sup>6</sup> For each of these horned animals as sacrificial victims, see van Straten 1995, 170–186 and Jameson 2014, ch. 10.

<sup>7</sup> McInerney 2010, 114 (transl. Lombardo); cf. Harden 2014, 94–95.

<sup>8</sup> Ekroth 2008, 264–266.

<sup>9</sup> Bubenik & Bubenik 1990, 22–24, 34–35 and 85–86 (“visual supercue”).

<sup>10</sup> On the problem of showing dancers in motion: Smith 2010, 50–52; 2014 (red-figure). See also the comparative discussion of Maya and ancient Greek evidence for dance movement in imagery by Looper 2009, 103–106.

essential elements of iconography that cannot be determined based on observing vase imagery alone, among them the age of the animal, its physical fitness, health or condition, its colour or its speed.<sup>11</sup>

Despite the fact that the vase surface is a strange and irregular canvas, and one of varying size and shape, it is arguable that these objects by virtue of their imagery, function and context have a great deal to add to the discussion of ancient Greek religion, and in this case to our understanding of animal sacrifice. But should each vase be viewed as a unique manifestation of a single or “real” event in time and space? Or, do the pictures on vases combined provide a sort of idealized practice (consider the well-documented emphasis on certain animals to the near or complete exclusion of others)?<sup>12</sup> Should vases with sacrificial imagery be associated with the religious rituals they portray or are they simply decorative visions drawn from the annals of everyday life? Does the vase-painter have the authority to explain ancient religion to us, and what level of artistic license might these painters have taken? While we must use a certain amount of caution when dealing with vases as evidence, it is arguable that (as with ancient dance) potters and painters had some first-hand experience and familiarity with animal sacrifice. To quote Jean-Louis Durand: “The painters know their sacrifice as well as the scholar.”<sup>13</sup>

As we turn now to the vases and their animal images in scenes of sacrifice let us hone in on how the heads are articulated by painters, and with what kinds of detail. Beginning with “animal style” vases of the 7th century BC which introduce animals of many types to vase-painting, we will then consider a series of head positions seen in black- and red-figure, followed by interactions between the horned heads and other elements in scenes. The greatest number of illustrations will be drawn from Athenian vases produced in the 6th and 5th centuries BC where the relevant evidence is most abundant; no attempt is made here, however, to determine the exact animal based on the vase evidence alone (such as wild vs domestic; goats/sheep vs rams).<sup>14</sup> Where and when it is thought to be helpful, mythological subjects and figures are integrated into the discussion, but this is by no means the main emphasis.

## Survivors of the “animal style”

Despite its conventional nature and built-in limitations as a medium, Greek vase-painting, much like Greek religion itself (to quote Michael Jameson) “was not static but always modifying, elaborating, and innovating.”<sup>15</sup> With such thinking in mind it is important to recognize that the beginnings of our horned sacrificial victims—cattle, sheep, goats—are found on the vases of the so-called “animal style.”<sup>16</sup> As Joan Mertens explains: “The new bestiary that was introduced from the East during the late eighth and the seventh centuries BC found rapid and ubiquitous acceptance among the Greeks from Asia Minor ... to Italy. Animals, typically arranged in rows, are a constant feature of vase-painting from the seventh through the sixth century BC.”<sup>17</sup> On vases produced in the “Wild Goat Style” of East Greece, in addition to the ubiquitous grazing goats, there are standing bulls and springing goats alongside other animals.<sup>18</sup> For example, on a colourful oinochoe from Rhodes a bull shares the decorative field with a standing stag and a water fowl, and each of the animals is imagined at the same scale.<sup>19</sup> Similarly, on Corinthian vessels, where animal parades are much loved, again we recognize bulls and goats, as well as elaborately horned stags.<sup>20</sup> It is not unusual to find domestic, wild and even fantastical or hybrid creatures sharing a single decorative frieze. Such is the case on the Boeotian lekanis in Montreal attributed to the Protome Painter, where a ram shares the field with lions, panthers, and a siren.<sup>21</sup> According to Karl Kilinski’s study of the painter, whom he dates to the 3rd quarter of the 6th century BC, “the bull is rendered with a distinct ear and horn.”<sup>22</sup> Unexpectedly, on a Corinthian amphora of c. 600 BC and now in New York (*Fig. 1*), a solitary komast dancer has been placed on the shoulder of the vessel between two lions, directly above a frontal faced feline and a bowing bull.<sup>23</sup> It is not being suggested here that any of the animals included in these repetitive animal friezes are beasts bound for the sacrificial altar, or that the human solo performer who joins them on the Corinthian amphora is serving an explicit cultic role. Rather, what is indicated by

<sup>11</sup> Cf. Parker 2011, 133–134, on selecting the animal; *ThesCRAI*, “Sacrifice”, 95–103; Ekroth 2008, 275, on age. See also Ekroth 2014, 332–333; and *note 6* (above).

<sup>12</sup> See Ekroth (2014, 158), who states “vase-paintings rarely or never depict precise, real sacrifice: they depict imaginary situations”, and Lissarrague (2012, 565), who claims “the painter includes several moments, or more precisely several gestures and objects.”

<sup>13</sup> Durand 1989, 99. See also Bremmer 2007, 132 and 139–143; Blok 2009, 129–130.

<sup>14</sup> On the problem of identifying these animals in art, see Kitchell 2014, 36 (cows), 77 (goats), and 170 (sheep/rams).

<sup>15</sup> Jameson 2014, 256.

<sup>16</sup> Harden 2014, 24–25, on the term. See also Coulié 2013, 105–107.

<sup>17</sup> Mertens 2010, 60. See also Boardman 1998, 83–85.

<sup>18</sup> Boardman 1998, 141–144, with illustrations; Cook & Dupont 1998, ch. 8 and more recently Coulié 2013, 143–155.

<sup>19</sup> Boston, Museum of Fine Arts 03.89; Fairbanks 1928, 91, no. 291, pl. 27. Cf. Coulié 2013, 153, fig. 136 (St Petersburg, State Hermitage Museum TT 12).

<sup>20</sup> See Amyx 1988, 665; Boardman 1998, 178–185, with illustrations. For Corinthian “plastic” vessels in animal forms, see Böhm 2014, esp. 99–113 for rams.

<sup>21</sup> Montreal, Museum of Fine Arts 953.Cb.1; Kilinski 1990, 27, no. 23, pl. 26.3–4.

<sup>22</sup> Kilinski 1990, 28.

<sup>23</sup> New York, Metropolitan Museum of Art 06.1021.18; Moore 2006, 36–37, fig. 5.





Fig. 1. Corinthian black-figure amphora, c. 600 BC. Komast dancer between feline and bull. New York, Metropolitan Museum of Art 06.1021.18. Photograph: Metropolitan Museum of Art, Open Access, Creative Commons Zero (CC0).

these examples is that the same horned animals that appear on black-figure vases during the 6th century BC were already well in circulation amongst vase-painters in multiple regions of Greece. As with the dancing figure just mentioned, in fact the first human figure painted with regularity in the black-figure technique across regions, the presence of these same animals on Orientalizing vases gives us a sense of what was already possible in animal imagery by the time sacrificial iconography is introduced to the vase-painter's repertoire.<sup>24</sup> On Archaic vases produced in the black-figure technique during the 6th century BC, this same menagerie of animals becomes subsidiary ornamentation on vases featuring both myth and daily life scenes as primary decoration, as is well demonstrated by painters of the Tyrrhenian Group.<sup>25</sup>

Perhaps it also worth adding that there has been a welcome surge of interest in ancient animals in general. They have been particularly well-documented in ancient art where they have been categorized as narrative, symbolic, mimetic or decorative.<sup>26</sup> Animals have been discussed by their types in reference to literary texts (i.e. similes, fables), in relation to the gods

and heroes, and associated with individual myths, cults, and even dance.<sup>27</sup> With regard to the "animal style", some scholars (such as John Boardman) have viewed them as no more than borrowings from Near Eastern arts that are best understood in terms of their formal, stylistic or technical qualities; while others (such as Tonio Hölscher) have interpreted them symbolically within a given cultural or ritual context.<sup>28</sup> Perhaps the truth lies somewhere in the middle, as so well-put recently by Alastair Harden: "an animal depicted will always evoke the specific species' qualities and the cultural relevance of that animal, and such depictions are a translation of cultural ideas about animal behaviour."<sup>29</sup> To be sure the animals of the "animal style" are not always shown in uninteresting, repetitive friezes, though a certain number of mundane cattle processions do make their appearance, as witnessed in Boeotian black-figure.<sup>30</sup> Regardless of origins, borrowings or inspirations, there is no shortage of heraldic groupings, stand-offs, and all-out fights represented amongst the available "animal style" evidence from the 7th century BC onwards.<sup>31</sup> Solo animals or those in greatly simplified compositions also occur, as is the case on a Chian chalice from Vulci, now in Würzburg, where a beautifully drawn bull shares the space with a small bird; or on a Middle Corinthian oinochoe in Berlin attributed to the White Bull Painter with its spot-lit, larger-than-life quadruped.<sup>32</sup> While the occasional wild goat leaps in the air, turns its head back, frolics or fights with a friend to break the otherwise tedious monotony, the potter and painter of an East Greek or Lydian pyxis (Fig. 2) takes both the material and visual possibilities of the "animal style" to the highest level by combining the usual painted elements with the plastic moulded ram's head protruding and turned in on itself.<sup>33</sup> Although it has been suggested that the head is a handle, it is also pos-

<sup>27</sup> In general: Campbell 2014; Smith 2021a. On dance: Lawler 1964, ch. 4, and Lonsdale 1982.

<sup>28</sup> Harden 2014, 24–25, for these perspectives.

<sup>29</sup> Harden 2014, 30.

<sup>30</sup> Kilinski 1990, 42 on rustic scenes in Boeotian black-figure. See the Eretian black-figure plate (Heidelberg, Ruprecht-Karls-Universität 68/2); Boardman 1998, 216 ("rows of bulls"), and fig. 464.

<sup>31</sup> For example, von Hofsten (2007, 55) suggests that the popularity of the lion/bull fighting motif on Attic black-figure vases derives from its appearance on pedimental sculpture on the Acropolis in Athens, and for "butting bulls" on vases see p. 41.

<sup>32</sup> Boardman 1998, fig. 310 (Würzburg, Martin von Wagner-Museum L128) and fig. 382 (Berlin, Staatliche Museen, Antikensammlung F1117).

<sup>33</sup> Leaping goat: Rhodes, Archaeological Museum 14807; Coulié 2013, 162, fig. 153. Goat on hind legs: Brussels, Musées Royaux des Beaux-Arts A1960 (Cook & Dupont 1998, 34, fig. 8.2). Goats looking back: Paris, Musée du Louvre E 658 (Coulié 2013, 163, fig. 152b); Paris, Musée du Louvre E 659 (Boardman 1998, fig. 299). Frolicking/playing: London, British Museum 1907.12–1.679 (Cook & Dupont 1998, fig. 8.14). Fighting: Basel, Antikenmuseum (Amyx 1988, pl. 27.1b, Corinthian). For the ram's head pyxis see Coulié 2013, 186, fig. 180 (New York, Metropolitan Museum of Art 1977.11.3).

<sup>24</sup> Smith 2010, 5–8.

<sup>25</sup> Kluiver 2003, 39.

<sup>26</sup> See especially Calder 2012 and Harden 2014.



Fig. 2. East Greek or Lydian Pyxis with ram's head handle. Late 6th century BC. New York, Metropolitan Museum of Art 1977.11.3. Photograph: Metropolitan Museum of Art, Open Access, Creative Commons Zero (CC0).

sible to see this object as the creation of a new zoomorphism that combines the concept of the bronze cauldron possessing animal-head attachments with a long-standing tradition of whole vessels in animal form designed to serve various ritual or everyday functions.

## Up, down, and all around

When we turn our attention to sacrificial animals on vases either preparing for or being led to sacrifice, we find a somewhat limited range of head positions. At the same time, painters employ subtle movements of the head that reflect, on the one hand, behaviours appropriate to the situation and, on the other, an obvious familiarity with live animal movement. As is standard of much Greek vase-painting, nearly all of the animals, regardless of size or type, are shown, like human figures, in full or partial profile. The favourite pose visible amongst the extant evidence is the dignified bovine, often a bull, stopping or standing to the right with its head straight and its neck parallel or nearly parallel to the ground. Commonly shown in the scenes is an altar, a herm, or both, thus implying that the animal is moving compliantly towards a destination.<sup>34</sup> Such is the case on two examples, a Boeotian Cabirion vessel (a skyphos of mid-late 5th century BC), where the alleged victim

is a large bull, and an Athenian black-figure neck-amphora of c. 500 BC, where the animal is a long-horned goat.<sup>35</sup> In each of these cases the head is positioned in a manner that shows off the horns, which are prominent, and in the case of the Boeotian image the exaggeration of this anatomical appendage is consistent with the unique and somewhat inflated style of the Cabirion Group of vases overall.<sup>36</sup> In some instances, the horns of an animal with its head straight are festooned. A good illustration of this can be seen on the bilingual amphora in Boston depicting on each side Herakles leading a bull and holding *obeloi*.<sup>37</sup> The same basic head position is indicated on a red-figure oinochoe in Laon (Fig. 3), where the horned creature faces a woman occupied with washing it, adorning it, or perhaps simply petting it.<sup>38</sup>

A second set of images demonstrates the animal extending its head forward as if to hasten the journey, break free from a

<sup>35</sup> van Straten 1995, V112, fig. 26 (Kassel, Staatliche Kunstsammlungen) and V52, fig. 24 (art market); *BAPD* 9485.

<sup>36</sup> Boardman 1998, 258. The curled horns on a red-figure ram are highlighted in black silhouette, thus enhancing their visibility; Gebauer 2002, 72–73, P 31, fig. 30 (Athens, National Archaeological Museum, Acropolis Collection 2.74, late 6th century BC).

<sup>37</sup> Boston, Museum of Fine Arts 99.538 (c. 530 BC); *BAPD* 200012; van Straten 1995, V378, 30–31; Caskey & Beazley 1963, 7–8, no. 115, pls. 65.1–2 and 67. For an Athenian red-figure example see the lekythos from Gela, Boston, Museum of Fine Arts 13.195; *BAPD* 200206; Caskey & Beazley 1931, 10–11, no. 14, pl. 4; my Fig. 8.

<sup>38</sup> Laon, Musée Archéologique Municipal 37.1044; *BAPD* 12352; van Straten 1995, V133, fig. 44; Smith 2021b, 133–134.

<sup>34</sup> See Versnel 2011, 248–352 and Zachari 2013, for the association of the altar and the herm on vases.



Fig. 3. Athenian red-figure oinochoe, c. 430 BC. Woman facing bull and touching its head. Laon, Musée Archéologique Municipal 37.1044. Photograph: Musée d'art et d'archéologie du Pays de Laon.

human handler or perhaps smell and taste food. In such cases, the animal is often smaller, as seen on one side of a red-figure cup (c. 475–450 BC) in the Vatican where a ram is being encouraged by a bearded male who reaches towards it.<sup>39</sup> However, another version of this posture is demonstrated by a bull who stands in front of a draped and crowned female figure holding two torches (perhaps a priestess), on a red-figure bell-krater in Sicily attributed to the Eupolis Painter and dated c. 450 BC.<sup>40</sup> On this vase and on others, the animal is in walking motion, either passing or following a human whose attributes indicate cult activity, and who is situated beside or behind it.<sup>41</sup> Rather than purely stationary, these animals are

<sup>39</sup> Vatican, Museo Gregoriano Etrusco Vaticano 16508; *BAPD* 275400; van Straten 1995, V137, fig. 35; *ThesCRAI*, “Sacrifices”, 97, no. 317.

<sup>40</sup> Syracuse, Museo Archeologico Regionale Paolo Orsi 22886; *BAPD* 214434; van Straten 1995, V97; *CVA Syracuse, Museo Archaeologico Nazionale* 1, III.1, pl. 17:1 (Italy 17, pl. 831).

<sup>41</sup> Cf. Bochum, Ruhr Universität, Kunstsammlungen S1174; *BAPD* 9024280; Gebauer 2002, P 26, 691, fig. 26.

leading with their heads towards a destination, and in some circumstances require extra restraint. This posture is evident inside the tondo of a red-figure cup in an American private collection where a youth holds a knife in one hand and hangs on to the horn of a high-spirited goat with the other.<sup>42</sup>

In another set of examples, the sacrificial animal is standing with its head tilted down (either a lot or a little) in order to eat or drink, obtain decoration to the horns or head, or indeed to receive the pending axe blow.<sup>43</sup> The last of these is shown on the body of the Caeretan hydria in Copenhagen dated c. 520 BC (Fig. 4), where the big beast is joined by male and female figures in a procession and is about to experience the fatal blow to the head.<sup>44</sup> We may also notice how the painter has related the axe to the horns, seeming to make contact between these two key elements, at least as witnessed from the outside viewer's perspective. Some animals also are portrayed with their heads inclined ever so slightly downwards while they are walking. This head position is found on an early 6th century BC Corinthian black-figure amphoriskos in Oslo, where a well-drawn bull tilts its head down as it moves between groups of humans holding baskets and playing music in what is often termed a *Frauenfest* scene.<sup>45</sup> On a much-discussed Athenian black-figure band-cup dated to the mid-6th century BC, three different animals of roughly the same size are being led in a crowded multi-figure procession to an altar, behind which stands the goddess Athena.<sup>46</sup> Both the bovine at the front and the sheep at the back are walking in a realistic manner, i.e. with their heads inclined slightly downward. Interestingly, the pair of pipers who follow behind them is well juxtaposed, shown by contrast with their heads exaggeratedly tilting up. Although some scholars have interpreted the lowered head of the animal, especially when approaching the altar, as an indication of “consent”, “assent”, or “willingness”,<sup>47</sup> based on the difficulties of depicting motion in vase-painting and the range of head positions suggested here, such an idea seems difficult to support using vase imagery alone. Furthermore, it is arguable that vase-painters are better at showing animal (i.e. quad-

<sup>42</sup> Winterthur, private collection, attributed to the Ambrosios Painter; *BAPD* 9132; Gebauer 2002, P 30, 72, fig. 29. See a similar scene on an Etruscan cornelian scarab (4th–3rd century BC); Boardman & Wagner 2018, 102, no. 90.

<sup>43</sup> van Straten 1995, 43–46; and notes 37–38 (above). For the axe blow, see van Straten 1995, 107–109 and Bremmer 2007, 136.

<sup>44</sup> Copenhagen, Nationalmuseum 13567; van Straten 1995, V120, fig. 114.

<sup>45</sup> Oslo, University Museum of Ethnography 6909; van Straten 1995, V117, fig. 16. On *Frauenfest* vases, see Smith 2010, 27, esp. n. 100 for bibliography.

<sup>46</sup> Paris, Stavros Niarchos Collection A031; *BAPD* 11106; van Straten 1995, V55, fig. 2; Smith 2016, 131, fig. 7.1 (drawing). Shear (2021, 135–138) connects the image to the Panathenaia.

<sup>47</sup> For a recent review of the evidence and interpretations, see Naiden 2013, ch. 3, esp. 83–90. See also Smith 2024.





*Fig. 4. Caeretan hydria. Last quarter 6th century BC. Detail of bull with its head tilted down. Copenhagen, Nationalmuseet 13567. Photograph: Museum, Creative Commons, BY-SA.*

rupted) motion than human motion, especially when working in the black-figure technique.

Several vases demonstrate that animals in sacrificial situations sometimes moved in a rambunctious or energetic manner. The presence of such creatures encourages us again to ponder the ongoing debate about willing or resistant victims, and to question if painters are supplying this dichotomy in visual terms. One of the best-known illustrations of animal resistance in a detailed sacrificial context is found on the silhouette-style *lekane* in the British Museum (*Fig. 5*) that includes no fewer than seven animals in its decorated frieze: two donkeys pulling a cart, two birds (one on the altar anticipating what's to come, the other a long-necked crane/heron on one side of the column), a snake on one side of the column, a stand-

ing bull with its head straight approaching the altar, a rowdy goat that turns its head backwards while being grabbed by the horn.<sup>48</sup> The imagery has been much-discussed and related to particular festivals, both in Athens and in Boeotia.<sup>49</sup> Leaving such issues aside, the behaviour of the two animals destined for sacrifice (if in fact they are both destined for sacrifice), and their powerful juxtaposition, can be determined based on their head positions: the assenting bull, the struggling goat.<sup>50</sup>

<sup>48</sup> London, British Museum B 80; *BAPD* 24390; van Straten 1995, V107, fig. 14.

<sup>49</sup> See Smith 2004, 17–18, with bibliography to date; *ThesCRA* I, “Processions”, 12, no. 69 (“Athena Itonia at Koronea”).

<sup>50</sup> van Straten (1987, 159–160) sees the two parts of the vase as unrelated.



*Fig. 5. Boeotian black-figure lekanis. Mid-6th century BC. Detail of "resistant" goat in procession. London, British Museum 1879,1004.1 (B 80). Photograph: © The Trustees of the British Museum, Creative Commons BY-NC-SA 4.0.*

Although the animal with its head turned sharply back is not a regular detail of sacrificial iconography, it is an action sometimes performed by bovines, who appear either resistant or disinterested. Alternatively, the curious creature decorating a small black-figure hydria in Uppsala (*Fig. 6*) literally steps into the decorative panel and engages the viewer with a conspicuous frontal face.<sup>51</sup> The fact that the animal's horn overlaps the column and its hoof touches it (which itself touches the altar) is surely not accidental.<sup>52</sup> Naturally, the presence of the owl (also frontal-faced) has led to interpretations of the scene in relation to the worship of Athena.<sup>53</sup> Assuming that is the case, and the setting is the Athenian Acropolis, it would be tempt-

ing to see the animal as a bull and, in this instance, symbolizing Poseidon. A useful comparison with this most unusual vase is found on a neck-amphora of c. 500 BC now in Würzburg, where the god of the sea, wielding a fish and a trident in one hand, and ivy in the other, rides side-saddle on the back of a bull; and the presence of Dionysos on the opposite side of the same vessel has led to the description of Poseidon "approaching a festival of Dionysos."<sup>54</sup>

The same postures singled-out in the pre-death conditions of sacrifice may also be recognized in either daily life settings or those totally devoid of context, where the animals in question might or might not be connected to cultic activity. Consider the example of a red-figure pyxis lid in Oxford (*Fig. 7*), where the solitary animal stands spotlighted against a black background with its head lowered.<sup>55</sup> One common posture, for bovines, though it is possibly exhibited in other situations by a sheep or a goat, is the head lowered and moving towards an enemy

<sup>51</sup> Uppsala, Museum Gustavianum P 41 (352); *BAPD* 330696; van Straten 1995, V50, fig. 5. The Theseus Painter is fond of cultic iconography; Borgers 2004, 112–113 and 163, no. 161, for the vase; cf. Laxander 2000, 17–18.

<sup>52</sup> Touch and overlap are similarly used by the other figures in the scene: i.e. the youth raises an arm towards the centre, perhaps in a gesture of prayer, and his fingers touch the owl; the nose of the sheep overlaps with and touches the foot of the owl and the altar. Cf. Smith 2021b, 127–128, on touch in religious images.

<sup>53</sup> See note 51 (above) and Gebauer 2002, 81–86; Borgers 2004, 112 ("at the Altar of Athena"); and *LIMC* II (1984), 1010 s.v. Athena, no. 581, pl. 761 (H. Cassimatis).

<sup>54</sup> Würzburg, Martin von Wagner-Museum L194; *BAPD* 405; *LIMC* IV (1988), 463 s.v. Poseidon, no. 160, pl. 366 (E. Simon); and Simon 2014, 46, for the interpretation and quote.

<sup>55</sup> Oxford, Ashmolean Museum 1927.4472; *BAPD* 12758; *CVA Oxford, Ashmolean Museum* 2, III I, 109, pls. 52:9 and 65:9 (Great Britain 9, pls. 416 and 429).



Fig. 6. Athenian black-figure hydria. Theseus Painter, c. 500 BC. Frontal bull. Uppsala, Museum Gustavianum P 41 (352). Photograph: Gustavianum, Uppsala University Museum.

(often a ferocious feline) in an act of aggression or defence. An unattributed Athenian black-figure lip-cup (mid-6th century BC) demonstrates on both sides the bull who is seemingly fearless as it approaches and then fights-off a growling lion using his horns.<sup>56</sup> While an early/mid-6th century BC Athenian black-figure dinos in Brussels portrays a goat and a sheep in separate friezes sparring with large felines in the identical manner.<sup>57</sup> In other instances, the bull seems defiant or quite simply to be running away from, in at least one case, a human enemy (perhaps Theseus or Herakles) at full speed, as on one side of a cup by Olto in Madrid.<sup>58</sup> Animals take centre stage

on an Athenian black-figure oinochoe of the early 5th century BC attributed to the Gela Painter and now in Munich, where we see bovines, some, if not all, horned, surrounding an altar.<sup>59</sup> Although it is difficult for us to determine exactly what theme the painter intended, the vase has been connected to a group with similar iconography whose scenes have been related specifically to the Bouphonia, or “ox slaying”, held annually on the Acropolis as part of the Dipolieia (cf. Paus. 1.28.10–11).<sup>60</sup> For our purposes, however, what is striking on the Munich vase is the sequence of recognizable head positions being demonstrated by the assembled bovine group: straight ahead, head forward, head down, head turned back.

<sup>56</sup> Christchurch, University of Canterbury 34.55; *BAPD* 6700; *CVA New Zealand* 1, pl. 28:1–4 (New Zealand 1, pl. 28).

<sup>57</sup> Brussels, Musées Royaux des Beaux-Arts R222; *BAPD* 1429; *CVA Brussels, Musées Royaux du Cinquantenaire* 1, III H d, pl. 2:1c (Belgium 1, pl. 13).

<sup>58</sup> For the Olto cup (Madrid, Museo Arqueológico Nacional L151), see *BAPD* 200443; *LIMC* VII (1995), 936 s.v. Theseus, no. 176 (“possibly Theseus or Herakles”), pl. 654 (J. Neils); *CVA Madrid, Museo Arqueológico Nacional* 2, pls. 1:3b and 5:1 (Spain 2, pl. 58 and 62) (“Thésée poursuivant le taureau de Marathon”). For a defiant bull see both sides of the Athenian black-figure Siana Cup (London, British Museum B 384), attributed to the Griffin-Bird Painter; *BAPD* 300684; *CVA London, British Museum* 2, III H e, pl. 10:5 (Great Britain 2, pl. 68). Cf. Warden

2004, 91–93, no. 12, where the bull is in a similar position with its head down, but being hunted (described: “sacrificial animal as prey”).

<sup>59</sup> Munich, Antikensammlungen 1824 (J 1335); *BAPD* 330554; van Straten 1995, 199, V33, fig. 55.

<sup>60</sup> On this group of vases see van Straten 1995, 51–52, esp. 129 for previous bibliography; Gebauer 2002, 196–197, who discusses the ritual and the form of the altar and McNerney 2010, 115–116. See further Shapiro 1989, 30, n. 94 and Georgoudi 2005, 134–138.





Fig. 7. Athenian red-figure pyxis lid. Second half of the 5th century BC. Bull. Oxford, Ashmolean Museum 1927.4472. Drawing: Dan Weiss.

## Animal, human, object

Having established the various ways that horned animal heads are portrayed by Greek vase-painters in pre-death sacrificial iconography, it is possible to explore some other key aspects of the scenes. How does the presence of other animals, humans, or objects have an impact on the vase-painter's visual articulation of horns and head? And, how might such additional elements lend a more performative air to the proceedings?<sup>61</sup> Again, when we look back to earlier "animal style" decoration, we observe confronting bulls, as on a Protocorinthian black-figure oinochoe of c. 625 BC, where the fuming pair is antithetically arranged in the midst of a multi-figure animal frieze.<sup>62</sup> Each bull lowers its head towards the other with horns pointing forward, and feelings of aggression and competition are clearly in evidence.<sup>63</sup> Such hostility on the part of the animal is best paralleled in mythological iconography, especially on vases where Herakles or Theseus tries to capture

the bull and the animal by nature tries to resist.<sup>64</sup> In sacrificial scenes with multiples of the same beast, the animals are either moving or standing in the same direction, and have identical head, neck and body positions, as evidenced by the magnificent cows with prominent udders on a late 6th century BC red-figure lekythos in Boston attributed to the Gales Painter (Fig. 8).<sup>65</sup> Or, the animals, often cattle, while being adorned for the sacrifice, are represented standing in opposite directions with one or two humans between them, and either face the humans, face each other or look away.<sup>66</sup> The diversity available makes each of the images in a sense unique and adds to the realism, as opposed to the idealism, of the occasion. In actuality, these are living, breathing creatures who move, misbehave, and make noise. Walking in a pair or a group, the animals are envisioned by the painters as uniform, and this same uniformity is visible on the Athenian black-figure band-cup mentioned earlier. On some vases, however, as an animal is being bedecked, it is required to stand still with its head tilted down, perhaps with the aid of food or drink; while those who await horn decoration may be shown looking around as if distracted.<sup>67</sup>

When humans interact with the animals in the relevant scenes, be they decorating, leading or handling them, the iconography and the position of the head is even more varied. The question then is how and when do the human figures on vases touch the animals by the horns or on the head, and where are humans and animals placed in relation to one another? Are their encounters merely indications of the variety of ways to show human control over these hapless, doomed creatures? Before looking at the examples that might hold the answers to such questions, it is helpful to consider some mythological figures who interact with horned animals on Greek vases: in part because the evidence is far more abundant, if repetitive; and in part to determine if mythological models or narrative references were being sought out and employed by the painters of sacrifice performed by mortals. Associations between animals and the divine are far beyond our present scope, but it is fair to say that individual animals connected to the Olympian gods

<sup>61</sup> For sacrifice as performance, see Jameson 2014, 272 ("visual and dramatic"); Pilz 2011 and Smith 2016, 134–139, for vase iconography.

<sup>62</sup> New York, Metropolitan Museum of Art 1972.118.38, attributed to the Chigi Group; Mertens 2010, 60–61, no. 8.

<sup>63</sup> A great deal is written on bull aggression and other behaviours. For example, an aggressive bull will turn his body perpendicular to a challenger to display his full height and length, and aggression is expressed by bunting or striking a challenger with the head. See in general Houpt 2011, 23–26 (cattle, sheep, goats) and 30–34, on aggression; Albright & Arave 1997 and Grandin 1989; 1992, on behaviour during restraint.

<sup>64</sup> LIMCV (1992), 60–67 s.v. Herakles, esp. 61–62, nos. 2326–2339 for capturing and tying the bull (J. Boardman); and LIMCVII (1995) 936–939 s.v. Theseus, esp. nos. 186–188 ("hobbling") (J. Neils). Which hero is intended is not always made obvious by the iconography; cf. note 58 (above, Madrid cup). See also Stafford 2012, 39.

<sup>65</sup> Boston, Museum of Fine Arts 13.195, signed by the potter "Gales"; BAPD 200206; van Straten 1995, 206–207, V74, fig. 17; Caskey & Beazley 1931, no. 14, pl. 4 (note 37, above).

<sup>66</sup> See note 43 (above).

<sup>67</sup> Cf. van Straten 1995, 45–46 ("watering the bull"). A "distracted" bull appears to the right of the altar on Munich 1824; note 59 (above).



and with mythical heroes regularly serve as attributes in vase-painting and in ancient Greek art in general.<sup>68</sup>

A common observation to be made about animals in mythological iconography on vases is that they are often shown to be highly active and greatly animated; they seem angry or happy, spritely or agitated, to the point of exaggeration.<sup>69</sup> This is particularly the case when a specific story is being portrayed. That is not to say that there are no cases of what might be considered intense resistance by animals on vases, but they do seem to be more the exception than the norm.<sup>70</sup> Consider the red-figure cup by Oltos cited earlier where the bull runs at full speed away from a man identified as Herakles or Theseus.<sup>71</sup> The vase painters seem well aware of differences inherent in showing a mythological hero's solo encounter with the bull and a real human encounter with a bull. The hero uses his super-human semi-divine strength to contain the animal by any means possible. But unlike the clowns and cowboys of the American rodeo (unless "bulldogging"), our Greek hero is not afraid to grab the bull directly by the horns or even to step directly on them.<sup>72</sup> Clearly, the priority of the painter, here as elsewhere, is the unbelievable spectacle of the Greek hero *extraordinaire*, the larger than life figure who slays a lion or captures a bull with his bare hands. In such scenes, furthermore, the animal is a prime component, indeed an indispensable element of the story, and as such receives a generous amount of attention. The same is true of Theseus on vases in his encounters with the Cretan bull, or with the Minotaur, the hybrid monster of Knossos, who he routinely grabs by the horn with one hand while wielding his sword in the other;<sup>73</sup> or of Europa who steadies herself on the back of or follows alongside Zeus in bull form, by holding his horn with one hand and on occasion his tail with the other.<sup>74</sup> In these particular myths, the horn-grabbing (regardless of any implied or overt symbolism) is a detail so elemental to the imagery that it

<sup>68</sup> On animals and gods, including gods worshipped as bulls (i.e. Zeus, Poseidon, Dionysos), see McInerney 2010, 112–119. For the examples in art: Carpenter 1991; Simon 2021.

<sup>69</sup> For mythological subjects, see Gebauer 2002, 489–499, and figs. 122, 124, 141, 143–145, 155 (all red-figure) and van Straten 1995, 30–31.

<sup>70</sup> Cf. e.g. a late 5th century BC Athenian red-figure bell-krater (New York, Metropolitan Museum of Art 56.171.49), where the bull is particularly animated in a scene identified as the Lampadedromia: *BAPD* 217591; van Straten 1995, 209, V91, fig. 54; Naiden 2013, 66–67, fig. 2.6.

<sup>71</sup> See note 58 (above).

<sup>72</sup> See note 64 (above); and Arluke & Bogdan 2013, esp. 25–27 on rodeo clowns, and 22–23, fig. 2.8 on "bulldogging", which involves wrestling a steer to the ground while twisting its neck and holding its horns.

<sup>73</sup> See e.g. *LIMC* VII (1995), s.v. Theseus, nos. 233–234, 240–241, and 238 (holds the snout) (J. Neils); cf. Shapiro 1989, 147, pl. 66b and Carpenter 1991, fig. 247 (holds the neck).

<sup>74</sup> Carpenter 1991, 56–57; *LIMC* IV (1988), 76–92 s.v. Europe (M. Robertson).

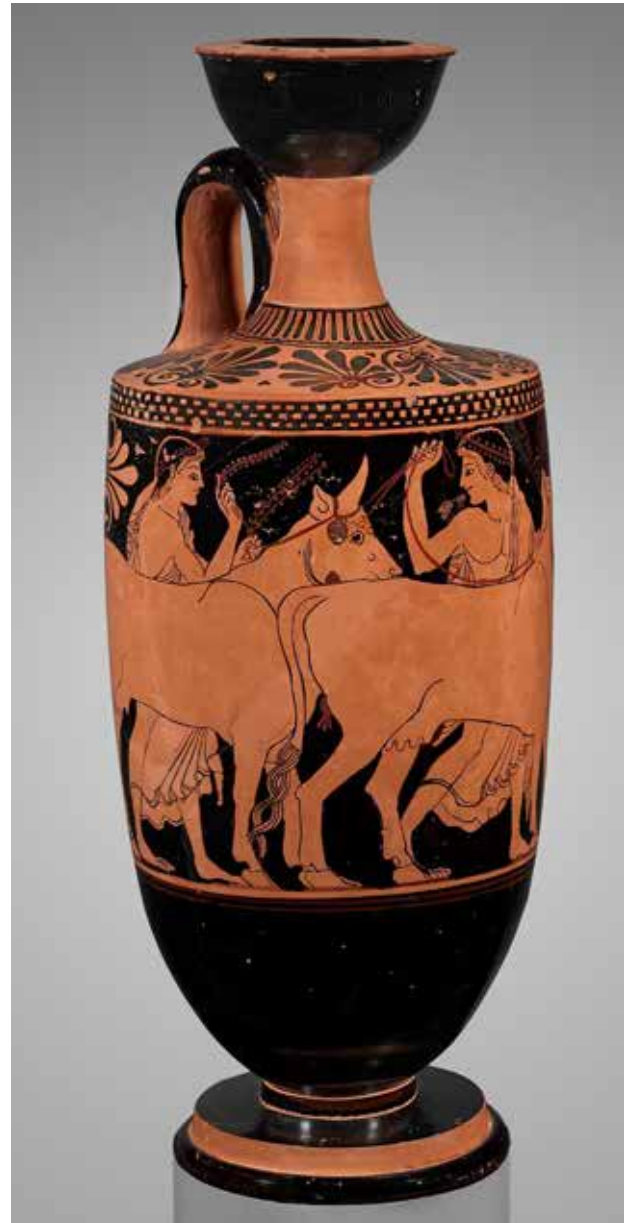


Fig. 8. Athenian red-figure lekythos, by the Gales Painter. Bovines in procession. Late 6th century BC. Boston, Museum of Fine Arts 13.195. Photograph: Museum of Fine Arts, Boston. Bartlett Collection—Museum purchase with funds from the Francis Bartlett Donation of 1912.

is found in other artistic media contemporary with the vases.<sup>75</sup> Other horn-grabbers include satyrs or maenads messing about with goats (riding, chasing, dancing), Herakles who removes a horn from Acheloos, and Artemis in her guise as Potnia

<sup>75</sup> Cf. e.g. Harden 2014, 39–40, fig. 2.3 (Europa on a gem; c. 480 BC); Carpenter 1991, fig. 246, right (Theseus on shield band relief, c. 560 BC).



Fig. 9. Athenian red-figure cup fragments. Kleomelos Painter, c. 510–500 BC. Older man handling stubborn goat. Malibu, J. Paul Getty Museum 1995.14 (on loan from Trier University). Photograph: Digital image courtesy of the Getty's Open Content Program.

Theron.<sup>76</sup> Second only to the horn-grabbers in the mythological repertoire of human-animal encounters are the “huggers”, who take the four-legged creature by the head, neck, or horn using one or both hands, perhaps using a hold familiar from wrestling. A male figure identified as Herakles is represented in the tondo of a Laconian cup in the Manner of the Arkesilas Painter (c. 550 BC), where the hero embraces the bull with both arms around its neck.<sup>77</sup> On the inside of an Athenian black-figure cup with Theseus and Minotaur (both named by inscriptions), the hero uses a one-armed version of this gesture to get a firmer grip on the beast.<sup>78</sup> On one side of an Athenian black-figure skyphos in Paris, Athena accompanies the hero, either Herakles or Theseus, who leans into the bull with both arms as the animal strikes a classic defensive posture, with head down, horns forward and one front leg drawn back.<sup>79</sup>

Returning to the human-animal interactions in images of sacrifice, a number of the extant pre-death scenes focus on the procession towards or the gathering around the altar. Some-

times the animal is held in place with a rope or lead that looks as if it is tied directly to the horn—a situation visible in both black- and red-figure.<sup>80</sup> On other vases a human handler holds the animal by the body and/or the neck on one or both sides, in such a way that indicates familiarity with safe animal-handling.<sup>81</sup> Several red-figure vases, which might include mortal or mythical participants in the scenes, show a sheep or goat being held in place at the altar by a boy, while additional male figures conduct ritual activities related to the sacrifice. On the red-figure krater from Agrigento attributed to the Kleophon Painter and dated c. 420 BC, a boy in the scene holds onto a goat with both hands on either side of its neck, perhaps to demonstrate a more modest version of the mythological hugger (restraint) position.<sup>82</sup>

Fairly common amongst the evidence on vases is the action of grabbing or holding the horns. We have already noticed this detail with respect to various iconographic moments and seen that it is commonly practiced by mythological figures. It can be documented using different types of horned animals at different moments in the proceedings: being decorated, approaching the altar, waiting at the altar.<sup>83</sup> François Lissarrague has pointed out that, in scenes where an “ephebe” is controlling the animal by the horns or lifting it up on the shoulders, it is the “athletic strength of the youths that is being displayed and celebrated.”<sup>84</sup> Horn-grabbing by necessity is a forceful gesture, and is evident on the inside of a fragmentary red-figure cup currently at the Getty (Fig. 9) where an older man with a white beard and hair musters all his might to hang on to a stubborn goat: a less than willing victim who may or may not be destined for the altar in any case.<sup>85</sup>

<sup>76</sup> See Lissarrague 2013, 119, fig. 96, and 123, fig. 101 (horn and leg); *LIMC* V (1992), 114 s.v. Herakles (J. Boardman); note 3 (above), for Acheloo; and *LIMC* II (1984), 624–628 s.v. Artemis (L. Kahlil), for examples of the many methods the goddess uses to contain animals.

<sup>77</sup> New York, Metropolitan Museum of Art 591.5; *LIMC* V (1992), 61 s.v. Herakles no. 2317 (J. Boardman).

<sup>78</sup> Toledo, Museum of Art 58.70 (Little Master Cup); *BAPD* 350732; *LIMC* VI (1992), 575 s.v. Minotaurus no. 9 (S. Woodford).

<sup>79</sup> Paris, Musée du Louvre F 475; *BAPD* 331572; *ABV* 558.471.

<sup>80</sup> For example, an Athenian black-figure skyphos, attributed to the Theseus Painter (Stuttgart, Württembergisches Landesmuseum 4.89 [KAS 74]); *BAPD* 351553; Gebauer 2002, 124, Pp 90, fig. 80 (top), and an Athenian red-figure krater, from Spina (Ferrara, Museo Archeologico Nazionale 20.311 [T416 B VP]), attributed to the Kleophon Painter (c. 430 BC); *BAPD* 215161; Gebauer 2002, 109–110, P 59, fig. 59 (cf. figs. 60–61).

<sup>81</sup> An extreme case of using the head- or horn-tied rope is found on the mid-6th century BC black-figure amphora in Viterbo; *BAPD* 10600; Gebauer 2002, 257–259, S 1, fig. 134, and 285–288; van Straten 1995, 219, V141, fig. 115; Smith 2021b, 135–136, fig. 81. On the Athenian band-cup only the bull is on the lead, while the other two animals walk freely; see note 46 (above). See further Naiden 2013, 66–67, and n. 167.

<sup>82</sup> Agrigento, Museo Archeologico Regionale 4688; *BAPD* 30321; Gebauer 2002, 217–219, A 3, fig. 113; van Straten 1995, 216, V127, fig. 30 (detail).

<sup>83</sup> Being decorated: van Straten 1995, figs. 44, 45. Approaching/waiting: van Straten 1995, figs. 21 (perhaps), 24, 27, 35, 42 and 47.

<sup>84</sup> Lissarrague 2012, 566. Cf. Diggle 2004, 480 (“ephebes lifting bull”); McInerney 2010, 15; Boardman & Wagner 2018, 19, no. 12 (late 6th century BC cornelian scarab).

<sup>85</sup> Malibu, J. Paul Getty Museum 1995.14 (on loan from Trier University); *BAPD* 13362; Gebauer 2002, 119–120, Pp 74, fig. 75 (Kleomelos Painter, c. 510–500 BC).

One final aspect of this imagery to single out, and one that draws attention to the head and horns of the sacrificial beasts, is what can be termed “visual clusters”. The Getty cup (Fig. 9) provides an instructive example, where horns, hands, and stick (or *aulos*?) converge and, thus, draw the viewer to a precise location.<sup>86</sup> On a number of other vases, activities and objects (both animate and inanimate) meet, or cluster, right around the area of the animal’s head. In black-figure this tendency is visible, for example, on a late 6th century BC black-figure neck-amphora, formerly on the art market, and on the red-figure lekythos in Boston of similar date, attributed to the Gales Painter (Fig. 8).<sup>87</sup> These vases serve as reminders that the horned head is visually central and that, at a variety of different moments, the head and horns are playing an essential role in the ongoing proceedings, both literally and nonliterally, both ritually and visually. Indeed, on that same red-figure lekythos the visual mirroring of the two bovines, with their heads raised and their horns erect, by a woman in the same procession who holds a high-handled (or “three-horned”) basket (*kanoun*) atop her head is surely more than coincidence. The positioning of this essential ritual object in other scenes (i.e. directly above the altar)—not to mention its invisible contents (seeds and knife)—is a topic that might merit further exploration.<sup>88</sup>

## Coda: head vases

Beginning with the “animal style” we have been able to attest not only the existence of the same horned (and indeed unhorned) sacrificial animals found in the vases produced during the 6th and 5th centuries BC in Athens and elsewhere, but also the same head positions being used. Considering the limitations of Greek vase-painting as an art-form, and in particular the difficulty of showing figures in motion, we have further explored some human-animal interactions in relevant scenes of myth and amongst the everyday sacrificial imagery. We have noted the various ways that the painter draws attention to the heads and horns of an animal victim and the visual methods showing human containment and control, some very likely based on real practices and live observation.

By way of conclusion, it seems irresistible to introduce an additional category of evidence, which is compelling in its own way: the animal-head vases, sometimes called rhyta (sin-

gular: rhyton). These zoomorphic objects, many of which take the potted form of horned creatures, have been well-studied by Herbert Hoffman and more recently by Susanne Ebbinghaus.<sup>89</sup> They have been subjected to a variety of interpretations, from the purely decorative and sculptural to the overtly symbolic and ritually important; they have been connected to Dionysos and barbarian customs, associated with heroic feasting, sympotic drinking, death, funerary rituals, and hero cults, described as emblematic of aristocratic male values or as presentations of sacrificial victims.<sup>90</sup> Regardless of functions and meanings, such plastic vessels—which combine mould-made and wheel-thrown elements—certainly add an overtly tactile, three-dimensional element to the current discussion of horned heads, vases and sacrifice. One compelling case is the Attic ram’s-head rhyton bearing the potter’s signature “Charinos”, and currently housed in the Virginia Museum of Fine Arts (Fig. 10).<sup>91</sup> The object is dated c. 480 BC and has been studied by Robert Guy who has suggested that the red-figure decoration on the rim of the vessel (and thus atop the ram’s head) highlights the eponymous heroes of Athens dining together—their “heroic status” confirmed by the kantharoi they hold in their hands, drinking-vessels not unrelated to the ram-shaped vessel itself; alternatively, the reclining drinkers belong to the standard sympotic setting in which such an elaborate vessel might have been used.<sup>92</sup> Furthermore, animal-head vessels such as this one, might also be considered from the sacrificial perspective, as substitutes for or symbols of live animals. According to ancient sources, rams were the “sacrificial animal par excellence for heroes”, and this very object has recently been cited to illustrate this complex of connections.<sup>93</sup>

In the introduction to the book *Animals into art*, Howard Morphy states: “The way an animal is represented tells us something about how the animal is conceived and understood, for example through the parts that are selected to represent it or the context in which it is understood.”<sup>94</sup> By examining heads and horns in scenes of sacrifice on ancient Greek vases, we have indeed observed some of the ways that painters and viewers “conceived and understood” such creatures in their specific setting in a visual sense, and how these

<sup>86</sup> See previous note.

<sup>87</sup> van Straten 1995, 202, V52, fig. 24; Gebauer 2002, 73, P 32, fig. 73; and note 35, above. See note 37 (above), for the Boston lekythos. On visual clustering in sacrificial imagery see now Smith 2021b, 127–139, 314.

<sup>88</sup> Cf. e.g. Lissarrague 2012, 566 (“three-horned”), and 567, fig. 29.1 (Naples, Museo Archeologico Nazionale 127926); *BAPD* 206290. See also van Straten 1995, 162–164; Gebauer 2002, 500–509 and Dillon 2001, 37–41, 60–63.

<sup>89</sup> Hoffmann 1997, with bibliography; Ebbinghaus 2008. For horned animal rhyta of various dates in other media: Lapatin 2015, nos. 73 (stag), 75 (bull) and 129 (gazelle).

<sup>90</sup> See Lissarrague 1995, on the sympotic setting for such vessels, and Calder 2012, 31–32, esp. n. 466, for symbolic victims; cf. Naiden 2013, 122–128.

<sup>91</sup> Richmond, Virginia Museum of Fine Arts 79.100; *BAPD* 7537; Guy 1981.

<sup>92</sup> See previous note; Lissarrague 1990, 57–58, for the sympotic setting, and Topper 2012, 94–95, for the representation of a similar vessel being held by a Persian banqueter.

<sup>93</sup> Ebbinghaus 2018, 196–199, 258.

<sup>94</sup> Morphy 1989, 2–3.



Fig. 10. Athenian red-figure rhyton in the shape of a ram's head. Signed by Charinos, c. 480 BC. Richmond, Virginia Museum of Fine Arts 79.100. Photograph: Museum, Creative Commons BY-NC.

parts relate to other elements of the scene. Although there is a great deal of variety in the iconography, where the relevant sheep, goats, and cattle are concerned, even a cursory glance at the evidence reveals that certain distinctions were being made by painters (and perhaps other artists) to differentiate cultic rituals from mythological stories or dramatic performances, as well as from the often passive/submissive versus active/energetic roles of animals therein. A more detailed look at positions of the head suggests observance of live animal behaviours (e.g. aggression) and movements (e.g. walking in groups, standing alone, fighting). Such iconographic trends indicate an awareness of these differences, both visually and psychologically, and the importance of articulating and distinguishing various situations in art. That being said, animal imagery, both within the context of sacrifice and outside it, belongs to a rich and long tradition in Greek vase-painting, as do the animal-shaped head-vases. Although heads and horns may only tell part of the story, viewing them in isolation—as the “parts that are selected”—provides a window, both real and imagined, into the complexities of sacrificial imagery and reminds us of the many questions that remain as yet unanswered about the relationship between ancient Greek art, animals, and religion.

TYLER JO SMITH  
Department of Art  
University of Virginia  
tjs6e@virginia.edu

## Bibliography

- Albright, J.L. & C.W. Arave 1997. *The behaviour of cattle*, Madison.
- Amyx, D.A. 1988. *Corinthian vase-painting of the Archaic period*, Berkeley.
- Arluke, A. & R. Bogdan 2013. ‘Taming the wild: Rodeo as a human-animal metaphor’, in *Sport, animals, and society*, eds. J. Gillett & M. Gilbert, New York & Milton Park, 15–34.
- Aston, E. 2014. ‘Part-animal gods’, in *The Oxford handbook of animals in Classical thought and life*, ed. G.L. Campbell, Oxford, 366–383.  
<https://doi.org/10.1093/oxfordhb/9780199589425.013.022>
- Barnes, J. 1995<sup>6</sup>. *The complete works of Aristotle: The revised Oxford translation*, Princeton.
- Blok, A. 1981. ‘Rams and billy-goats: A key to the Mediterranean code of honour’, *Man* 16:3 (NS), 427–440.  
<https://doi.org/10.2307/2801293>
- Blok, J.A. 2009. ‘Sacrifice and processions on Attic black- and red-figure pottery: Reflections on the distinction between “public” and “private”’, in *Shapes and images: Studies on Attic black figure and related topics in honour of Herman A.G. Brijder*, eds. E.M. Moormann & V.V. Stissi, Leuven & Paris, 127–135.



- Boardman, J. 1998. *Early Greek vase painting*, London.
- Boardman, J. & C. Wagner 2018. *Masterpieces in miniature: Engraved gems from prehistory to the present*, London & New York.
- Böhm, S. 2014. *Korinthische Figurenvasen: Düfte, Gaben und Symbol*, Berlin.
- Borgers, O. 2004. *The Theseus Painter: Style, shapes, and iconography*, Amsterdam.
- Bremmer, J. 2007. 'Greek normative animal sacrifice', in *A companion to Greek religion*, ed. D. Ogden, Oxford, 132–144.  
<https://doi.org/10.1002/9780470996911.ch9>
- Bubenik, G.A. & A.B. Bubenik, eds. 1990. *Horns, pronghorns, and antlers*, New York.  
<https://doi.org/10.1007/978-1-4613-8966-8>
- Bundrick, S. 2014. 'Selling sacrifice in Classical Athenian vases', *Hesperia* 83:4, 653–708.  
<https://doi.org/10.2972/hesperia.83.4.0653>
- Calder, L. 2012. *Cruelty and sentimentality: Greek attitudes to animals, 600–300 BC*, Oxford.  
<https://doi.org/10.30861/9781407307831>
- Campbell, G.L., ed. 2014. *The Oxford handbook of animals in Classical thought and life*, Oxford.  
<https://doi.org/10.1093/oxfordhb/9780199589425.001.0001>
- Carpenter, T.H. 1991. *Art and myth in ancient Greece*, London.
- Caskey, L.D. & J.D. Beazley 1931. *Attic vase paintings in the Museum of Fine Arts, Boston* part 1, Boston.
- Caskey, L.D. & J.D. Beazley 1963. *Attic vase paintings in the Museum of Fine Arts, Boston* part 3, Boston.
- Chenal-Velarde, I. & J. Studer 2003. 'Archaeozoology in a ritual context: The case of a sacrificial altar in Geometric Eretria', in *Zooarchaeology in Greece. Recent advances* (British School at Athens Studies, 9), eds. E. Kotjabopoulou, Y. Hamilakis, P. Halstead, C. Gamble & P. Elefanti, London, 215–220.
- Conrad, J.R. 1957. *The Horn and the sword: The history of the bull as symbol of power and fertility*, New York.
- Cook, R.M. & P. Dupont 1998. *East Greek pottery*, London & New York.
- Coulié, A. 2013. *La céramique grecque aux époques géométrique et orientalisante (XIe–VIe siècle av. J.-C.)*, Paris.
- Davis, S.J.M. 1987. *The archaeology of animals*, London.  
<https://doi.org/10.4324/9780203060131>
- Diggle, J. 2004. *Theophrastus, Characters. Edited with introduction, translated and commentary* (Cambridge Classical Texts and Commentaries, 43), Cambridge.
- Dillon, M. 2001. *Girls and women in Classical Greek religion*, London & New York.  
<https://doi.org/10.4324/9780203621325>
- Douglass, C.B. 1999. *Bulls, bullfighting, and Spanish identities*, Tucson, Arizona.  
<https://doi.org/10.2307/j.ctv2jhjw0x>
- Durand, J.L. 1989. 'Greek animals: Toward a topology of edible bodies', in *The cuisine of sacrifice among the Greeks*, eds. M. Detienne & J.-P. Vernant, Chicago, 87–118.
- Ebbinghaus, S. 2008. 'Of rams, women, and orientals: A brief history of Attic plastic vases', in *Papers on special techniques in Athenian vases*, ed. K. Lapatin, Los Angeles, 145–160.
- Ebbinghaus, S. ed. 2018. *Animal-shaped vessels from the ancient world: Feasting with gods, heroes, and kings*, Cambridge, Massachusetts.
- Ekroth, G. 2007. 'Meat in ancient Greece: Sacrificial, sacred, or secular', *Food & History* 5:1, 249–272.  
<https://doi.org/10.1484/j.food.1.100193>
- Ekroth, G. 2008. 'Meat, man and god: On the division of the animal victim at Greek sacrifices', in *Μικρός ιερομνήμων. Μελέτες εις μνήμην Michael H. Jameson*, eds. A.P. Matthaiou & I. Polinskaya, Athens, 259–290.
- Ekroth, G. 2014. 'Castration, cult and agriculture. Perspectives on Greek animal sacrifice', *OpAthRom* 7, 153–174.  
<https://doi.org/10.30549/opathrom-07-08>
- Fairbanks, A. 1928. *Catalogue of Greek and Etruscan vases, Museum of Fine Arts, Boston*, Cambridge, Massachusetts.
- Gebauer, J. 2002. *Pompe und Thysia. Attische Tieropferdarstellungen auf schwarz- und rotfigurigen Vasen* (Eikon, 7), Münster.
- Georgoudi, S. 2005. 'L' « occultation de la violence » dans le sacrifice grec : données anciennes, discours modernes', in *La cuisine et l'autel. Les sacrifices en questions dans les sociétés de la Méditerranée ancienne* (Bibliothèque de l'École des Hautes Études, Sciences Religieuses, 124), eds. S. Georgoudi, R. Koch Piettre, & F. Schmidt, Turnhout, 115–147.  
<https://doi.org/10.1484/M.BEHE-EB.4.00023>

- Grandin, T. 1989. 'Behavioural principles of livestock', *Professional Animal Scientist* 5:2, 1–11.  
[https://doi.org/10.15232/s1080-7446\(15\)32304-4](https://doi.org/10.15232/s1080-7446(15)32304-4)
- Grandin, T. 1992. 'Observation of cattle restraint devices for stunning and slaughtering', *Animal Welfare* 1:2, 85–91.  
<https://doi.org/10.1017/s0962728600014834>
- Guy, J.R. 1981. 'A ram's head rhyton signed by Charinos', *Art in Virginia* 21, 2–15.
- Harden, A. 2014. 'Animals in Classical art', in *The Oxford handbook of animals in Classical thought and life*, ed. G.L. Campbell, Oxford, 24–60.  
<https://doi.org/10.1093/oxfordhb/9780199589425.013.002>
- Hoffmann, H. 1997. *Sotades: Symbols of immortality on Greek vases*, Oxford.
- Houpt, K. 2011. *Domestic animal behaviour for veterinarians and animal scientists*, Ames, Iowa.
- Insoll, T. 2011. 'Sacrifice', in *The Oxford handbook of the archaeology of ritual and religion*, ed. T. Insoll, Oxford, 151–165.  
<https://doi.org/10.1093/oxfordhb/9780199232444.013.0012>
- Isaakidou, V. 2003. 'Worked and utilized bone and antler: Practical and cultural rationales for the selection of raw materials', in *Zooarchaeology in Greece. Recent advances* (British School at Athens Studies, 9), eds. E. Kotjabopoulou, Y. Hamilakis, P. Halstead, C. Gamble & P. Elefanti, London, 233–238.
- Jameson, M. 2014. *Cults and rites in ancient Greece: Essays in religion and society*, Cambridge.  
<https://doi.org/10.1017/CBO9781139023702>
- Kilinski, K. 1990. *Boeotian black figure vase painting of the Archaic period*, Mainz am Rhein.
- Kitchell, K. 2014. *Animals in the ancient world from A to Z*, Abingdon & New York.  
<https://doi.org/10.4324/9780203087503>
- Kluiver, J. 2003. *The Tyrrhenian Group of black-figure painters*, Amsterdam.
- Lapatin, K. 2015. *Luxus: The sumptuous arts of Greece and Rome*, Los Angeles.
- Lawler, L. 1964. *The dance in ancient Greece*, Middletown, Connecticut.
- Laxander, H. 2000. *Individuum und Gemeinschaft im Fest: Untersuchungen zu attischen Darstellungen von Fest- geschehen im 6. und frühen 5. Jahrhundert v. Chr.*, Münster.
- Lissarrague, F. 1990. *The aesthetics of the Greek banquet*, transl. A. Szegedy-Maszak, Princeton.  
<https://doi.org/10.1515/9781400861156>
- Lissarrague, F. 1995. 'Identity and otherness: The case of the Attic head vases and plastic vases', *Source. Notes on the History of Art* 15:1, 4–9.  
<https://doi.org/10.1086/sou.15.1.23205708>
- Lissarrague, F. 2012. 'Figuring religious ritual', in *A companion to Greek art*, ed. T.J. Smith & D. Plantzos, Malden & Oxford, 564–578.  
<https://doi.org/10.1002/9781118273289.ch29>
- Lissarrague, F. 2013. *La cité des satyres. Une anthropologie ludique (Athènes, VIe–Ve siècles avant J.-C.)*, Paris.
- Lonsdale, S. 1982. *Animals and the origin of dance*, London.
- Looper, M. 2009. *To be like gods: Dance in ancient Maya civilization*, Austin.  
<https://doi.org/10.7560/709881>
- MacKinnon, M. 2007. 'Osteological research in Classical archaeology', *AJA* 111:3, 473–504.  
<https://doi.org/10.3764/aja.111.3.473>
- McInerney, J. 2010. *The cattle of the sun: Cows and culture in the world of the ancient Greeks*, Princeton.
- Mertens, J. 2010. *How to read Greek vases*, New York.
- Moore, M.B. 2006. 'Hoplites, horses, and a comic chorus', *Metropolitan Museum Journal* 41, 33–57.  
<https://doi.org/10.1086/met.41.20320659>
- Morphy, H. ed. 1989. *Animals into art*, London.
- Naiden, F.S. 2013. *Smoke signals for the gods. Ancient Greek sacrifice from the Archaic through Roman periods*, Oxford.  
<https://doi.org/10.1093/acprof:oso/9780199916405.001.0001>
- Paleothodoros, D. ed. 2012. *The contexts of painted pottery in the ancient Mediterranean world (7th–4th centuries BCE)*, Oxford.  
<https://doi.org/10.30861/9781407309514>
- Parker, R.T.C. 2011. *On Greek religion* (Cornell Studies in Classical Philology, 60), Ithaca & London.  
<https://doi.org/10.7591/9780801461750>
- Petridou, G. 2015. *Divine epiphany in Greek literature and culture*, Oxford.  
<https://doi.org/10.1093/acprof:oso/9780198723929.001.0001>

- Pilz, O. 2011. 'The performative aspect of Greek ritual: The case of the Athenian Oshophoria', in *Current approaches to religion in ancient Greece. Papers presented at a symposium at the Swedish Institute at Athens, 17–19 April 2008* (ActaAth-8°, 21), eds. M. Haysom & J. Wallensten, Stockholm, 151–167.
- Shapiro, H.A. 1989. *Art and cult under the tyrants in Athens*, Mainz am Rhein.
- Shear, J.L. 2021. *Serving Athena: The Festival of the Panathenaia and the construction of Athenian identities*, Cambridge.  
<https://doi.org/10.1017/9781108750943>
- Simon, E. 2014. 'Poseidon in ancient Greek religion, myth, and art', in *Poseidon and the sea: Myth, cult and daily life*, ed. S.D. Pevnick, London, 37–49.
- Simon, E. 2021. *The Gods of the Greeks*, transl. J. Zeyl, ed. A. Shapiro, Madison.  
<https://doi.org/10.2307/j.ctv1fcf8bx>
- Smith T.J. 2004. 'Festival, what festival? Reading dance imagery as evidence', in *Games and festivals in Classical antiquity*, eds. G. Davies & S. Bell, Oxford, 9–23.
- Smith, T.J. 2010. *Komast dancers in Archaic Greek art*, Oxford.
- Smith, T.J. 2014. 'Guess who's coming to dinner? Red-figure komasts and the performance culture of Athens', in *Athenian potters and painters* vol. 3, ed. J.H. Oakley, Oxford & Philadelphia, 231–241.  
<https://doi.org/10.2307/j.ctvh1djzf.27>
- Smith, T.J. 2016. 'The art of ancient Greek sacrifice: Spectacle, gaze, performance', in *Diversity of sacrifice: Form and function of sacrificial practices in the ancient world and beyond*, ed. C.A. Murray, Buffalo, 127–143.
- Smith, T.J. 2021a. 'Animals in Athenian life', in *The Cambridge companion to ancient Athens*, eds. J. Neils & D.K. Rogers, Cambridge, 199–214.  
<https://doi.org/10.1017/9781108614054.015>
- Smith, T.J. 2021b. *Religion in the art of Archaic and Classical Greece*, Philadelphia.
- Smith, T.J. 2024. 'Resistant, willing and controlled. Sacrificial animals as "things" on Greek vases' in *The stuff of the gods. The material aspects of religion in ancient Greece* (ActaAth-4°, 59), eds. M. Haysom, M. Mili & J. Wallensten, Stockholm 83–95.  
<https://doi.org/10.30549/actaath-4-59-7>
- Stafford, E. 2012. *Herakles*, London & New York.  
<https://doi.org/10.4324/9780203152454>
- Sykes, N. 2014. *Beastly questions: Animal answers to archaeological issues*, London.  
<https://doi.org/10.5040/9781472555595>
- ThesCRA = Thesaurus cultus et rituum antiquorum*, Los Angeles 2004–2014.
- Topper K. 2012. *The imagery of the Athenian symposium*, Cambridge.
- van Straten, F. 1987. 'Greek sacrificial representations: Livestock prices and religious mentality', in *Gifts to the gods. Proceedings of the Uppsala symposium 1985* (Boreas. Uppsala Studies in Ancient Mediterranean and Near Eastern Civilizations, 15), eds. T. Linders & G. Nordquist, Uppsala, 159–170.
- van Straten, F. 1995. *Hiera kalá. Images of animal sacrifice in Archaic and Classical Greece* (Religions in the Graeco-Roman World, 127), Leiden.
- Versnel, H.S. 2011. *Coping with the gods. Wayward readings in Greek theology* (Religions in the Graeco-Roman World, 173), Leiden & Boston.  
<https://doi.org/10.1163/ej.9789004204904.i-594>
- Viscardi, G.P. 2016. 'Constructing humans, symbolising the gods: The cultural value of the goat in Greek religion', in *Animals in Greek and Roman religion and myth. Proceedings of the Symposium Grumentinum Grumento Nova (Potenza) 5–7 June 2013*, eds. P.A. Johnston, A. Mastrocinque & S. Papaioannou, Newcastle upon Tyne, 115–140.
- von Hofsten, S. 2007. *The feline-prey theme in Archaic Greek art. Classification, distribution, origin, iconographical context* (Stockholm Studies in Classical Archaeology, 13), Stockholm.
- Warden, G. ed. 2004. *Greek vase-painting: Form, figure and narrative*, Dallas.
- Werness, H.B. 2006. *The Continuum encyclopedia of animal symbolism in world art*, London & New York.
- Zachari, V. 2013. 'Image de l'espace ou espace de l'image ? Autel et pilier hermaïque dans la céramique attique', *Cahiers « Mondes anciens »* (online) 4.  
<https://doi.org/10.4000/mondesanciens.1087>