The calf in Bronze Age Cretan art and society

by

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Abstract:
Overshadowed by the representations of bulls, depictions of calves from Bronze Age Crete have received little scholarly attention. In this paper I shall focus on a group of depictions of hunting where calves are the prey. With the exception of a painted sarcophagus, the images occur on seals and sealings. The animals are represented wounded or with projectiles and shields included in the field. In order to understand the meaning of these images the wider religious and secular importance of cattle is considered. It is concluded that the images are used to convey complex and layered meanings relating not only to the hunted wild or feral animal but also the wider importance and function of domestic cattle.*

Images of bulls from Bronze Age Crete have received much scholarly attention. Important though these are, this focus has tended to detract from the overall diversity of cattle iconography. Probably the most overlooked group of representations is that of calves.[1] In order to determine the possible significance of some of these images this study will concentrate on a group of `hunting scenes where the young, rather than adult bulls are the prey. With the exception of a single painted larnax (*Fig. 1*), these images are found exclusively on sealstones and clay sealings.

In Bronze Age Greek art both human and animal young are represented with accurate proportions and anatomical characteristics and showing behavioural traits indicative of youth.[2] In terms of general proportions, calves are represented with less muscular, longer legs, thinner bodies and larger heads than adult cattle.[3] The facial muscles are not well developed and the domed crown and narrow features reflect the shape of the skull.[4] The size and shape of the horns are also distinctive, calves typically being represented with horn buds or short horns.[5]

Hunter and Prey

The largest and most complex of the hunting scenes appears on the side of a clay larnax from the LM III A-B (ca. 1400-1350 BC) cemetery at Armenoi (*Fig. 1*).[6] Three huntsmen pursue a goat and two cows, all with young. Spears have been thrown, while one figure casts a net and another brandishes an axe. The combination of weapons and nets probably represents an intention to kill the mothers and capture the more manageable young.[7] The wild or feral bovine population[8] of Crete would have competed with domesticates for limited resources and may have posed a threat to crops. Hunting would therefore have served to keep their numbers in check. Unlike adult cattle, calves are relatively easy to transport live and could therefore have been slaughtered at a later date, providing meat,[9] hides,[10] bone and horn.[11] Alternatively, they may have been intended for sacrifice, castrated[12] and exploited as sources of traction[13] or used to freshen the gene pool of the domestic herds.[14]

Fig. 1. Hunting scene. Clay larnax from Armenoi.

The size of the field of decoration provides ample space for the inclusion of representations of a variety of hunting and capture techniques. On sealstones with diameters of less than 2 cm it is hardly surprising that the images are less complex. The calves are shown singly or in pairs and the subject is indicated by the inclusion of hunting related objects rather than the hunter. Most frequently a projectile is depicted either pointing at the

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Fig. 2. Calf struck by a projectile. Lentoid seal from Knossos district. *CS* no.301.

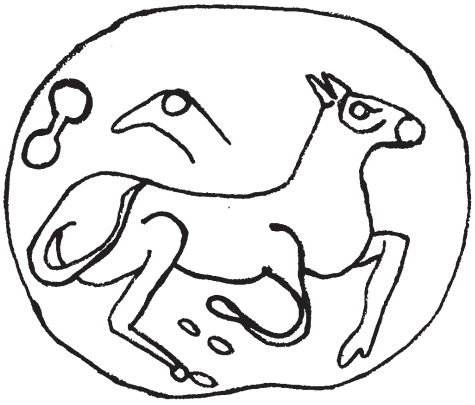

Fig. 3. Calf and a figure of eight shield. Lentoid seal from Knossos. CMS II.4, no.5.

animal or protruding from its torso (*Fig. 2*).[15] Unlike the image on the larnax from Armenoi (*Fig. 1*) these images represent the killing rather than the capture of calves. On an LM (ca. 1600-1400 BC) sealstone from the area of Knossos (*Fig.* 2) we see the moment of impact. As the projectile hits, the calf's front legs give way and it throws back its head, bellowing in pain. The calf raises its back near side leg in an attempt to remove the projectile. This is a characteristic cattle response to pain. Cattle nip or kick at the area where they are feeling the pain rather than at the source of pain. A cow receiving an injection will kick and bite at the area of the needle rather than the vet.

The inclusion of a figure of eight shield, rather than a projectile in a LM (ca. 1600-1400 BC) example from Knossos (*Fig. 3*)[16] may similarly serve to represent the absent hunter. Normally associated with battle, shields are also represented being carried by hunters in Bronze Age Greek art.[17]

Interpreting the Images

I have so far proposed literal readings of the images but we should bear in mind that Bronze Age Greek art has the potential to express multiple and complex meanings. Cattle were an important and versatile component of Bronze Age Cretan society and cattle iconography was used to convey complex concerns relating to many aspects of life. In order to understand the possible meaning of the images of the hunted calf it is therefore necessary to look beyond hunting and consider the wider importance of the calf in Cretan society.

The Domesticated Calf

We know from the archaeological record that the culling of juveniles (i.e. animals under three years), in particular the males,[18] was a common method of herd management in Neolithic and Bronze Age Greece.[19] The adult animal would prove a greater drain on limited resources than the young and those reared to maturity would represent the minimum number required for traction and breeding while serving as continuing sources of secondary products, namely faeces[20] and milk.[21] Indeed part of the reason why animals less than one-year old were slaughtered was because they served as competition for milk.[22] It is possible that the image of the hunted calf conveyed concerns relating also to the culling of domesticates.

The slaughtered young would have served as a source of veal, bone and soft leather and the inclusion of the ox-hide figure of eight shield in some images may relate to the animal as a source of leather. Although shields would have been made from the tough, thick hides of adults rather than softer calf-skin they may have served as a symbol of the leather working industry.

The Sacred Calf

Certain images may also be intended to represent animals singled out as having ritualistic importance. Some have suggested that sacred animals were kept in cult places in Bronze Age Greece, as they were in Egypt and the Near East during this period.[23] It is possible that in the case of the sarcophagus from Armenoi (*Fig. 1*) the calves may have been caught rather than killed because they were intended to serve such a purpose.

Images representing the death of the young may relate specifically to sacrifice. It has been argued that sacrificial rituals evolved from hunting[24] and that Bronze Age images of hunting served as *…metaphors for sacrifice*.[25] Consumption may also be implicit in these images, since sacrifice and consumption were linked elements of a single ritual.[26]

The inclusion of projectiles and shields further add weight to this interpretation as they are associated with sacrificial rituals.[27] For example, the figure of eight shield, intrinsically linked in terms of its material and function with the continuum of life and death, may have been specifically associated with rituals of renewal.[28]

In addition, it is possible that other types of image may refer to the sacrifice of calves. For example a sealstone from Knossos MM III-LM I (ca. 1700-1500 BC) (*Fig. 4*)[29] decorated with the head of a bearded figure on one side and a calf on the other has been interpreted as representing a priest and sacrificial victim.[30]

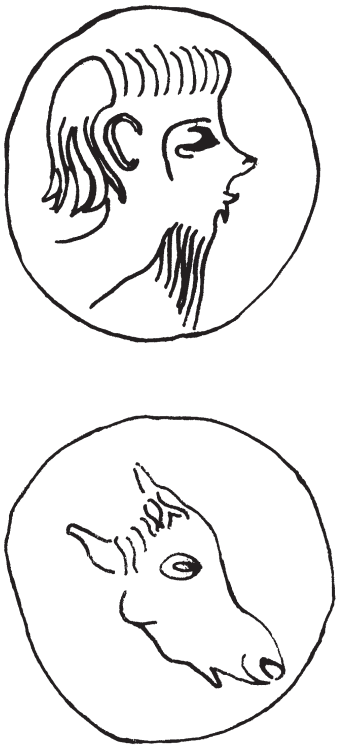

Fig. 4. Man and calf. Two-sided lentoid seal from Knossos. *CMS* II.3, no.13.

The archaeological record unfortunately provides little evidence of calf sacrifice. Small, fragile calf bones survive less frequently than those of adults and, depending upon the retrieval methods used, they can be easily overlooked during excavation. The cooking and consumption or the dispersal of the meat following sacrifice further compounds the problem. A calf's head was however identified in a deposit of pottery interpreted as having been used in funerary rituals at the cemetery at Archanes[31] and, from mainland Greece, the remains of a sacrificed calf were found on a pile of stones near the entrance to a Mycenaean tholos tomb at Kazarma in the Peloponnese.[32]

New Life and Death

Cattle were the largest, most powerful and potentially useful and dangerous animals on Crete. This is reflected in the use of the bull as a symbol of power and the cow as a symbol of regeneration and nourishment.[33] The representation of the death of the calf, regardless of whether it specifically related to sacrifice, reflects concerns relating to the fragility of new life and the relationship between life and death, a theme that is expressed in many areas of Bronze Age Cretan art.[34]

This complex theme is encapsulated in an LM (ca. 1600-1400 BC) sealstone from Ayia Triada (*Fig. 5*).[35] In this example intentional ambiguity has been employed to express these concerns. The stance of the calf is that of the wounded animal and yet no projectile or other determinate is evident. This pose is however also that adopted by the suckling calf who, like the dying calf, stands with pressed down shoulders and stretched neck.

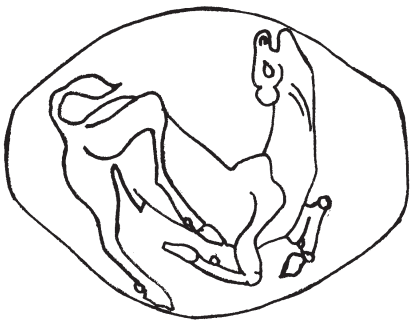

Fig. 5. Calf in contorted position. Amygdaloid seal from Ayia Triada. *CMS* II.4, no.153.

When suckling, this enables the calf to reach all the teats and straighten the oesophagus to allow the milk to enter directly into the fourth stomach.[36] The stance and therefore the image serves to represent both the nourishment and death of the young.

Conclusion

In this paper I have sought to explain the elements represented in a particular group of images and to explore their interpretation. If we consider firstly the representation of calves, the images provide detailed descriptions of juvenile anatomy and behaviour. The ability to represent the animals in such detail is based on knowledge derived from familiarity and interaction. The majority of Cretans would have been involved in agriculture and even craft specialization was probably not a full time occupation.[37] In order to survive people had to gain an understanding of and ability to utilise their environment and the domestic, feral and wild animals they shared it with and it is this firsthand knowledge that is expressed in the images of calves.

Man's interaction with domestic, wild and feral cattle was that of both nurturer and slaughterer. Cattle served as a source of meat, skin, bone and horn, traction, secondary products and calves but their nutritional requirements, size and strength meant that if they were not to prove a drain on the limited resources of the island or pose a threat to man their numbers had to be kept in check. This complex relationship both informed the way that calves were represented and was in turn expressed through the meaning of the images and the examples discussed show that specific poses, indications of interaction and additional elements were used by the artist to communicate complex and layered meaning relating to both religious and secular concerns. Images of the hunted calf epitomized the fragile equilibrium that existed between new life and death in Bronze Age Cretan society.

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* I wish to thank Eva Örtenberg for references and insightful observations relating to cattle husbandry and Robin Barber for suggestions and comments. In addition to the standard abbreviations the following will be used: *CS* V. E. G. Kenna, *Cretan seals with a catalogue of the Minoan gems in the Ashmolean Museum*, Oxford 1960.

[1] The focus of scholarly attention is illustrated by Younger 1991. The citations include three articles about bulls, ten on bull sports, one about the cow and calf motif and none relating specifically to calves.

[2] Children: Rühfel 1984, 13-30. Animals: kids- *PM* I, fig. 366; *CMS* II.3, no. 54; II.7, no. 66; V.supp.IA, nos. 155 & 157; *CS* no. 316; Gill 1965, nos. L29, N7 & R46/K6. Lion cub- *CMS* II.3, nos. 99 & 344; V.supp.IB, no. 276. Fawn- *CMS* XII, no. 242. Pup- *CS* no. 208. Lamb- *CS* no. 242. Piglet(s)- *CMS* V.supp.IB, no. 60.

[3] *PM* I, figs. 367 & 369; *CMS* I, no. 104; II.4, no. 160; Sakellarakis & Sakellarakis 1997, fig. 802a.

[4] *CMS* II.4, no. 129; *CS* no. 206.

[5] *PM* I, figs. 367 & 369; *CMS* II.4, nos. 159 & 160; Effinger 1996, 48, HT 9b. For a description of calf anatomy see Dyce & Wensing 1971, 1-3, figs. 1-1 & 1-2.

[6] Tzedakis 1971, 218, fig. 4, pl. III3; Vermeule 1979, 66-67, fig. 24; Watrous 1991, 300, pl. 92a, b, e.

[7] Nets used to capture adult cattle: *CMS* VIII, no. 52; XI, no. 128; *PM* III, fig. 124 (Vaphio cup:mainland).

[8] Gamble 1980, 288; Winder 1986, 110-115; 1991, 44-46; Nobis 1989, 216-219, 220-223; 1990, 16-19; 1993, 109-110, 115-120; Bloedow 1996, 31-32.

[9] Evidence of consumption: Vickery 1936, 9-24, 61-73, 88-89; Warren 1972, 16, 51-52, 61; Klippel & Snyder 1991a, 181-182; Reese 1995, 170, 189, Tab. 5.5.

[10] Long 1974, 36, 46; Weingarten 1983, 40-41; Doumas 1985, 32; Palaima 1989, 87-88; Betts 1997, 64.

[11] Evely 1993 passim; Reese 1995, 185-190.

[12] Loughlin 2002, 47-48 n. 6.

[13] *PM* II, 156-157; Crouwel 1981, 29, 54; Sherratt 1981, 261, 267; Palaima 1989, 89; Warren 1994, 207.

[14] Nobis 1990, 17; 1993, 119.

[15] *CS* no. 301. See also: *CMS* V.suppl.IA, nos. 153 &154.

[16] *CMS* II.4, no. 5. Adult cattle and shields: *CMS* II. 4, no. 158; IV, no. 311; VII, nos. 100, 162 & 190.

[17] Dagger from Mycenae (mainland) decorated with a representation of a lion hunt *PM* III, figs 70 & 71.

[18] In discussing European assemblages Sherratt (1983, 94) identifies disproportionately high numbers of cow bones among the adult cattle remains. This he attributes to breeding strategies and the cow's capacity to produce milk. Two linear B tablets of the Co series from Knossos record the ratios of bulls to cows as 2:4 and 2:10 (Palaima 1992,469).

[19] Higgs, Clegg & Kinnes 1968, 115; Clutton-Brock 1982, 693; Klippel and Snyder 1991a, 184; 1991b; Halstead 1996, 25-26; Rodden 1972, 98-99.

[20] Although certain evidence of the use of cattle faeces and urine is absent from Bronze Age Crete, LM I (ca. 1600-1400 BC) terracing on the island of Pseira, just off the coast of Crete, containing village debris down to the bedrock has however been interpreted as representing the tillage of household waste and animal manure (Betancourt & Simpson 1992, 53; Betancourt 1995, 164).

[21] A fragment of a sealing from Knossos has been interpreted as a representation of a cow being milked from behind (*PM* IV, 564, fig. 534; Sherratt 1981, 279, fig. 10.14; Davis 1987, 161, fig. 7.7). I have suggested elsewhere that this is more likely a representation of castration (Loughlin 2002, 47-48 n. 6). Sheep being milked: *CMS* V. supp.IA, no. 137. Sherratt (1981, 280-282, fig. 10.15) identifies milk processing as a contributing factor to the changes in pottery shape during the Bronze Age. It is possible that cows' milk cheese is recorded on Linear B tablets from the mainland site of Pylos (Palaima 1989, 87-88). The milking of cows is further widely attested in the East and Egypt during this period: Amoroso & Jewell 1963, 133, pls. XIVc, d & XV a, b, c; Sherratt 1981, 279-280, figs. 10.12 & 10.13; Harpur 1985, 39, fig. 8; Houlihan 1996, figs. 8 & 9.

[22] Klippel & Snyder 1991a, 184.

[23] Rousioti 2001, 311; Bloedow 1990, 70-77; Palaima (1989, 102) suggests that the provision of grain for specific cattle, as described in a linear B tablet from Knossos (C902) may have been linked to their ceremonial or sacrificial status.

[24] Burkert 1979, 54-56.

[25] Marinatos 1986, 25, 42-43; Hiller 2001, 294. Cf. Bloedow 1996.

[26] Marinatos 1986, 37-39; Sakellarakis & Sakellarakis 1997, 262-263; Cf. Detienne 1986.

[27] *PM* III, 314 – 317; Marinatos 1986, 43, 55-58, 70-71; Morgan 1995, 145.

[28] Marinatos 1986, 57-58.

[29] *CMS* II.3, no. 13.

[30] Marinatos 1986:25, fig. 13; Cf. Bloedow 1996:36. See also: *CMS* II.4, no. 129; *CS* nos. 167 & 206. Calf being led to sacrifice (Thera): Marinatos 1986, 32-33; Morgan 1988, 56, pl. 81; Palaima 1989, 97.

[31] Sakellarakis & Sakellarakis 1997:262; The sacrifice of puppies: Coulson, Day & Gesell 1981,408-409.

[32] Protonotaríou-Deiláki 1969, 3, fig. 3.

[33] Bull: Marinatos 1993, 196-199; Younger 1994; Hallager & Hallager 1995; Morgan 1997, 17-25. Cow: Morgan 1995, 147; Loughlin 2002, 47-52.

[34] Marinatos 1993, 97; Morgan 1995, 145-149.

[35] *CMS* II.4, no. 153.

[36] Mitchell 1976, 6.

[37] Dickinson 1994, 45.

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