Mourning the Sacrifice

Behavior and Meaning behind Animal Burials

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The remains of animals, fragments of bone and horn, are often the most common finds recovered from archaeological excavations. The potential of using this material to examine questions of past economics and environment has long been recognized and is viewed by many archaeologists as the primary purpose of animal remains. In part this is due to the paradigm in which zooarchaeology developed and a consequence of practitioners' concentration on taphonomy and quantification.[1] But the complex intertwined relationships between humans and animals have long been recognized, a good example being Lévi-Strauss's oft quoted "natural species are chosen, not because they are 'good to eat' but because they are 'good to think.'"[2] The relatively recent development of social zooarchaeology has led to a more considered approach to the meanings and relationships animals have with past human cultures.[3] Animal burials are a deposit type for which social, rather than economic, interpretations are of particular relevance.

When animal remains are recovered from archaeological sites they are normally found in a state of disarticulation and fragmentation, but occasionally remains of an individual animal are found in articulation. These types of deposits have long been noted in the archaeological record, although their descriptions, such as "special animal deposit,"[4] can be heavily loaded with interpretation. In Europe some of the earliest work on animal burials was Behrens's investigation into the "Animal skeleton finds of the Neolithic and Early Metallic Age," which discussed 459 animal burials from across Europe.[5] Dogs were the most common species to be buried, and the majority of these cases were associated with inhumations. Behrens suggests that animal parts not found in association with human remains may be foundation deposits for the divine blessing of a new construction or perhaps part of an animal cult. For remains recovered with human remains Behrens uses three categories of explanation: *sociological*, the animal is a gift; *spiritual*, the animal is a guide; and *emotional*, the animal may be a favored pet or a gift by the mourners.[6] Inspired by Gabalówna,[7] Behrens accepted that ideas of sacrifice, emotion, and holy status might be applied to humans and animals alike. The concepts of animals as sacrifices and as holy objects are still trends within the interpretation of animal burials today, but Behrens remains one of the few archaeologists to consider, albeit briefly, the human emotion behind these deposits.

ANIMAL BURIALS: PROBLEMS AND POSSIBILITIES

As a discipline that deals mainly in material culture and the ephemeral traces of humanity's past, there is still a lack of consideration of emotion within archaeology. It is often viewed as unrecoverable from the archaeological record, or not suitable for objective analysis.[8] When emotion and mourning are considered in archaeology it is mainly in the context of funerary remains and often not explicitly. For example discussions regarding the inclusion of flowers in prehistoric graves and other material deposits are often discussed in the context of the funerary "ritual" rather than in terms of the personal and emotional, although emotion is implied.[9] As Peterson points out, while the processes are well understood, the emotional damage of grief and loss are often omitted.[10]

The problems archaeologists have with considering emotions, such as mourning, are highlighted by recent experiences. My family has lost and mourned both human and animal family members; both resulted in grief, both public and private, and burial in cemeteries with other mammals of the same species. Henry, an ironically nervous, yet massive black-and-white male cat was interred beside an olive tree, next to our previously deceased cats, Greebo and Pepsi, and another family pet, Tango. That we conducted a ritualized ceremony similar to that undertaken for human family members underlines what these animals meant to us. This ceremony was so important that Henry was transported three hundred miles so he could be buried in this specific locale in the presence of other feline family members.

If future archaeologists were to excavate the site containing these cat burials, and assuming excellent bone survival, what would they be able to ascertain? If there were limited postdepositional disturbance, the remains would be found in articulation and easy to identify to species. Metal buckles would be found with each cat, as the fabric of the collars would have disintegrated; these would probably date the burials as well as suggest the animals were pets.[11] The skeletal morphology and possible further DNA would identify that three males and one female were present, all old adults.[12] Pathological changes associated with osteoarthritis may be present on all four skeletons, and one male (Greebo) would have a false hip joint and metal pins in the pelvis and femur indicating medical intervention during his life. Stable isotope analysis of the teeth using strontium and/or oxygen[13] would indicate two of the males (Greebo and Tango) and the female cat (Pepsi) all grew up in the same local region, although analysis of their bones would give a mixed signature, suggesting they spent some of their life in a different part of the United Kingdom. The teeth, as well as bones, of the other male cat (Henry) would have a different signature, for an area one hundred miles away from the burials, indicating he did not grow up in the area he was buried. Henry was, therefore, born in one part of the United Kingdom, spent a large part of his life in a number of different regions, and was buried in a part of the country he had never lived in.

Archaeologists can therefore use a number of different strands of evidence to examine animal burials. Bones can inform on the life history of the animals; material culture may be associated with the burial, further informing on human involvement; and finally the context/composition of the burial can inform on how the animal was buried. Adding to this is the accumulated knowledge of the time period the burials date to; for example, we know that cats are commonly kept as pets rather than consumed. The above example shows the wealth of information available to archaeologists, but what is difficult to ascertain from the information

is the grief and emotion behind the burials. Therefore, archaeologists examining animal burials have not traditionally considered emotion; rather they have concentrated on the purpose of the burials with attention focused between functional or ritualistic interpretations. Behrens may have considered the role of animals in terms of rituals such as foundation offerings, but until the 1990s the majority of archaeologists viewed them as Maltby did, "not of any particular significance that cannot be explained by the events normally associated with pastoral farming."[14] During this time complete animal burials were often viewed as the remains of diseased animals, natural deaths, or the results of population/pest control; partial burials were interpreted as the results of carcass processing.[15] This trend changed in the 1990s due to counterarguments suggesting that both complete and partial animal burials from prehistoric contexts are likely to be the result of ritual activities.[16] This change in the interpretation of prehistoric material eventually influenced archaeologists working in other time periods, with Roman (50–450 CE) and Anglo-Saxon (450–1050 CE) animal burials also viewed as the result of ritual activities.[17] However, the blanket use of prehistoric interpretations on remains from later periods has been questioned.[18]

The dichotomous interpretation of animal burials being viewed as the result of either ritual or functional activities led me to investigate the deposit type in Britain from the Neolithic, 4000 BCE, to the end of the medieval period, 1550 CE.[19] Taking a longue durée approach highlights the fallacy of attempting to define animal burials with one interpretation across time periods or indeed within a single period. Not only is there a great deal of variation between time periods in the species deposited as animal burials (see figure 1), but the composition and context of these burials often differs. For example, studying remains from southern Britain, only one complete Bronze Age (2600 BCE—700 BCE) dog burial was identified.[20] The dog was placed into a pit, dug into a round barrow mound at North Down Barn, Dorset.[21] Due to the age of the excavation, information is limited, but this appears to be the only later inclusion of an animal burial into a round barrow. All other evidence suggests that if present, they are normally included during the primary construction phase.[22] Barrows are commonly reused for further human burials, often cremations,[23] therefore this dog burial could represent a linked behavior.

In comparison, dog burials are much more common on Iron Age and, in particular, Roman sites; however, these remains are primarily found within pits on settlement sites, the context and actions behind the burials being very different. For example, excavations of the twenty-six-meter deep Oakridge Well, which appears to have been filled during the middle and later Roman period, recovered eighty-six dog burials, many neonatal.[24] The dog remains have been interpreted as the result of population control, but it highlights an issue that not only affects the Roman period, in that animal burials are often in contexts that contain "rubbish." Thomas has highlighted the inclusion of dog and cat skeletons in household waste during the medieval (1050–1550 CE) and postmedieval (1550–1900 CE) periods and suggests that in the past the burial of a loved pet may have been the exception.[25] However, this could be a reflection of the influence of Christian doctrine on how animals are treated in death,[26] and it is interesting that the number of dog burials does reduce from the Anglo-Saxon to the medieval period (see figure 1). These two descriptions of dog burials are examples of the variety in context and composition of animal burials. Although they are recovered from each archaeologically defined time period a host of different actions and human motivations are behind their creation.

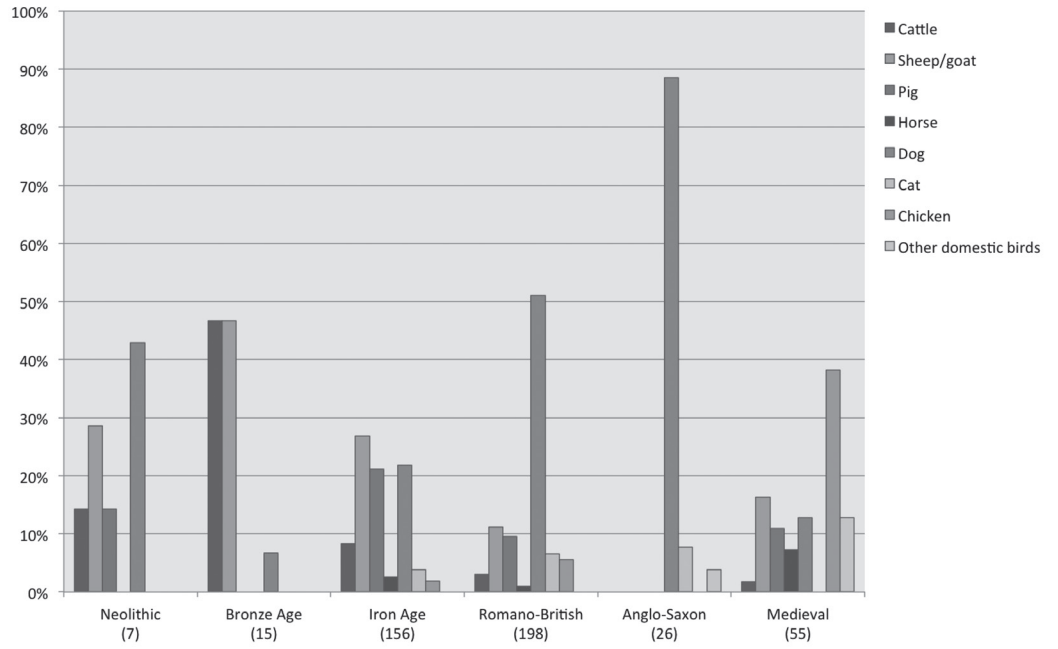

Figure 1. Chart showing the proportion of domestic species deposited as complete animal burials from each archaeological time period in southern Britain (data from Morris, *Investigating Animal Burials*). Number in parentheses indicates the total sample size.

BEHAVIOR AND MEANING: INTIMATE ACTIONS

How then do we work with the mass of archaeological data on animal burials to consider emotion and mourning? An often-used quote when discussing human remains is that "the dead do not bury themselves,"[27] and neither do animals. I have argued that one of the reasons we have struggled with the interpretation of animal burials is the desire to develop an all-encompassing interpretation and a concentration on the final act, the act of burial. This has led to meta-level interpretations: "it's ritual," which should be the start of the conversation not the end.[28] Rather, a biographical approach considering each burial's life history, concentrating on the series of aboveground events behind its creation, would result in better informed interpretations.[29]

An example of this is a reconsideration of the two animal burials recovered from pit 6596 on the Iron Age site of Winnall Down[30] (see figure 2). In his seminal work on Iron Age pit deposits Hill suggests the animal remains from the pit, in the burials, represent a single event of a communal feast and sacrifice that would have involved the consumption of over twelve cattle, a horse, a sheep, a pig, and a hare.[31] In my initial reconsideration I discuss the problems with this interpretation, including a misunderstanding of some of the animal bone data. For example, the pig does have butchery marks present on the right lower leg, suggested to be the result of skinning, but the animal was recovered in articulation indicating soft tissue was still present when deposited,[32] and therefore it was not consumed. Recovered in association with the pig was a complete dog burial, with a strikingly different life history. The pig was a little over two years old, but the female dog had lived well into adulthood. Earlier in its life its left femur had been fractured; the injury had healed but left the limb distorted, and the animal

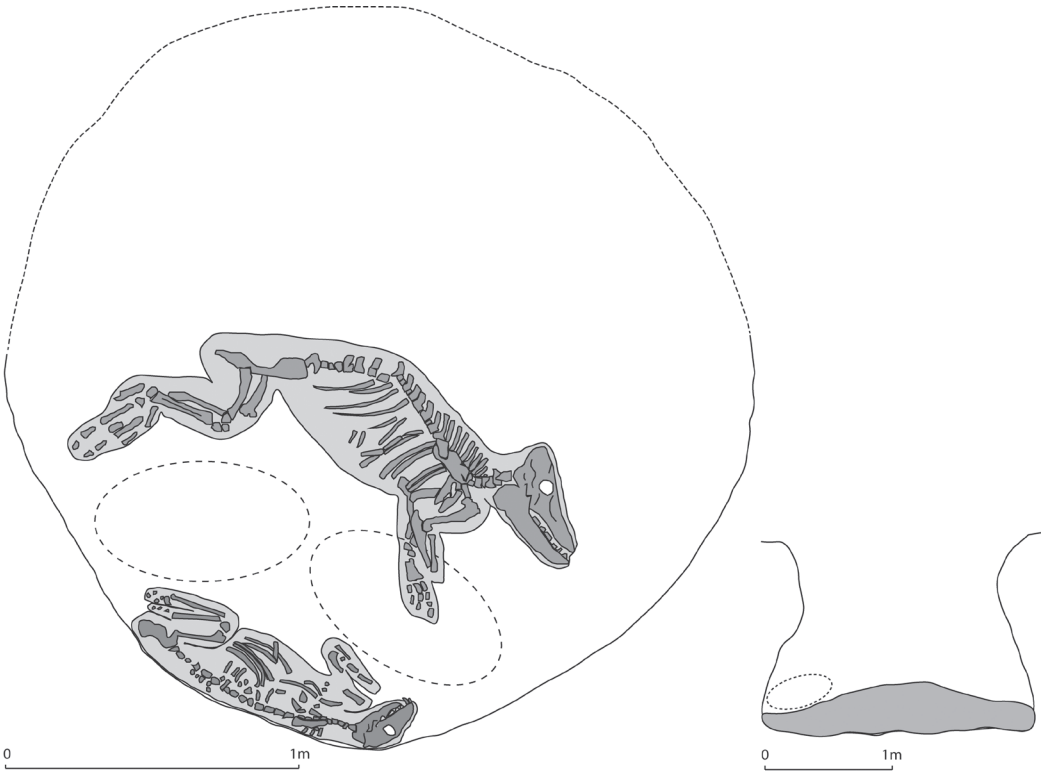

Figure 2. Illustration of the dog and pig burials from Winnall Down pit 6596. Left shows plans of the skeletons with areas of soft tissue suggested; dashed circles indicate the approximate area one human squatting would take up. Bottom right shows the vertical section of pit 6596, with area of the dog burial indicated by dashed line. Top right shows a plan of human burial 505. (Illustrations altered from Hill, *Ritual and Rubbish*, fig. 7.5 and Fasham, *The Prehistoric Settlement at Winnall Down, Winchester*, fig. 21.)

would have limped for the remainder of its adult life. In reconsidering this deposit I have previously suggested the pig could represent a suitable offering to be included with the dog,[33] but I failed to consider emotion and mourning in the interpretation.

Emotion is a difficult subject to tackle for archaeologists, but one possible approach is to consider the human actions during the creation of the burial, and in particular points of intimacy. The placement of the dog and the pig are very different. The pig is placed almost in the middle of the pit, on its left side, with its limbs partially flexed; such a central position might lead one to see it as the "main" deposit. But the dog burial would have required much more effort and contact with the body. The dog is positioned with its back against the side of the pit and would have needed to be physically positioned against the pit wall. It was placed on a layer approximately 1.5 meters deep within the pit, and the body would have needed to be handed down to someone within the pit. Its legs are tightly flexed against its body, which would have required intimate handling and manipulation of the dogs' body. The nature of Iron Age "beehive" pits means the dog is positioned under an overhang, and at this point there would have only been room for two, perhaps three, people to fit around the dog, probably stooped over the body, obscuring the view of anyone standing on the pit edge, resulting in a very personal act that excluded most members of the society. It is interesting to note that the position of

the dog mirrors that of some human burials also found on the site (see figure 2 for example). Perhaps the emotions for both events were also mirrored, and if we assume mourning and grief for the human burials, perhaps we should assume similar emotions for the dog burial.

It is tempting to interpret the Winnall Down example as the burial of a beloved pet, but we know very little about pet keeping in the Iron Age. Firmer archaeological evidence for companion animals is present in the Romano-British period, alongside classical literature sources. We know that dogs were kept as pets within the Roman Empire and were mourned. For example a Roman tomb in Mytilene, Greece, is dedicated to the pet dog Parthenope. The dog is shown in relief reclining on a funerary bed with the inscription explaining she will be cherished in life and death.[34] As discussed above, Roman dog burials are normally recovered from pit deposits, but there are some more unusual examples. Excavations at York Road, Leicester, revealed a number of third- and fourth-century CE graves. One in particular was unusual; Grave F85 did not include an inhumation, but rather the skeleton of a dog present on the base of the grave cut.[35] The dog had been deliberately placed toward the center of the grave, on its stomach, with legs splayed out at either side (see figure 3). The dog is male and would have been similar in height to a modern Dachshund, around twenty-six to twenty-eight centimeters at the shoulder.[36] Miniature dogs of this kind are first seen in Britain in the Roman period and appear to be exclusively pets.[37] Epiphyseal fusion of the dog's bones suggest it is fully adult, although the teeth are not very worn and Baxter suggests this may be due to a softer preferential diet.[38] The actions behind the creation of this deposit mirror those of human burial, and like Parthenope it is possible this burial represents a cherished pet.

Another dog burial was present on the York Road excavations; this was recovered from a pit, was largely disarticulated, and was found amid a number of other animal remains. As discussed above this type of deposit is much more common in the archaeological record. However, occasionally evidence of intimate care can be seen in rubbish deposits. Excavations of the northern gatehouse of Silchester Roman town revealed an area of a midden with abundant pottery, tile, and animal bone. Within this midden was a cat burial of an adult animal, with no butchery marks present. What makes this deposit striking is that the cat had been placed within a rough cist made out of reused roof tiles[39] (see figure 4). The cist measures approximately eighty centimeters by fifty centimeters, just big enough for a cat. This certainly would have been an intimate act: the construction of the cist, the placing of the body within it, manipulating the limbs so the cat fits, and then sealing the cist. The context may differ from human burials, but the care and attention do not. The placement within the midden may suggest that the individual burying the cat did not have anywhere more suitable, and the cist would have protected the burial from disturbance, especially from dogs who would have gnawed exposed bones. Whereas the York Road dog is likely to have belonged to a wealthy individual, the cat cist burial may represent the actions of someone from the poorer end of society, caring for an animal, worrying about its burial, and possibly mourning.

CONCLUSION: EMOTIONAL CREATIONS

Animal burials are created by a whole host of human actions, with different associated meanings and values. Rather than searching for wide-ranging culture/period patterns, the bread and butter of archaeology, we should view them as a *polythetic* concept encompassing a multiplicity

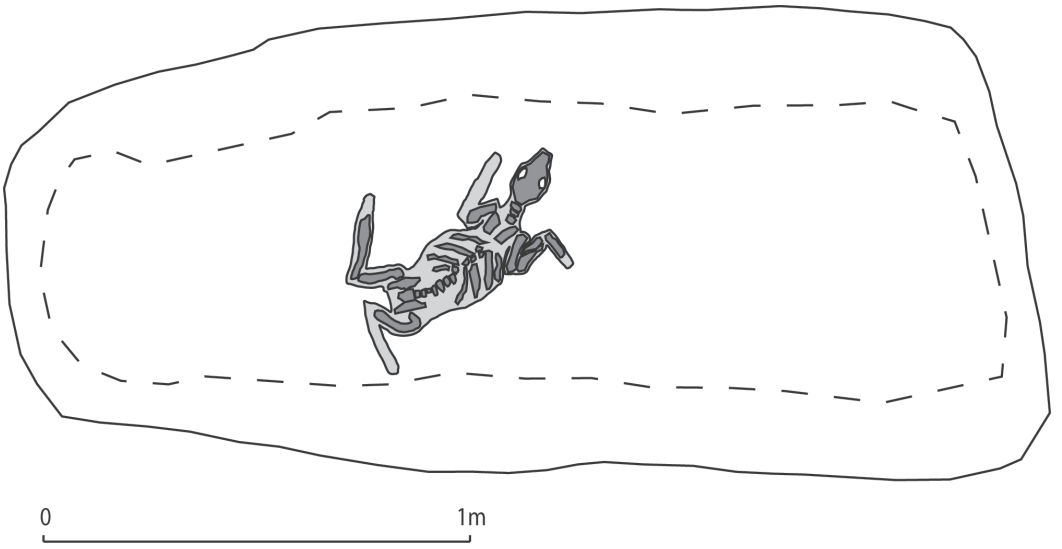

Figure 3. Illustration of the dog burial from Grave F85, York Road, Leicester. Approximate body area illustrated around the skeleton. (Altered from Baxter, "A Dwarf Hound Skeleton," fig. 1.)

Figure 4. Photo of the Silchester cat burial in cist. (From Fulford et al., "Silchester," Plate XIII, with kind permission of Michael Fulford.)

of phenomena, with overlapping familial resemblances but no fixed criteria.[40] In exploring the meaning behind animal burials we have to consider the aboveground human actions behind their creation, and by understanding these actions together with the life history of the animal itself we can move beyond simple ritual/functional dichotomous arguments. However, in doing so we must also include emotion, often at the core of human experiences and elucidation of meaning, yet rarely considered within archaeology. Emotion is not only an important consideration for animal burials that may be driven by mourning and grief. It should also be considered for those deposits that perhaps resulted from ritualized activities such as sacrifice since emotion is an important constituent of ritual and social memory.[41]

For animal burials one approach would be to explore intimacy between the burial and the humans undertaking it. To return to the example of my family's cats, each has been buried within environmental sample containers, normally used for taking soil samples. The practical reason behind this was the need to transport the bodies to their final resting place, a journey that often took place some time after death. Like the cist from Silchester the containers protect the bodies of the cats, but also required acts of personal intimacy with each one as the body was positioned within the container. These acts were driven by emotion and mourning, as perhaps the creation of the cist and these other examples were as well.

NOTES

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1. For discussions on the development of zooarchaeology, see Nicky Milner and Dorian Q. Fuller, "Contending with Animal Bones," *Archaeological Review from Cambridge* 16 (1999): 1–12; Elizabeth J. Reitz and Elizabeth S. Wing, *Zooarchaeology* (Cambridge: Cambridge University Press, 1999), 11–31.
2. Claude Lévi-Strauss, *Le Totémisme aujourd'hui* (Paris: Presses Universitaires de France, 1962), 89.
3. Social zooarchaeology could be seen as an attempt to move away from the purely economic interpretations that dominate the field. See for example Nerissa Russell, *Social Zooarchaeology: Humans and Animals in Prehistory* (Cambridge: Cambridge University Press, 2012); Arkadiusz Marciniak, *Placing Animals in the Neolithic: Social Zooarchaeology of Prehistoric Farming Communities* (London: UCL Press, 2005); Naomi Sykes, *Beastly Questions: Animal Answers to Archaeological Issues* (London: Bloomsbury, 2014).
4. See Annie Grant, "Animal Husbandry," in *Danebury: An Iron Age Hillfort in Hampshire*, vol. 2, *The Excavations, 1969–1978: The Finds*, ed. Barry W. Cunliffe (London: Council for British Archaeology, 1984), 496–548.
5. Hermann Behrens, *Die Neolithisch-frühmetallzeitlichen Tierskelettfunde der alten Welt: Studien zu ihrer Wesensdeutung und historischen Problematik* (Berlin: Deutscher verlag der Wissenschaften, 1964).
6. Behrens, *Die Neolithisch-frühmetallzeitlichen Tierskelettfunde der alten Welt*, 81–82.
7. L. Gabalówna, "Pochówki bydlęce kultury amfor kulistych ze stanowiska 4 w Brześciu Kujawskim w świetle podobnych znalezisk kultur środkowoeuropejskich" [Bovine Burials of the Globular

Culture at Station 4 in Brześciu Kujawskim, in Light of Similar Finds Form Central Europe], *Prace i Materialy Lódź* 3 (1958): 63–108.

8. Particular exceptions are Sarah Tarlow, "The Archaeology of Emotion and Affect," *Annual Review of Anthropology* 41 (2012): 169–85; Oliver Harris, "Emotional and Mnemonic Geographies at Hambledon Hill: Texturing Neolithic Places with Bodies and Bones," *Cambridge Archaeological Journal* 20 (2010): 357–71; Oliver Harris and Tim Flohr Sørensen, "Rethinking Emotion and Material Culture," *Archaeological Dialogues* 17 (2010): 145–63; Rick Peterson, "Social Memory and Ritual Performance," *Journal of Social Archaeology* 13 (2013): 266–83.
9. Per Lagerås, "Burial Rituals Inferred from Palynological Evidence: Results from a Late Neolithic Stone Cist in Southern Sweden," *Vegetation History and Archaeobotany* 9 (2000): 169–73; Richard Tipping, "'Ritual' Floral Tributes in the Scottish Bronze Age: Palynological Evidence," *Journal of Archaeological Science* 21 (1994): 133–39.
10. Peterson, "Social Memory and Ritual Performance."
11. The articulated nature would suggest the animals were pets, although articulated remains resulting from consumption and skinning activities have been uncovered in the archaeological record. Rosemary M. Luff and Marta Moreno García, "Killing Cats in the Medieval Period: An Unusual Episode in the History of Cambridge, England," *Archaeofauna* 4 (1995): 93–114; Terry O'Connor, *Bones from Anglo-Scandinavian Levels at 16–22 Coppergate*, fasc. 3 of *The Archaeology of York*, vol. 15, *The Animal Bones* (York: Council for British Archaeology, 1989).
12. Once epiphyseal fusion is complete, aging relies on degradation, such as wear on the teeth, which can only give wide age ranges (adult, old adult, etc.).
13. For use of stable isotope analyses in zooarchaeology, see for example Elizabeth J. Reitz and Myra Shackley, *Environmental Archaeology* (New York: Springer, 2012), 423–67; Richard Madgwick et al., "Fallow Deer (*Dama dama dama*) Management in Roman South-East Britain," *Archaeological and Anthropological Sciences* 5 (2013): 111–22.
14. Mark Maltby, *The Animal Bones from the Excavations at Owslebury, Hants., an Iron Age and Early Romano-British Settlement* (Portsmouth: English Heritage, Ancient Monuments Laboratory Report 6/87, 1989). His opinion is now very different; see for example Mark Maltby, "Sheep Foundation Burials in Roman Winchester," in *The Ritual Killing and Burial of Animals: European Perspectives*, ed. Aleksander Pluskowski (Oxford: Oxbow, 2012), 152–63.
15. James Morris, *Investigating Animal Burials: Ritual, Mundane and Beyond* (Oxford: Archaeopress, 2011), 8.
16. A. Grant, "Animals and Ritual in Early Britain: The Visible and the Invisible," in *Animal et pratiques religieuses: Les manifestations matérielles; Actes du colloque international de Compiègne, 11–13 novembre 1988*, ed. Patrice Méniel (Paris: Association L'Homme et l'animal, 1989), 79–86; Patrice Méniel, *Les Sacrifices d'animaux chez les Gaulois* (Paris: Editions Errance, 1992); J. D. Hill, *Ritual and Rubbish in the Iron Age of Wessex: A Study on the Formation of a Specific Archaeological Record* (Oxford: Tempus Reparatum, 1995).
17. Michael Fulford, "Links with the Past: Pervasive 'Ritual' Behaviour in Roman Britain," *Britannia* 32 (2001): 199–218; Helena Hamerow, "'Special Deposits' in Anglo-Saxon Settlements," *Medieval Archaeology* 50 (2006): 1–30.
18. James Morris, "Associated Bone Groups: One Archaeologist's Rubbish Is Another's Ritual Deposition," in *Changing Perspectives on the First Millennium BC: Proceedings of the Iron Age Research Student Seminar 2006,* ed. Oliver Davis, Niall Sharples, and Kate Waddington (Oxford: Oxbow, 2008), 83–98; James Morris and Ben Jervis, "What's So Special? A Reinterpretaion of Anglo-Saxon 'Special Deposits,'" *Medieval Archaeology* 55 (2011): 66–81.

19. Morris, *Investigating Animal Burials*.
20. In this case the data comes from published excavations in the counties of Dorset, Hampshire, and Wiltshire. See Morris, *Investigating Animal Burials*.
21. L. V. Grinsell, *Dorset Barrows* (Dorchester: Dorset Natural History and Archaeological Society, 1959), 142.
22. Morris, *Investigating Animal Burials*, 34.
23. For further information on barrows, see Ann Woodward, *British Barrows: A Matter of Life and Death* (Stroud: Tempus, 2000).
24. Mark Maltby, "The Animal Bone from a Romano-British Well at Oakridge II, Basingstoke, Hampshire," *Proceedings of the Hampshire Field Club and Archaeological Society* 49 (1994): 47–76.
25. Richard Thomas, "Perceptions versus Reality: Changing Attitudes towards Pets in Medieval and Post-Medieval England," in *Just Skin and Bones? New Perspectives on Human–Animal Relations in the Historical Past*, ed. Aleksander Pluskowski (Oxford: Archaeopress, 2005), 95–105.
26. Alek Pluskowski, "The Dragon's Skull: How Can Zooarchaeologists Contribute to Our Understanding of Otherness in the Middle Ages?," in *Animals and Otherness in the Middle Ages: Perspectives across Disciplines*, ed. Francisco de Asis García García, Mónica Ann Walker-Vadillo, and María Victoria Chico Picaza (Oxford: Archaeopress, 2013), 109–24.
27. Richard Bradley, "Darkness and Light in the Design of Megalithic Tombs," *Oxford Journal of Archaeology* 8 (1989): 251–59.
28. James Morris, "Animal 'Ritual' Killing: From Remains to Meanings," in Pluskowski, *Ritual Killing and Burial of Animals*, 8–21.
29. For a detailed description of this approach, see Morris, *Investigating Animal Burials*, 167–72.
30. M. Maltby, "The Animal Bones," in *The Prehistoric Settlement at Winnall Down, Winchester: Excavations of MARC 3 Site R17 in 1976 and 1977*, ed. P. J. Fasham (Winchester, UK: Hampshire Field Club, 1985), 97–125.
31. Hill, *Ritual and Rubbish*, 127.
32. Morris, *Investigating Animal Burials*, 179.
33. Morris, *Investigating Animal Burials*, 180.
34. Jocelyn Toynbee, *Animals in Roman Life and Art* (Ithaca, NY: Cornell University Press, 1973), 110.
35. James Gossip, *Excavations at York Road Leicester (NGR SK 585039)* (Leicester: University of Leicester Archaeological Services, Report 99/111, 1999).
36. Ian L. Baxter, "A Dwarf Hound Skeleton from a Romano-British Grave at York Road, Leicester, England, UK, with a Discussion of Other Roman Small Dog Types and Speculation Regarding Their Respective Aetiologies," in *Dogs and People in Social, Working, Economic or Symbolic Interaction: Proceedings of the 9th Conference of the International Council of Archaeozoology, Durham, August 2002*, ed. Lynn M. Snyder and Elizabeth A. Moore (Oxford: Oxbow, 2006), 12–23.
37. R. A. Harcourt, "The Dog in Prehistoric and Early Historic Britain," *Journal of Archaeological Science* 1 (1974): 151–75.
38. Baxter, "A Dwarf Hound Skeleton."
39. Michael Fulford et al., "Silchester: Excavations at the North Gate, on the North Walls, and in the Northern Suburbs 1988 and 1991–3," *Britannia* 28 (1997): 87–168.
40. Morris, "Animal 'Ritual' Killing."
41. Peterson, "Social Memory and Ritual Performance."