
PET-KEEPING IN NON-WESTERN SOCIETIES: SOME POPULAR MISCONCEPTIONS

James A. Serpell

Summary. *Throughout history the world's wealthy and ruling classes have demonstrated a powerful affinity for pets. In the modern West, the recent growth of pet populations has coincided with rising standards of living. This apparent association between pet-keeping and material affluence has helped to create the false impression that pet-keeping is an unnecessary luxury—a frivolous invention of the idle rich—which is of little social or cultural significance.*

The assumption that companion animals serve no useful purpose is prevalent in the field of anthropology. Although the practice of capturing, taming, and keeping wild animals for companionship is widespread among hunting and gathering and simple horticultural societies, it has only rarely been studied or even described in any detail, and explanations for its existence are often strangely contrived. Admittedly, a certain confusion surrounds the meaning of the term "pet." Social anthropologists and historians have undoubtedly devoted considerable attention to the use of animals as adornments, emblems of status, religious symbols, or even as educational "toys." The word "pet" has been applied in each case. They have not, however, managed to explain satisfactorily why so many non-affluent cultures nurture and cherish companion animals without any obvious ulterior motives in mind. Indeed, they have tended to evade the issue by turning it on its head. Rather than tackling the reasons why such societies should keep companion animals at all, they have addressed, instead, the question of why these societies do not kill them and eat them—as

Sub-Department of Animal Behaviour, Madingley, Cambridge CB3 8AA, England.

This paper was an invited presentation at the International Conference on People, Animals and the Environment in Boston, August, 1986. Printed here with permission of University Press of New England.

if the only sensible reason for keeping an animal is in order, ultimately, to devour it.

Research in other disciplines within the last fifteen or so years has begun to shed light on the potential social, emotional, and recreational value of companion animals in human society. Recognition of the fact that pets are not, after all, entirely useless may help to promote a more open-minded approach to what is a fascinating and, alas, fast vanishing aspect of tribal culture.

INTRODUCTION

Popular beliefs and misconceptions about why people keep pets take a variety of forms. Probably the most widespread is the idea that pets are merely ersatz and, by inference, inferior replacements for human relationships, and that the people who keep pets must therefore be, in some way, socially or emotionally inadequate. The perception of pets as "child substitutes" is also roughly subsumed by this theory. Another even more disparaging view of pets sees them essentially as an artful collection of social parasites who inveigle themselves into human affections by manipulating and subverting our so-called parental instincts. By implication, then, pet owners are the victims of their pets in the same sense that sick people are often the victims of disease (Serpell, 1983, 1986). Finally, there is the belief that pet-keeping is basically a pointless and unnecessary luxury; a mere by-product of Western wealth, which, while not directly harmful, is nevertheless wasteful in terms of emotional and material resources. The present paper explores the historical origins of this latter idea, and re-examines some of the erroneous assumptions upon which it is based.

THE HISTORICAL LINKS BETWEEN PET-KEEPING AND WEALTH

In Europe since classical times there has been an apparent class distinction between those who did and those who did not keep animals as pets. It is clear, for example, that the gentry and nobility of ancient Greece kept pets, since the practice was the subject of a certain amount of popular satire at the time. One of the fictional characters invented by the author Theophrastus (372–278 BC) kept

monkeys and apes, a Maltese dog, and a tame jackdaw for whom he purchased various toys and accessories. According to Plutarch the Athenian aristocrat, Alcibiades, once paid 70 minae for a dog—more than 20 times the value of a human slave—whose long and gorgeous tail he cut off merely to shock people (Halliday, 1922). The early Greek inhabitants of Sybaris in southern Italy, whose name has since become a byword for luxury and opulence, were also besotted with lapdogs, taking them to bed with them and carrying them about wherever they went, even to public baths. Like the Greeks, the Roman upper classes were also extravagantly fond of their companion animals. The poets Ovid, Catullus, and Martial all wrote lyrical verses in praise of people's pets; the Emperor Hadrian buried his favorite dogs beneath monumental tombstones, and the daughter of Drusus adorned her pet turbot—a kind of flatfish—with gold rings. Not to be outdone, the orator, Hortensius, apparently burst into tears when his turbot suddenly expired (Halliday, 1922; Merlen, 1971; Penny, 1976).

From the Middle Ages onward we find much the same sort of thing; the aristocracy and the ecclesiastical elite lavishing attention on their pets while largely ignoring the unenviable plight of the ordinary working population. Thomas à Becket and many other senior clergymen, for instance, frequently kept dogs and monkeys in their chambers, and we are informed by one chronicler of the period that this was the custom among prelates “for occasionally dispelling their anxieties” (Labarge, 1980). Convents and nunneries were often overrun with “birds, rabbits, hounds and such like frivolous creatures” to which, according to William of Wykeham, the nuns “gave more heed than to the offices of the Church.” Often these monastic pets belonged to aristocratic ladies who lived for various periods of time within convents (Ritchie, 1981). Throughout medieval Europe, lapdogs and cats which were of little, if any, utilitarian value were kept in most baronial households. Noble ladies carried them about in their arms and fed them with morsels of food from the table; a habit deplored by contemporary writers on etiquette who vainly insisted that it was impolite to fondle animals at mealtimes (Labarge, 1980). By the sixteenth century, lap dogs were all the rage among the upper crust of English society.

In his commentary in Holinshed's *Chronicles of England, Scotland and Ireland*, William Harrison describes these dogs, somewhat sarcastically, as:

little and prettie, proper and fine, and sought out far and neere to satisfie the nice delicacie of daintie dames, and wonton women's willes; instruments of follie to plaie and dallie withall, in trifling away the treasure of time (Jesse, 1866).

Mary Stuart, also known as Mary Queen of Scots, may have played an important part in setting contemporary pet-keeping trends by surrounding herself with an entourage of tiny dogs, some of whom she dressed in blue velvet suits to keep them warm in winter. She was so attached to at least one of these animals that she went to the scaffold with it carefully concealed beneath her petticoats (Jesse, 1866; Szasz, 1968). She also founded an entire dynasty of dog-loving monarchs who ruled Britain for over a century. Her son James I, his son Charles I, and Charles's three children, Charles II, James II, and Mary II, were all enthusiastic dog owners. Indeed, Charles II's fondness of dogs, particularly the little spaniels that now bear his name, was almost as notorious as his exploits with the ladies. Dogs overran the palace during his reign, inspiring one courtier to remark, “God save your Majesty, but God damn your dogs” (Ritchie, 1981). The royal pet-keeping tradition has, of course, been maintained ever since. Queen Victoria had many dogs, including a pair of Pekingeses sent to her by the Dowager Empress of China, and the present monarch, Elizabeth II, is world-famous for her ever-present coterie of corgis.

Pet-keeping among the ruling classes was not by any means a purely European phenomenon. For at least a thousand years, the Emperors of China, for example, kept dogs and, less often, cats in their royal apartments, and ennobled them with the ranks of senior court officials. Under the Manchurian Ch'ing Dynasty the ancestors of the modern Pekingese enjoyed a privileged status unrivaled by any other variety of pet before or since. They were given the titles of princes and princesses, and huge personal stipends were set apart for their benefit. As puppies they were suckled at the breasts of human wet nurses, and as adults they were attended by a retinue of hand-picked servants. A special elite corps of royal eunuchs



Figure 1. King M'tesa of Uganda walking with his dog (From: *The original drawing by J.H. Speke. 1863. Journal of the Discovery of the Source of the Nile, 292. London: Blackwood.*)

was also created to supervise their overall care and husbandry (Dixie, 1931). Japan also had its fair measure of dog-loving rulers. During the seventeenth century, one Shogun became so enthusiastic that he provided food and shelter for about 100,000 dogs. The cost of caring for these pets overburdened the national Exchequer, produced inflation, and resulted in an unpopular new tax on farmers (Watts, 1985). Even Africa was not exempt from this form of extravagance. When John Hanning Speke visited Uganda in 1862, he found the palace of King M'tesa infested with pets of every description. The King himself was particularly fond of a small white dog, which followed him around attached to a piece of string (Speke, 1863).

During the course of the last century, pet-keeping has gradually achieved full emancipation in the Western world, and ownership of companion animals is now fairly evenly distributed across all social classes (Messent and Horsfield, 1985). But, again, this proliferation of pets in modern indus-

trial societies has been accompanied by a steady increase in human living standards, and many would argue that this is sufficient evidence on its own that pet-keeping is a mere by-product of Western affluence; a self-indulgent waste of emotional and material resources that would be better spent in service of underprivileged human beings (see Szasz, 1968; Baxter, 1984). This view of pets has been around for a considerable period of time.

The Roman writer Plutarch, for instance, was among the first to voice his disapproval of pet-keeping in precisely these terms:

Caesar once, seeing some wealthy strangers at Rome, carrying up and down with them in their arms and bosoms young puppy dogs and monkeys, embracing and making much of them, had occasion not unnaturally to ask whether the women in their country were not used to bear children; by that prince-like reprimand gravely reflecting upon persons who spend and lavish upon brute beasts that affection and kindness which nature has implanted in us to be bestowed on those of our own kind (Halliday, 1922).

Similarly, when William of Wykeham criticized the nuns of Romsey Abbey for keeping pets in 1387, he noted that these animals were devouring alms which should have been given to the poor (Ritchie, 1981), William Harrison, writing in the sixteenth century, was more blunt. He described the nobility as wanton, idle, and corrupt because of their pet-keeping activities, and he then went on to deliver a scathing attack on "people who delight more in their dogs that are deprived of all possibilitie of reason, than they do in children that are capable of wisdom and judgement. Yea, they oft feed them of the best, where the pore man's child at their dores can hardlie come by the worst" (Jesse, 1866). Moral diatribes of this kind against pets did not fall entirely on deaf ears. According to one account, a pious Elizabethan lady called Katherine Stubbes deeply repented all the affection she had shown her pet dog. On her deathbed she is reported to have said to her husband:

...you and I have offended God grievously in receiving many a time this bitch into our bed; we would have been loath to have received a Christian soul... into our bed, and to have nourished him in our bosoms, and to have fed him at our table, as we have done this filthy cur many times. The Lord give us grace to repent it (Thomas, 1983).



Figure 2. English witches and their familiars. (From "The Wonderful Discoverie of the Witches of Margaret and Phillip Flower," 1619.)

In other words, because of its apparent association with wealth and social inequality, pet-keeping has unwittingly become one of the more potent symbols of man's inhumanity to man; conjuring up visions of villainous and despotic rulers doting over plump little lap dogs while their unfortunate subjects perished from neglect, starvation, and disease.

The issue is clearly an important and emotional one, but there is a grave danger of allowing such powerful images to distort our perceptions of the whole phenomenon. The assumption that pet-keeping is a trivial and wasteful spin-off of material wealth rests on the notion that poor or non-affluent people do not keep pets. Even in Europe this was not always the case. During the sixteenth and seventeenth centuries pet-keeping was probably relatively commonplace among the poorer classes, although whenever it was detected it aroused grave suspicions. At the time of the English witch trials (1570–1700), for example, the possession of an animal pet or "familiar" was fre-

quently used as evidence for accusations of necromancy, and most of the victims of this persecution were elderly and financially impoverished (Serpell, 1986). This antipathy for pets was certainly not motivated by any economic considerations. It arose because, at the time, affectionate relationships between people and animals were regarded as immoral. Indeed, one moralist of the period explicitly condemned "over familiar usage of any brute creature," presumably out of the curious but popular conviction that such intimate contacts with animals could somehow brutalize or dehumanize people (Thomas, 1983). Elsewhere in the world, the links between pet-keeping and obvious symptoms of material affluence were even more tenuous than they were in Europe.

PET-KEEPING IN TRIBAL SOCIETIES

When European explorers first set out to investigate the uncharted regions of the world between the sixteenth and nineteenth centuries, they were

generally astonished to find the homes and villages of the native inhabitants infested with pets of every description. Early accounts of the Indians of North America, for example, describe how these peoples kept tame raccoons, moose, bison, wolves, bears, and innumerable other species as pets, and how they loved and fondled their dogs with every sign of affection (Hernandez, 1651; Galton, 1883; Linton, 1936; Elmendorf and Kroeber, 1960; Mooney, 1975). The relationship between the Indians and their companion animals does not appear to have been fundamentally different from that which we associate with the modern West. Writing in the eighteenth century, for instance, Sir John Richardson noted that “the red races are fond of pets and treat them kindly; and in purchasing them there is always the unwillingness of the women and children to overcome, rather than any dispute about price” (Galton, 1883). He also observed that the women gave their bear cubs milk from their own breasts—not a practice one sees very often in Western societies!

In South America, animal-taming and pet-keeping were even more popular. Two early Spanish explorers reported that although the Indian women kept tame birds and animals in their huts:

...they never eat them: and even conceive such a fondness for them that they will not sell them, much less kill them with their own hands. So that if a stranger who is obliged to pass the night in one of their cottages, offers ever so much for a fowl, they refuse to part with it, and he finds himself under the necessity of killing the fowl himself. At this his landlady shrieks, dissolves into tears, and wrings her hands, as if it had been an only son (Juan and Ulloa, 1760).

The list of animals tamed and kept by these Indians covered virtually all of the common birds and mammals available to them. The nineteenth-century English naturalist, Bates, mentions “twenty-two species of quadrupeds” that he found living tame among the villages of the Amazon basin (Galton, 1883), and the anthropologist Roth (1934) described how the women would “often suckle young mammals just as they would their own children; e.g. dog, monkey, opossum-rat, labba, acouri, deer, and few, indeed, are the vertebrate animals which the Indians have not succeeded in taming.”

Ironically, the intrusion of Western society and values into South America has brought about a decline in pet-keeping along with the native cultures practicing it. The more remote tribes, however, still retain the habit. The Caraja people of Brazil, whose lands are now threatened by a massive development project, were, according to a visitor in the 1930s, devoted to their pets:

The villages swarmed with livestock. At nightfall parrots warred with scrawny poultry for roosts along the roof-pole. Pigs, and dismal dogs, and fantastically prolific cats, and tame wild ducks wandered in and out of the huts through holes in the wall. In almost all of the northerly villages cormorants paddled among the litter round the cooking fires; sometimes their sombre plumage had been decorated by the children with tufts of red arara's feathers fastened to their wings (Fleming, 1984).

The Warao, who live around the mouth of the Orinoco River, keep wild birds, monkeys, sloths, rodents, ducks, dogs, and chickens as pets (Wilbert, 1972) and, according to the anthropologist Basso (1973), the Kalapalo Indians of central Brazil maintain a particular affection for pet birds. She describes the relationship between the Kalapalo and their birds as similar to that between human parents and their children. The birds are fed, reared, and protected within the confines of the house, and are often kept in seclusion, like human adolescents “to make them more beautiful.” Pet-keeping also remains one of the principal leisure activities of the Barasana Indians of eastern Colombia. Rodents, dogs, parrots, and a huge variety of other large and small birds are the most common pets, although tapir, peccary, ocelot, margay, domestic cats, and even jaguars are also kept in small numbers. The women suckle puppies and hand-feed other young mammals; they also masticate plant foods such as manioc and banana to feed to their tame parrots and macaws. One individual was also observed to spend several hours each day catching small fish to feed a tame kingfisher. According to the Cambridge anthropologist, Stephen Hugh-Jones, who has studied these people for many years, Barasana pet-keeping is not motivated by any practical or economic considerations. These people simply enjoy looking after and caring for their pets. The animals are a continual source of

discussion and entertainment, and are treated as an integral part of the community (Hugh-Jones, pers. comm.; Serpell, 1986).

It is important to emphasize that affection for pets within such societies is largely independent of economic considerations. Although many of the species kept as companion animals were also hunted and killed for food, these same species were exempt from slaughter once they had been adopted as pets. Referring to the Indians of Guiana, Roth (1934) is quite firm in stating that “the native will never eat the bird or animal he has himself tamed any more than the ordinary European will think of making a meal of his pet canary or tame rabbit.” Such inhibitions were equally strong in societies where the animal involved was also raised commercially as an item of food. In Hawaii, for example, dogs were commonly raised for the pot, but pet dogs were rarely slaughtered or consumed, and never without loud protests from the owner (Luomala, 1960). Even when well-intentioned Europeans pointed out the potential economic uses of pet animals, few of these cultures took their ideas seriously. The Caraja, for instance, refused to sell some of their pet parrots regardless of how much visitors were prepared to pay for them. And they treated the whole concept as a joke when it was suggested that they train their pet cormorants to catch fish by fastening rings around their necks: “In conception, rather than in execution, this project amused them very much; it is clear that they thought of the birds always as guests, never as servants” (Fleming, 1984).

Yet despite the apparent absence of economic motives, many early explorers and later anthropologists seemed determined to believe that utilitarian considerations were somehow involved. The Swedish explorer Lumholtz (1884), for example, observed that the Australian Aborigines were absurdly fond of their pet dingoes, rearing them:

...with greater care than they bestow on their own children. The dingo is an important member of the family; it sleeps in the huts and gets plenty to eat, not only of meat but also of fruit. Its master never strikes, but merely threatens it. He caresses it like a child, eats the fleas off it, and then kisses it on the snout.

The only rational explanation he could think of to account for this bizarre (from his perspective)



Figure 3. Punan Dyak with his dog—affection for these animals is widespread in tribal societies (From: Harrison, 1965. Reproduced by Permission of the Council of the Malaysian Branch of The Royal Asiatic Society. RAS Journal 38:2)

behavior was the fact that the dingo “is very useful to the natives, for it has a keen scent and traces every kind of game.” More than eighty years later, anthropologists were attempting to make the same connections. Harrison (1965) states that the Dyaks of North Borneo “literally love their dogs” in return for this animal’s aid in hunting, and Cipriani (1966) likewise accounts for the Andaman Islander’s “inordinate love of dogs” by the fact that dogs meant “invariable and abundant success in the hunt.” But clearly, as the plight of modern factory-farmed livestock testifies, mere economic utility provides no guarantee of affection. The B’Mbuti Pygmies of Zaire, for instance, almost invariably hunt with dogs. Yet they have a reputation for treating their canine companions with pointless brutality (Singer, 1968). Conversely, the Comanche of North America were besotted with their dogs, although these animals had no economic value whatsoever (Linton, 1936).

Another popular utilitarian explanation sees pets primarily as educational “toys.” According to this theory, children who have the opportunity to observe, play, and interact with such animals gain experience that will enable them to become more successful hunters in later life (Laughlin, 1968). This idea appears to stem largely from confusion over the various meanings of the term “pet.” It is undoubtedly true that in many hunting societies children tend to be given small wild animals as temporary playthings. Like Christmas gifts in our own culture, these unfortunate, animated toys are usually short-lived, and often end up the objects of target practice or mutilation. It is entirely possible that these childhood games provide practice and instruction for future hunting activities, but it would be a great mistake to confuse this with the kind of animal/human relationships characteristic of the Warao, the Kalapalo, the Barasana or, indeed, most of the cultures already described. The pets in these latter societies are breast-fed, nurtured, protected, and cared for throughout their lives. In no sense can they be regarded as expendable objects of entertainment. The trouble is that the word “pet” covers a multitude of sins, and it is important, whatever the society, to distinguish between companion animals and animals used as objects of play, status, or, indeed, any other purpose.

The subject of pet-keeping in tribal societies has also contributed to an ongoing debate between “structuralist” anthropologists and “cultural materialists” about the origins of dietary and sexual taboos. Structuralists have argued, for instance, that people avoid killing and eating pets because the animals have been personified and included in the social world of people (Levi-Strauss, 1966; Leach, 1964; Sahlins, 1976). A moot point, no doubt, but it entirely fails to explain why they keep the animals or personify them in the first place. Others have pointed out the symbolic resemblance between the act of eating a pet and the act of sexual intercourse between close relatives. According to this view, we don’t eat our pets because it would be metaphorically equivalent to committing incest (Tambiah, 1969). Cultural materialists, taking a more down-to-earth perspective, have suggested that the real reason we don’t consume companion animals such as dogs and cats is simply because of the

practical and economic difficulties associated with farming these carnivorous species for food (Harris, 1978). Neither side in this debate attempts to explain why subsistence hunters and horticulturalists invest so much of their time and resources in economically valueless pet animals; they are solely concerned with people’s reluctance to kill pets and eat them. As if the only sensible or understandable reason for keeping and caring for an animal is in order, ultimately, to devour it.

DISCUSSION AND CONCLUSIONS

There appear to be two main reasons why anthropologists have been reluctant to explore the phenomenon of pet-keeping or to speculate about its functions. Until comparatively recently, attitudes toward so-called primitive societies have been influenced strongly by old-fashioned, ethnocentric views of human cultural development. According to this tradition, societies evolved progressively upward toward increasingly advanced and sophisticated levels of material civilization. Because they were seen as occupying the lowest rungs of this developmental ladder, the lives of hunters and simple horticulturalists were assumed to be correspondingly arduous and uncomfortable. Viewed in this light, hunting economies could not afford to engage in non-productive activities such as pet-keeping, so the practice was best ignored, explained away as aberrant, or squeezed into some form of contrived utilitarian hypothesis. Fortunately, however, within the last twenty years, ideas about hunting and gathering have changed dramatically. Research on contemporary hunter-gatherers (see for instance Lee, 1969), and the work of paleoanthropologists and pathologists (such as Cohen and Armelagos, 1984) suggests that subsistence hunters, both now and in the past, often enjoy more leisure time, and are generally healthier and better nourished than many agricultural populations. In other words, hunters and horticulturalists appear to be relatively affluent (although not perhaps in the sense that we use the term in the West), and there does not seem to be any economic reason why they should not also keep pets.

Attitudes to pets have also changed. Whereas pet-keeping was once assumed to be a pointless

luxury or a curious perversion, it can now be understood as the outcome of normal human social behavior and needs. During the last fifteen or so years, the work of Boris Levinson, Sam and Elizabeth Corson, Aaron Katcher and Alan Beck, Leo Bustad, Mike McCulloch, Peter Messent, and many others has amply demonstrated that the majority of pet owners are normal, rational people who make use of animals in order to augment their existing social relationships, and so enhance their own psychological and physical welfare. And in all probability, this is as true for South American hunter-gatherers as it is for people in the industrial West. Thought of in these terms, keeping a dog, a cat, a parrot, or even a tapir for companionship is no more outlandish or profligate than wearing an overcoat to keep out the cold. This does not, of course, mean that pet-keeping is universally beneficial since, like any leisure activity, the net benefits need to be weighed against the costs. It does, however, imply that, where adequate time and resources are available, pet-keeping will arise as a natural and beneficial product of human social propensities.

One of the more attractive aspects of this new concept of human/animal relationships is that it allows us to approach and re-examine many old problems from a novel perspective. Within the field of anthropology, pet-keeping remains virtual *terra incognita* as an area of research. Yet it is one that in the future may provide important insights into, among other things, the origins of animal domestication, the emotional and affiliative needs of non-Western peoples, and the relationship that exists between modes of economic subsistence and overall attitudes towards animals and the natural world (see Serpell, 1986).

It is undeniably true that humans, like all animals, are ultimately constrained by material or, more correctly, ecological demands. But any attempt to understand the evolution of human behavior purely in terms of these *essentials* will inevitably ignore a wealth of social and cultural factors that people may be able to live without, but that nevertheless make a substantial contribution to the quality of their lives. The keeping of animals as companions is clearly not essential to human survival. We can live without it, just as we can live without singing, dancing, music, art, laughter, and

friendship. Yet the fact that so many people in so many different cultures are motivated to engage in these inessential activities strongly suggests that the rewards are far from negligible.

REFERENCES

- Basso, E.B. 1973. *The Kalapalo Indians of Central Brazil*, p. 21. New York: Holt, Rinehart and Winston.
- Baxter, D.N. 1984. The Deleterious Effects of Dogs on Human Health: 3. Miscellaneous Problems and a Control Programme. *Community Medicine* 6:200.
- Cipriani, L. 1966. *The Andaman Islanders*, pp. 80–81. London: Weidenfeld & Nicholson.
- Cohen, M.N., and G.J.Armelagos. Paleopathology at the Origins of Agriculture: Editor's Summation. In *Paleopathology at the Origins of Agriculture*, eds. M. N.Cohen and G.J.Armelagos, 585–601. New York: Academic Press.
- Dixie, A.C. 1931. *The Lion Dog of Peking*. London: Peter Davies.
- Elmendorf, W.W., and K.L.Kroeber. 1960. The Structure of Twana Culture with Comparative Notes on the Structure of Yurok Culture. *Washington University Research Studies*, Monograph 2, 28:114.
- Fleming, P. 1984. *Brazilian Adventure*, pp. 145–146. London: Penguin.
- Galton, F. 1922. *Inquiry into Human Faculty and Its Development*, pp. 246–253. London: Macmillan.
- Halliday, W.R. 1922. Animal Pets in Ancient Greece. *Discovery* 2:151–154.
- Harris, M. 1978. *Cannibals and Kings*, pp. 120–121. London: Collins.
- Harrison, T. 1965. Three "Secret" Communication Systems among Borneo Nomads (and Their Dogs). *J. Malay. Branch Roy. Asiatic Soc.* 38:67–86.
- Hernandez, F. 1651 *Historiae Animalium et Mineralium Novae Hispaniae*. In *Rerum Medicarum Novae Hispaniae*, eds. N.A.Recchi and J.T.Lynceus (Rome, 4to), 295–296.
- Jesse, G.R. 1866. *Researches into the History of the British Dog*. London: Robert Hardwicke.
- Juan, G., and A.de Ulloa. 1760. *Voyage to South America* 1:426. London.
- Labarge, M.W. 1980. *A Baronial Household of the Thirteenth Century*, p. 184. Brighton: Harvester Press.
- Laughlin, W.S. 1968. Hunting: An Integrating Biobehaviour System and Its Evolutionary Importance. In *Man the Hunter*, eds. R.B.Lee and I.DeVore, 309. Chicago: Aldine Press.
- Leach, E. 1964. Anthropological Aspects of Language: Animal Categories and Verbal Abuse. In *New Directions in the Study of Language*, ed. E.H.Lenneberg, 23–63. Cambridge: MIT Press.
- Lee, R.B. 1969. !Kung Bushmen Subsistence: An Input-Output Analysis. In *Environment and Cultural Behaviour*, ed. A.Vayda, 47–49. Garden City, NY: Natural History Press.

- Levi-Strauss, C. 1966. *The Savage Mind*, pp. 203–216. Chicago: Chicago Univ. Press.
- Linton, R. 1936. *The Study of Man: An Introduction*, pp. 428–429. New York: Appleton-Century-Crofts.
- Lumholtz, C. 1884. *Among Cannibals*, pp. 178–179. London: John Murray.
- Merlen, R.H.A. 1971. *De Canibus: Dog and Hound in Antiquity*, pp. 63–64. London: J.A.Allen.
- Messent, P.R., and S.Horsfield. 1985. Pet Population and the Pet-Owner Bond. In *The Human-Pet Relationship*, 9–17. Vienna: IEMT.
- Mooney, M.M. 1975. *George Catlin: Letters and Notes on the North American Indians*. New York: Clarkson N.Potter.
- Penny, N.B. 1976. Dead Dogs and Englishmen. *The Connoisseur Aug.*, p. 298.
- Ritchie, C.I.A. 1981. *The British Dog*, pp. 64–119. London: Robert Hale.
- Roth, W.E. 1934. An Introductory Study of the Arts, Crafts and Customs of the Guiana Indians. *38th Annual Report of the Bureau of American Ethnology*, pp. 551–556.
- Sahlins, M. 1976. *Culture and Practical Reason*, pp. 174–175. Chicago: Chicago Univ. Press.
- Serpell, J.A. 1983. What Have We Got Against Pets? *New Scientist*, 13 Oct.
- Serpell, J.A. 1986. In *the Company of Animals*. Oxford: Basil Black well.
- Singer, M. 1968. Pygmies and Their Dogs: A Note on Culturally Constituted Defence Mechanisms. *Ethos* 6:270–279.
- Speke, J.H. 1863. *Journal of the Discovery of the Source of the Nile*, pp. 288–292. London: W.Blackwood.
- Szasz, K. 1968. *Petishism: Pet Cults of the Western World*. London: Hutchinson.
- Tambiah, S.J. 1969. Animals Are Good to Think and Good to Prohibit. *Ethnology* 8:452–453.
- Thomas, K. 1983. *Man and the Natural World: Changing Attitudes in England 1500–1800*, p. 40. London: Allen Lane.
- Watts, D. 1985. Touching Tribute to Canine Loyalty. *The Times* (London), 28 Feb.
- Wilbert, J. 1972. *Survivors of Eldorado: Four Indian Cultures of South America*, pp. 96–97. New York: Praeger.