



## 9 Domestication and history of the cat

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## Origins of the cat

The family Felidae is of comparatively recent evolutionary origins. The oldest fossil records of modern felids are only 3–5 million years old (Kurtén, 1968; Clutton-Brock, 1999), and molecular evidence suggests that all modern forms shared a common ancestor some 10–15 million years ago (Johnson & O'Brien, 1997). Morphological and molecular studies of phylogenetic relationships among living felids indicate that the 38 extant species can be divided up into eight major phylogenetic lineages: the ocelot lineage, the pantherine lineage, the caracal group, the puma group, the Asian leopard cat group, the baycat group, the *lynx* genus, and the domestic cat lineage (Leyhausen, 1979; Collier & O'Brien, 1985; Salles, 1992; Johnson & O'Brien, 1997). The last group, consisting of six species of small cats originating around the Mediterranean region, is thought to have diverged from the others around 8–10 million years ago (Johnson & O'Brien, 1997).

Analyses of mitochondrial DNA sequence divergence among the six species belonging to the domestic cat lineage have identified a recently diverged group comprising the domestic cat (*Felis catus*), the European wildcat (*F. silvestris*), the African wildcat (*F. libyca*), and the sand cat (*F. margarita*), of which the last is the most divergent. More ancient associations between these four taxa and the jungle cat (*F. chaus*) and black-footed cat (*F. nigripes*) can also be discerned. In general, these findings are corroborated by morphological comparisons (Johnson & O'Brien, 1997).

The overall lack of genetic and morphological divergence between the domestic cat and its two nearest wild relatives, *silvestris* and *libyca*, suggests that these three taxa are the result of very recent species radiation, and that they should probably be classified as belonging to a single polytypic species, *Felis silvestris* (Randi & Ragni, 1991; Wozencraft, 1993; Johnson & O'Brien, 1997). The similarity between these three forms, together with the likelihood of extensive gene flow between them in the past, also makes it difficult to determine which of the two wildcats is ancestral to the domestic one.

Based on morphometric and allozyme variability comparisons of ostensibly pure *silvestris*, *libyca* and *catus* populations from Sardinia, Sicily and the Italian mainland, Randi & Ragni (1991) concluded that *libyca* was the most likely ancestor of the domestic

cat, and that hybridisation between feral domestic cats and either *libyca* or *silvestris* was 'improbable'. In contrast, a recent study of pelage and other morphological variation in a large sample of 'wild-living' cats from Scotland explicitly challenges the view that wildcats and domestic cats can be reliably distinguished from each other based on physical characteristics (Daniels *et al.*, 1998). Anecdotally, Smithers (1968) likewise reported extensive natural hybridisation between urban feral cats and *F. libyca* in Zimbabwe. These observations suggest that gene flow between domestic, feral and wild populations may be sufficiently common in some areas to effectively blur the morphological distinctions between them.

In spite of these difficulties, there are other reasons for favouring *libyca* as the most likely ancestor of the domestic cat. In general, the archaeological contexts in which cat remains are found tend to be more informative than morphological evidence derived from bones or teeth (Zeuner, 1963), and all of the available archaeological evidence points to a north African or western Asian origin for *F. catus* (Baldwin, 1975; Todd, 1977; Ahmad, Blumenberg & Chaudhary, 1980; Clutton-Brock, 1999). Behavioural evidence also tends to exclude *silvestris* as a probable ancestor. European wildcats have a reputation for extreme fierceness and timidity, even when hand-reared as kittens, and experimental attempts to rear them and tame them from an early age have been largely unsuccessful owing to their exceptional shyness and intractability. First generation hybrids between European wildcats and domestic cats also tend to resemble the wild parent in behaviour (Pitt, 1944). Although *silvestris* is unlikely to be entirely untamable, it would appear to be a relatively unsuitable candidate for domestication.

African wildcats, in contrast, are reported to possess far more docile temperaments, and they often live and forage in the vicinity of human villages and settlements. On a trip to the southern Sudan during the 1860s, the botanist-explorer Georg Schweinfurth observed that the local Bongo people frequently caught these animals when they were kittens and had no difficulty 'reconciling them to life about their huts and enclosures, where they grow up and wage their natural warfare against the rats'. Schweinfurth was himself plagued by rats which periodically devoured his precious botanical specimens. So he procured several of these cats which 'after they had been kept tied up for several days, seemed to lose a considerable measure of their ferocity and to adapt themselves to

an indoor existence so as to approach in many ways to the habits of the common cat'. By night he attached them to his belongings and by this means he was able to 'go to bed without further fear of any depredations from the rats' (Schweinfurth, 1878, p. 153). Roughly a century later, Reay Smithers (1968, p. 20) found that the African wildcats of Rhodesia (Zimbabwe) made interesting, if somewhat demanding, pets. As with *silvestris*, the kittens tended to be unhandlable at first, but they eventually calmed down and became disarmingly affectionate:

These cats never do anything by halves; for instance, when returning home after their day out they are inclined to become super-affectionate. When this happens, one might as well give up what one is doing, for they will walk all over the paper you are writing on, rubbing themselves against your face or hands; or they will jump up on your shoulder and insinuate themselves between your face and the book you are reading, roll on it, purring and stretching themselves, sometimes falling off in their enthusiasm and, in general, demanding your undivided attention.

Smithers also noted that these cats were far more territorial than domestic cats, and that first generation hybrids between them were more like the domestic parent in behaviour. The reasons for this striking difference in temperament between *silvestris* and *libyca* are unknown, although the European wildcat's reputation for 'wildness' would certainly tend to point to a history of relatively intense persecution by humans.

Finally, there are etymological reasons for believing that the cat is of north African or western Asian origin. The English word *cat*, the French *chat*, the German *Katze*, the Spanish *gato*, the fourth century Latin *cattus*, and the modern Arabic *quttah* all seem to be derived from the Nubian word *kadiz*, meaning a cat. Similarly, the English diminutives *puss* and *pussy* and the Romanian word for cat *pisicca* are thought to come from Pasht, another name for Bastet, the Egyptian cat goddess (Beadle, 1977). Even the tabby cat appears to be named after a special kind of watered silk fabric, once manufactured in a quarter of Baghdad known as Attabiy (*Chambers 20th Century Dictionary*).

## Domestication

Domestication is a gradual and dynamic process rather than a sudden event (Bökönyi, 1989), and it is therefore impossible to make precise claims concerning the exact time and place of cat domestication.

Bökönyi (1969) has proposed dividing the domestication process into two distinct phases: (1) *animal keeping* – the practice of capturing and keeping animals without any deliberate attempt to regulate their behavior or breeding – and (2) *animal breeding*, eventually associated with the conscious, selective regulation and control of the animals' reproduction and behaviour. Phase 1, according to Bökönyi, is accompanied by only slight morphological divergence from the wild type phenotype – usually no more than a slight decrease in body size – and these transitional forms of the species are often physically indistinguishable from the wild ancestor. Phase 2, in contrast, is usually associated with rapid and substantial divergence across a wide range of physical traits. Other important archaeological markers of full domestication include the occurrence of the species outside the geographical range of the ancestral species, artistic representations of the animal in an obviously domesticated state, and material objects associated with animal breeding and husbandry (Bökönyi, 1969).

Based on these kinds of criteria, it could be argued that the cat was only fully domesticated during the last 150 years, although it is probably more accurate to view *Felis catus* as a species that has drifted unpredictably in and out of various states of domestication, semi-domestication, and feralness according to the particular ecological and cultural conditions prevailing at different times and locations. As to where and when Bökönyi's transitional *animal keeping* phase of domestication began for the cat, we can only speculate. However, archaeological evidence from the Mediterranean island of Cyprus may provide an important clue. Excavations at Khirokitia, one of the earliest human settlements on Cyprus dating from about 6000 BCE (before the current era), have unearthed the unmistakable remains of a cat's jawbone. The size of the teeth suggest that it belonged to the species *libyca*. Since there is no fossil evidence of wildcats on Cyprus before this, the only plausible explanation for this animal's presence on the island is that it arrived there through the agency of human colonists. In other words, Mediterranean peoples may have been in the habit of capturing and taming wildcats long before the species was properly domesticated (Davis, 1987; Groves, 1989).

Fragments of bone and teeth, identified as probably belonging to *F. libyca*, have also been excavated from Protoneolithic and Pre-Pottery Neolithic levels at Jericho, dating from between 5000 and 6000 BCE.

Unfortunately, there are no obvious osteological indications that these animals were domesticated, and it is possible that they represent the remains of wildcats killed for food or pelts (Clutton-Brock, 1969, 1999). The earliest known cat remains from Mostagedda in Egypt, dating from sometime before 4000 BCE, were found, together with the bones of a gazelle, in the grave of a man (Malek, 1993).

It has often been claimed that cats originally domesticated themselves by invading and colonising early human settlements in search of small prey, such as rats and mice. Since these rodents were presumably regarded as vermin, people would have tolerated and encouraged cats around their homes and granaries and, in the process, established symbiotic populations of urban cats that relied increasingly on humans for food and shelter (see Zeuner, 1963; Leyhausen, 1988; Malek, 1993). While this idea has a certain appeal, particularly to those who appreciate the cat's proverbially independent spirit, the Khirokitia discovery implies that humans may have taken a more active role in the process of cat domestication. Like the Bongo people encountered by Schweinfurth in the Sudan, it is possible that the prehistoric inhabitants of the Mediterranean basin were already in the habit of capturing and taming wildcat kittens, and even taking them on ocean voyages, as early as 6,000 years ago.

Contrary to popular opinion, the practice of keeping tame wild animals as pets is probably an ancient one that preceded the origins of agriculture. Pet-keeping is (or was until recently) exceedingly widespread among subsistence hunting and gathering peoples throughout the world, and many experts have claimed that this peculiarly human habit could have provided the route by which some of our most common domestic species were first adopted into the human fold (Galton, 1883; Sauer, 1952; Reed, 1954; Zeuner, 1963; Serpell, 1989; Clutton-Brock, 1999). In South America, where hunting and gathering is still practised by a handful of surviving Amerindian groups, hunters commonly capture young wild animals and take them home where they are then adopted as pets, usually, though not invariably, by women. Such pets are fed and cared for with enthusiasm. They are never typically killed or eaten, even though they may belong to edible species, and they are often mourned when they die of natural causes. A vast range of different birds and mammals are kept in this way including members of the cat family, such as margay, ocelot and even jaguar (Serpell, 1989, 1996).

The Neolithic advent of agriculture, the appearance of settled farming communities surrounded by fields of cultivation, and the temporary storage of harvested produce such as grain, would certainly have attracted the unwelcome attentions of rats and mice. And, with the promise of so many rodents in the vicinity, it is equally certain that predators, such as wildcats, would have taken to foraging in the neighbourhood. Some of these cats would have nested and reared their young close to this convenient supply of food, making it almost inevitable that humans would occasionally stumble upon their dens and discover litters of helpless kittens. While some of these foundlings may have finished up in cooking pots, others were probably adopted and kept as pets. Through the process of feeding and caring for such animals, mutual bonds of attachment would be formed; bonds that were doubtless reinforced when the pet grew up and made itself visibly useful by protecting the household and the granary from incursions by greedy rodents and other pests.

## The cat in Egypt

On the basis of current evidence, it is likely that the cat first attained fully domesticated status (*sensu* Bökönyi, 1969) in ancient Egypt although, again, the probable date of this event is at best an approximation. Although small Egyptian amulets representing cats may date from as early as 2300 BCE, the oldest pictorial representation of a cat in a domestic or household context dates from around 1950 BCE, and depicts a cat confronting a rat in a painting from the tomb of Baket III at Beni Hasan. In a small pyramidal tomb of similar age, Flinders Petrie excavated a chapel containing the bones of 17 cats together with a row of little pots that may once have contained offerings of milk (Beadle, 1977; Malek, 1993; Mery, 1967). From about 1450 BCE onwards, images of cats in domestic settings become increasingly common in Theban tombs, and it is likely that these animals were fully domesticated. The cats are usually illustrated sitting, often tethered, under the chairs of the tomb owners' wives, where they are shown eating fish, gnawing bones, or playing with other household pets. Although they comprise only a very small element of the paintings, the fact that they are there at all suggests that the presence of cats in Egyptian households was, by this time, taken for granted (Malek, 1993). Another popular motif in Theban tomb paintings – beautifully

exemplified by the tomb of Nebamun, c. 1450 BCE – depicts the cat ‘helping’ the tomb owner and his family to hunt birds in the marshes. Although some authorities have taken this as evidence that aristocratic Thebans actually used house cats either to flush or retrieve game birds (Baldwin, 1975), the egyptologist Malek (1993) cautions against taking these representations too literally. In his view, the marsh hunting scenes were largely imaginary and idyllic, and the artistic conventions of the period simply dictated that any representation of a family outing of this kind would have been considered incomplete without the additional participation of the family pet.

Since the ecological opportunities for cats in ancient Egypt were probably similar to those presented by other large agrarian civilisations in western Asia, it is necessary to offer some reason why cat domestication apparently proceeded further in Egypt than it did elsewhere in the ancient world. One plausible explanation may lie in the Egyptians’ unusual affinity for animals in general. From the earliest dynasties onwards, animals appear to have played a particularly prominent role in Egyptian social and religious life. A diverse range of wild animals, including baboons, jackals, hares, mongooses, hippos, crocodiles, lions, frogs, herons, ibises and cats, came to be viewed as the earthly representatives of gods and goddesses, and many were the objects of organised religious cults (Smith, 1969). Cult practices often involved keeping and caring for substantial captive populations of these animals in and around temples dedicated to the worship of the appropriate deities. Species such as cats, that responded well to this sort of treatment, presumably bred in captivity, and so gave rise, over many generations of captive breeding, to a domestic strain more docile, sociable, and tolerant of living at high densities than its wild progenitor. The rodent-catching abilities of cats no doubt added to their value, but it seems likely that the Egyptians would have kept them as cult objects and as household pets regardless of any practical or economic advantages.

According to Malek (1993, p. 74) ancient Egyptian religion was ‘a vast and unsystematic collection of diverse ideological beliefs which developed in different parts of the country in prehistoric times’. As a result, the belief systems of the Egyptians often appear little short of chaotic, with innumerable gods and goddesses – part human, part animal – merging, hybridising and diverging over time to produce a confusing array of bizarre and exotic deities. Most of

these gods and their animal representatives originated in pre-Dynastic times as tribal emblems or *totems* which were then consolidated, under the Egyptian State, into a complex pantheon along the lines of those found in ancient Greece and Rome. As might be expected from their tribal and regional origins, the shifting status of these different deities often reflected the changing political fortunes of particular areas and groups within Egypt (see Mackenzie, 1913; Malek, 1993).

Until the end of the third millennium BCE, *Felis libyca* appears to have been of little or no religious significance to the ancient Egyptians. From roughly 2000 to 1500 BCE, however, cats began to be represented on so-called ‘magic knives’; incised ivory blades that were intended to avert misfortune, including accidents, ill-health, difficulties in childbirth, nightmares, and the threat of poisonous snakes and scorpions. At roughly the same time, the male cat began to be represented as one of the forms or manifestations of the sun god, Ra, and it was in the guise of a tom-cat that the sun god was believed to battle each night with the typhonic serpent of darkness, Apophis (Howey, 1930; Malek, 1993). The Egyptians were doubtless familiar with the sight of cats killing snakes, and they evidently assumed that Ra would adopt the form of this animal when required to do likewise. The earliest representations of Ra in cat form, depict animals that more closely resemble servals than cats, and it is probable that the switch to *Felis libyca* coincided with this animal’s increasing familiarity as a domestic pet. One of the cat forms of Ra known as ‘Miuty’ continued to be painted on the interior of coffins until the middle of the eighth century BCE, presumably as a protective or ‘apotropaic’ image.

During the New Kingdom (1540–1196 BCE) cats also began to be associated with the goddess Hathor, and particularly one of her manifestations known as Nebethetepet, whose most salient characteristic was sexual energy. The natural sexual promiscuity of female cats was perhaps responsible for this link. The well-known association of domestic cats with the goddess Bastet did not become established until later, probably around the beginning of the first millennium BCE (Malek, 1993).

One explanation for the association between cats and the heavenly bodies involves the widespread belief that a cat’s eye changes in shape and luminescence according to both the height of the sun in the sky, and the waxing and waning of the moon. The

Egyptian author, Horapollon, writing in the fourth or fifth century, noted that the pupils of the cat's eye changed according to the course of the sun, and the time of day. The Roman writer, Plutarch, also mentioned the phenomenon, as did the English naturalist, Edward Topsell, in his *Historie of Foure-Footed Beastes* (1607):

The Egyptians have observed in the eyes of a Cat, the encrease of the Moonlight, for with the Moone, they shine more fully with the ful, and more dimly in the change and wain, and the male Cat doth also vary his eyes with the sunne; for when the sunne ariseth, the apple [pupil] of his eye is long; towards noone it is round, and at the evening it cannot be seene at all, but the whole eye sheweth alike.

Nineteenth-century Chinese peasants apparently shared this belief, and actually used cats' eyes as a means of telling the time of day. The missionary, Pere Evariste Huc, described the practice in his book *The Chinese Empire*, and observed (presumably sarcastically) that he had 'some hesitation in speaking of this Chinese discovery, as it may, doubtless, injure the interests of the clock-making trade'. The conspicuous eye shine produced by cats' eyes at night intrigued many early writers. The majority seem to have believed that cats were able to generate this light themselves by storing light collected during the day (Aberconway, 1949). Many found the phenomenon disconcerting. Topsell, for example, states that the glittering eyes of cats, when encountered suddenly at night, 'can hardly be endured, for their flaming aspect'.

## The cult of Bastet

From the earliest period of Egyptian history, Bastet was the chief deity of the city of Bubastis (now Tell Basta) in the south-eastern part of the Nile Delta. She was a goddess without a real name, since Bastet means simply 'She of the City of Bast'. The earliest portraits of Bastet, dating from about 2800 BCE, clearly depict her as a woman with the head of a lioness. On her forehead she bears the uraeus (serpent) symbol, and she carries a long sceptre in one hand and the *ankh* sign in the other. Her attributes appear to have included sexual energy, fertility, and childbearing and nurturing.

Despite her origins in Bubastis, Bastet soon came to be associated with other localities in Egypt, notably Memphis, Heliopolis and Heracleopolis. En route, and presumably through a process of local assimila-

tion, she also became closely linked with a number of other important female deities, particularly Mut, Pakhet and Sekhmet (three goddesses who were also often represented as lioness-headed), as well as Hathor, Neith and Isis. Bastet and Sekhmet began to be paired as complimentary opposites as early as 1850 BCE, and eventually came to be thought of different aspects of the same goddess: Bastet representing the protective, nurturing aspects, and Sekhmet the dangerous and threatening ones (Malek, 1993). Along with Hathor, Mut and Isis, Bastet was also sometimes referred to as the daughter or 'eye' of Ra.

It is not known precisely when domestic cats first came to be regarded as manifestations of Bastet, but it is likely that this occurred during the Twenty-second Dynasty (c. 945–715 BCE), when the city of Bubastis rose to prominence during a long period of political instability in Lower Egypt. According to the Ptolemaic historian, Manetho, the Egyptian ruling family at this time was probably of Libyan extraction, and originated in Bubastis. As a result, the city became a major political centre and the scene of extensive building operations. Archaeological evidence suggests that the temple of Bastet was in a ruinous state at the beginning of this period, but it appears that several of the Bubastite pharaohs, particularly Osorkon I and Osorkon II, devoted considerable time and expense to its reconstruction and expansion (Naville, 1891).

Contemporary information about the cult of Bastet, and her temple, is derived largely from the writings of the Greek historian, Herodotus, who visited Bubastis around 450 BCE during the heyday of the cult. Herodotus (1987, p. 191) equated Bastet with the Greek goddess, Artemis, and described her temple in the following glowing terms:

There are greater temples, and temples on which more money has been spent, but none that is more of a pleasure to look upon . . . Save for the entrance, it is an island. For two channels from the Nile approach it, not mingling with one another, but each approaches it as far as the entrance, the one running round from one direction and the other from the opposite. Each is one hundred feet wide and shaded with trees. The propylaea [entrance] is sixty feet high and decorated with striking figures, nine feet high. The shrine stands in the middle of the city, and, inasmuch as the city has been raised high by the embankments and the shrine has not been stirred from the beginning, the shrine can be seen into from all sides. There runs round it a dry-wall, carved with figures, and within it a grove is planted round the great temple, with the hugest of trees, and in that temple there is an image. The temple is a square, a furlong each side. At the

entrance there is a road made of laid stone, running for about three furlongs through the marketplace toward the east, and in breadth it is four hundred feet wide. On both sides of the road are trees towering to the sky.

Although Herodotus does not mention this specifically, it is likely that a sacred cattery or breeding colony of cats adjoined the temple. The job of 'cat keeper' was an hereditary position in Egypt, and strict rules evidently governed the care and feeding of these captive manifestations of the deity (Herodotus, 1987 p. 159).

The annual festival of Bastet, during April and May, was probably the largest in Egypt. As many as 700,000 people attended having first performed a pilgrimage by water along the Nile. The ribald and licentious atmosphere described in Herodotus's (1987, p. 157) eye-witness description, may help to explain the great popularity of the Bastet cult:

Some of the women have rattles and rattle them, others play the flute through the entire trip, and the remainder of the women and men sing and clap their hands. As they travel on toward Bubastis and come near some other city, they edge the boat near the bank, and some of the women do as I have described. But others of them scream obscenities in derision of the women who live in that city, and others of them set to dancing, and others still, standing up, throw their clothes open to show their nakedness. This they do at every city along the riverbank. When they come to Bubastis, they celebrate the festival with great sacrifices, and more wine is drunk at that single festival than in all the rest of the year besides.

There is little reason to doubt the authenticity of Herodotus' account. Although superstitiously reticent about the theological details of Egyptian religion, he seems to have been a remarkably keen observer. Among other things, he was apparently the first to record the now well-known phenomenon of male infanticide in cats. 'When female cats give birth' he wrote, 'they will no longer frequent the toms, and the latter, for all their desire to mate with them, cannot do so. So they contrive the following trick. They steal and carry off the kittens from their mothers and kill them; but although they kill them, they do not eat them. The females deprived of their young and eager to have more, go then, and then only, to the toms; for cats are a breed with a great love of children (Herodotus, 1987, p. 160).

The status of cats during this period of Egyptian history seems to have been roughly equivalent to that of cows in present day India. Many people owned pet

cats, and the death of one sent the entire family into mourning, shaving their eyebrows as a mark of respect. Those who could afford to had their pets embalmed and buried in special cat cemeteries, vast underground repositories containing the mummified or cremated remains of hundreds of thousands of these animals. Cat cemeteries have been unearthed not only at Bubastis, but also at Beni Hasan and Saqqara, a clear indication of the spread of the cult of Bastet. Large numbers of small bronze statuettes of cats were also deposited in these sacred burial grounds. The act of dedicating one of these votive statuettes to the temple apparently assured the giver a permanent place at the side of the goddess (Navelle, 1891; Malek, 1990). In 1888, one of these cemeteries was accidentally uncovered by a farmer, and the remains inside proved to be so numerous that an enterprising businessman decided to ship them to England for conversion into fertiliser. One consignment of 19 tons of mummified bones arrived in Manchester which was estimated to have contained the remains of 80,000 cats. The new soil additive, however, was mysteriously unpopular with English farmers, and the business venture proved to be a failure (Beadle, 1977).

Cats were a protected species in Egypt, and causing the death of one, even by accident, was a capital offence. Consequently, anyone encountering a dead cat fled immediately from the scene, lest others should think that they had a hand in its demise. Diodorus Siculus, writing in about 50 BCE, recorded a diplomatic incident involving a cat during a rather sensitive period in Romano-Egyptian relations. A Roman soldier made the mistake of killing one and 'neither the officials sent by the king to beg the man off, nor the fear of Rome which all the people felt' were sufficient to save him from being lynched by an angry mob. It is apparent from archaeological evidence, however, that the proscription against killing cats did not extend to those in charge of the temple catteries, at least during the Late and Ptolemaic Periods (c. 664-30 BCE). Radiographic analysis of cat mummies from this period has revealed that most of the animals were deliberately killed or 'sacrificed' by strangulation before they reached two years of age, presumably in order to feed the demand for dead cats to mummify as votive offerings (Armitage & Clutton-Brock, 1981).

## Out of Africa

The Egyptians generally restricted the spread of cats to other countries by making their export illegal. They even sent special agents out to neighbouring parts of the Mediterranean to buy and repatriate cats that had been illicitly smuggled abroad (Howey, 1930; Aberconway, 1949; Dale-Green, 1963; Mery, 1967; Beadle, 1977). Despite all these precautions, cats did eventually spread to other areas although, initially, progress was slow. The Indus valley Harappan civilisation (c. 2100–2500 BCE) has yielded surprisingly early evidence of the presence of urban cats. Bone remains have been excavated from the site of the city of Harappa and, more interestingly, the footprints of a cat being chased by a dog are preserved in mud brick from the site of Chanu-daro (Ahmad *et al.*, 1980). It is not known whether these cats were Egyptian imports, or the results of local domestication efforts. An ivory statuette of a cat, dating from about 1700 BCE, was found by archaeologists at Lachish in Palestine. Egypt and Palestine enjoyed strong commercial links at this time, and it is likely that Egyptian entrepreneurs lived there and brought their cats with them. A fresco and a single terracotta head of a cat (c. 1500–1100 BCE) are also known from late Minoan Crete, another area with which Egypt probably had strong maritime connections. The cat does not appear to have reached mainland Greece until somewhat later. The earliest representation of the animal from Greece is on a marble block (c. 500 BCE), now in the Athens Museum. It depicts two seated men, together with various onlookers, watching an encounter between a dog and a cat. This bas-relief conveys an atmosphere of tense expectation, as if the observers were anticipating, and perhaps looking forward to, a fight (Zeuner, 1963). Cats were not apparently common at this time and were kept largely as curiosities, rather than for any practical purpose. When troubled with rodents, both the Greeks and the Romans used domestic polecats or ferrets in preference to cats. During the fifth century BCE, the Greeks introduced cats to southern Italy but, again, the animal does not seem to have been particularly popular, except as a rather unusual and exotic pet. An attractive Neapolitan mosaic, dating from the first century BCE, shows a cat catching a bird but, apart from this, there are few literary or artistic depictions of the species. The Romans failed to recognise the cat's vermin-destroying capabilities until around the fourth century when Palladium

recommended the use of cats, rather than the more traditional ferret, for curbing the activities of moles in artichoke beds (Zeuner, 1963; Beadle, 1977). Domestic cats were also slow to reach the Far East. They probably arrived in China sometime after 200 BCE.

Judging from contemporary illustrations, all of these early cats possessed the wild-type, striped or spotted tabby coat colour, and many feral cats around the Mediterranean still retain this ancestral *libyca* appearance.

The Romans were probably responsible for introducing cats to northern Europe and other outposts of their Empire. Domestic cats were already present in Britain by the middle of the fourth century, and their remains have been found in various Roman villas and settlements in southern England. At Silchester, an important Roman site, archaeologists found a set of clay tiles bearing the impression of cat footprints. By the tenth century, the species appears to have been widespread, if not common, throughout most of Europe and Asia (Zeuner, 1963). Todd (1977) has pointed out that the cat owes much of its colonising abilities to the fact that it adjusts well to shipboard life. Judging from its present distribution, for example, the sex-linked orange colour mutant (i.e. ginger, ginger and white, calico and tortoiseshell) appears to have originated in Asia Minor, and to have then been transported, possibly in Viking longships, to Brittany, northern Britain and parts of Scandinavia. Similarly, the tenth century, English, blotched tabby mutant seems to have spread down a corridor through France along the valleys of the rivers Seine and Rhône. For centuries these rivers have formed part of an important inland barge-route between the Channel Ports and the Mediterranean.

## Changes in attitude

The gradual extinction of the pagan gods and goddesses, and the rise and spread of Christianity, produced a dramatic change in attitudes to cats throughout Europe. From being essentially benevolent symbols of female fertility, sexuality and motherhood, they became, instead, the virtual antithesis: malevolent demons, agents of the Devil, and the traitorous companions of witches and necromancers. It is not at all clear what motivated this change in the perception of cats, although political forces doubtless played a part. In order to consolidate its power, the

medieval Church sometimes found it necessary to employ extreme ruthlessness in suppressing unorthodox beliefs, and extirpating all trace of earlier pre-Christian religions. Perhaps because of its symbolic links with earlier fertility cults, the cat was simply caught up in this wave of religious persecution (Russell, 1972).

Between the twelfth and the fourteenth centuries, nearly all the major heretical sects – the Templars, the Waldensians, the Cathars – were accused of worshipping the Devil in the form of a large black cat. Many contemporary accounts described how their rituals involved the sacrifice of innocent children, cannibalism, grotesque sexual orgies, and obscene acts of ceremonial obeisance toward huge cats which were supposedly kissed on the anus (*sub cauda*). Many heretics, needless to say, admitted to engaging in such practices when subjected to physical torture. Alan of Lille in the twelfth century even attempted to derive the term ‘Cathar’ from the Old Latin word for cat, *cattus*. In reality, the Cathars derived their name from the Greek word *Katharoi*, meaning ‘the pure ones’ (Cohn, 1975; Russell, 1972).

Under Christianity, cats also came to be closely associated with witchcraft, although the nature of this association varied from place to place. In continental Europe, ecclesiastical and secular authorities during the fifteenth, sixteenth and seventeenth centuries had tended to depict witchcraft as another form of heresy: in other words, as an organised cult of Devil-worshippers that existed in opposition to the true faith. Like their heretical predecessors, witches were said to fly to their gatherings or ‘sabbats’, sometimes on the backs of demons disguised as giant cats. The Devil also displayed a strong preference for appearing to his disciples in the form of a monstrous cat (Cohn, 1975; Kieckhefer, 1976; Russell, 1972).

At the level of popular or ‘folk’ culture, it was more common, at least in northern Europe, for people to view both cats and hares as the preferred forms adopted by witches when engaging in acts of maleficence. As early as 1211, Gervase of Tilbury attested from personal experience to the existence of women ‘prowling about at night in the form of cats’ who, when wounded, ‘bear on their bodies in the numerical place the wounds inflicted upon the cat, and if a limb has been lopped off the animal, they have lost a corresponding member’ (Summers, 1934, p. 194). In 1424 a shape-shifting witch named Finicella was burned in Rome for allegedly attempting to kill a neighbour’s child

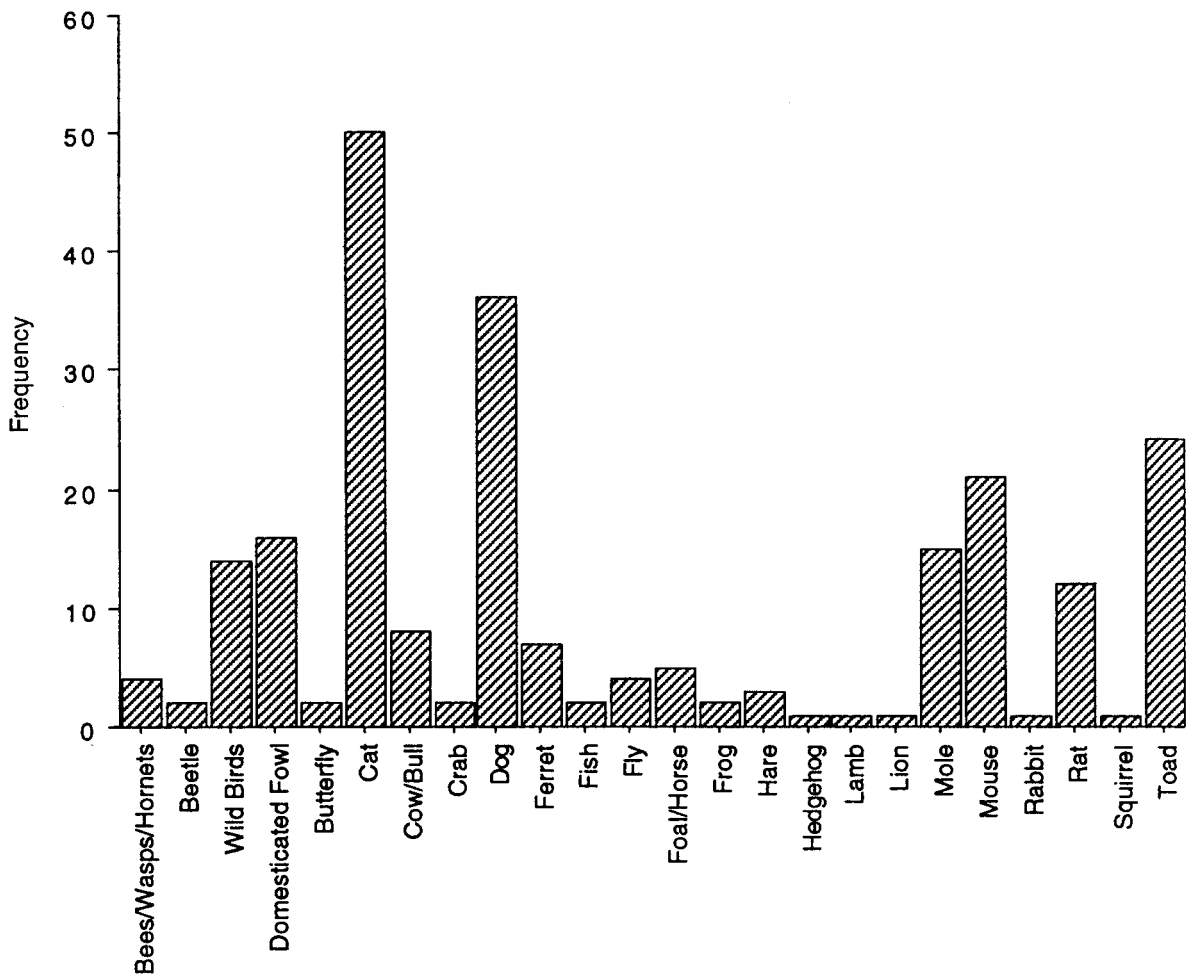
whom she visited in the form of a cat. The child’s father managed to drive the cat away, wounding it at the same time with a knife. Later Finicella was found to have a similar wound on precisely the same part of her body (Russell, 1972). Stories of this type are extremely widespread in medieval and post-medieval witchcraft folklore, and they provide an interesting connection with another well-known diabolical role of the cat: that of the archetypal witch’s ‘familiar’ (Campbell, 1902; Howey, 1930; Summers, 1934; Dale-Green, 1963; Mery, 1967; Beadle, 1977).

Briefly defined, the familiar or ‘imp’ was a demonic companion whom the witch dispatched to carry out her evil designs in return for protection and nourishment. Although it crops up from time to time all over Europe, the concept of the familiar achieved its most elaborate and vivid expression during the English witch trials of the late sixteenth and seventeenth centuries. A fairly typical example is provided by the 1582 trial of Ursula Kemp during which her illegitimate son testified that his mother possessed:

four several spirits, the one called called Tyffin, the other Tyttey, the third Pygine, and the fourth Jacke: and being asked of what colours they were, saith that Tyttey is like a little grey cat, Tyffin is like a white lambe, Pygine is black like a toad, and Jacke is black like a cat. And hee saith, hee hath seen his mother at times to give them beere to drinke, and of a white Lofe or Cake to eat, and saith that in the night time the said spirites will come to his mother, and sucke blood of her upon her armes and other places of her body.

Various local women also came forward to testify that Kemp had used her familiars to make either them, or their children, ill (Ewen, 1933). Even in this relatively early trial, cats already predominate in the role of witch’s familiar. They continued to do so throughout the entire period of witch persecution in England (see Figure 1), and have since become the ubiquitous ingredient of all modern Hallowe’en iconography.

As demons incarnate, it might be assumed that these animal familiars possessed a degree of autonomy. Judging from various contemporary accounts, however, the line separating the ‘cat familiar’ from the ‘cat-as-transformed-witch’ was a thin one, at least in the popular imagination. In several cases, witches were reported to suffer parallel injuries when their familiars were wounded, and sometimes it is clear that prosecution witnesses believed that the familiar was simply the witch herself transmogrified. In the notorious case of the Walkerne witch, Jane Wenham, in 1712, several witnesses not only testified to being



**Figure 9.1.** Frequencies with which different animal species feature as ‘familiar’ or ‘imps’ in a total of 207 English witch trials between 1563 and 1705 (because of their particularly aberrant nature, the trials brought by Matthew Hopkins and John Stearne in 1645–6 are not included in this analysis).

visited and ‘tormented’ by her cats, but also reported that one of these cats had the face of Jane Wenham! Jane Wenham was one of the last people to be formally condemned for witchcraft in England. Thanks to pressure from an increasingly sceptical London public, the verdict was eventually overturned and she was pardoned (Ewen, 1933; Summers, 1934).

Some of the hostility toward cats that emerged during this period may have had a medical basis. Witchcraft folklore abounds with stories of witches adopting the form of cats specifically in order to sneak into people’s houses to smother them in their sleep (Briggs, 1996). In what is probably one of the earliest references to allergic asthma, Edward Topsell, writing in 1607, maintained that ‘the breath and favour of

Cats consume the radical humour and destroy the lungs, and therefore they which keep their Cats with them in their beds have the air corrupted, and fall into several Hecticks and consumptions’. Even as recently as the 1920s, local superstitions held that it was unsafe for a cat to sleep in a child’s cot or bed because of the danger of suffocation (Opie & Tatum, 1989), and a recent survey in the USA found that respiratory allergies are one of the most common reasons given by people for relinquishing pet cats (but not dogs) to animal shelters and SPCAs (Scarlett *et al.*, 1999).

With such a wealth of negative associations, it is not surprising that cats became the objects of widespread persecution throughout Europe during the Middle Ages and the early modern period. On feast days, as a

symbolic means of driving out the Devil, cats, especially black ones, were captured and tortured, tossed onto bonfires, set alight and chased through the streets, impaled on spits and roasted alive, burned at the stake, plunged into boiling water, whipped to death, and hurled from the tops of tall buildings; and all, it seems, in an atmosphere of extreme festive merriment. Anyone encountering a stray cat, particularly at night, also felt obliged to try and kill or maim it in the belief that it was probably a witch in disguise (Howey, 1930; Dale-Green, 1067; Darnton, 1984). By associating cats with the Devil and misfortune, the medieval Church seems to have provided the superstitious masses of Europe with a sort of universal scapegoat; something to blame and punish for all of life's numerous perils and hardships.

A strong element of misogyny also underpinned this intense animosity toward cats. Medieval and early modern Christianity was dominated by an all-powerful male priesthood who cherished distinctly ambivalent attitudes toward women. This love-hate relationship was exemplified by the image of the asexual Blessed Virgin, on the one hand, and Eve, the begetter of original sin, on the other. Deriving their authority from Aristotle, ecclesiastical scholars of the period not only promulgated the view that women were the weaker and more imperfect sex, but also portrayed them as lascivious temptresses with insatiable carnal appetites who used their sexual charms to beguile, bewitch and subvert men. These same characteristics also predisposed women to witchcraft, since, as one commentator put it, the Devil tends to resort, 'where he findeth easiest entrance, and best entertainment' (Clark, 1997, p. 113). Medieval clerics also accepted Aristotle's evaluation of the female cat as a peculiarly lecherous animal that actively wheedled the males on to sexual congress (Rowland, 1973). Thus, a strong metaphorical connection was established between cats and the more threatening aspects of female sexuality (Darnton, 1984).

Undoubtedly the natural behaviour of cats helped to reinforce this association. Female cats, especially when in oestrous, solicit physical contact, and enjoy being stroked and caressed. But they are also notoriously coy and unpredictable; demanding affection at one moment, scratching or running away the next. Sexually, the female cat is highly promiscuous, unashamedly inviting the attentions of several males. She is also a back-biter, however, often turning and attacking her partner immediately after copulation.

For the ancient Egyptians, these ordinary feline attributes, together with maternal devotion, were evidently admired and celebrated. For the sexually repressed clerics of medieval and early modern Europe, however, they seem to have inspired a mixture of horror and disgust.

Europe was not, however, the only region to draw negative links between cats and women. Malevolent, spectral cats were a common element of oriental folklore, and in Japan popular legends existed of monstrous vampire cats who assumed the forms of women in order to suck the blood and vitality from unsuspecting men. The Japanese also applied the work 'cat' to Geishas on the grounds that both possessed the ability to bewitch men with their charms. According to superstition, the tail was the source of the cat's supernatural powers, and it was common practice in Japan to cut off kittens' tails to prevent them turning into demons later in life (Dale-Green, 1963). This belief may also help to explain the origin of the genetically unique, bob-tailed cats of Japan.

Finally, the cat's somewhat ambivalent relationship with human society provides another possible clue to its victimisation. Together with the dog, the cat is one of the few domestic species that does not need to be caged, fenced in, or tethered in order to maintain its links with humanity. Cats, however, tend to display a degree of independence which is uncharacteristic of dogs, and which inclines them to wander at will, and indulge in noisy sexual forays, particularly during the hours of darkness. In other words, cats lead a sort of double life – half domestic, half wild; part culture, part nature – and it was perhaps this failure to conform to human (and specifically male) standards of proper conduct that led to their subsequent harassment.

According to Jung (1959), animals are often 'the expressions of the unconscious components of self'. Whether they are perceived in positive or negative terms as a result of this self-identification, however, depends presumably on the individual moral perspective of the person or culture involved. During the Middle Ages, church authorities went to considerable efforts to establish and maintain an absolute distinction between humans and other animals (Thomas, 1983; Salisbury, 1994; Serpell, 1996). By exploiting the comforts of domestic existence while, at the same time, enjoying the pleasures of a wild night on the tiles, the cat perhaps invited official condemnation and persecution by challenging this conveniently dichotomous world view. Attitudes to dogs during

this period differed according to class. Like the cat, ordinary street dogs, mongrels and curs became symbols of humankind's baser qualities – gluttony, crudity, lust, etc. The pets and hunting companions of the nobility, on the other hand, represented loyalty, fidelity, obedience and other desirable human attributes (Thomas, 1983). The latter image of the dog is nowadays prevalent in Western countries, but the image of the cat remains tarnished, to some extent, by its older unruly reputation.

Although behavioural characteristics of animals often provide the basis for intolerant or disparaging attitudes, it should be emphasised that such effects are highly culture-specific. In the majority of Islamic countries, for instance, attitudes to dogs and cats are more or less reversed. The dog is regarded as unclean, and touching one results in defilement (Serpell, 1995). Cats, on the contrary, are tolerated and, to some extent, admired.

### Modern attitudes

From its sacred origins in ancient Egypt, the domestic cat has now spread to virtually every corner of the inhabited world. Indeed, across most of Europe and North America the species has now overtaken the dog as the most popular companion animal (Messent & Horsfield, 1985; Serpell, 1996). This trend, however, is very recent. In his best-selling *Histoire naturelle*, published in the latter half of the eighteenth century, Georges Louis Leclerc, le Comte de Buffon, described the cat as a perfidious animal possessing 'an innate malice, a falseness of character, a perverse nature, which age augments and education can only mask'. Buffon also loudly reasserted medieval ideas concerning the female cat's insatiable craving for sex: 'she invites it, calls for it, announces her desires with piercing cries, or rather, the excess of her needs . . . and when the male runs away from her, she pursues him, bites him, and forces him, as it were, to satisfy her' (cited in Kete, 1994, p. 118–19). In nineteenth-century zoological literature, according to Ritvo (1985), cats were the most frequently and energetically vilified of all domestic animals. Whereas the dog was admired for its loyalty and obedience, the cat was despised and distrusted for its lack of deference and its failure to acknowledge human domination. Cats were also negatively portrayed as 'the chosen allies of womankind'. In nineteenth-century Paris and, one assumes, elsewhere in Europe, cats came to be associ-

ated with artisans and intellectuals, by virtue of their independence, and apparent lack of obedience to social mores and conventions (Kete, 1994). This represented a significant turning point in attitudes to cats, and presaged their widespread adoption into bourgeois society as fashionable middle-class pets.

Attitudes to cats remain, nevertheless, somewhat ambivalent to this day. In a large survey of contemporary American attitudes to animals, Kellert & Berry (1980) found that 17.4 per cent of those questioned expressed some dislike of cats, as against only 2.6 per cent who disliked dogs. The recent popularity of anti-cat literature seems to reflect these views. The small book of cartoons entitled *A Hundred and One Uses of a Dead Cat* (Bond, 1981) became a world best-seller, and sold over 600,000 copies in the first few months after publication. Various similar titles, such as the *I Hate Cats Book*, *The Second Official I Hate Cats Book* and *The Cat Hater's Handbook*, were also highly successful (Van de Castle, 1983). It is difficult to imagine *A Hundred and One Uses of a Dead Dog* or a *Dog Hater's Handbook* achieving the same degree of popularity, and the fact that such books have not appeared in print suggests that publishers do not regard them as viable commercial propositions.

Many people still regard the sudden appearance of a cat as a sign of bad luck, and others fear or dislike these animals, perceiving them as furtive and untrustworthy. The cat's long-standing association with women and female sexuality is still implied by the slang use of terms, such as 'cat house' or 'pussy', and, although research in this area is sparse, it is also tentatively confirmed by the results of some attitudinal surveys. A study of 3862 children aged between 8 and 16, for example, found that 18 per cent of girls questioned described the cat as the animal they would most like to be, while only 7 per cent of boys gave the same response. Dogs, on the contrary, were chosen with almost equal frequency – 34 and 32 per cent – by both sexes (Freed, 1965).

Hopefully, this entire legacy of negative attitudes to cats will continue to disappear, as people gradually learn to accept the benefits of living with this clean, affectionate and essentially companionable species.

### Concluding remarks

Molecular, archaeological, and behavioural evidence suggests that the domestic cat was originally derived from the African wildcat, *Felis silvestris libyca*. The

earliest domestication probably occurred in Egypt about 4000 years ago. Cats have been valued since antiquity for their rodent-catching abilities, and they have also acquired religious or symbolic importance in many societies. Attitudes towards them as symbols, however, have ranged from reverence to abhorrence. In ancient Egypt, cats were worshipped and jealously protected as representatives of Bastet, a goddess of fertility and motherhood. In medieval and early modern Europe, on the contrary, cats became a metaphor for female sexual depravity and social unruliness, and were persecuted and despised for their alleged links with witchcraft and the Devil. In symbolic terms, cats still appear to excite a certain ambivalence of feeling in many Western countries although, within the last 10–20 years, they have finally overtaken the dog as the world's most popular companion animal.

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