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CHAPTER ONE

A History of Dogs in the Early Americas

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The Creation of the American Dog

Our domestic dogs are descended from wolves and jackals and though they may not have gained in cunning, and may have lost in wariness and suspicion, yet they have progressed in certain moral qualities, such as affection, trustworthiness, temper, and probably in general intelligence.--Charles Darwin, *The Descent of Man and Selection in Relation to Sex* (1871)

Then the Woman picked up a roasted mutton-bone and threw it to Wild Dog, and said, "Wild Thing out of Wild Woods, taste and try." Wild Dog gnawed the bone, and it was more delicious than anything he had ever tasted, and he said, "O my Enemy and Wife of my Enemy, give me another."

The Woman said, "Wild Thing out of the Wild Woods, help my Man to hunt through the day and guard this Cave at night, and I will give you as many roast bones as you need...."

Wild Dog crawled into the Cave and laid his head on the Woman's lap, and said, "O my Friend and Wife of my Friend, I will help your Man to hunt through the day, and at night I will guard your Cave."--Rudyard Kipling, *Just So Stories* (1912)

At a remote time in the past, the earth was inhabited by people other than those created by the sun-god. They were very bad and fought among themselves all the time.

When the sun-god saw this he decided to annihilate these people and to create another population in their stead. To destroy the bad people, the sun-god sent torrential and continuous rain, the springs opened, and the ocean overflowed. In the deluge all mankind was swept away....

Then the sun god decided to create new people. First he made a man, then a woman, and finally a dog to keep them company. Later he created the guanaco and the rhea as food for the couple he had brought forth.

--Folk Literature of the Tebuelche Indians

Dogs are remarkable animals because of the cultural attributes of the people with whom they live. Not only are dogs a product of culture, but they also participate in the cultures of humans. In fact, dogs were the first animals to take up residence with people and the only animals found in human societies all over the world. Because of their ubiquity across cultural boundaries, dogs have been so commonplace that their history seemed to warrant little consideration. And yet for the past twelve thousand years dogs have played an integral part in human lives. What is most remarkable about dogs is their ability to adapt to the needs of the people with whom they live. Dogs have proved themselves amazingly flexible beings, and this was as true in the Americas as it was elsewhere in the world.

The Western Hemisphere was first populated with people, accompanied by dogs, who migrated from Northeast Asia. People spread and settled in every region of the Americas, in the varying latitudes, climates, altitudes, and topographies. They established their own cultural identities, their own languages, their own traditions and beliefs. Although their common origins united them, they remained isolated from events in Europe, the Near East, China, and India. Before the fateful voyage of Christopher Columbus in 1492, societies in the Americas were largely untouched by outside influences, and unlike the early societies on which Western culture is based, did not possess domesticated goats, sheep, cattle, pigs, or horses. Dogs were the only domestic animals present in the majority of Native American groups, the only animal allied with humans.

What we know about dogs in Native American societies is limited. But we do know that the dogs brought by the Spanish were much different in character and breeding from those already present. How these non-European animals meshed with humans in everyday life, how they functioned in the symbolic realm, and how their roles varied across cultural boundaries are questions basic to our understanding of American dogs.

A few themes emerge from the details of the dog's lot in America. First and foremost, the dog was an ambiguous animal. Native Americans understood that even though dogs resided in the human camp they had a close kinship with coyotes and wolves. Because of these relationships, dogs occupied and operated on several levels: they connected the wild and the tame, and they joined nature and culture. Even though dogs were seen as almost human, they were also known to be carnivores and, as such, were linked not only to wolves, coyotes, and foxes but also to bears and jaguars. On the one hand, dogs were esteemed as companions, hunters, and guards. On the other hand, they were associated with promiscuity and filth. Among some groups, eating dogs was strictly taboo, whereas other groups ate them with great relish. Some cultures relied on dogs for transportation and hauling. Others found them to be of no use at all. Dogs played key roles in the myths of some people; in other myths, dogs were scarcely mentioned. In addition, the numbers of dogs and their physical appearance varied widely from locality to locality and through time.

Thus, a multitude of stories about dogs exist. And they are by no means simple tales. Our own concept of the pet dog must be discarded as we examine these dog stories in the context in which they occurred. If that human context is not kept in mind we

will lose sight of the complexity and richness of the lives of those who inhabited a world far different from our own. One of the most eloquent if unintentional expressions of this sentiment is in Alexander Pope's *Letter to the American Peasants*, written in the early eighteenth century. Although Pope's tone is patronizing and his view of American peoples uninformed, he recognizes that differences in perspective did exist and that each had validity.

Lo, the poor Indian! whose untutor'd mind
 Sees God in clouds, or hears him in the wind;
 His soul proud Science never taught to stray
 Far as the Solar Walk, or Milky Way;
 Yet simple Nature to his hope has giv'n,
 Behind the cloud-topp'd hill, an humbler heav'n;
 Some safer world in depth of woods embrac'd,
 Some happier island in the wat'ry-waste,
 Where slaves once more their native land behold,
 No fiends torment, no Christian thirst for gold.
 To be, contents his natural desire,--
 He asks no angel's wing, no seraph's fire;
 But thinks, admitted to that equal sky,
 His faithful dog shall bear him company.

The last line seems to refer to the dog's connection to the Land of the Dead. Dogs were thought to be essential guides for tricky afterlife journeys. They were part of human existence and the cycle of life, death, and rebirth that was at the core of all Native American belief systems. In addition, dogs were utilitarian animals exploited for human survival.

The Family Canidae in the Americas

The family Canidae--the wolves, dogs, jackals, and foxes--has wild members on all continents except Australia, which has only the dingo. The thirty-eight species of wild canids live in habitats ranging from tropical rainforest to arctic tundra. The North American wolf (*Canis lupus*) is social and eats mainly meat from large mammals. The South American maned wolf (*Chrysocyon brachyurus*) spends most of its life alone, and fruit forms the bulk of its diet.

Although their members are diverse, the Canidae as a group possess some distinctive characteristics. They seem to be unique among mammals in that the larger canids produce, on average, more infants per litter than do the smaller canid species. Generally, litter size among mammals is inversely related to body size; the large cats, for instance, have fewer offspring than do the small ones. Canids usually live in complex social groups, are highly adaptable, form pair bonds, and hunt cooperatively. Food is shared among family members, and fathers and siblings help to raise the pups.

When humans first arrived in North America the dire wolf (*Canis dirus*) was still sharing the landscape with the smaller gray wolf (*Canis lupus*). The dire wolf's range at 10,000 B.C. extended from southern Alberta to Peru. At least 1,646 dire wolves died at the Rancho La Brea tar pits in southern California. These pits, centers of asphalt accumulation for 25,000 years, have trapped thousands of animals, the most common of which are dire wolves. This suggests that dire wolf populations

were substantial at 10,000 B.C., but within a few thousand years the dire wolf had disappeared. The most recent occurrences of the extinct canid are from the western United States in 7500 B.C., well after [This is an archived page. Report a problem](#)

The extant wild canids of North America are the gray wolf, the coyote (*Canis latrans*), the hybrid red wolf (*Canis rufus*), the arctic fox (*Alopex lagopus*), the gray fox (*Urocyon cinereoargenteus*), the red fox (*Vulpes vulpes*), the swift fox (*Vulpes velox*), and the kit fox (*Vulpes macrotis*). In addition to the dire wolf, other members of the genus *Canis* may have inhabited South America, but all these "wolflike" canids were extinct by the end of the Pleistocene. The gray wolf and the coyote never moved farther south than the table land of Mexico. The gray fox has extended its range into northern Venezuela and Colombia, but all the other South American canids are unique to that continent.

The canid with the widest distribution in South America is the culpeo (*Dusicyon culpaeus*), which ranges all along the western coastal region of the continent from southern Colombia to Tierra del Fuego. *D. griseus*, the chilla, is now scarce, but its home is the southern tip of South America, below 25 degrees south latitude. The pampas fox (*D. gymnocercus*) is found in east-central South America, whereas the sechura fox (*D. sechurae*) occurs only in a small region on the northwest coast. The final member of this group of foxes is the hoary fox (*D. vetulus*) which lives in the open grassland of Brazil.

The short-legged and stockily built bush dogs (*Speothos venaticus*) are found in tropical rainforest, particularly along forest borders and wet savannas. These animals are highly social and, when tamed, act much like domestic dogs. They are good swimmers. Bush dogs hunt in packs and, though small, can bring down peccaries and even small tapirs. The small-eared dog (*Atelocynus microtis*) is found only in lowland tropical forest. Like the bush dog, its body is stocky and its legs short, but the small-eared dog is larger and has a bushy tail. Nothing is known about its behavior in the wild. The fourth and largest genus of South American canid, the maned wolf (*Chrysocyon brachyurus*), has been referred to as the "fox on stilts" because of its long legs. Maned wolves, which live in the grasslands of eastern central South America, are the least social members of the canid family and are not closely related to any other taxa. They may be the sole survivors of the large canid species that existed in South America before the arrival of people. The crab-eating fox (*Cerdoyon thous*), more vulpine in appearance than the bush dog, short-eared dog, or maned wolf, lives in woodlands and savannas in Brazil, Uruguay, and Argentina. As its name suggests, crustaceans are part of its diet. Like the bush dog, the short-eared dog, and the maned wolf, it is the sole member of its genus.

The gray wolf (*Canis lupus*), the red wolf (*Canis rufus*), the coyote (*Canis latrans*), and the dog (*Canis familiaris*) are the American members of the genus *Canis*. In the Eastern Hemisphere the genus is represented by four species of jackals, all living on the African continent, and by the gray wolf, which has lived throughout the northern latitudes until being exterminated in well-populated areas by people and dogs. *Canis familiaris*, of course, has as wide a distribution as *Homo sapiens*. Members of the genus *Canis* are interfertile. These two canid characteristics--global ranges and interfertility--make the history of the domestic dog exceedingly difficult to tease apart from the history of its relatives.

Coyotes are among the most adaptable of carnivores. Consider, for example, the

behavioral range of this versatile North American mammal, now extending its range eastward. The coyote has been around for at least 500,000 years. It joined the dire wolf and the gray wolf at the La Brea Tar Pits in California. Coyotes had to content itself with scavenged leftovers. Today, five types of social organization have been observed among coyotes. They have been seen in packs, in resident pairs, as solitary residents, as transient nomads, and in temporary aggregations. Such social flexibility, as well as their opportunism as predators, scavengers, and omnivores, has allowed coyotes to move into areas where wolves cannot survive.

Coyotes are believed to have hybridized with gray wolves to form the red wolf population in the southeastern United States. Moreover, roughly 40 percent of the offspring between coyotes and dogs are fertile, but the coyotes that started invading the northeast United States forty years ago seem not to have interbred with dogs regularly. In spite of their ability to produce fertile offspring, wolves, dogs, and coyotes have maintained their distinctiveness through time because each species has a preferred way of life. To understand the relationships of these family members it may be useful to think of the wolf and coyote as siblings, the wolf as parent to the dog, and all three as second cousins to the foxes and other canid species. Although the coyote may have contributed to the gene pool of the native North American dog, genetic, behavioral, and geographic evidence overwhelmingly points to only one direct ancestor: the wolf.

The Making of a Species

Before we can understand the domestication of parts of the wolf population and the creation of a new species we have to grapple with what a species is, something still debated long and hard by evolutionary biologists. When does a wolf stop being a wolf and become a dog? What makes a species domesticated as opposed to tamed? And, once a dog, why not become a wolf again or a wolf-coy-dog?

Let us use the following definition of species: a population with morphological, ecological, and genetic traits that distinguish its members from other species. These biological units have mechanisms that hold them together and keep outsiders away. One such mechanism is the female's ability to recognize appropriate mates by their behavior and odor. In addition, species members occupy the same ecological niche, develop at similar rates, and are ready to breed at the same time. Mating opportunities cannot be too restricted if genetic cohesiveness is to be maintained. When something disrupts these mechanisms--geographic isolation, developmental or ecological shifts--cohesion breaks down and the unit splits apart. Although canids can and do form fertile hybrids, such matings occur only under unusual circumstances, such as when a member of the same species is unavailable. Females will continue to show definite preference for males meeting their criteria of suitability, and hybrids tend not to breed with other hybrids.

During speciation (the creation of a new species), a stable, cohesive population gives way to transitory groups of animals in a state of flux. Among wolves living in and around human settlements 12,000 years ago, a developmental and ecological schism was occurring that tended to separate species members: some wolves were becoming domesticated.

A standard definition of domestication contains two parts: a cultural component, in which humans control the breeding of the animal over which they claim ownership,

and a biological component, in which an animal becomes different in form as well as behaviorally distinct from its wild ancestor. Often stated as part of this definition is that humans saw the utility in controlling a wild animal, and then began domesticating them. A less anthropocentric approach, and one with more explanatory power, considers domestication a more dynamic process and a coevolutionary relationship between species. By associating with humans, members of these species greatly increased their reproductive success, and a subset of these "weedlike" animals, which thrived in environments disturbed by people, became fully domesticated. The earliest and perhaps the best example of an animal whose nature was "preadapted" for domestication is the gray wolf.

Two criteria considered important to understanding which animals are "preadapted" for domestication are the existence of well-defined dominance hierarchies and a high degree of sociality. If animals roam singly much of the year, if they do not look toward a leader for guidance, and if they spread out when threatened instead of banding together, domestication is unlikely. The white-tailed deer is a good example of an animal whose solitary behavior precludes its domestication even though it prefers to live in areas that people have opened up. Deer have been tamed and herded but not truly domesticated.

With the wolf-dog interface, the dominance relationships tell the tale. Wolves, to keep group conflicts to a minimum, are programmed to be submissive toward the dominant member, usually a male. This inherited tendency to accept a submissive stance toward other wolves must be continually reinforced by adults as wolf pups become socialized to the group. Otherwise the social order would be in continual flux. If a person consistently works to maintain a leadership role over a young wolf pup, control over the adult animal is possible. Other humans, however, will not be accorded the same status. Submissive behavior is also pronounced in dogs, but dogs more readily transfer their docility to other humans.

The wolf is among the most social of all canids. Wolf society functions because of highly developed social responses, which include strict hierarchies, cooperative systems, and sophisticated communication skills. Howling serves a number of functions, but it primarily allows the pack to reconvene after a separation. Wolves live almost exclusively on the meat of large mammals, traveling long distances and relying on teamwork to secure their prey. Their enormous geographic distribution, at least until recently, proves how successfully they have filled their niche. But wolves in the northern latitudes have often found themselves in direct competition with human hunters. A competitor--and a successful one, at that--is a strange choice for domestication. Why would humans encourage close association with another predator? The answer, in part, lies in the human's ability to interject himself into the wolf's social system. The results of this ability have had far-reaching consequences.

Recent work on the genetics of canids proves that the ancestor of the dog is the gray wolf. In fact, the geneticist Robert Wayne states, "dogs are grey wolves, despite their diversity in size and proportion; the wide variety in their adult morphology probably results from simple changes in developmental rate and timing." The results of Wayne's analysis show that gray wolves and dogs vary by just 0.2 percent in their mitochondrial DNA; the distance between wolves and coyotes is twenty times this amount. In other words, as far as their mitochondrial DNA is concerned, dogs are virtually identical to wolves.

If a dog is, genetically speaking, a wolf, what are the differences between the two species? The differences in the morphology and in behavior of dogs are the result of their retention of juvenile characteristics. This is an archived page. Return for them arrested development is neoteny. Many of the physical variations among dog breeds result from the same process, the neotenization of wolf morphology. In his 1986 paper on the cranial morphology of canids, Robert Wayne states that "all dog breeds are exact allometric dwarfs with respect to measures of skull." Though their skull size is comparable to that of foxes, the shape is different. Dogs have the skull proportions of juvenile wolves, and the smaller the dog, the more puppylike the appearance of the adult animal. The dog's skull is much wider relative to its length than that of any of the wild canids.

General reduction in size and retention of juvenile features in the adult have been noted in other animals altered by domestication. Smaller snout size was not what people were selecting for when they interfered with breeding populations. They were interested in behavioral traits, not morphological ones. With the wolf/dog, it was puppylike behavior that humans wanted in their adult animals. Wolf pups, not yet incorporated into the adult hierarchy, exhibit a freedom of behavior usually described as play. In wolf society, subadults and adults follow very different sets of behavior. A playful adult will be expelled from a wolf pack, but in human society a playful wolf is the only kind likely to be tolerated. Perhaps it is the wolf's great need to be part of a group that leads it to human habitation. Might the wolf recognize a kindred spirit in the human camp?

Some scholars have suggested that the maternal instinct of women coupled with the universally appealing canid pup orphan was the path by which animals entered human camps. Indeed, there are many ethnographic accounts of women suckling dog pups. Without question, humans, and perhaps women in particular, feel a strong connection with those cuddlesome creatures that have the ability to look humans straight in the eye. But an immature animal's appeal to humans does not explain the dog's place in all manner of societies. Pet keeping, the bringing of wild animals into camp to be raised and even pampered, has always gone on. Among the Guianas of northern South America, it was reported in 1924 that "women will 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. It is the women who especially cultivate the art of bird taming, some of them holding quite a reputation in this respect." Taming an animal does not make it domesticated, and most wild animals raised as pets either do not reproduce in captivity, become unmanageable as adults, or run away.

Dog and wolf pups have a set of behaviors that other animals do not possess. Dog owners frequently will state that their dogs love them, but love is impossible to test. The behaviors that make the human feel loved are easier to deal with. In particular, the welcoming behavior and attentiveness that the animal confers on the human can be observed, and the tail wagging and the eye contact on the part of the dog are interpreted as affection. This expressiveness, also seen among wolves who have elaborate greeting behaviors, cements the bond between owner and pet. As James Serpell states, "In short, the dog is almost human, but, owing to its subordinate status, it displays few of the signals which people perceive as competitive or threatening in their interactions with each other."



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