History and Domestication

Pets in Society
Animals have been domesticated since prehistoric times

- Dogs- first domesticated animal- 12-14,000 years ago
- Cats- 4-9,000 years ago

Detroit Institute of Arts

New Guinea Singing Dog Conservation Society
Domestication vs. Taming

• Domestication: care, feeding, breeding, survival of an entire species is under the control of people

• Tame: one individual allows human contact

“Each new generation must be tamed”
Wild: a species or individual that is not domesticated or tame

Feral: an individual of a domesticated species that now lives in a wild state
Six criteria that species need to meet in order to be considered for domestication (according to physiologist Jared Diamond)

1. Flexible diet
2. Reasonably fast growth rate
3. Ability to breed in captivity
4. Pleasant disposition
5. Temperament which makes it unlikely to panic
6. Modifiable social hierarchy
   • A herding instinct is helpful- tame one and others will follow, regardless of chiefdom.

From Nature vol. 418, Aug. 8, 2002 - Jared Diamond - Evolution, consequences and future of plant and animal domestication
Dogs (*Canis lupus familiaris*) were the first domesticated animal

- 14,000 Years ago - toward end of last Ice Age
- Middle East? East Asia?
- Domesticated from wolves
- Hunter-Gatherer societies
- Likely used for hunting/tracking

[Dogs that changed the world](http://www.pbs.org/wnet/nature/dog/)
“Intentionality” of domestication (natural vs. artificial selection)

Did humans control dogs

or

Did humans just provide a new environmental “niche” that dogs filled?
“Recent” Domestication Experiment- started in 1950s

- Dmitry Belyaev- Russian geneticist
- Started with 130 Commercial fox farm silver foxes (caged conditions for 50 years)
- What was Belyaev’s hypothesis?
  - Selecting for tameness alone will result in changes in physiology, morphology and behavior
What was Belyaev’s Selection Criteria for breeding?

“Tameability” alone
• Only bred 5% of males
• Only bred 20% of females

Drew from many farms to prevent inbreeding
Belyaev Foxes

Results

18% in “domesticated” category by 10th generation
70-80% in this category now (40-50 years later)

- Physiological, morphological and behavioral changes
  - Coat color changes
  - Whining, seek human contact
  - Decreased adrenal stress response
Like the foxes, domesticated dogs retained the juvenile characteristics of wolves—“neoteny”

- Broad skulls, juvenile behavior traits—whining, barking, submissiveness
- Dwarf and giant breeds, different coat colors, floppy ears
- Changes in reproductive cycles—earlier maturation
Pet-owning has occurred in many cultures throughout the world and throughout historic times.

- Many dog remains from 9,000-7,000 BC

Grave of human and puppy
12,000 years BC
Humans and dogs dispersed together throughout Africa, Asia, Europe

- Crossed Bering Land Bridge with humans into Alaska more than 10,000 years ago
Native American Dog Travois

Inuit sled dogs- 2,000 year old breed

New breeds and types came following European settlement
Throughout written history - reports of Greeks, Romans, Egyptians all keeping dogs

- Dogs were used for hunting, farming, herding, guarding, war
History of Assistance Dogs

- Seeing Eye Dogs first used in Switzerland and Germany following World War I

Canine Companions for Independence founded 1975

Morris Frank and Buddy—First Seeing Eye dog in US- 1928
Therapy Dogs and the Effect of Pets on Human Health

• Boris Levinson and “Jingles”—child psychiatrist—numerous case studies—1960’s
• 1980- Friedman, et al.—Increased survival following heart attack in dog owners
• Past 25 years—much more research
Cats (*Felis catus*)

- Evidence in Cyprus (cat, mouse, human bones buried together)- 8,000 years ago
- Truly domesticated probably 4,000 years ago (are cats truly domesticated?)

Science, April 2004
Likely descended from **African Wild Cat** (*Felis sylvestri libyca*) and/or **European wild cat** (*Felis silvestris*)
Ancient Egypt- Cats were revered and protected

- Bubastis- many cats, revered, temples, many mummies
- Killed mice, protected food stores- “Farmer’s Pet” whereas dog is “Hunter’s Pet”
- Bastet- Cat goddess
- Bast- head of cat, body of human
Cats were heavily protected during the reign of the Pharaohs

- Capital offense to kill a cat (intentionally or by accident)
- Illegal to export but some found their way onto ships (valued as rat killers)
- Found their way to Europe around 900 B.C.
The Middle Ages in Europe were the Dark Ages for Cats

- Associated with witchcraft - familiars
- Pope Gregory IX denounced black cats as Satanic in his 1233 Papal Bill
- Thousands killed - burned at the stake, thrown off church towers
- This likely led to the spread of bubonic plague - 14th century (weren’t enough cats around to kill the rats)
The Fieldbook of Natural History (New York:1949) description of cats:

- “Known to be a disease carrier… Cannot be trusted. Probably loved, hated, or tolerated by most persons but not economically valuable; however, cats do eat many destructive rodents such as rats and mice.”
About 38 million cats are kept as pets in US (more cats are owned than any other species)

- Mid 60’s at US vet schools people were ostracized for wanting to study cats- “Why waste your time?”
- Today- the same Vet school has a Feline Health Center devoted to studying cats and developing vaccines and treatments specifically for cats
The history of Fish/Aquariums

- Fish kept in enclosed areas 4,000 years ago- Sumeria- food source
- Egyptians- Nile Perch worshipped as a deity
Fish as “Pets”

- China and Japan- ornamental carp as pool fish- 960-1279 AD- probably first to control breeding with success
- England- goldfish introduced between 1611 and 1691- then spread to Germany and Holland
• 1853- first public aquarium opened-
  London zoological gardens- Increased science
1950’s- brought better freight, better heaters, more scientific information-more species

“The latest electrical accomplishment in the field of ichthyology is an automatic heater for tropical fish aquariums developed by the Westinghouse Electric and Manufacturing Company”
Today

nearly 16 million

US households have fish

- Tropical and pond fish are huge industry
- Public aquariums allow visitors to experience ocean and river life first-hand-education
In the past 100 years- U.S. Has become a much more urban/ non-rural society

- U.S. Census Bureau Data
Pets in today’s society

• For some (particularly in more rural/farming areas) pets may play very similar role to past 50 years

• For many others, pets remain the only animal species that we still have direct contact with
“…living animals continue to be pervasive in children’s lives, but now, increasingly, a narrow band of species serves only as companions and love objects. These dogs and cats, rabbits, guinea pigs, birds, hamsters, snakes, and turtles are ambassadors of “the Others”, the animal species wild and tame that are no longer immediately present.”

– Gail Melson in Why the Wild Things Are-Animals in the Lives of Children