

In the Company of Cats

How cats have survived, thrived and captivated us for thousands of years. **BY SHERRY BAKER**

If your cat's bossy attitude and entertaining antics have you catering to her needs, you are not alone. Your thoroughly modern kitty is descended from a long line of ancestors who likely used those same skills to cajole, sneak and work their way into the lives of humans for thousands of years.

"What sort of philosophers are we, who know absolutely nothing about the origin and destiny of cats?" the American essayist, naturalist and feline lover Henry David Thoreau asked back in the 19th century. Today, the answers are finally at hand: Thanks to new archaeological discoveries and advances in DNA analysis, we've come up with some surprising insights into this most ancient pet.

DOWN ON THE FARM

DNA studies have traced most of today's domesticated cats, species name *Felis silvestris catus*, to ancient wildcats of the subspecies *Felis silvestris lybica*. These wildcats were found in North Africa and the Near East at the dawn of human farming some 10,000 years ago, and genetic

analysis shows that most cats had the stripes and coloring we associate with today's tabby.

Archaeological evidence concurs: Stone and clay statues up to 10,000 years old suggest that cats were culturally important in the areas that are now Syria, Turkey and Israel. And bones of cats from about that time period have also been

preservation, were both positioned with heads pointed west. That suggests to Vigne that the cat could well have been a beloved pet.

GLORY DAYS IN EGYPT

Researchers say that cats have long been helpers to human farmers in several areas of the Mediterranean

Cats working on farms some 10,000 years ago, at the dawn of human agriculture, looked like the tabby of today.

found on the island of Cyprus, where they presumably arrived by boat.

There's evidence that at least some of the cats could have been pets at that time too. Denis Vigne, head researcher at the French National Center for Scientific Research (CNRS), and colleagues discovered the remains of a cat on Cyprus, buried close to a 9,500-year-old human grave filled with valuables like polished stones. The cat and man, in similar states of

and the Near East. But some 4,000 years ago, in ancient Egypt, they were elevated in status to much, much more. "Egypt was an agrarian society, and therefore cats became very important to the people who were tilling the fields and storing the grain, because cats could get rid of vermin. But it didn't take long for cats to find their way into Egyptian homes and then become part of the ancient Egyptians' everyday routine," explains Egyptologist

Feline ancestors of today's domestic cats still live and thrive in Asia and Africa.

An African wildcat (*Felis lybica cafra*), perches in a tree.

A bronze statuette of Bastet, a sacred animal that Egyptians associated with fertility.



Ancient Egyptians looked at cats and saw in them the spark of divinity.

In ancient Egyptian mythology, the cat, Bastet, was a goddess of fertility, childbirth and home.

Melinda Hartwig. “But Egyptians didn’t domesticate cats. Cats domesticated themselves. They were lovable pets as well as hunters.”

The ancient Egyptians looked at the natural world and saw in it the embodiment of the divine, Hartwig, curator of Egyptian art at Emory University’s Michael C. Carlos Museum, explains. “They didn’t look at cats as divine, but they saw cats as having a spark of what makes divinity.”

From that came depictions of gods and goddesses with feline qualities, often animal heads and human bodies. Two of the most important cat goddesses in Egyptian mythology were the fierce lion-headed goddess Sekhmet, a protector of justice, and Bastet, associated with the home, fertility and childbirth.

A visit to *Divine Felines: Cats of Ancient Egypt*, an exhibition at the Carlos Museum, reveals the pervasiveness of cats in Egyptian life: cat-shaped wooden coffins for cat mummies; amulets in cat forms; luxury items decorated with felines; and a cast-bronze figurine of a cat nursing four kittens. Tomb paintings show cats, realistically portrayed, peering out from under their masters’ chairs.

Notably, when felines died, they were embalmed, mummified and buried with or near their owners; living grieving humans shaved off their own eyebrows in mourning when their pet cats expired. Statues of cats were often adorned with gold earrings and nose rings. Were Egyptians so taken with their feline companions that they made jewelry for them?



This cat mummy dates to between 672 and 332 B.C.E. and sits in the Louvre.

“That’s the main question I get asked at lectures,” Hartwig answers with a laugh. “My answer,

FROM ASHES TO AWESOME The Story of Cat Litter

CATS WERE LARGELY

relegated to the outdoors until the arrival of a 20th-century concept: the indoor “toilet” equivalent for felines, the litter box, allowing cats to be domesticated at last. Messy and sometimes unsanitary things like ashes, dirt, sawdust and sand were first used in boxes so that cats given the opportunity to live inside had a place to “do their business.” But the lives of cats and cat owners changed dramatically in 1948, when a Michigan man named Edward Lowe gave us modern litter.

Lowe worked in his father’s company, which sold industrial absorbents like sawdust and clay. One day a neighbor asked if he had any sawdust she could have. She’d been using ashes in a box for her cat to “go” in, which left paw prints all over her home. Lowe had a bag of liquid-absorbent clay called Fuller’s earth handy, and he thought that might work better.

It did. The neighbor noted that the clay didn’t track and vowed never to use anything else in her feline’s box. She shared the news with cat-loving neighbors, and demand for the clay grew.

The rest was a new chapter in cat history. Absorbent litter, which cut down on the strong odor of cat urine as well as the tracking problem, likely played a large role in the popularity of pet cats.

Over the years, a host of different types of cat litters have been developed. Some are made from recycled newspaper and even corn, but most still rely on some form of clay.

The most-modern litters often include many additives that Lowe’s original Kitty Litter never

Modern kitty litter has allowed cats to live inside.



contained, like clumping agents; antiodor sprays, including PTFE (better known as Teflon); and perfumelike scents.

Litter boxes now come in a large variety too—deep pans, covered boxes and disposable pans. Battery-powered self-cleaning litter boxes work with a raketlike instrument that moves across and through the litter, sifting out waste and depositing it into a receptacle at one end of the box that closes automatically. This holds in odors until the cat owner removes and dumps the container.

But are these improvements always best for cats? And do cats even like them?

Cats seem most agreeable to a clumping, unscented, simple litter, according to Atlanta veterinarian Tabitha Tanis, D.V.M. She notes that opting for low-dust, nonscented litter is especially important for cats; moreover, they often dislike the feeling of different-shaped pellets and the crystals found in “fancier” litters.

“If your cat is not scratching in their litter and covering their waste, they may not like the way the litter feels,” Tanis says.

When it comes to litter boxes, meanwhile, shallow, open pans are often preferred by cats, especially elderly felines with arthritis, although some will adjust to boxes with closed tops.

POPULATION CONTROL

Safer Spaying and Neutering

CATS' SEX LIVES WERE LONG

a problem for humans. When feline reproductive systems were unchecked, females went into heat, "calling for mates" and producing litters of mostly unwanted kittens. Male cats roamed, looking for females, and fought loudly with one another, causing injuries and infections. So it's no wonder some cat lovers turned to spaying females and neutering males when it was first offered in the 19th century. However, it was anything but easy on the pets.

In the 1893 pamphlet *The Diseases of Dogs and Cats and Their Treatment*, an anonymous veterinarian described rolling male cats up tightly in

blankets so their legs were immobilized as the vet castrated them, usually with no anesthesia (unless pet owners paid extra for chloroform). Another described an approach to neutering a male cat that involved sticking the animal's head in a boot and castrating them with a knife while the tomcat's rear was stuck in the air.

"Female castration" was available too and involved two incisions to remove the ovaries. By 1925, veterinarian Hamilton Kirk described advances in spaying and neutering—including using anesthesia and sterilizing surgical instruments—in his book *The Diseases of the Cat and Its General Management*.

Although spaying and neutering

cats became more widely available in the 1930s, the feral, stray and unwanted cat population dumped at shelters increased. Before 1970, euthanasia rates in the U.S. rapidly increased—and shelters routinely euthanized more than 100 cats (and dogs) per 1,000 people in their communities, according to the Humane Society of the United States.

With the advent of low-cost spay-and-neuter facilities in the late 20th century and

the accumulation of evidence showing that neutering procedures weren't cruel but helpful to cats, most pet owners came to agree that having their kitties "fixed" was a responsible and necessary part of pet ownership.

Ovariectomy, which removes the ovaries, fallopian tubes and uterus from a female cat, and orchietomy, which removes the testes from a male cat, are the most popular forms of neutering cats today. The health benefits of these surgical procedures include reducing the risk of uterine infections and breast cancer in females and lessening the risk of testicular cancer in males. Fears that neutering and spaying would affect a cat's intelligence or ability to play are now known to be unfounded. What's more, reducing cats' breeding instinct makes them less inclined to roam and more content to be stay-at-home pets.



Cats live longer, healthier lives if they don't give birth to litter after litter.

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Cats on ships can keep rats under control during long voyages.



Cats explored new lands with their human settlers.

always, is this—would you want to pierce a cat's ear? You'd be sliced and diced. Most likely, the addition of jewelry on the statues was to show that cats were an aspect of the sun god Ra. The gold jewelry is yellow like the sun."

BRUTALITY OF THE CAT INQUISITION

At first, reverence for cats spread around the globe. Cats in Norse and Celtic myths from Europe, for instance, are depicted as magical and powerful. But it was not to last. With the rise of the Roman Empire and the Christian church more than 2,000

desert climes of the Middle East through Europe to the Americas was through long journeys by sea. "Though cats are said to hate water, it has always been their way around," writes Abigail Tucker in *The Lion in the Living Room* (2016). As companions on ships, cats not only kept rats under control during the long voyages, Tucker points out, but they were particularly suited to ocean journey: Coming from the desert, they didn't need much water. And, unlike humans, they didn't even need vitamin C, so scurvy in cats was not an issue at all. And perhaps most important, the cats kept travelers company.

Cats were so essential to ship culture that some old salts wouldn't sign up unless felines were conscripted too.

years ago, pagan symbols—including those of cats—were widely rejected.

Felines were attacked and slaughtered across Europe, especially after Pope Gregory IX (1227–1241 C.E.) launched the Inquisition. He denounced cats as so evil as to be in league with Satan. That's when the image of the witch with the black cat took hold in the popular mind.

CATS RISE AGAIN

But due to their survival skills in the wild—and, no doubt, to humans who sheltered cats from the feline version of the Inquisition—cats persisted. As settlers traveled around the world on ships, they took their cats with them. These cats kept vermin aboard ocean vessels under control, and they became pets and helpers for farmers and other humans on land.

The cat's route from the hot,

Tucker says that mariners have long invented cat toys, and "over the centuries, cats became such a quintessential part of ship culture that many superstitious old salts wouldn't come aboard unless cats were also conscripted." And so, cat companions spread worldwide.

DOMESTIC TECH BRINGS KITTY HOME

The elevation of the cat to cherished family member, not just for royalty but the masses, made its final climb over the past 75 years. That massive shift in how cats live was aided by crucial advancements in technology. Our human interventions—including new and improved litter that allowed cats to relieve themselves indoors, better cat nutrition and advanced scientific methods of birth control—allowed the once wild animals called cats to bridge the gap to domesticity and, today, live entirely indoors with us. 🐾

CAT CUISINE

From Rats and Table Scraps to Gourmet Dishes

LONG BEFORE ANYTHING KNOWN

as cat food made specifically for felines was invented, cats were taking care of their own high-protein nutrition needs, catching mice, birds and whatever else they found hunting in the wild. Cats lucky enough to live near or with humans were often offered table scraps. But in the latter part of the 19th century, there was a change. While working in London, American lightning-rod salesman James Spratt saw dogs gobbling up leftover biscuits from a ship and was inspired to make to create the first commercially prepared pet food initially for dogs, then for cats. The company, Spratt's, was so successful in England that a U.S. operation was opened in 1870.

Cat lover and writer Gordon Stables' 1876 book, *Cats: Their Points and Characteristics* (still in print) urged people to feed cats regularly instead of leaving them to live from hunting alone. In addition to table scraps, Stables endorsed the then new food made specifically for cats: Spratt's kibble, sold in packets.

By the 1900s, commercial cat food was gaining in popularity and by the 1950s, was widely available in versions including canned, dry and semi-moist. The variety of cat foods—countless shapes and colors, catchy names and new formulations, fortified with nutrients—has continued to grow into the 21st century.

But the well-fed cats of today are, too often, overfed. Like American humans, cats in the U.S. are facing an obesity epidemic. Veterinarians now classify about 60 percent of cats as obese, raising the risk for feline arthritis,

high blood pressure, kidney disease and certain cancers.

Not all cat food may be healthiest choice for your cat, according to feline-health experts. Talk to your veterinarian about the best kind—and appropriate amount—of food for your cat.

SMART NUTRITION TIPS FOR 21ST-CENTURY CATS

Look for the term AAFCO Approved on the label of cat food. The American Association of Feed Control Officers (AAFCO) designation means it meets minimum standards for feline nutrition and ensures a balanced diet, according to cat specialist Drew Weigner, D.V.M., hospital director of The Cat Doctor, Atlanta's first feline practice.

Not all healthy-sounding cat foods are actually good for cats. "Conventional, organic, grain-free and holistic variations are all available and appropriate for most cats," Weigner points out. "But raw diets, because of their limited shelf life and association with pathogenic bacteria and parasites, are not recommended."

Vegetarianism is fine for people, not cats. Felines are obligate carnivores, meaning they rely on nutrients found only in animal sources. Yes, there are vegetarian foods loaded with supplements on the market, but most veterinarians are firmly opposed to no-meat

diets for cats. "Cats cannot survive on a vegetarian diet, since they need nutrients that are present only in animal tissue," says Janice Floyd, D.V.M., director of feline medicine at Briarcliff Animal Clinic in Atlanta. For example, cats need the amino acid taurine for the prevention of eye and heart disease, as well as for reproduction and fetal growth and survival; taurine is found exclusively in foods such as meat and fish.

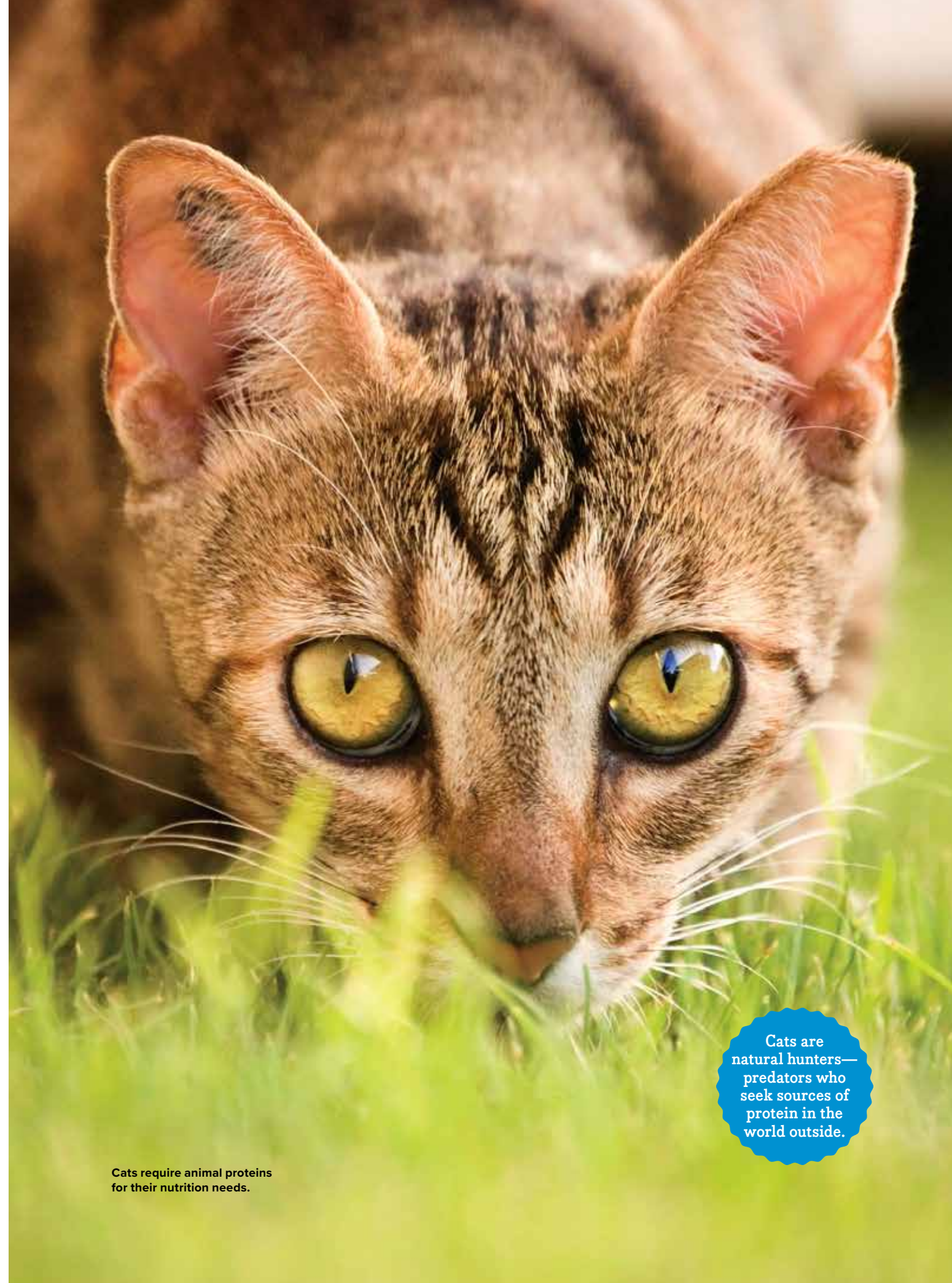
HOW CAT FOOD CAN TREAT AND HEAL

Starting in the 1970s, veterinarians began selling "prescription" cat foods to help with kidney disease. Advances in nutrition research have increased the use of specific cat foods as medicines. "There is now a plethora of diets available to treat various diseases, from urinary tract stones to intestinal disease and even obesity," says Weigner, who is also president-elect of the nonprofit Winn Feline Foundation, which supports cat-health research.

"More recently, diet therapy for diabetic cats has markedly improved quality of life and, in some cases, cured the disease. Considered controversial at the time, research supporting the feline diabetic diet—funded by the Winn Feline Foundation—is now considered foundational, and [it's a] standard therapy for the treatment of diabetic cats."



A British shorthair, relishing the tasty meal served by his human family.



Cats are natural hunters—predators who seek sources of protein in the world outside.

Cats require animal proteins for their nutrition needs.