

CENTENARIAN

Updating the science of the *PopSci* archives **BY BILL GOURGEY**



music for the menagerie

• When English playwright William Congreve wrote “music hath charms to soothe a savage breast” in his 1697 tragedy *The Mourning Bride*, any real efforts to measure how nonhuman animals produce and perceive music—or zoomusicology—were far in the future.

Early 20th century efforts to test the oft-misquoted quip (“beast” rather than “breast”) appeared to prove it quite wrong. In July 1921, *Popular Science* covered one such interlude at New York City’s Central Park Menagerie—now just the “zoo.” “The polar bear exhibited astonishment,” and a small tame wolf “ran wildly around, panic-stricken.” The elephant stood out, seeming oddly unfazed.

The purpose of the demonstration, according to an account in *The New York Times*, was “to gauge more or less scientifically the effect of jungle music on animals.” (“Jungle music” being a racial epithet for 1920s jazz, which was commonly associated with Black musicians and anti-Victorian counterculture.) “There were some sketchy theories about animal songs and music back then,” says Emily Doolittle (no relation), a zoomusicologist and composer specializing in songbirds.

Scientists ranging from neurologists to veterinarians have since dug into figuring out which tunes our furry, feathered, and flipped pals do—or don’t—want to hear. In 1996, when a team at the Southwest Foundation for Biomedical Research played the radio for baboons, their heart rates slowed. One 2004 study published in *Brain Research* showed that listening to Mozart reduced systolic blood pressure by 15 percent in some rodents. And in 2008, a

music theorist played clarinet for a humpback whale who seemed to change his own tune in response. Doolittle points out that songbirds experience a surge of happy-making chemicals like dopamine when they chirp at dawn.

Acclaimed cellist David Teie, a zoomusicologist whose compositions cater to cats, monkeys, dogs, horses, and, sure, humans, opts to mimic the creatures themselves. He teases out vocal distinctions between relaxed and agitated critters. His kitty melodies, for instance, reproduce the time signature of feline heart rhythms and the tones of mama cats’ purrs.

As for 1921’s indifferent Central Park elephant? A 2015 violin performance at the Pairi Daiza Zoo in Belgium managed to charm resident pachyderms, who swayed their trunks. But, Doolittle cautions, without data to back it up, we shouldn’t take that to mean elephants prefer classical to jazz.

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Custom-fit clothes have fallen out of vogue. They were so common in the Roaring '20s, though, that a tailor streamlining his workflow by using a camera to capture a customer's measurements made our cover. But, as manufacturers like jeans maker Unspun tap smartphone cameras to create bespoke patterns for any body, we're once again embracing the idea of a perfect fit.

