



Members of the Scott Antarctic expedition fuel up after nearly dying in a blizzard in 1911.

Frozen in Time

They are trendy tourist destinations today, but the polar regions once drew only the hardiest and most adventurous. Freeze Frame (www.freezeframe.ac.uk), a gallery launched last week by the Scott Polar Research Institute at the University of Cambridge in the United Kingdom, provides an inside glimpse of these explorers' grueling travels.

The site offers 20,000 digitized photos and images of more than 20 polar expeditions, most of them British, from the 1840s to the 1980s. There are lots of cold snaps from the journeys of the institute's namesake, the British naval officer Robert Falcon Scott, who lost the race to the South Pole in 1912 to Norway's Roald Amundsen and then died on the way back to his base camp. Other features include profiles of explorers such as Scott's sometime rival Ernest Shackleton, whose 1914–16 Antarctic expedition was marooned for more than a year but managed to reach safety.

Tuning the Brain

Evidence suggests that musical training, especially from an early age, fine-tunes a person's hearing not just for music but also for emotional aspects of speech. Now scientists at Northwestern University in Evanston, Illinois, say they've produced the first evidence of a biological basis for this phenomenon.



Neuroscientist Nina Kraus and colleagues tested 30 young adults in three categories: those with no musical training, those who started learning to play a musical instrument before age 7, and those who started later but had at least 10 years of training. The scientists hooked them up to electrodes that recorded the response of the auditory brainstem to a quarter-second of an

emotion-laden sound: an infant's wail (see illustration). The subjects with the most musical experience responded the fastest to the sound, the scientists report this month in the *European Journal of Neuroscience*. Those who had practiced since early childhood had the strongest response to the parts of the cry for which timing, pitch, and timbre were most complex. The non-musicians, in contrast, "didn't pick up on fine-grained information in the signal," says Kraus.

The experiment reveals "what [a person's] nervous system has become" as a result of musical training, says Kraus. The sounds to which musicians show enhanced perception, she says, are also those that are "poorly transcribed" in the brains of people with language-processing disorders, which means they might be helped by music. Composer Anthony Brandt of Rice University in Houston, Texas, says the study helps show that music is not just "auditory cheesecake," as once suggested by Steven Pinker, but that "its enjoyment is deeply rooted in our cognition."



Fish Gets Its 15 Minutes

A "bizarre" new species of frogfish, found in shallow waters near Indonesia, is striking for not only its swirling stripes but also its strange ways of propelling itself—sucking in and shooting out water, and pushing off the bottom with its fins. Reported in last month's issue of the journal *Copeia* by Theodore Pietsch and colleagues at the University of Washington, Seattle, the reaction "has been almost more than we can deal with," says Pietsch. Googling "psychedelica fish" yields 171,000 hits.

What Galileo Saw

Scientists and historians in Italy have constructed an exact replica of one of the telescopes used by Galileo Galilei 400 years ago. In Florence, researchers at the Institute and Museum of the History of Science and at the Arcetri Observatory have teamed up with optics specialists, nuclear physicists, and glassmakers to produce a 93-centimeter-long instrument with both a converging and a diverging lens that magnifies distant objects up to 20 times.



Researchers have been repeating the observations of the moon, the satellites of Jupiter, the large

stellar fields of Saturn, and the phases of Venus that Galileo described in 1610. Observatory

Telescope, with apparatus for digital conversion of images, points toward villa in Arcetri where Galileo spent his last 11 years.

Director Francesco Palla says the team hopes to distinguish between what Galileo, who eventually lost his sight, reported seeing and what he would actually have seen. Paolo Galluzzi, director of the Florence museum, is seeking permission to extract DNA from the remains, housed in the Basilica of the Holy Cross in Florence, to learn more about Galileo's eyesight.