

DISCOVER

CONTENIDO

VOLUME 31 No. 8, OCTOBER 2010

28 How Far We're Come.

Twelve breakthroughs that transformed the world. ASTRONOMY: planets discovered around other stars. PALEONTOLOGY: dinosaurs demystified. ANTHROPOLOGY: mankind's ancestors unmasked. MEDICINE: the rise of cell therapy. MATERIALS: controlling individual atoms. BRAIN: consciousness mapped. SPACE: seeing the real solar system. GENETIC: secrets of the human genome. PHYSICS: the hidden unity of nature. TECHNOLOGY: transformed by the Web. COSMOLOGY: taking the measure of the universe. ENVIRONMENT: making sense of climate change.
David Kushner.

54 Where Do We Go From Here?

Some of the sharpest minds in science today do a bit of informed crystal-ball gazing: Ken Caldeira on clean energy, Jack Horner on bringing back dinosaurs, Oliver Sacks on brain plasticity. Sylvia Earle on exploring the deep seas, Rodney Broks on robotics, Debra Fischer on the search for alien life, Tachi Yamada on eradicating childhood disease, Neil Turok on what came before the Big Bang, Ian Wilmut on cellular medicine, Sherry Turkle on privacy, and Brain Greene on a theory of everything.
Mac Margolis.

40 Unbelievable.

Why are smart people so gullible? The hotheaded naked ice borer shares some thoughts on the matter.
Paul Hoffman.

42 What We Wanted What We Got.

Once we had elevating visions of jet packs, robot maids, and perfect health. Then along came that nasty thing called "reality".
Wendy Marston.

46 Life Under the Bubble.

The Biosphere 2 project-one of the most lauded and then ridiculed experiments of the 1990's-is making a remarkable comeback as a unique ecology laboratory.
Jordan Fisher Smith.

66 30 Ways the World Will End.

Crank up the paranoia and unwind your gloom and doom: We have assembled the definitive list of disasters that could bring about the swift exhibition of the human race.
Corey S. Powell.

72 **The Long and Winding Road to Fusion.**

Two multibillion-dollar projects are aiming to tap into the energy source that could change the world. A Los Alamos physicist thinks he can beat them to the punch-and do it for one-thousandth the cost.

Tim Folger.

80 **Live Long and Prosper.**

Eternal life? Maybe not. Lengthening our “health span,” rather than our life span, is the new focus of research into aging, as scientists work to delay the onset of disease.

Gary Taubes.

6 **Letters**

7 **Editor’s Note**

8 **Data.**

A troubling bat plague, failed stars, human seismographs, laugh therapy, synthetic life, science of the unknown, a hurricane dissected, and more.

20 **Hot Science**

Best new books and TV, plus a science film festival and a PC game in which you rule the stars.

22 **Brain.**

The mad ringing of tinnitus is teaching us about the brain’s auditory network.

Carl Zimmer.

26 **Vital Signs.**

Ferretting out the elusive cause of a young man’s chronic fatigue.

H. Lee Kagan.

96 **20 Things You Didn’t Know About the Future.**

On the Cover.

A ferrofluid (a suspension of magnetic particles) reacts to a magnetic field in a photo by Nicholas Eveleigh. A video still of the experiment appears on page 1.