

DISCOVER

CONTENIDO

VOLUME 31 No. 7, SEPTEMBER 2010

- 40 **Dream Chasers.**
Now that NASA is getting out of the manned space exploration business, private companies are racing to prove that they've got the right stuff to take over.
David Kushner.
- 48 **Drilling Deep.**
Years before the BP blowout, a Brazilian petroleum giant found an enormous deposit of crude much deeper and much farther offshore than the Deepwater Horizon. And despite the new concerns about deep oil, plans to tap Brazil's deposits are proceeding full speed ahead
Mac Margolis.
- 52 **When Oil and Water Mix.**
From 1,500 feet, the befouled Gulf of Mexico seems remarkably peaceful — and strangely neglected.
Amy Barth.
- 54 **The Incredible Shrinking Brain.**
Call it the descent of man: Humans have been losing gray matter since the Stone Age, and nobody knows why. Are we getting dumber, or are we learning to do more with less?
Kathleen McAuliffe.
- 60 **Sim Sverything.**
Sometimes reality is too difficult to analyze directly. No problem: These days, supercomputer models make it possible to build simulations of supernova explosions, quaking faults, cellular chemistry, engine combustion, and more.
Andrew Grant.
- 66 **Games Without Frontiers.**
The newest video games work by tapping into the real-world ways we learn, interact, and build societies. Four experts weigh in on where the technology will take us next.
- 8 **Contributors**
- 9 **Mail**
- 10 **Editor's Note**

- 12 **Data.**
Dirty secrets of Canada's tar sands, a mammoth telescope, aircraft of the future, atomic spin, the military's giant magnifying glass, rise of the superbugs, spiderweb science and more.
- 24 **Five Questions for Sarah Heilshorn.**
Her engineered stem cells may one day heal stroke and paralysis.
Amy Barth.
- 26 **Hot Science**
Best new books, TV, and DVD.
- 22 **Destination Science.**
Caves, hot springs, and diamond fields — Arkansas is full of surprises.
- 28 **The Brain.**
Deconstructing our sixth sense: the sense of space around us.
Carl Zimmer.
- 32 **Field Notes.**
Biologists learn how to talk to bacteria.
Dava Sobel.
- 36 **Future Tech.**
Can smart phones and GPS defeat the traffic jam?
David H. Freedman.
- 38 **Vital Signs.**
A Mysterious coma — and a family kept in the dark.
Tony Dajer.
- 80 **20 Things You Didn't Know About Teeth.**
Megan Talkington.

On the Cover.

Files collected by entomologist Ashley Kirk-Spriggs during a 2010 expedition to the Congo Republic.
Illustration by John MacNeill.