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# Coal Age

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## FEATURE ARTICLES

- 26** A Story of Revival: United Coal's East Gulf Preparation Plant  
*Some say beauty is in the eye of the beholder. But when United Coal purchased the assets of White Mountain Mining in late 2005, the attractiveness of the acquired assets didn't require much debate.*
- 32** Roof Bolting Equipment & Technology  
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- 38** Cost Control for an Uncertain Economy  
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- 12** Quality updates provided for Mozambican coking coal  
India ECL banks on Rajahal Mines to hike output
- 14** Japanese steelmakers, BHP agree on cut in coal price  
RAK is constructing coal infrastructure in Indonesia

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*This month, Coal Age offers a glimpse of what readers can expect from both the Haulage & Loading and Coal Prep conferences. On the cover, United Coal's recently renovated East Gulf prep plant (Photo courtesy of United Coal).*

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On the cover...

Top: Rick Dreyer (left) and Mike Hamby Gundlach Equipment Corporation a subsidiary of K-Tron International, the premier coal crusher manufacturer in the world.

Bottom: T.J. Gundlach, The Old Man who galvanized the evolution of coal preparation.

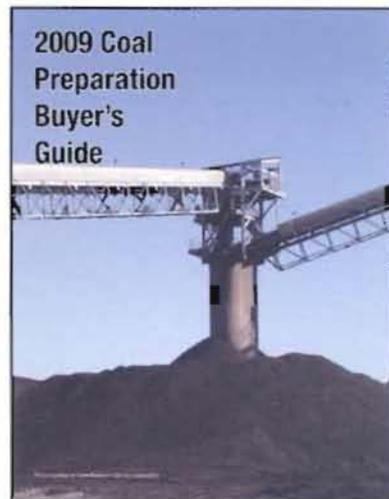


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Photo courtesy of Frank Russom –  
Derrick Corporation



# EARTH

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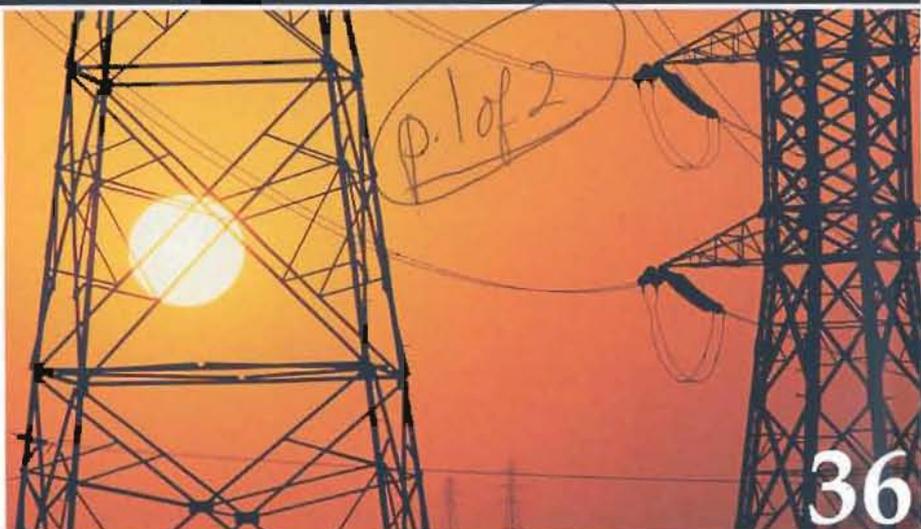
[www.earthmagazine.org](http://www.earthmagazine.org)

## FEATURE

### MAKING ELECTRIC GRIDS SMARTER

Building new power plants and increasing efficiency of our appliances and light bulbs will only go so far in meeting growing demand for electricity. What could really make a difference is smart grid technology. Such technology has been deployed in places like Boulder, Colo., and is saving consumers and electric companies both energy and money.

Brian Fisher Johnson



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## FEATURE

### FROM DRY DOCK TO WET TAP

Global demand for water is increasing, even as severe droughts set in, natural disasters strike and wars take a toll on supply. But the world may be able to meet that demand by converting old ships into floating desalination plants, which could convert seawater to freshwater and pump it to shore, providing freshwater to areas ravaged by natural disasters or war.

David Kreamer



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## FEATURE

### EARTH'S ALIEN PLACES

Planetary scientists would love to jet over to Mars, Venus, Io and other planetary bodies for a firsthand look, but the technology for deep space travel isn't there yet. So scientists turn to the next best thing — almost-other-worldly locations on Earth — as analogues to test their hypotheses, equipment and endurance.

Chelsea Wald



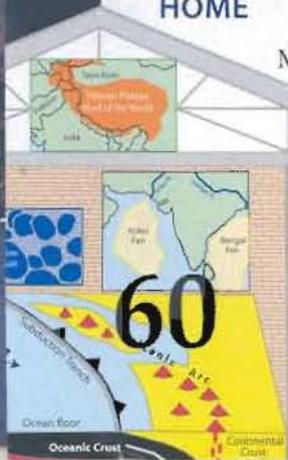
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## FEATURE

### GEOSCIENCE VOCABULARY MAKES EARTH RIGHT AT HOME

Many words in earth science describe Earth's features and processes in terms of a home with fine architecture and furniture.

Rasoul Sorkhabi



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### USING CITIZENS IN SCIENCE RESEARCH

Ordinary citizens participate in scientific research, scanning the skies for supernovae and galaxies, and tracking birds, weather, amino acids and earthquakes from their homes.

Cassandra Willyard



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## EDUCATION AND OUTREACH

### STUDENT SCIENTISTS CAST A LONG SHADOW

At last year's annual meeting of the American Geophysical Union, a middle school student — the youngest presenter ever — commanded his own audience.

Carolyn Gramling



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Making Earth's electric grids smarter. Illustration by Nicolle Rager Fuller, [www.sayo-art.com](http://www.sayo-art.com), copyright 2009.

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**Scott Burns**
- 87 **A COMMENT**  
PROTECTING PEOPLE, PROPERTY AND ECONOMIES WITH CLIMATE PREDICTIONS  
Climate extremes such as heat waves and droughts are predicted to intensify and occur more frequently in the future. Regional climate predictions can help mitigate the damages from such events.  
**Michel Jarraud**
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FEAR OF THE C.H.U.D.S  
Perhaps the reason no one wants a nuclear waste repository anywhere near their own backyards is not political, but based on fear of C.H.U.D.s or other scary monsters from B-movie horror flicks.  
**Stephen M. Testa**

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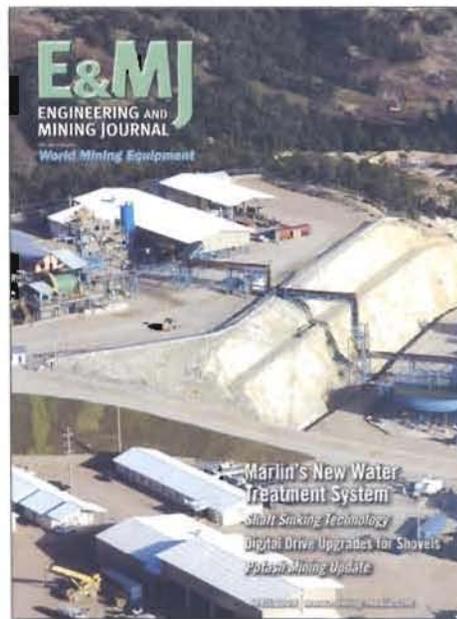
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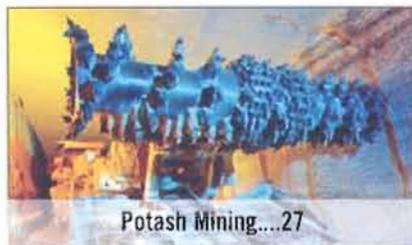
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Located in the western highlands of Guatemala, the Marlin gold mine recently commissioned a new state-of-the-art water treatment facility. (Photo courtesy of Montana Exploradora de Guatemala, S.A.)

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Cover photo and photo right by Tudor Van Hampton; cover photo manipulation by Guy Lawrence for ENR



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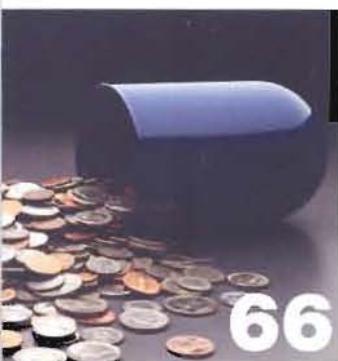
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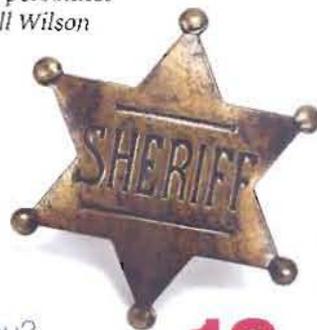


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**Editor**  
Dede Manross  
explo@comcast.net

**Contributing Writers**

John Brulia  
Paul Downing  
R.B. Hopler  
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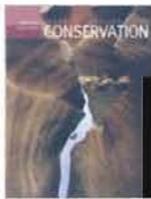
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Water in slot canyon, northern Arizona. Photo by Amygdala Imagery.



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I am pleased to announce we are starting a JAWRA Editor's blog dedicated to issues in modern journal publishing and how it affects multidisciplinary water-resource issues! The blog will allow for timely messages and for an interactive exchange of views with our readers on blog topics. Look for the blog links on the JAWRA home page, [www.awra.org/jawra](http://www.awra.org/jawra). The Message from the Editor will continue to report news of an administrative nature, such as openings for associate editors.



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THE MAGAZINE OF NATURAL RESOURCE MANAGEMENT AND RESTORATION

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**Amy Dencklau**  
Publishing Editor  
landandwater@frontiernet.net

**Shanna Egli**  
Assistant Editor  
lweditor@frontiernet.net

**Martha Steinkamp**  
Circulation Manager  
lwsub@frontiernet.net

**Emily Jones**  
ESCN News Coordinator  
escn\_news@frontiernet.net

**Jennifer Beahler**  
Accounting  
lwacct@frontiernet.net

**Bob Oertel**  
Contributing Writer

**Issy Weaver**  
Photographer

### SALES

**Gail Henry**  
Account Executive  
russell2@lvcta.com  
phone: 515-548-3872, or 515-576-3191

**Kim M. Kline**  
Account Executive  
kimlandandwater@gmail.com  
phone: 970-846-9015, or 515-576-3191

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The global mining industry may be in the tank but you would not have known that by the number of people who attended the 2009 Prospectors and Developers of Canada convention in March, page 14. Andy Gaudielle won the SME Photo Contest. His cover photo shows an excavator at work following a surface blast at Northland Resources' bulk sample project in Sweden.

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