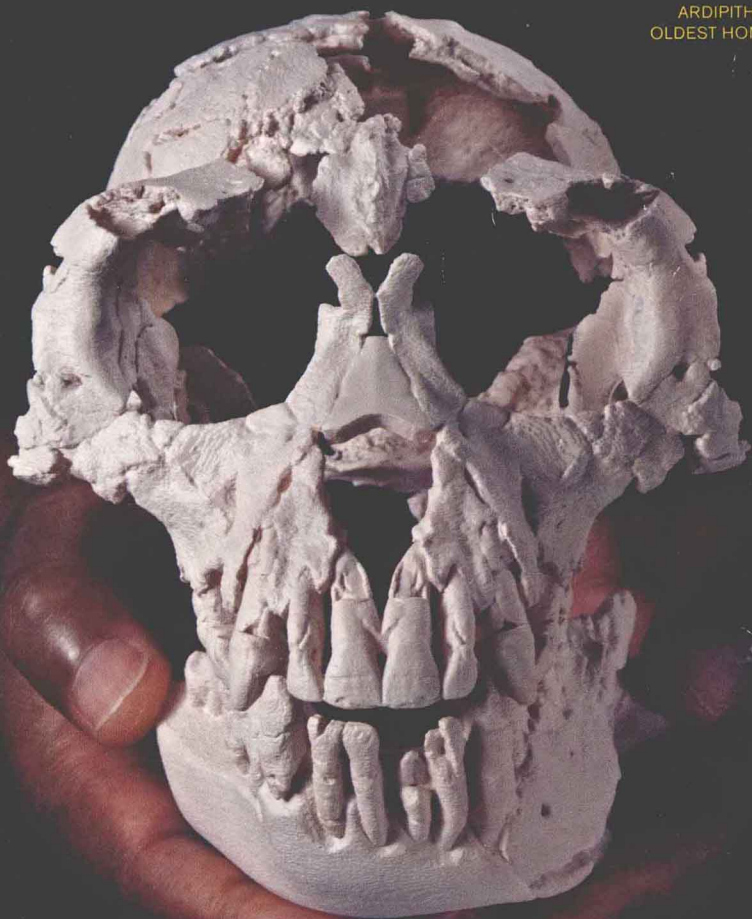


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NATIONAL GEOGRAPHIC

4 Million Year Old Woman

ARDIPITHECUS RAMIDUS
OLDEST HOMINID SKELETON



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THE 21ST-CENTURY GRID 118

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A transmission tower north of Los Angeles carries electricity to the grid. Story on page 118.

JOE McNALLY

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CT scanning and digital technology re-create in resin the 4.4-million-year-old skull of *Ardipithecus ramidus*, held by National Museum of Ethiopia technician Alemu Ademassu.

Photo by Tim D. White

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⚡ Cut Your Power Bill

Boulder, Colorado, is a shining light in the world of energy. Its smart grid—and smarter citizens—are reducing electricity usage. Find out what they're doing—and how you could apply the same strategies.

JOE MCKINLEY

"REINA DOESN'T RISK
HER LIFE FOR A PAYCHECK.
SHE DOES IT FOR ME.

THAT'S WHY I FEED
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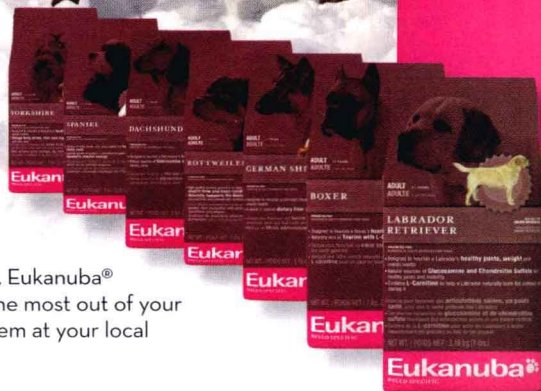
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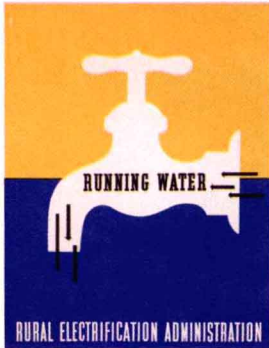
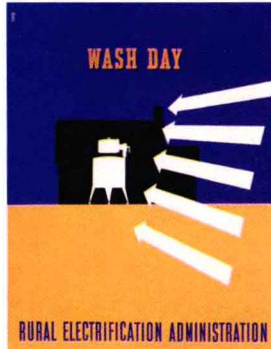
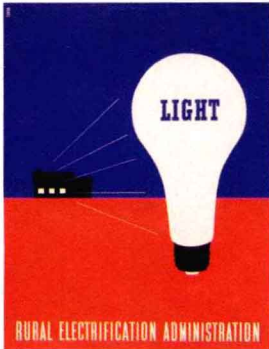
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My grandfather must have been thinking ahead.

As a young man in the 1920s, George C. Johns built a house in Vernonia, Oregon. The town was headquarters for the Oregon-American Lumber Company, then one of the largest lumber firms in the Pacific Northwest. There wasn't much of an electrical grid in those days. Smaller towns (like Vernonia) near industrial centers were more likely to have electrical access than those that were more isolated. Rural folks had it even harder. Only 10 percent of American farms were electrified.



Posters helped publicize the benefits of the Rural Electrification Administration in 1937.

about the grid. Though perhaps you can remember—for a price. The other day I saw a real estate listing for a rural Oregon property near where I grew up. The log A-frame had one bedroom, two baths, and antique furniture that conveyed with purchase. Its big selling point seemed to be a promise of luxury living off the grid. It was priced at more than a million and a half dollars.

I wonder what my grandfather would have thought of that?

Private electric companies had little interest in extending power lines to the countryside.

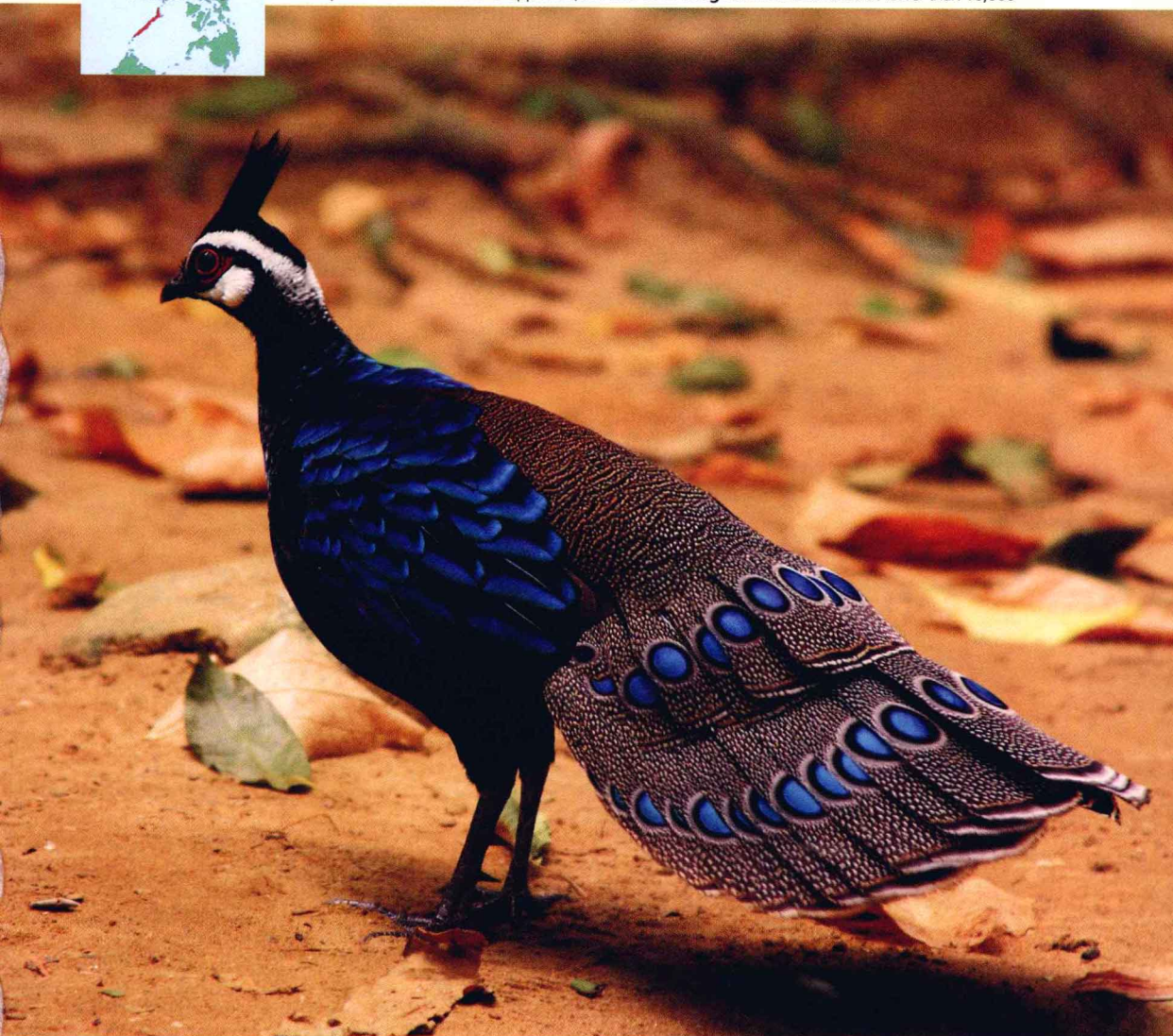
All that changed in 1935 when Franklin Roosevelt established the Rural Electrification Administration. The REA provided low-interest loans to farmers, who formed their own cooperative groups to bring in lines and manage the power. By the end of the 1940s some 90 percent of farms had electricity. The grid was finally in place.

The drudgery of life before electrification is a rapidly vanishing memory, as Joel Achenbach makes clear in this month's story



Palawan Peacock-pheasant (*Polyplectron napoleonis*)

Size: Head and body length, 40.6 - 50.8 cm (16 - 20 inches); tail, 16 - 25 cm (6.3 - 9.8 inches) **Weight:** Males average 436 g (15.4 oz); females average 322 g (11.4 oz) **Habitat:** Low-lying primary forest along Palawan Island's coastal plain and to elevations of approx. 2,600 feet **Surviving number:** Estimated at fewer than 10,000



Photographed by Kurt W. Baumgartner

WILDLIFE AS CANON SEES IT

Will his strut make the cut? The male Palawan peacock-pheasant certainly gives it his all. He struts around the female, holding a morsel of food and bobbing up and down until she approaches, then drops the food and assumes a pose with his tail fully spread, one wing pointing up and the other touching the ground. He raises his crest and points it forward, holding his beak behind the "cape" formed by his raised neck and mantle

feathers so that only his eyes are exposed. The happy couple has eyes only for each other. But their future is far from secure, seriously threatened as it is by the relentless march of deforestation.

As we see it, we can help make the world a better place. Raising awareness of endangered species is just one of the ways we at Canon are taking action—for the good of the planet we call home. Visit canon.com/environment to learn more.

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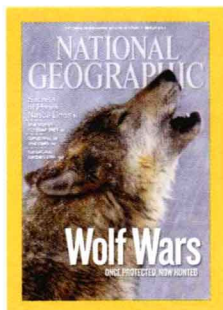
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March 2010

Wolf Wars

Although I was happy to see a wolf on the cover this month, I was disappointed in the article's coverage. To state that "humans are at war with wolves. It is an ancient dispute" is both sensational and ethnocentric. Nowhere in your article did you include perspectives from tribal members in wolf country, who are the only people who have anything to say about a truly ancient relationship with wolves. The Nez Perce tribe would have been a good place to start since its government has partnered with the Department of the Interior to initiate wolf recovery in the region.

DAVID MOEN
Oregon City, Oregon

It is shocking that ranchers hate wolves when wolves take only one percent of reported sheep losses compared with coyotes taking 25 percent, and wolves kill or drive away coyotes. How can hunters hate wolves when wolves cull the sick and weak from elk herds, improving the conditions for the trophy bucks? Author Douglas Chadwick quotes one rancher as acknowledging that "the

general U.S. population wants wolves." Yes, we do. The wolves belong to all of us, not just the hunters of Idaho or the ranchers of Wyoming. The Statue of Liberty does not belong to me just because I live in New York. It also belongs to those hunters and ranchers. And it will be here when they want to come see it. But will the wolves be there for the rest of us? The Idaho and Wyoming plans are not management, or even trophy hunting. They are plain and simple extermination.

GREGORY DL MORRIS
New York, New York

I find the yammering of many native city dwellers opposed to wolf control to be hampering a just cause. Just as a Montana rancher having a deciding voice in whether more or fewer subways are needed in New York City would be seen as absurd, most ranchers, hunters, and inhabitants of rural areas see it as absurd when those with little perspective chime in on the issue. Wolves are a part of our ecosystem. But just as with other predators, a balance of safety, economy, and preservation needs to be hammered out by knowledgeable individuals.

MICHAEL HARMON
Spokane, Washington

We can live with wolves. Non-lethal methods, like livestock-protection dogs, high-tech fencing, fladry, cattle rotation, and more, work even better than just shooting them to death. And as far as elk and other species' numbers going down, that's what happens when you have another species move in and that species

increases in number. But predators don't wipe out their prey base. They would starve to death if they did.

MIKE WAGNER
Louisville, Colorado

You ask whether we want to include the wolf in conserving wildlife communities, but the answer will never come. As the pendulum swings for survival of every species, human beings sit at the top of the food chain and manage all below. We too are natural hunters, and not all humans in the West are interested in trophies to hang in our living rooms. Many of us hunt and fish to put food on the table. Perhaps your question should be rephrased: In conserving wildlife communities, do we want to include human beings, or not?

BONNIE ANGLIN
Tendoy, Idaho

I enjoyed the "Wolf Wars" article. Facts on wolves are desperately needed here in Idaho. Unfortunately, most of the anti-wolf people won't let their opinion be confused by facts. It seems some really think they are saving Little Red Riding Hood and the Three Little Pigs.

GREG LEWIS
Kamiah, Idaho

Corrections, Clarifications

March 2010: Africa's Last Frontier
Page 104: Ethiopia was incorrectly described as the only African nation never colonized by Europeans. Liberia was never a European colony.

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The portrayal of wolf-livestock interactions in the article does not tell the complete story of what is happening in Montana. In a single evening in August 2009, a pack of three adult wolves and five pups killed 122 male adult sheep on a ranch in Dillon, Montana, consuming little to none of the meat. The adult wolves were quite likely giving the youngsters a lesson in hunting. A month earlier, on the same ranch, the pack killed 26 domestic rams. Only 111 total sheep were confirmed killed by wolves in Montana during the entire previous year. Wolf reintroduction is an amazing success story in terms of sheer wolf numbers. But just as wolves were purportedly reintroduced to control elk numbers in Yellowstone, wolf numbers must also be controlled. If there can be too many elk, there can be too many wolves. Kudos to Idaho and Montana for introducing regulated wolf hunts in 2009. I look forward to returning to Montana in the near future to hunt both elk and wolves.

ZACH WEBER
Denver, Colorado

The sentiments of people dealing with wolf attacks in the West parallel those of many people living in north Minnesota (where I grew up). It stands to reason that the ongoing loss of habitat due to mining and logging has driven the wolves from the forest onto people's land. There's no easy solution to the problem. Wolves need to eat, and humans need to make a living. Since the 1970s a war between wolf and human has certainly emerged. I am pretty sure humans started it.

AL BOELK
Amherst, Wisconsin

Peru's Nasca Lines

I am disappointed in the closed-minded attitude presented by author Stephen Hall. He states that the desert drawings have been explained as "most laughably, landing strips for alien spacecraft." While I agree that this seems to be the most outlandish theory, should we laugh it off so quickly? The challenge of archaeology and anthropology is that theories are formed, only to be disproved and reformed decade after decade. Hall himself references Maria Reiche's work and how it was largely discredited. Perhaps in 50 years little green men will have the last laugh on Hall.

JAY DUBBE
New York, New York

Wolf reintroduction is an amazing success in terms of sheer wolf numbers. But just as wolves were purportedly reintroduced to control elk numbers in Yellowstone, wolf numbers must also be controlled.

Based on the photographs on pages 66 and 67, it seems those linear, trapezoid, and spiral stone-ridge structures in Peru would be effective means of concentrating the water from cloudbursts along the upslope side of the stone ridges, thereby increasing

infiltration and reducing the loss of water by runoff and by evaporation at the soil surface. Has a possible function of these structures as water-harvesting and water-conservation devices been considered?

DAVID WEBSTER
Kentville, Nova Scotia

Omo Valley

"Africa's Last Frontier" captured the clash of ancient cultures and modernity in the Omo Valley of Ethiopia—a place I visited in 1991 as an NGO development director. My research showed that some Omo Valley tribes consider themselves related but are not. Yet they maintain peaceful relations as a result of that misperception. Other groups who actually are related (but don't realize it) have historically fought with one another. It is the perception of affinity between tribes, not necessarily the reality, that has dictated relations between Omo Valley tribes, friendly or otherwise.

JIM ROTHOLZ
Germantown, Maryland

Shanghai Dreams

This article demonstrates that the people of Shanghai are not dreaming. They're acting. The development of Shanghai comes at a time when Americans are beginning to feel their inferiority on the scene. Shanghai's desire to be the global capital of the 21st century expresses a position the Chinese held for the majority of human history. They are merely returning to the norm. Man, a century and a half of might sure felt great, America!

MATTHEW HOLDMAN
Murray, Kentucky

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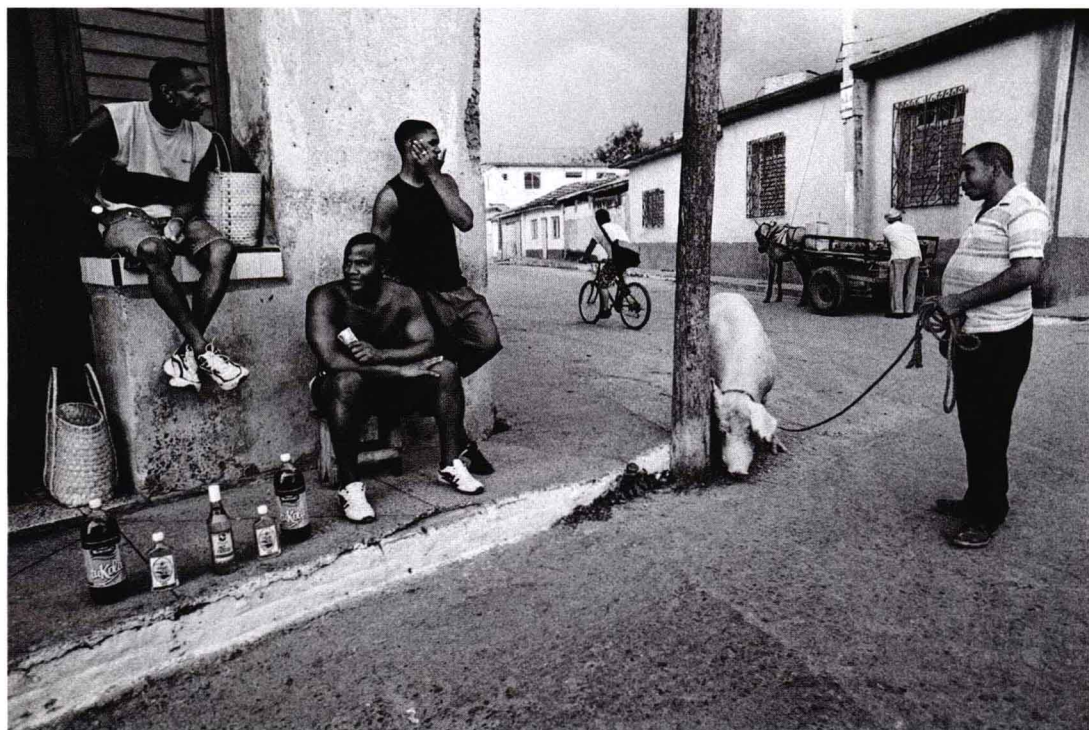
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Compare and Contrast Color is great, but don't forget about black and white. Nearly any kind of image—whether it's an unusual street scene or wave-lashed rocks in a violent storm—can gain subtlety and depth in monochrome. So give B&W a shot, then send your best to us. Every month this page features two photographs: one chosen by our editors, one chosen by our readers via online voting. For more information, go to ngm.com/yourshot.



EDITORS' CHOICE

Luis Zilhão Neuberg, Germany

Visiting Cuba, the 41-year-old Zilhão hoped to “meet ordinary Cubans and get into their way of life.” He got his wish while chatting with locals in the town of Trinidad—except the ordinary became extraordinary when “a man came along with a huge pig on a rope!”

Tom Henry Minneapolis, Minnesota

“Maybe twice a year Lake Superior gets this wild,” says Henry, 54, who documented big waves on Minnesota’s North Shore. “I had to run away from a few in the time it took to capture this image.”



READERS' CHOICE