

Campus Catalyst

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THE ROCKY MOUNTAIN  
**COLLEGIAN**

# BLOG

## COME OUT OF THE DARK

[www.community.collegian.com](http://www.community.collegian.com)

Figure 1: Blog Filler Collegian.

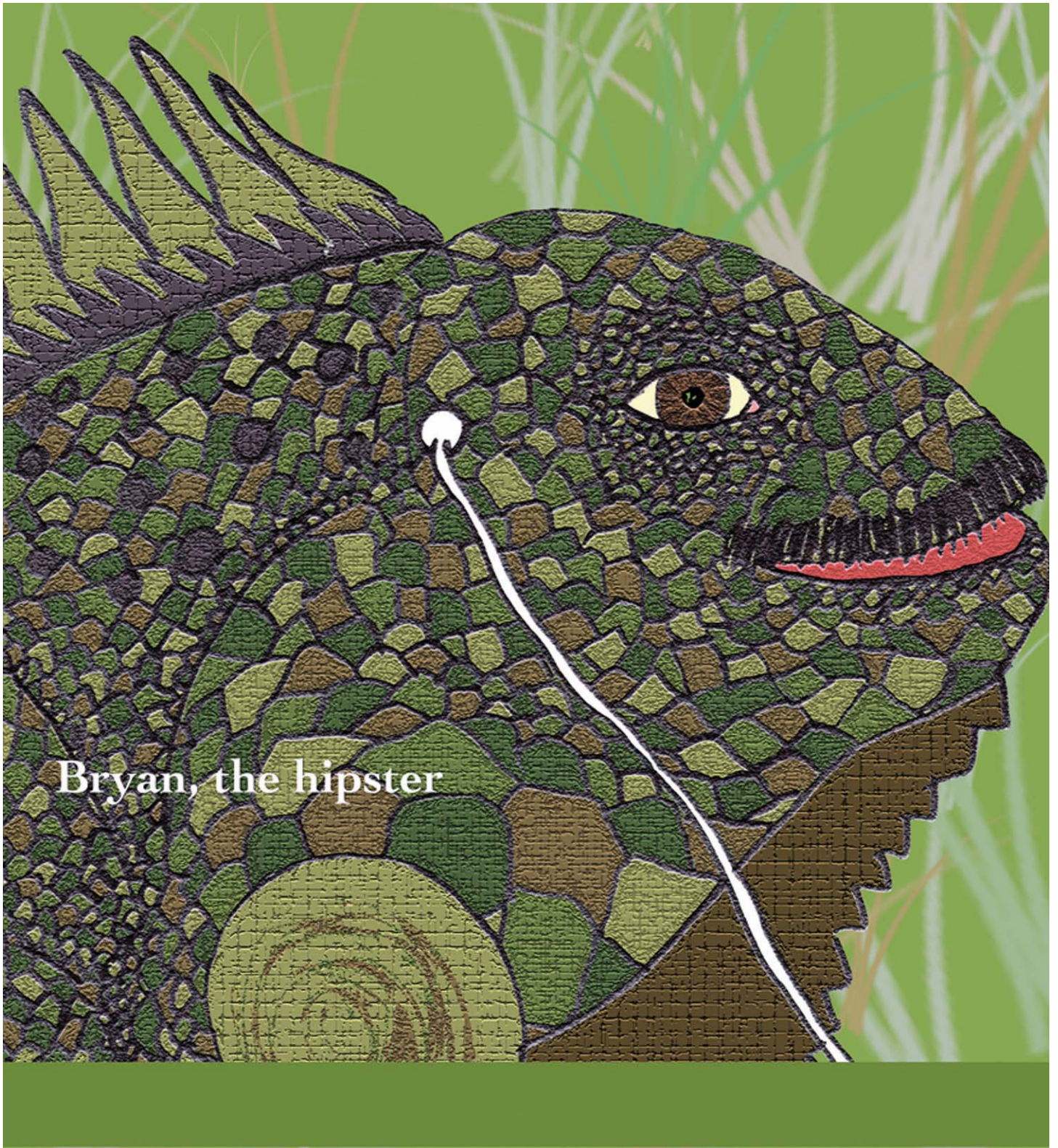
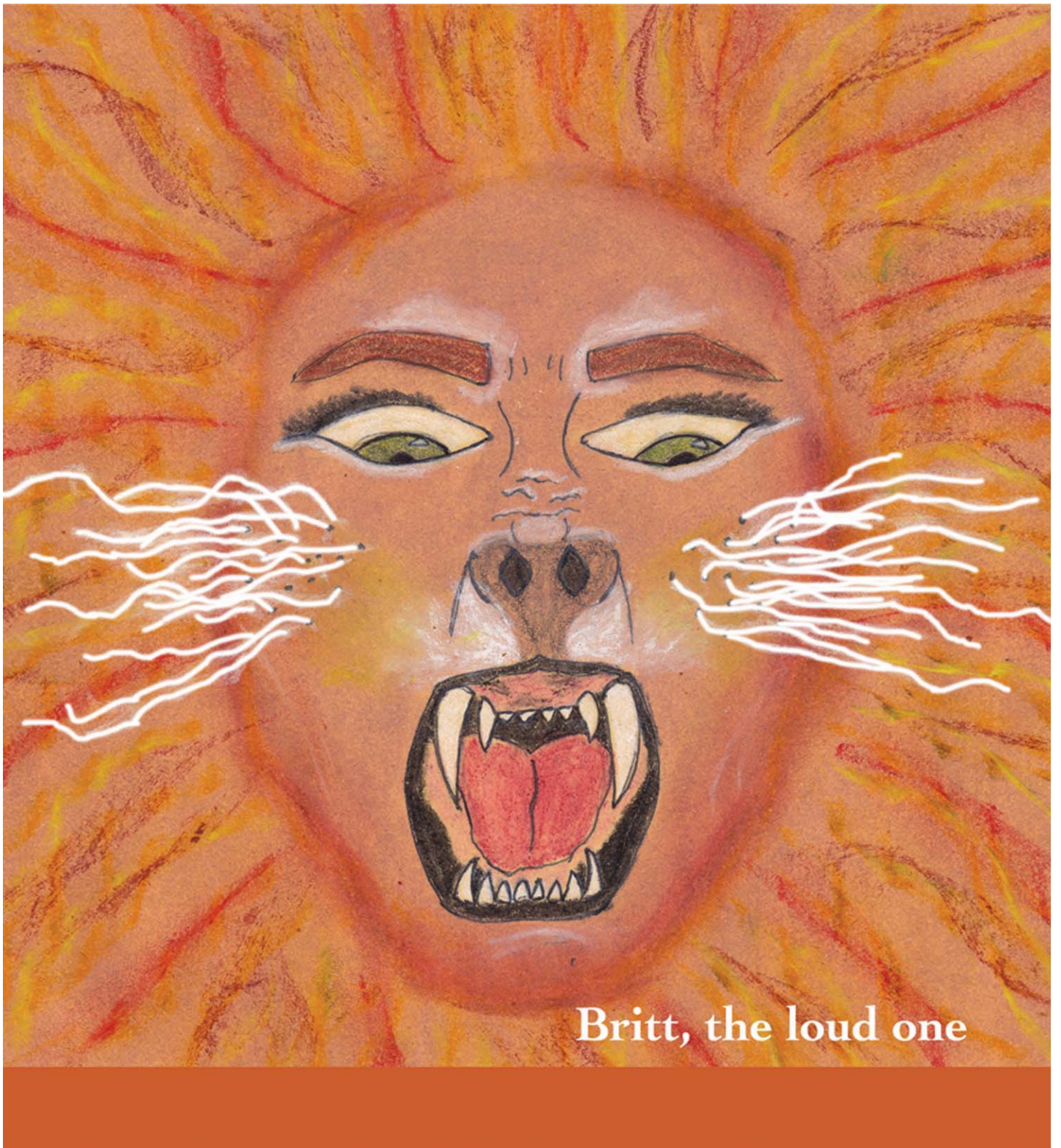


Figure 2: Calendar 1.

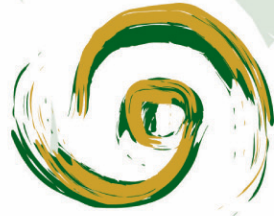


Figure 3: Calendar 2.5.



Britt, the loud one

Figure 4: Calendar 2.



Campus Catalyst

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Bringing Students Together For Change and Action!

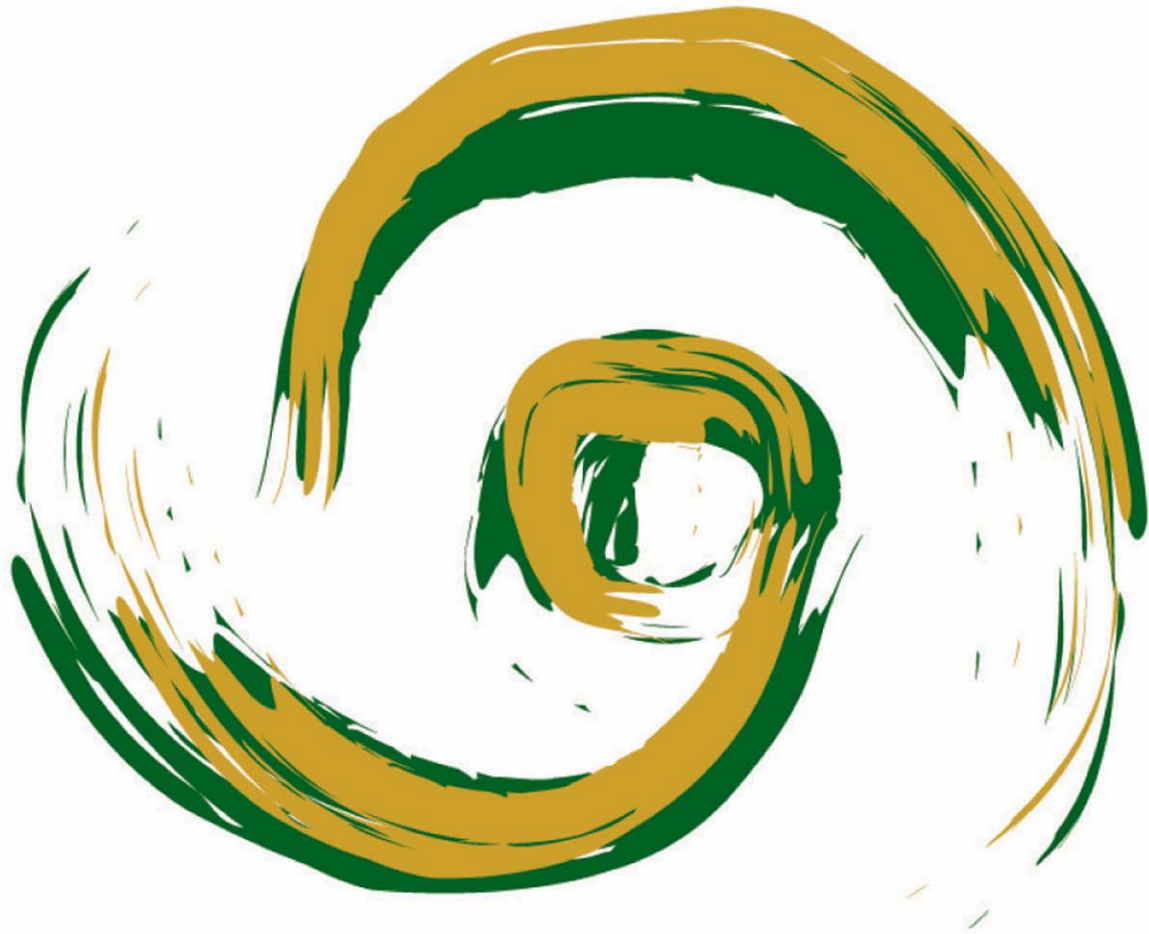
Director:  
Courtney Ore

phone: 303-915-6252

1234 Visual Arts Building A

[www.campuscatalyst.colostate.edu](http://www.campuscatalyst.colostate.edu)

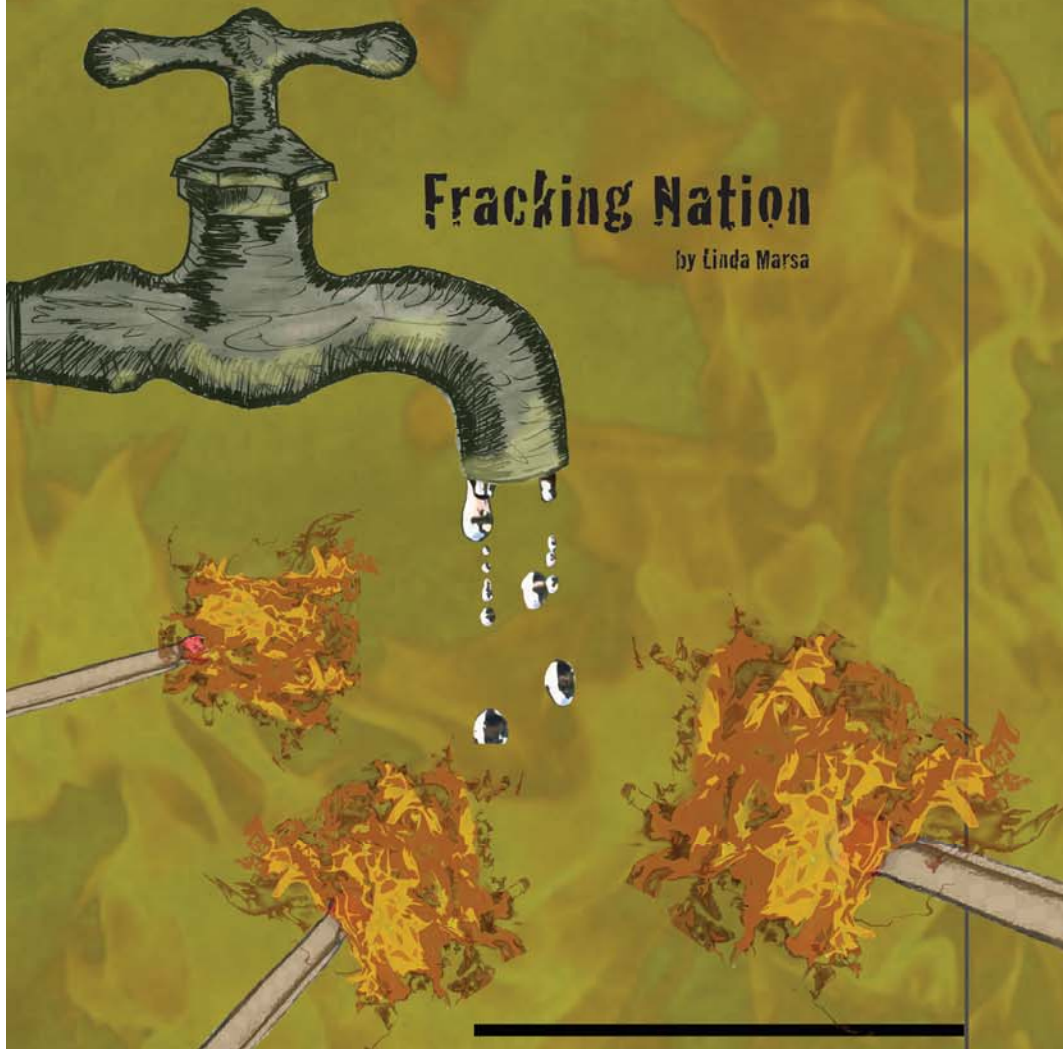
**Figure 5: CC Letterhead.**



Campus Catalyst

Figure 6: CC Logo.





## Fracking Nation

by Linda Marsa

**E**nvironmental concerns over a controversial mining method could put America's largest reservoirs of clean-burning natural gas beyond reach. Is there a better way to drill? Tracy Bank was concerned. A geochemist, she makes her living studying how water interacts with rocks. And four years ago, when she arrived at the State University of New York at Buffalo, water was definitely interacting with rocks.

Buffalo is perched on the edge of the largest known reservoir of natural gas in America, a geologic formation known as the Marcellus Shale. The 95,000-square-mile slab, which lies under sizable portions of West Virginia, New York, Ohio, and Pennsylvania, could contain up to 500 trillion cubic feet of natural gas—enough to meet the nation's natural gas needs for at least two years. Owing to this bounty, the areas above the shale are now in the grip of an unprecedented gas-drilling boom. The gas is extracted using a method called hydraulic fracturing, or fracking, a technique that involves pumping millions of gallons of water laced with chemicals deep underground to blast open the shale and release the gas trapped inside. The blasting is what got Bank worried.

Fracking has already drawn considerable scrutiny from environmental groups, unhappy homeowners, and teams of lawyers who blame the drilling method for polluting pristine rivers, turning bucolic farmlands into noisy industrial zones, and leaking enough methane to make ordinary tap water as flammable as lighter fluid. Bank is now bringing attention to yet another problem: radiation.

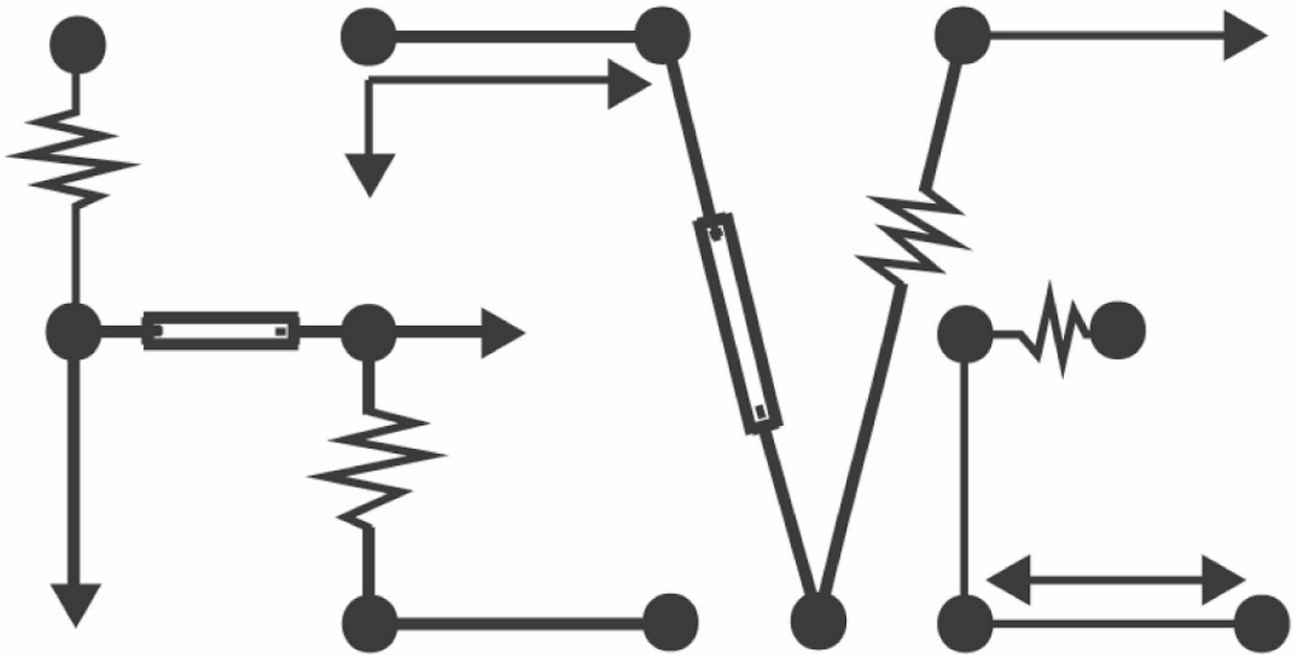
Her research shows that high-

pressure fluids striking the shale could dislodge naturally occurring radioactive compounds such as uranium and strontium, putting groundwater at risk of contamination.

But the U.S. Environmental Protection Agency, which declared in a 2004 study that fracking posed "little or no threat to underground sources of drinking water," is now reconsidering its conclusion. The state of New York has stopped issuing horizontal drilling permits for the Marcellus Shale while it completes an environmental review. The Marcellus sits atop the Delaware River watershed, which supplies drinking water to 17 million people, including residents of Philadelphia and New York City. A bill now under consideration on Capitol Hill would grant the EPA oversight of fracking and force drilling companies, which are currently exempt from portions of the Clean Water Act, to disclose the chemicals they use in fracturing fluids.

At every checkpoint in the development pipeline, Ingraffea says, there is potential for trouble. "It's disturbing how densely they're trying to pack these wells. The record I know of is 16 wells on one pad. The enormous amount of water injected into such a small volume of rock is creating much more pressure than there has ever been there." There have been reports of small earthquakes near some injection sites for fracking waste in Texas, a state not known for seismic activity. Last fall a swarm of about 500 mini-quakes rocked central Arkansas near the Fayetteville Shale, and a 5.7-magnitude earthquake in February prompted the Arkansas Oil and Gas Commission to order two drilling companies to temporarily suspend operations.

Figure 7: Fracking Magazine Spread.



HYBRID ELECTRIC  
VEHICLE ENGINEERING

Figure 8: HEVE Logo.

# Designing a Hybrid-Electric Vehicle Program

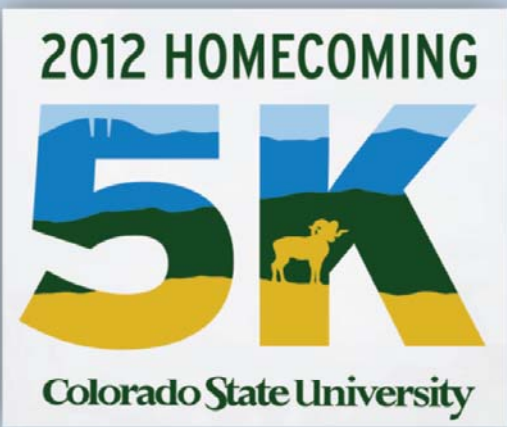


## **courses:**

- 1) Hybrid-Electric Vehicle Powertrain
- 2) Vehicle Energy Storage Systems
- 3) Vehicle Electrification
- 4) Hybrid-Electric Vehicle Systems Design



Figure 9: HEVE Poster.



# 32<sup>ND</sup> ANNUAL RACE

HOMECOMING 5K RACE 2012 PLUS KIDS FUN RUN

## SATURDAY OCTOBER 6TH

Runners and Walkers Welcome  
Come Show Your Ram Spirit!!!

All registered participants get a long-sleeved t-shirt and are eligible to win various door prizes to be given away after the race. No dogs, please. To register fill out entry form at [www.hes.cahs.colostate.edu/homecoming](http://www.hes.cahs.colostate.edu/homecoming) or in person at the Department of Health and Exercise Science room 220, Moby B-Wing.

- Early Pre-Registration by 5pm on Sept 28.....\$20
- Late Pre-Registration by 12pm on Oct 5.....\$35
- Race Day Registration IN PERSON ONLY.....\$30

Groups of 20 or more can register at the same time and receive a 10% discount(\$18)  
\*expires on September 28th



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(Donations of \$5,000)



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Gay and Karan Israel



Ren and Sharon Jenson



design donated by **samcooperdesign**

Figure 10: Homecoming 5K Ad.

THE ROCKY MOUNTAIN  
**COLLEGIAN**

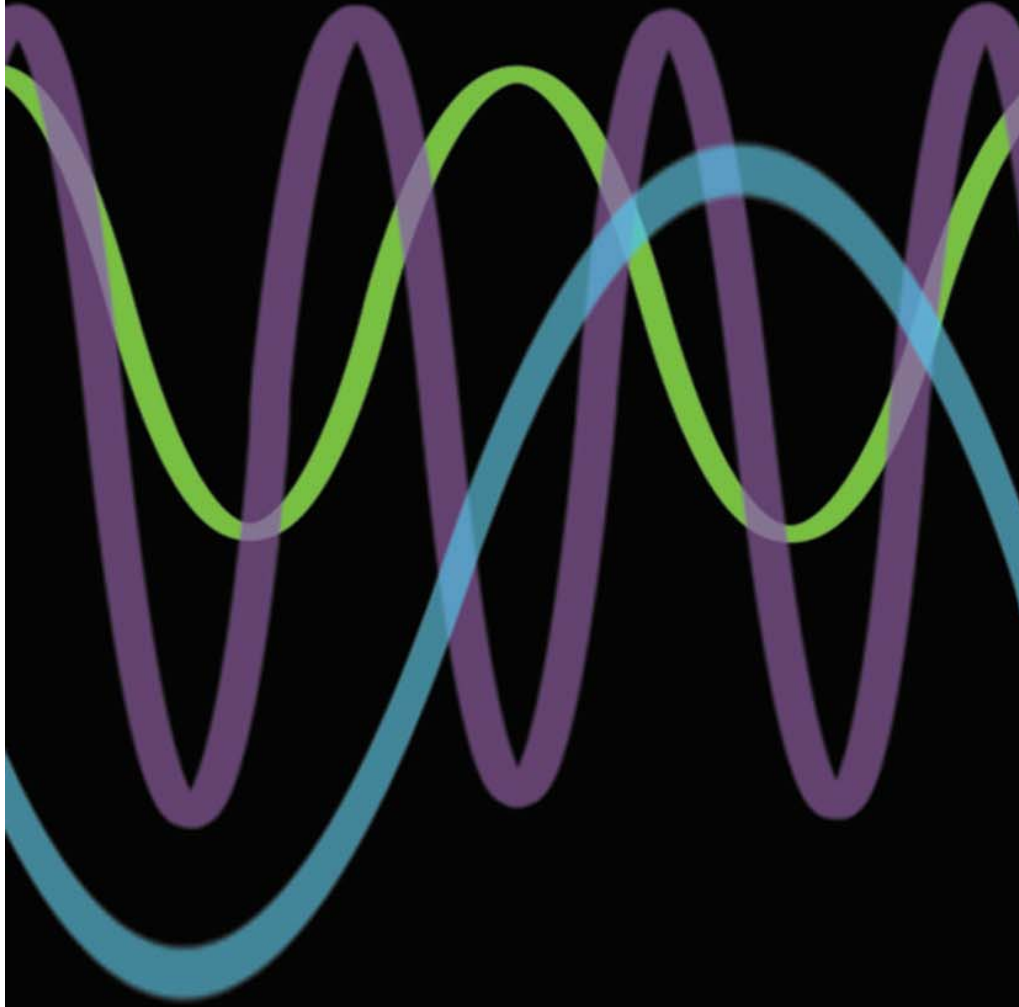


Figure 11: KCSU Filler Ad.



Figure 12: The Green Economy Poster.