

No Frack Event Brings Together Art, Science

by Sue Smith-Heavenrich

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The first people who suffer the impacts of drilling are those who live in rural communities, says Simona Perry. That's because they live right where the gas is being extracted. Perry, a social geographer and community ethnographer, spoke at the EPIC No Frack Event at Ithaca College last Saturday, June 25, about her work in rural Susquehanna River communities in Pennsylvania.

Over the past couple years Perry has helped people in those communities begin a dialog about the environmental, economic, social, and political impacts of the rapid development of Marcellus Shale going on around them. In the past four years PA has experienced an exponential rise in the number of shale gas permits – from 99 drilling permits in 2007 to 3445 permits in 2010.

The problem in Bradford County, less than a half-hour drive away, is that the increasing number of well pads has removed land that was used to grow crops and timber or provided habitat for wildlife. In addition to the nearly 16,000 acres converted to well pads, another 7500 acres has been cleared for pipelines, access roads and pipe yards, with close to 200 acres converted to gravel quarries.

“By the end of 2011 some 37,000 acres will have been converted to gas use from other land use,” Perry said. Manufacturing, especially those dependent on timber products are having a hard time finding local lumber. That's because trees are being ground to sawdust for use in disposal of drilling wastes, and because often trees cut for well pads and right-of-ways are pushed into unsorted piles or mixed with stones and other debris, making them unusable.

Gas developments have brought many changes to the rural towns in Bradford County, forcing long-time residents to reevaluate what they knew about their local government and their neighbors. “When you can't drink water from your faucet, it affects your sense of security and trust,” Perry said.

Over the past two years Perry has worked with dairy and small farmers, timber owners and others to document how their lives are changing. The most effective tool she used was to ask each person to photograph a place they loved, and then write why it was important to them.

Many people wrote about the quality of life that brought them there and keeps them there, Perry explained. They listed such things as clean water, fresh air, fertile soil and the desire to pass their farms and land on to their children. Most felt that gas development was changing their connection to the past and to the land. Multi-generational farmers mentioned feelings of dread over the impending changes, as they realized that the things they love could be taken away so quickly.

“I see a glimmer of hope, though,” said Perry. Communities can remain resilient through these kinds of changes if they build upon their existing community assets and if the people plan together for a future beyond the gas rush.

Dr. Stephen Penningroth, founding director of Community Science Institute and its certified water testing lab, spoke about how agencies like the Environmental Protection Agency (EPA) analyze risk assessment. For fracking chemicals they would start by characterizing the effects of the chemicals, he said. But the EPA measures risk in terms of both exposure and toxicity. For

even the most toxic chemical, if it doesn't get into the environment there is no exposure; there is no risk, Penningroth explained.

The problem with risk assessment related to fracking is that many of the chemicals don't show up on the toxicological screening list – the “priority pollutant list”. Combine that with the problem that in many cases the agency hasn't completed “exposure assessments”, and you end up with a level of uncertainty that leads to politics, not science, dictating the management of the environmental risks.

There are solutions, Penningroth said. The most obvious is to require that drilling companies inject tracer chemicals into fracturing chemical mix. He also suggested that communities develop stream monitoring programs, such as the volunteer-run Cayuta-Catatonk Water Watch in the local watersheds from the Watkins Glen area through Candor.

Sandra Steingraber, ecologist and scholar-in-residence at Ithaca College, spoke about environmental pollutants, cancer and the health threats from hydro-fracking. As industrialized drilling moves into more residential areas – rural towns and even urban areas such as Fort Worth, TX – more people are exposed to the toxic chemicals used to extract gas, she said. In addition, the types of chemicals used include endocrine disruptors, chemicals that mimic our body's natural hormones.

“Hormones,” Steingraber emphasized, “are designed to have huge, dramatic impacts at vanishingly small concentrations.” In addition, the amount of water needed to smash the rock to extract the gas means using lots of trucks to haul that water. And that translates into air pollution that contributes to increased risk of pre-term births, increased asthma rates, increased numbers of cancers, chronic obstructive pulmonary disease and a host of other chronic – and expensive – health problems.

“For a lot of us, fracking arrived in our lives and took us on a path we hadn't intended to take,” Steingraber said. She urged people to become environmental heroes. The question we will be asked is: “How will I live with myself if fracking comes to New York and I didn't do everything I could to stop it?”

In addition to the 45 speakers, the event featured music from a number of groups and screenings of six documentaries. One of those was a world premier for Jeff and Jodi Andrysick's new film, “Water isn't Water Anymore”. The Pulteney farmers never intended to be environmental activist filmmakers. But when Chesapeake applied for a permit to dispose of drilling waste in an old gas well near their farm, they realized they had to do something to protect their future. Over the past year the couple has managed to squeeze filming between farm chores, barely completing final edits in time for Saturday's premier. To read more about the Andrysicks and their film, go to <http://www.allfrackedup.com/about.html>.