




Grega Farms’ antique in parade truck. (Photo by Mariann Cooper)



Rock Docs

by Dr. Kirsten Peters

Playing with Jello and deducing climate change

I hope you played with your food when you were young. Perhaps you experimented at some point with pushing a drinking straw through Jello. If you twisted the straw as you removed it from your food, you could sometimes trap a column of gelatin in the straw. You then had the choice of either blowing the Jello at a sibling or, if your parents were at the table, gently squeezing the gelatin out of the straw onto your plate with your fingers.

Geologists take samples of ancient muck and mire in a way similar to kids playing with Jello. We bang pipes down into the soft earth of lake beds or peat bogs, pull them up, and push out narrow columns of mud inside. The muck is composed of many, many layers that go back in time. We geologists call this activity “coring,” and although it’s physically tough work, it’s no more complex than jamming straws into Jello.

The reason geologists make cores of mud is that low spots on the earth can record the climate of earth’s past. Evidence geologists get from coring lake beds and peat bogs has taught us just how frequently regional and global climate changes.

A Scandinavian geologist got the coring and climate story started. His name was Lennart von Post. He lived and worked around 1900, and he was the first geologist to carefully investigate what cores of muck could reveal about past climates.

Of all the places where geologists can core the earth, our favorite spot is peat bogs. That’s because peat is the first step in the long geologic process of producing coal, and geologists are inordinately fond of all fossil fuels. So it was quite natural that von Post started coring the ancient remains of plants and mud layers that make up the peat of southern Sweden.

Little fragments of twigs and leaves can be preserved in peat, and if you can identify the species of plant that produced such material you have your first clue about past climate in a region. Von Post went to work identifying such bits of old plants, but he also had the wit to look at the ancient mire through a microscope. What he discovered was that he could identify ancient pollen in the layers of peat he was cataloging.

Pollen is surprisingly sturdy stuff. It will remain intact for literally thousands of years, lying in a layer of muck, waiting for a geologist to come along, core it, and identify the plant that produced it.

If you have allergies, you know pollen is blown around on the slightest breeze. That’s the basic fact that makes pollen much better than twigs or leaves for telling us past climate. Pollen reflects all the plants in a whole region.

If you know the identity of the whole range of plants in a region, you know pretty well what the climate must have been like, both in terms of temperature and precipitation. (Think of gardening “zones.”) And once you’ve described the pollen from a core, you can make a carbon-14 date of a twig and assign a specific age to the climate you’ve been able to deduce.

Ancient pollen makes it crystal clear that climate varies again and again over whole regions on earth. Just for example, in northern Europe where von Post first worked, there have been ten major climate intervals in the last 15 thousand years. Each of these shifts was substantial.

The warmest era — when oak forests covered the lowland of Sweden — was what we geologists call “the Optimum,” the balmy times of about 6,000 to 8, 000 years ago. That era was much warmer than today.

Some of the great shifts in climate were global in scope, some were only regional. And just to give us all nightmares, some of the biggest shifts in temperature occurred in just 20 years or so — well within a single human lifetime.

Studying past climates demands strength in the field, patience in the lab, strong eyes for microscope work, and plenty of courage, too. The simple but brutal fact is that major and minor climate change is woven into the fabric of the earth itself.

Dr. E. Kirsten Peters is a native of the rural Northwest, but was trained as a geologist at Princeton and Harvard. Questions about science or energy for future Rock Docs can be sent to epeters@wsu.edu. This column is a service of the College of Sciences at Washington State University.

Annual livestock auction at youth fair helps support 4-H

(Submitted by Muskegon County Youth Fair)

The 4-H livestock auction is the culmination of a long project year for many 4-H members. At the auction, 4-H members have the opportunity to sell their animals and learn how the marketing process works.

The auction is held at the Muskegon County Fairgrounds, 6621 Heights Ravenna Road. Large animals will be auctioned on Thursday, July 26 at 6:30 p.m. This auction includes market steers, feeder calves, swine, lambs and goats. Small animals (market rabbits and poultry) will be sold at the small animal auction on Saturday, July 28 at 2 p.m.

If you would like to stock your freezer or locker, it’s a good idea to arrive early to view the sale animals and talk to the 4-H members.

You need to sign up to obtain a buyer’s number. When an animal you want to purchase is in the ring and at a price you desire, signal the auctioneer by holding up your number.

Free trucking is provided at the end of the week for steer, feeder calves, hogs, lambs and goats. You must indicate whether you want the animal processed for personal use or sold at a stock yard. You must also indicate your choice of processor or livestock yard.

It is also possible to purchase an animal and not keep it. You can market your animal at a local livestock yard or donate the animal back to 4-H.

If you have questions, you can either contact a representative from the livestock committee at (231) 853-2096 or the MSU extension office at (231) 724-4738.

Muskegon County Youth Fair celebrates 82 years

by Sandy Kriger

The stage is set for the 82nd Muskegon County Youth Fair to begin on July 20. Opening ceremonies and the crowning of the royal court will take place at 8:30 p.m. Judging begins with the inanimate projects.

On Tuesday, July 21, horses, poultry, goats and market steers will be judged.

Throughout the week, games will be held at 1:30 p.m. daily and are open to anyone who wishes to participate. In addition, there will be tractor and truck pulls, an off-road demo derby, SJO Super Cross races and musical entertainment will begin at 9 p.m. nightly.

Wednesday’s judging includes more horse events, swine, dairy cattle and sheep. Entertainment at 7:30 p.m. that evening is The Patchwork Band.

On Thursday, rabbits and horses will be judged. But the highlights of the day will be the large animal auction and a steak fry by the Muskegon County Farm Bureau.

Friday is the day for dog project judging, shooting sports, the goat olympics, a llama show, the off-road Demo Derby and the Sheriff’s Posse steak fry.

Saturday’s open shows include the horse and pet shows. Baked goods and small animal auctions will precede the closing ceremonies which begin at 7 p.m.

Dont’ forget, the fair is free and you are sure to have a good time. Come out and support our youth.



Two buildings on the former Lappo Lumber property are being demolished because of structural issues. (Photo by Harry Wojahn)

Lake Effect Winery teaming up with local artist

(Submitted by Lake Effect Winery)

Lake Effect Winery is teaming up with up-and-coming artist Rebecca Skeels of Kentwood, who will set up her “studio” at the Lake Effect Winery’s tasting room in downtown Grand Haven.

She plans to paint still life portraits of Lake Effect’s wines, its tasting room, Chinook Pier, and boats docked on the river channel.

Visitors to the tasting room can watch as Skeels puts paint to canvas on Saturday afternoons throughout the summer. Her artwork will be on display at the tasting room, and prints will be available for purchase.

The tasting room is located on Chinook Pier, 301 N. Harbor Drive, in Grand Haven. The hours are Monday through Thursday, 3 to 8 p.m.; Friday and Saturday, 1 to 9 p.m.; and Sunday, 1 to 7 p.m.



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