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By Justin Phelps '05

Michael Peres '78 and his students at Rochester Institute of Technology in Rochester, New York, are creating art with one of the most abundant natural resources in the city near Lake Ontario: snowflakes.

Dr. Peres, chair of the Biomedical Photographic Communications department, offers a class in which students photograph images through a microscope creating images like those on this page. "We photograph anything," Peres said of the 10-week class. "If you can image it, we've tried to photograph it."

Peres said photographing snow has been a recent addition to the class syllabus. In 2002, a student returned from winter break inspired by 1800s black-and-white photographer William Bentley, whose art had been used by Saks Fifth Avenue on shopping bags during the holiday season.

"She came back," Peres recalled the moment of inspiration, "all excited and said, 'We've got to photograph snowflakes, we've got to photograph snowflakes.' I said, 'But Emily, everything's inside.' Then I said that was a lame excuse, and we should just take the stuff outside."



And they did, first in a breezeway tunnel on the campus of RIT. Because the wind blew the flakes sideways and out from under the microscopes in the tunnel, Peres moved the class to his garage, six miles off campus. Now he has a microscope, fiber-



While attending Bradley, **Michael Peres '78** was the manager and team photographer for the men's basketball team and worked for audio/visual services. "I just loved photography," he said. "Everywhere I went, I had my camera." Peres credits Dr. Richard Bjorklund, distinguished professor of biology, emeritus, and Dr. Billy Mathis, professor of biology, emeritus, among those who encouraged him to continue pursuing photography.

Peres uses instant messaging, telephone calls, and e-mail to contact students to come to his garage on days they can catch snowflakes. "Usually the drill is, about six o'clock in the morning, I'll get up and check the weather, then send out an e-mail to the class," he said. "They can come on over to the house after 7:30 on the days my class is scheduled."

Peres will visit the Bradley campus on April 6 -7, 2006, and his work will be on display

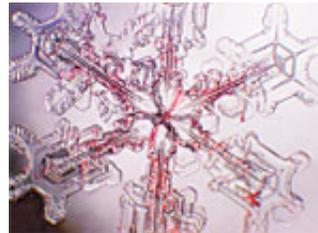
optic lights, a digital camera, and a computer in his two-car, 18x38-foot garage.

Photographing snowflakes presents many challenges, even with an average class size of 14. First, the flakes must be caught before touching the ground. Although the Rochester area averages 100 inches of snow per year, Peres watches the weather forecast the morning of the scheduled class day to see if that might be the day they can catch snowflakes.

Peres does one demonstration with the entire class and hopes everyone gets an opportunity to photograph a snowflake. He then allows students who want to photograph more flakes to stop by on their own time.

“It could come down in feet here or a dusting,” Peres said. “It could be good snow or bad snow. Once it hits the ground, of course, it can’t really be photographed. It must be caught and photographed before it joins with other ice crystals and becomes compressed and dirty.”

Therein lies another problem. “With snowflakes, there are so many variables,” Peres said. “The snow that you get may or may not be photographic; it might be ugly. We get a lot of ugly snow; it’s called lake effect. Photographing is weather dependent. The type of snow that comes is temperature dependent. So there are a number of variables.”



Students catch the snowflakes with a tray covered in clean black velvet. The students then sort through the snowflakes with a fine paintbrush or a needle taped to a pencil.

“Collecting snowflakes is fun,” said Peres, noting the best flakes are the big, fluffy type.

“It requires quite a bit of patience in trying to isolate and transfer the best flakes to clean microscope slides.”

When the flake is ready to be photographed, Peres and his students use different items to adjust the background light on the microscope. “In Rochester, the local newspaper delivers the papers in a pretty blue plastic bag, and that is one of the colors I use, as well as other bread or food product printed plastic bags. This technique is called optical staining,” said Peres.

In some cases, a 1mm fiber-optic light is used to create more drama. One or two fiber-optic lights are aimed at a low angle below the flake. The light is bent into the flake, creating bright spots. In the photograph with the blue background, a red balloon was placed over a fiber-optic light to create the red spots. “Most of this type of photography requires improvisation,” Peres said.

in the Cullom-Davis Library during that time. For more information, contact Chuck Frey at 309-677-2823.

View Peres' art work on his Web site at .

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