

Students attend Summer Field Camp

Each Geology student is required to attend a field camp experience in order to graduate. Geology field camp is the culmination of all your classes at Temple, and the chance to put all the skills you've learned to the test.

Ryan Bright, who graduated in December, completed his capstone project in Galway, Ireland.

I went to Galway, Ireland, where I was immersed in a completely different culture, a completely different world—and, from a geologist's perspective, the rocks were amazing. It was a really great experience to be able to travel halfway around the world to do something that I love.

I entered Temple as an art major, and signed up for a geology class on a whim because I needed a science credit. When I walked in on the first day, the teacher said "We're going to have a lot of fun this semester, and you are going to learn to love rocks." And that's pretty much what happened. I got involved more and more, and went on some field trips, and once you actually apply in the field what you've learned in class, you gain a deeper love for what you're doing. I felt it was natural that I followed the geology path."

There are various field camp programs led by different universities. A recent graduate from the masters program went to Ireland for his project, and I saw a lot of pictures and heard a lot about it. I was interested because it was the furthest away, so it would be a completely unique experience. I just decided to go for it, because I can see the United States throughout the rest of my life, but to be able to do geology in another country is not something everyone gets to do.



Ryan Bright(center) in Ireland

My program was a 6-week mapping-intensive course. We would wake up at 8:00 a.m., have breakfast, and get in the assigned van for your week-long project. You would get an aerial photo of the area you are supposed to be mapping, and maybe some clues about what you are looking for along the way. For the rest of the week, it's your job to go out and look at the rocks, put them on a detailed pictorial map, and learn the area that you are looking at inside and out. At the end of the week, you turn in a pictorial representation as well as a write-up laying out a history of what you think happened based on the rocks that you saw. That is the job of a geologist—to look at the rocks, see what they are made of, and come up with a story as to how they got there.

Going to Ireland was the culmination of all my classes & experience at Temple, so to be able to put all my knowledge to the test was a good indication that I really know what I'm doing and that I actually learned something the past few years. It's a good feeling to go out there and be able to do what geologists actually do. The Connemara marble was the coolest rock I saw. It's a quarry in Galway, the only place in the world that harvests green marble. When we went to the gift shop there was a charter there from Harrisburg that said they would import green marble from Ireland to build the state capitol building, which is an interesting connection for a Pennsylvania resident.

Also, the culture in Ireland was amazing. We were in the middle of nowhere, with lush green vegetation and mountainsides and lots of sheep and cows all over the place. Once you get into the city center, you see that the people are very friendly. The music is also amazing. In the pubs, there are booths where musicians set up shop and play accordion or banjo, and other local musicians might come by and join in. I met a lot of cool people, and it gave me a better appreciation of culture in general.

I am currently looking for a job and applying to grad school in the Southwest, particularly in New Mexico, Arizona, and San Diego. The desert has a lot of cool rocks and there's not much vegetation covering them, which makes them easier to study than the ones on the East Coast. I want to focus on looking at mantle rocks, which are beneath the surface of the crust of the earth, and calculating how long it took them to crystallize beneath the surface. I think that my experience in Ireland really pointed me in the direction of where I wanted to go. Being outside, seeing sites, and geology are the perfect thing for me, so if I could be a cartographer I'd be really happy.

Star George, a senior geology major, will be graduating in May.

In high school, I was really interested in science and when I came to Temple I thought that I wanted to major in chemistry. When I took a geology course as my level one science requirement, I decided geology would be a good field to get into. I did some research and found out that there were a lot of jobs and that you were more qualified than an environmental science major, so I thought it would be a good career for me.

I took seven geology courses in a row including a hydrology course with Dr. Toran, and decided I'd like to pursue that as a specialty. Hydrology is almost like engineering, and it involves math and going out in the field a lot. I plan to go to grad school for geology, so I chose to attend field camp at Southern Oregon University in Ashland, Ore. because they offered a hydrology session.

The geology out there was really interesting. There are a lot of volcanic rocks and a lot of faulting because of the Cascade mountain range. Basically, our first week was running through the forest mapping the terrain. It was 80 degrees & sunny with no humidity every single day, so it's really nice there weather-wise.

Field camp consisted of a lecture in the morning for about an hour to prepare us for what we were going to do that day and then we would go out into the field. On the first day of a project, the professors would bring us out and explain what we needed to do and show us the techniques we need to use. For the rest of the week, we would go out in groups and finish up the project with what we knew from our undergraduate experience and from that day's lectures. It was challenging for me because I'd never seen the types of rocks they have out there—they're very different from the rocks that we have in Pennsylvania.

Field camp takes everything that you learned in your undergraduate classes and applies it to actual real projects in the field. You do environmental assessments to find out info about the field you're working in. I loved actually seeing what I learned in class occur in real life.

The coolest thing I saw in Oregon was Crater Lake National

Park, where we hiked around the lake and camped out overnight. It was interesting to see the wide range of the different types of rocks that they have out there, since we don't have them here. Also, our first mapping project was a great learning experience because it was the largest field site, seven square kilometers, and we had to walk as fast as we could through the brush with no trails, mapping contacts between the rocks. We saw all kinds of cool wildlife, like rattlesnakes and lizards.



Star George in Oregon

The experience helped me realize that I definitely want to go into hydrology because I liked it a lot when I was in Oregon. My number one choice for graduate school is Penn State, because they have a very large geology program with a lot of resources, and their hydrology program is seventh in the nation. I also applied to Oregon State and the University of Buffalo.

I plan to work for a few years and then decide if I want to go back and get my Ph.D. My specific interest is the study of groundwater flow. Water is a really important natural resource that people don't necessarily think about all the time they way they do petroleum. I'd like to do work that could potentially make life better for humanity.

Other News Items:

- **Jessie Smith** recently established in *The Helen Leshock Molnar and Jeffrey G. Molnar Award* in memory of her late mother-in-law and husband, Helen Leshock Molnar and Jeffrey Molnar, CST '76. The fund will provide a prize to a graduating senior geology student for outstanding work.
- **Laura Toran**, professor in the Department, discussed climate change on KYW News Radio in January. According to the report, "2007 was another record-breaking year for the Earth's climate. This week's report from the National Oceanic and Atmospheric Administration shows that 2007 was the warmest ever for all the land areas on Earth and the tenth warmest on record for the U.S." Dr. Toran said she's not surprised: "We've been seeing this trend over the last ten years really."
- **George H. Myer**, professor in the Department, was featured on the History Channel's "Mega Disasters" series on Tuesday, November 27. Myer, an expert in catastrophic geology, appeared in an

episode titled "The Next Pompeii?", which examined the consequences of an eruption by Italy's Mount Vesuvius.

- For the United States to continue producing a technologically literate workforce, the public education system must enhance science and mathematics education, especially at the middle and high school levels. To help achieve this goal, the **College of Science and Technology** and the **College of Education** have been awarded a grant of up to \$2.4 million by the National Math and Science Initiative (NMSI) to improve secondary teacher education in science and math. The grant is one of 12 to be awarded by NMSI (www.nationalmathandscience.org) to implement a program modeled after the UTeach program, a highly successful math and science teacher preparation program at the University of Texas at Austin.