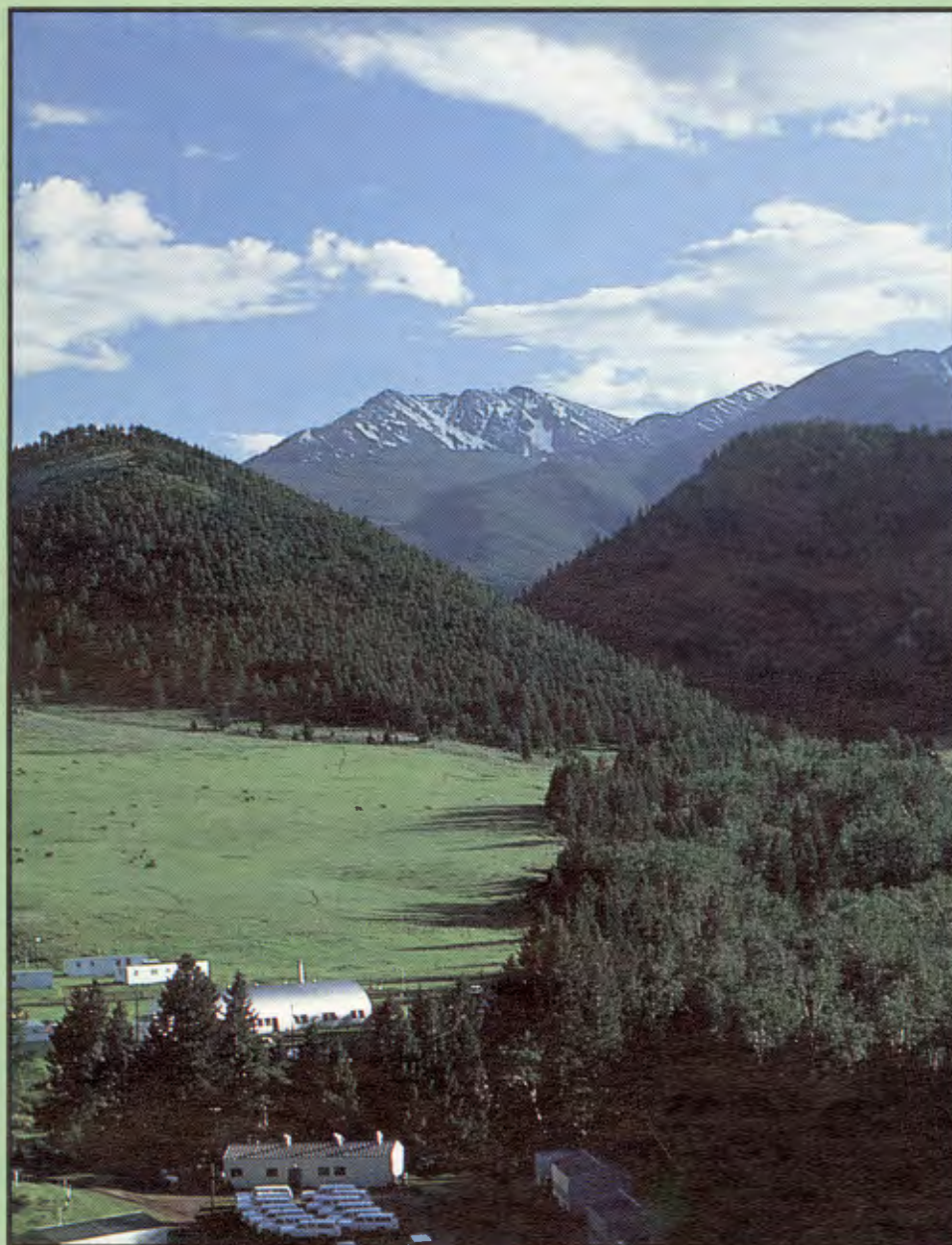


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Rocky Mountain High: Alumni Go To Geology Camp

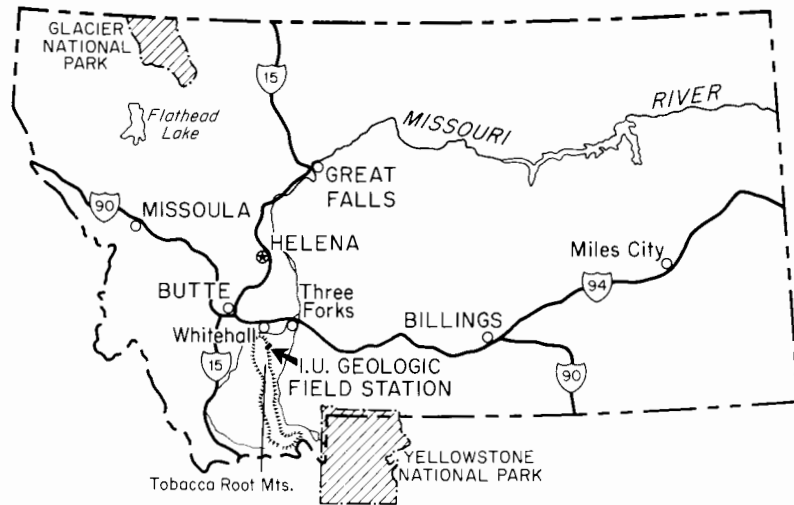
by Susan Green and Joan Zirker

Some places in this world are magic. Maybe the magic is in the color of the light or the touch and smell of the air. Maybe it's the green of the trees against a cornflower blue sky. Maybe it's the taste of the water, and something in us responds like salmon who have finally come home. Maybe all these physical manifestations affect us like a narcotic. How we feel in the place and about the place makes the magic. And like love, maybe the magic of the place makes us better people.

The IU Geological Field Station has been making people better and spreading its spell for 44 years. The magic snared Charles Deiss, chair of geology in 1948. That summer he and emeritus professor Charles Vitaliano brought the first group of IU students to the South Boulder Valley in the Tobacco Root Mountains near Cardwell, Montana, and the Field Station was born. Over 43 summers more than 4,500 students and researchers from IU and scores of other colleges and universities have lived at the Field Station, experienced the magic, and begun a relationship with the Field Station that lasts to this day.

The living wasn't easy when IU students first visited the site before the Field Station was built. They brought their own sleeping bags and slept that first night on the floors of abandoned mining cabins in Mammoth, Montana, three miles up the valley from the present station. When it rained, the trip to the nearest restaurant in Ennis turned into a four-hour struggle against a mountain of mud (Vitaliano understood why: the road's foundation contained bentonite, a porous clay produced by the decomposition of volcanic ash that can absorb much water and swells as a result). The first lesson in local geology.

Bentonite aside (or below), the area was perfect. Rock formations were out where they could be seen. Students were surrounded by geology, and distracted by nothing but nature. The place was magic. And the price was right. Indiana



University paid \$305 for 60 acres, including a \$5 Certificate of Purchase. The Board of Trustees then voted to construct cabins, laboratories, and other improvements at a cost of \$65,000.

The "improvements" aren't a cluster of rustic Adirondack log cabins. They are small metal buildings and trailers, beautifully maintained and built to withstand Montana winters a mile above sea level. But location is everything: The Field Station boasts an idyllic, park-like setting 80 miles north of Yellowstone National Park and 50 miles west of Bozeman, Montana. Bordered on one side by the South Boulder River, where it is possible to catch rainbow trout and pan for gold, tiny garnets, and magnetite crystals, and surrounded by Douglas fir, Lodgepole and Limber pine, and junipers, the 60-acre site is ringed by mountains. Deer, moose, and elk are ordinary attractions, and hawks and mountain jays are as easy to find as the bears who visit the garbage pit every summer.

The emotional and intellectual center of the campus is a quonset hut, "the lodge," which serves as dining room/social center/study hall, and contains an

enormous fireplace lighted morning and night. Experienced Field Station hands say it's a mystical experience to be inside the lodge during a hailstorm. After dinner students stay at the tables to study, to listen, and to learn, while deer and elk trophies look over their shoulders.

Three different courses are taught at the Field Station during the summer. The first, the equivalent of two semesters of introductory geology (G111 and G112 for 6 credit hours), is offered to honors students as early as the summer between their graduation from high school and the beginning of college. The second course, G690 Field Research Seminar (2 credit hours), is available to 10 graduate students who apply from all over the United States.

G429 (7 credit hours) Field Geology in the Rocky Mountains, lasts six weeks and is physically and mentally rigorous. It begins in the White River Badlands of South Dakota. Rocks never lie, say the geologists, and the students' "textbook" stretches from the Black Hills to Yellowstone Park and north via the Beartooth Highway to the Three Forks region of Montana. The first week



moves at a somewhat glacial pace; it takes seven days to do geologic justice to the land between Rapid City, South Dakota, and the Field Station—usually a 10-hour drive if one follows a direct route.

That's just the beginning of one of the best field experiences in geology, one Lee Suttner, chair of the Department of Geological Sciences and director of the Field Station, says many people in both industry and academia feel is "the finest of its kind in the world." When asked to describe the magic of the Field Station he says, "A camaraderie develops. Class members and faculty experience it year after year. I think it's the satisfaction of working hard together and learning so much that makes it special. There aren't a lot of distractions." Or as one happy camper puts it, "the last thing I heard at night and the first thing I heard in the morning was the brook outside my cabin."

Working hard may be an understatement. The wake-up bell rings at 6:30 a.m.; faculty and students leave for the field at 7:45 a.m. They return to the station at 5:30 p.m., break for dinner, and at 7:30 p.m. are back at work until 10:30 p.m. Saturday is a "half day" according to Suttner. "We come back to camp at 4." Sunday morning and afternoon are free, but Sunday night everyone is back at the maps.

There's also the sense of tradition associated with the camp. The short list of directors of the Field Station reads

like the Who's Who of geology at Indiana—Charles Deiss, Wayne Lowell, Judson Mead, and Suttner, and illustrates just how strong the pull of the place is. Even so, like all administrative duty, one needs to get great satisfaction from a job well done. The directorship is a 24-hour-a-day-no-vacation way of life. The list of those who live at the Field Station year round is even shorter. Three generations of the Dutton-Hinton family have been resident managers from the beginning.

It is difficult to estimate the effect of the Field Station on the teaching and study of geology, but perhaps as many as 10 percent of the country's PhDs in geology attended the Field Station; probably eight percent are teaching while the other two contribute their expertise and experience to industry.

Can I Come Too, and Will I Have to Work So Hard?

In summer 1991, Geological Sciences added one more "course" to the Field Station roster so that others could experience the magic of the place. This "postgraduate" course is called the Alumni College—although one doesn't need to be an alumnus(a) to attend. Friends of Indiana University are always welcome. Two one-week sessions introduce geology, paleontology, mining history, plant communities, and occasional guest lecturers will introduce other topics such as astronomy. No educational prerequisites; just interest,

time, and a "tuition" payment are required.

Who participated in the first sessions of the Alumni College and why? The reasons vary, but the themes are much the same. Three of Bob and Laura Campbell's children, Sarah, BA'72, Andy, BS'77, and Alice, studied at the Field Station. They'd heard the stories for years and took the opportunity to experience the magic themselves. Sue Roush Fletcher, BA'76, of Calgary, Alberta, and Nancy Roush Carpenter, BA'79, of Zionville, attended the Field Station as students and were so enchanted with the place that they vowed to show it to their sister, Dianne Roush Trauring, BS'74, of Kokomo. Some participants were young, in fact newlyweds, others were retired.

Who taught the two sessions of the Alumni College? Last summer Gary Lane, professor of paleontology in the Department of Geological Sciences, and Tom Straw, BS'58, MA'60, PhD'64, chair of the Department of Geology at Western Michigan University and student Field Station veteran, led the day-time excursions. Hollis Johnson, professor of astronomy at IU, guest lectured under a cloudy night sky. Tom Straw has 14 years of Field Station teaching experience, but instead of trying to pass on everything he knew, he acted as a guide. Words like extruded, uplifted, metamorphic, Pre-cambrian, sediments, and the concept of rocks and mountains "folded" and anywhere from 2.7 billion to 30 million years old do demand some interpretation. Gary Lane led an excursion through late summer flowering plants. As Alumni College participants worked on classifying wildflowers into groups and families, concepts like pinnately compound, whorled, lobed, and palmate floated around the hills.

"I can't imagine a better way to experience the immensity of that region than to drive those back roads and have those slopes around one all the time," Barbara Heise of Bloomington commented. "But the scenery was almost the least of it. The real pleasure was being invited to share Gary Lane and Tom Straw's enormous enthusiasm for what they do. When people love their work it's catching." Phyllis Scudder Snow, MA '58, a hydrologist and geologist at Flathead

National Forest in Kalispell, Montana, described Hollis Johnson as "a wonderful thought provoker" and the Alumni College as "superb. I'm embarrassed because all the descriptions that come to mind are superlatives. It was delightful to be with intellectually stimulating people who were eager to learn, with enthusiastic instructors, and to have all of this in the refreshing setting of the Tobacco Root Mountains." For C. Cale Hudson, EdD'66, and Ruth Hudson, MA'64, "warmth, friendliness, humor, and best of all, an intellectual and physical challenge made the week memorable."

The physical challenges varied. Some days participants hiked, some days they drove, and often they did both. Alumni and faculty visited Mount Doherty, an area known by geologists around the country for remarkable exposures of igneous rock injected as a melt into older limestones and shales. They saw the towering rock outcrops of Cottonwood Canyon and the huge mass of the Boulder Batholith, a body of granitic rock 30 miles wide and 70 miles long.

Together they explored ore deposits associated with granite at Butte and the outdoor mining museum there; they toured the ghost town of Elkhorn; they visited the Pony Bar, southwest Montana's equivalent of Bloomington's Nick's; they chose a two-day hike to Lost Cabin Lake (elevation 9,200 feet) where they caught cutthroat trout and watched from a very long distance what were probably mountain goats crossing sheer mountain walls. Some opted for the less strenuous alternative, a trip to Yellowstone National Park via the famous Beartooth Highway—Charles Kuralt calls it the most scenic highway in the contiguous United States. Some spent the final day of the Alumni College at the Museum of the Rockies, in Bozeman, which houses the famous dinosaur eggs and nests found by Jack Horner in the fossil-rich area east of Glacier National Park. Others visited Lewis and Clark Caverns in Jefferson Canyon.

Wherever they went, geologic and historic time lines converged. Because there the wilderness is relatively untouched, it's easier to imagine the world of the Native Americans—the

Flatheads, Shoshone, and Blackfeet—whose territorial boundaries intersected near the Tobacco Root Mountains. It's easier to feel the sense of adventure and pleasure of Lewis and Clark when they discovered and named the three tributaries that join to form the Missouri River at Three Forks only 25 miles from the Field Station: the Jefferson (after President Thomas Jefferson), the Madison (after Secretary of State James Madison), and the Gallatin (after Secretary of the Treasury Albert Gallatin).

Lewis and Clark reached Three Forks on July 27, 1805. Alumni College participants followed a few weeks and 186 years later. For most of the IU contingent, the Bozeman airport meant returning to their homes in Indiana, Michigan, Alberta, Nebraska, Florida, and Washington, D.C. But even after they resumed the routines of family life and work, they continued to feel the magic of the Tobacco Roots. "My body is on auto-pilot, but in my thoughts I'm constantly reliving the wonderful time we had at the Field Station," Dianne Roush Trauring wrote to Lee Suttner in September. Barbara Heise confessed to Gary Lane that after the clear mountain air of Montana she "had a hard time coming back to the little rolling hills and humidity of September in southern Indiana." As Kathy Krueger, BA'80, confronted a hectic schedule at the hospital in Ann Arbor, she found her thoughts straying to the places she'd seen and the people she had met at the Alumni College. So the magic continues. □

Alumni College sessions are scheduled for Aug. 16-23 and Aug. 23-30, 1992.

For information, contact
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Our thanks to Gary Lane.

NOMINATIONS SOUGHT FOR ARTS AND SCIENCES DISTINGUISHED FACULTY AND ALUMNI AWARDS

The College of Arts and Sciences is blessed with many outstanding faculty and alumni. We urge you to submit nominations for the Distinguished Faculty Award and the Distinguished Alumni Award.

A letter stating the reasons for your nomination will begin the process. Additional data will be accumulated, and nominees will be voted on at the June meeting of the College of Arts and Sciences Alumni Board. Please submit nominations to

**Patti Powell, Dean's Office
 College of Arts and Sciences
 Kirkwood 104,
 Indiana University,
 Bloomington, IN 47405.**

Selection Criteria

DISTINGUISHED FACULTY AWARD
 This is given to a College of Arts and Sciences faculty member with outstanding achievements in teaching, research, and service to the profession, the University, the state, or the nation.

DISTINGUISHED ALUMNI AWARD
 This is given to an alumnus/alumna of the College with outstanding achievements in his or her chosen profession. Evidence of interest in and support of the College of Arts and Sciences or commitment to issues or organizations nationwide, statewide, or in local communities is appreciated but not obligatory.