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Research Note

THEMED ISSUE: PLUTONS: Investigating the Relationship between Pluton Growth and Volcanism in the Central Andes


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The “PLUTONS: Investigating the Relationship between Pluton Growth and Volcanism in the Central Andes” themed issue of Geosphere is dedicated to the memory of Todd Christian Feeley, our friend, colleague, and mentor. He distinguished his career with a long string of insightful papers that integrated the geology and petrology of volcanic rocks. His work was always soundly based in field geology, and his coworkers remember him for his outstanding skills in the field.

On Sunday, 21 March 2015, the volcano petrology and the broader geologic community lost a vibrant member. Todd took his own life at the age of 54 after a long battle with depression. Todd was born in September 1961 and grew up in Sunnyvale, California, where he loved to surf. He chose to attend the University of California at Santa Barbara to continue surfing, but during college fell in love with his true calling, geology. He graduated in 1985 and focused his energy in pursuit of his dream to become a professor of geology; Todd earned a Master of Science degree at Oregon State University (Corvallis) in 1989 under Anita Grunder on middle Tertiary volcanism in eastern Nevada and his Ph.D. in geochemistry in 1993 from the University of California–Los Angeles under Jon Davidson on Volcán Ollagüe and the Central Andes. After a postdoctoral position under Michael Dungan in Geneva, Switzerland, Todd started as a research assistant professor of geology in 1996 at Montana State University (Bozeman), where he progressed through tenure to associate professor of geology in 2006, graduating a sizeable number of Master of Science and Ph.D. students.

Todd never shied away from sharing his opinion whether in the classroom, at meetings, or behind closed doors, and more often than not not spearheaded the conversation on magma, magmatic sources, and how they erupt. Nor did he shy away from using a wide range of sophisticated tools to address problems in volcanic petrology. He worked tirelessly and was always ready to share his geologic and petrologic insight and to see the work to print. His career-long involvement in igneous petrology began in east-central Nevada’s Egan Range, mapping and determining the mantle contributions to middle Tertiary calc-alkaline volcanic rocks. He soon expanded his work to the Central and Southern Andes, which became his passion, and he continued to return until the summer of 2014, his last field season. He spent much of his early career working on Ollagüe Volcano and the Aucanquilcha complex in the Central Andes and San Pedro–San Pablo Guadal complex in the Southern Andes. He took a short break from work in South America to expand his interests to oxygen and hydrogen isotope studies of Mount St. Helens and Lassen volcanoes, across arc geochemical variation of shoshonitic basalts in the Absaroka Range and around Yellowstone National Park, and alkali basalts in the Pribilof Islands in the Bering Sea, but returned to the Central Andes in 2008 as part of the PLUTONS project (a collaborative study funded by the National Science Foundation Continental Dynamics Program). His main research interests included the following.

- Across-arc geochemical variation in continental arc settings with a particular interest in the role of the crust in the modification of magma and the evolution of continental crust;
- The application of oxygen isotope values to identify source variations and source versus contaminant contributions in magma;
- The study of magmatic inclusions and application of these inclusions to describe and model magmatic evolution;
- And his true passion, the generation and evolution of andesites.

For students and colleagues, time in the field and laboratory with Todd was always much anticipated. Such trips were filled with surprises, including Todd being struck by lightning at the top of Electric Peak in Yellowstone National Park twice! Most often, though, these trips consisted of field stories and geologic talk around a campfire or over a beer after a long day of work collecting or analyzing samples or mapping volcanic rocks. Intellectual conversations with Todd were always stimulating, provocative, and challenging, which made his students and colleagues better.

One of Todd’s tenets was that volcanic rocks are chemical systems that need to be studied in context and not in isolation. He designed his research and his teaching behind this idea, and the methodology and instrumentation he employed furthered this notion. He focused his research on the behavior and accumulation of magma in and on the Earth’s crust through field relationships and the chemical analysis of rocks and minerals.

Todd’s fascination with subduction zones took his research all over the world. His research projects spanned the entire west coast of the Americas, from Alaska to the southern Andes of Chile. His work and the work of his students progressed our understanding of how silicic magmas differentiate and how these magmas affect crustal evolution. His passion and love for geology were an inspiration to family, friends, colleagues, and students. A talented and complex person, we remember him for his passion for geology and for the gift of his quirky and unorthodox perspectives. Todd will be sorely missed. May there be andesites wherever he has gone.
SELECTED PUBLICATIONS BY TODD C. FEELEY


Feeley, T.C., 1993b, Geologic map of the Robinson Summit quadrangle: Field studies map 2: Reno, Nevada, Mackay School of Mines, University of Nevada, scale 1:24,000.


