

# Carleton Geology Newsletter

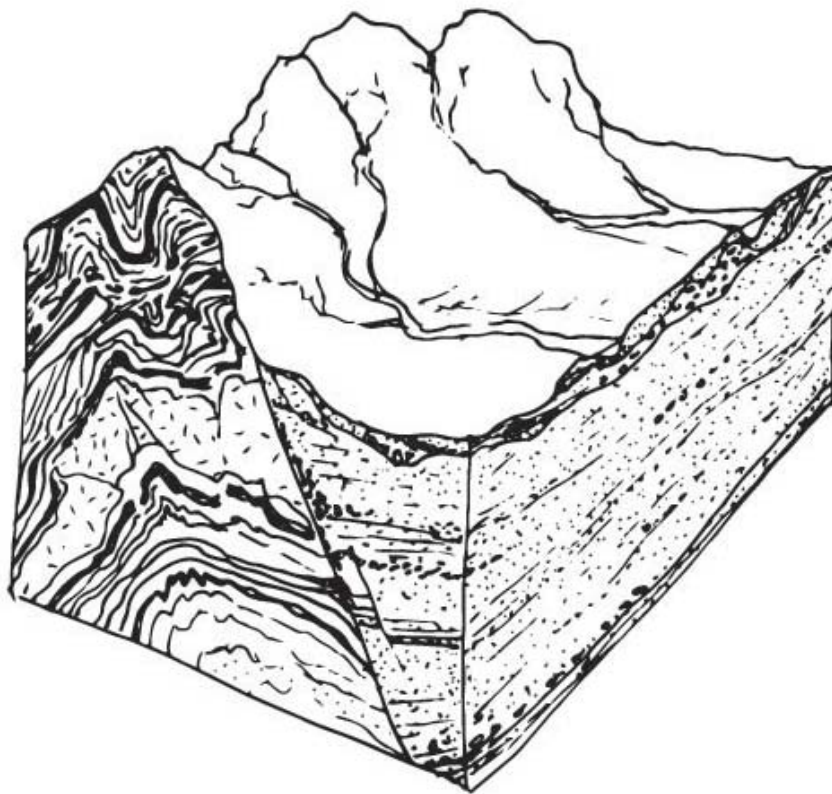
Volume XXXIX

2014

CARLETON COLLEGE



DEPARTMENT



**Figure 1. Education is uplifting.**

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The cover drawing is the 2014 Geology T-shirt design by Maureen Kahn '14

The Carleton Geology Newsletter is edited by Jonathon Cooper  
Layout by Ellen Haberoth

Photo Submissions:

Pictures submitted to the Newsletter can be either in traditional print or electronic formats, but electronic pictures should be medium to high resolution in order to reproduce well on paper. The file size of electronic pictures should be several hundred KB or more.

If you have a change of address or other correction to our address list you may edit it yourself and make sure your listing is done the way you prefer at <http://apps.carleton.edu/alumni/directory/>

If you have forgotten your username or password call the Alumni Affairs Office at 1-800-729-2586.

Or

You may notify: Alumni Records, (507) 222-4195  
E-mail: [addresses@carleton.edu](mailto:addresses@carleton.edu)

## **Geology Department T-Shirts Available**

*We have a supply of geology T-shirts available that can be purchased by mail. The cost for a current year shirt is \$10 plus \$4 postage payable to Carleton College, and as a gift we will throw a previous years shirt in for free (it'll be a surprise what shirt from the past you will end up with).*

*The 2013 - 2014 features a geo-themed stylized "Carleton", and a very creative "Education is Uplifting" figure on the back. Text on the shirt is maize/gold in color, while the shirt is dark blue and available in short sleeve. As of writing sizes XS, S, M, L, and XL are available.*

*There is also a timeless (and priceless!) special shirt available for families with multiple generations attending Carleton. The shirt features a diagram of the interior of the Earth with the core labeled Carleton Faculty, and the layers going upwards toward the surface being Post Docs, Graduate Students, Seniors, Juniors, and Sophomores; the blebs of magma (which melted off the subducting plate) rising toward the surface are "Children that go to Carleton." It is a cardinal red with white ink. Sizes available S, M, and L.*

*Email Jonathon at [jlcooper@carleton.edu](mailto:jlcooper@carleton.edu), or call at (507) 222-4401 to find if you size is still in stock.*

# Department of Geology

Carleton College

One North College Street

Northfield, MN 55057

Dear Friends of the Geology Department -

We have just said goodbye to a wonderful crop of geo-majors. Their comps projects, which is just one way of looking at how talented they are, sampled a wide swath of the geosciences - from studying a contaminant plume under 6th Street in Northfield, to quantifying uplift rates of mountains in Idaho, to characterizing hazards from radon in Oregon. You can see the complete list of comps projects inside this newsletter. I wanted to mention that many of these students find their comps topics through you – our alums, parents, and other Carleton geo-fans. We thank those of you who have guided our students in the past. Send us an email or call if you know of a meaty, one-term sized project for the future – it would allow you to connect with a current Carleton undergraduate and give the students a chance to cut their geo-teeth on projects that are likely outside of the faculty's expertise.

As always, we are proud of the amount of time we spend with our students in the field. The fall departmental trip visited classic outcrops in northern Minnesota. Students on the spring trip flew to Las Vegas to visit the Mojave Desert. They were lucky enough to meet alums Kristin Bergmann '04 and Mike Smith '99, who helped lead the trip. Our off-campus geology program to New Zealand ran for the third time this winter with a fantastic group of 24 students. And let's not forget the hundreds of students who spend time in parks, streams, and fields around Northfield as part of their regular coursework.

For the first time in a several years, all five Geo faculty were on campus for the entire year. You can read about our exploits later in the newsletter but here are a few teasers. Mary has been working on her book with Nancy Wilkie. Clint ate green-lipped oysters in New Zealand. Bereket led an alumni trip to Tanzania. Cam spent time in Alaska (surprise, surprise). And I co-taught Geophysics for the second time with my Dad. Our staff – Ellen Haberoth and Jon Cooper – continue to do a great job in the department. For example, they put together this newsletter, which is just one of the many tasks that keep them busy and keep the department in ship-shape.

I am continually impressed by our network of talented alumni (and parent) supporters. For example, we were extremely fortunate that Leah Morgan '04 could fill in at the last minute for a spring Introductory Geology course. Leah did a fabulous job and her enthusiasm for Intro was contagious. We also had some excellent guest lectures during the year, including Rudi Meyer, parent of a current Carleton physics major, and alumni Roy Luck '95 and Vivian "Tien" Grauch '73.

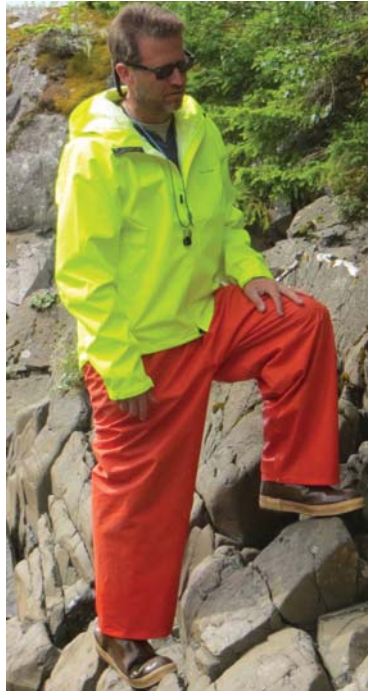
We are looking forward to the coming year with our 22 seniors and 15 junior majors as well as classes taught by alums Ken Tape '99 and Alice Newman '11. Let us know what you're up to – fill out our postcard or fill in your details online. Yes, we like hearing about your professional accomplishments, but we also like hearing about you as a person.

Sarah Titus

# DEPARTMENTAL NEWS

## FACULTY UPDATE - CAMERON DAVIDSON

Thanks to a course release related to my new duties as director of our \$1 million dollar Howard Hughes Medical Institute (HHMI) grant, I didn't teach in the fall, but was busy ramping up on all the moving parts of the grant. The grant focuses on "Integrative



*Cam showing off his bright new jacket while contemplating where to collect a coarse sandstone from the Sitka Greywacke.*

Learning" and helps fund student-faculty research, curriculum development, and a variety of outreach activities. In winter term I taught Mineralogy to a small, but fun group of Geology majors (15 students) thanks in part to it being a "New Zealand year", and in the spring I had a full class of 36 students in

Introduction to Geology. They were a terrific group and I hope a number of them decide to major in Geology. John Garver (Union College) and I are in the last year of our NSF-funded project on unraveling the transport history of the Chugach Prince William terrane in southern Alaska. We have six students with us this summer (June 18 – July 11) where we plan to spend five days in the Seward area, and the rest of our time in eastern Prince William Sound working out of Cordova. If you are interested in what we have discovered thus far including publications and links to abstracts, please see our research website: [http://minerva.union.edu/garverj/alaska/chugach\\_Keck.html](http://minerva.union.edu/garverj/alaska/chugach_Keck.html).



*Keck Alaska 2013 group, pictured from left to right: Adrian Wackett (Trinity University), Brian Frett '14, Bri Rick '14, Meghan Riehl (Union College), Kate Kaminski (Union College), Claudia Roig (U Puerto Rico).*

## FACULTY UPDATE - SARAH TITUS

There were two main highlights from the teaching side of my life this past year. First, I got to travel with an amazing group of students on the department program to New Zealand. We had great weather (by South Island standards), and interesting mapping and outcrop-based projects in some pretty idyllic settings (see Figs. 1-3). The students showed incredible perseverance after personal tragedies and set-backs on the program and on campus. My family was able to come along on the program and sometimes had the chance to explore the landscape between naps (Fig. 4). Second, I co-taught Geophysics for the second time ever with my Dad to an inquisitive group of majors. A guest lecture by Tien Grauch '75 from the USGS quadrupled my understanding of aeromagnetic methods.

On the research side of life, I worked with four wonderful seniors on a variety of projects this year. Sarah Alexander '14 and Chelsea Wagner '14 examined data and rocks that we collected together in Cyprus last summer. Lucy Livesay '14 found new ways to use thin sections to characterize deformation in deformation bands. And Mariah Radue '14 blazed through all sorts of nerdy strain measurement techniques to characterize deformation near Harpers Ferry, West Virginia.

I've got two exciting summer experiences coming up. First, I'm running a one-week summer camp for local middle-school girls. The "I" should be in quotes, because the curriculum was actually designed by seniors Sarah Alexander '14, Mary Reagan Harvey '14, Rachel Johnson '14, and Lucy Livesay '14. I'm thrilled that three of the seniors are sticking around after graduation to help run it along with Caroline Lauth '16. Later this summer, I'm headed to Iceland for the first time with William Chapman '16 to look at an exposed transform fault from the Mid-Atlantic Ridge.



*Figure 1. Students examine a trench in Christchurch, NZ looking for evidence of paleoliquifaction (and finding in the process a layer of sheep bones from wool factory).*



*Figure 2. Students learning the section in Flock Hill by the classic kiwi methods: wading through rivers with your boots on.*



*Figure 3. Students examining the Alpine fault near Gaunt Creek, NZ. This fault is the plate boundary between the Pacific and Australian plates.*

*Figure 4. Freya takes a stroll in the Southern Alps near Flock Hill.*



FACULTY UPDATE - CLINT COWAN

This year it was back to basics for me, with lots of teaching in the field. I actually got to teach a section of 'Intro' in a term when there wasn't snow on the ground (I haven't had that opportunity in over a decade!). I taught the Geology in the Field freshman seminar— now fashioned by the College as an "Argument & Inquire" seminar for incoming freshmen, but I still have the Academic Catalog on my shelf from 1982-3 that has this as the first entry for Geology courses:

**Geology 8.** Outdoor Seminar in Geology. Geology is the science of the earth and the geologist's true laboratory is the outdoors ... — **Mr. Henrickson.**

The legacy lives on! And this year I exploited our 2,3c + laboratory schedule to get these kids out in the field for an eight hour-day every week, plus two weekend field trips. The students were enormously fun and enthusiastic (and it's an effective course: 50% of the students have already registered in another geology class). We need to always play to our strengths and the field is our strength, and our alums have been generously supporting our mission for generations. Thank you.

Winter Term found me leading 24 students across the North Island of New Zealand on the first 5-weeks of the Geo Department's OCS seminar (Sarah Titus did the South Island for the second half, Freya in tow!). On the North Island alone, we were joined by no fewer than eight Kiwi professors who taught our students in their field of expertise on the rocks that they know best. We also had three alumni TA's who were essential to the program's success: Aaron Fricke '09, Amanda Yourd '11, and Zach Stewart '12. They were GREAT fun and great support for the directors, and I am forever in their debt. There is an article on the NZ Program elsewhere in this Newsletter, so I'll not go on and on... but I could! I got back to Northfield in time to join the Department on the Death Valley field trip over Spring Break, where Kristin Bergmann '04 and Mike Smith '99 schooled us (err... well mostly me) in their crazy modren way of doin' geology... crazy kids.

Paleobiology was large again this spring, with 34 students. Biology alum Hilary Christensen '06 stopped by to teach a couple lectures on the radiation of mammals (and what their diets were) during the early Cenozoic. It was great to have the opportunity to learn this from someone who has done primary research on the topic. Hilary was a visiting professor at Gustavus this year, so it wasn't too far a drive for her, but it was still extremely generous; she also brought a series of skulls for the students to work through the morphological changes needed to evolve from cow-like to whale-like... great stuff.



This summer I am going to spend most of July doing fieldwork with Minnesota Geological Survey geologists Tony Runkel and Julia Anderson, because there can never be too many nettles and mosquitos in my life. I'm attending the SERC Cutting Edge Conference on integrating Paleo, Seds and Paleoclimate courses. In August I have been invited to participant to the Sir Isaac Newton Institute in Cambridge for a conference on Water Waves, and after that I'll be leading a redux version of the Orkney & Shetlands walking tour for Alumni Adventures. Last year it was a pleasure to have Jan Tullis '65 along on that trip (with her two sisters! see photo), but slightly nerve wracking to have such a prominent geologists hear how I teach geology to a bunch of alums who don't know the

names of any rock types... and only sort of care (but honestly the archeological sights are the big draw for that trip, and they are spectacular). Next year I'm already signed up for an Alumni walking trip to Mull, Skye and Harris, as well as a reconnaissance trip to New Zealand to get Cam up and going for 2016, and hopefully, a departmental trip to someplace exciting: stayed tuned.

FACULTY UPDATE - MARY SAVINA

Thank you! I'm writing this note on the day before commencement, just having come from a reception with the senior geology majors and their families. These seniors will become alumni of the college and the department tomorrow morning. We (faculty and staff) consider our community consists of all of our current students, geology department alumni, former staff and faculty, and many others who engaged in the department. We are particularly grateful for the support of alumni this year. Among many other things, your contributions helped us:

- Run a successful spring break field trip to the Mojave Desert, led by Mike Smith '99 and Kristin Bergmann '04;
- Invite Jim Pizzuto '75 back to campus as the Bernstein Distinguished Lecturer-in-Residence for several days in November;
- Support summer break student research, including work with faculty and individual student projects;
- Conduct exit interviews with our graduating seniors (Stu Grubb '85, Carolyn Carr, '88 and David Bitner '98);
- Continue a successful program bringing graduate students from the University of Minnesota to give department talks – and then go to dinner with students to discuss the transition from college to professional life; and
- Involve many students in conversations about energy and the petroleum industry during an extended visit by Roy Luck '95.



*Kristin Bergmann '04 with students in the Mojave Desert*

**More Help Wanted:**

As you may know, the College has started a program to help students better connect their classes, co-curricular activities (including internships and career explorations), campus employment, career resources, other experiences and alumni contacts. We'd like to have geology alumni contribute to this program (called "Pathways"). It's a two-step process:



First, complete your Alumni Profile. Once you add your profile information to this website it can be displayed on the Pathways website (with your permission) as well as on other web pages within the Carleton website. You will find more information about the Alumni Profiles by going to <http://apps.carleton.edu/career/alumni/help/alumniprofile/>.

To complete your Alumni Profile, go to <https://apps.carleton.edu/profiles/me>, and log in with your Carleton username and password. (If you have forgotten your username and password you can retrieve it by going to <http://apps.carleton.edu/login/help/alumni/>.)

Second, register for the new alumni volunteer program called "Career Guides". The Career Guides program is designed to draw on the impressive and varied experience of our alumni network to help current students, as well as younger alums, to make a successful transition to their lives after Carleton. To learn more about the Career Guide program please check out our website by clicking on the following link. <https://apps.carleton.edu/career/alumni/help/careerguides/>

How do you go about signing up to be a Career Guide? Just go to the Career Guides signup page by clicking on the link below and follow the three simple steps. <https://apps.carleton.edu/career/alumni/help/careerguides/signup/>

You can find examples of alumni profiles, including answers to the "Career Guide" prompts, through the Pathways website: <https://apps.carleton.edu/pathways/>.

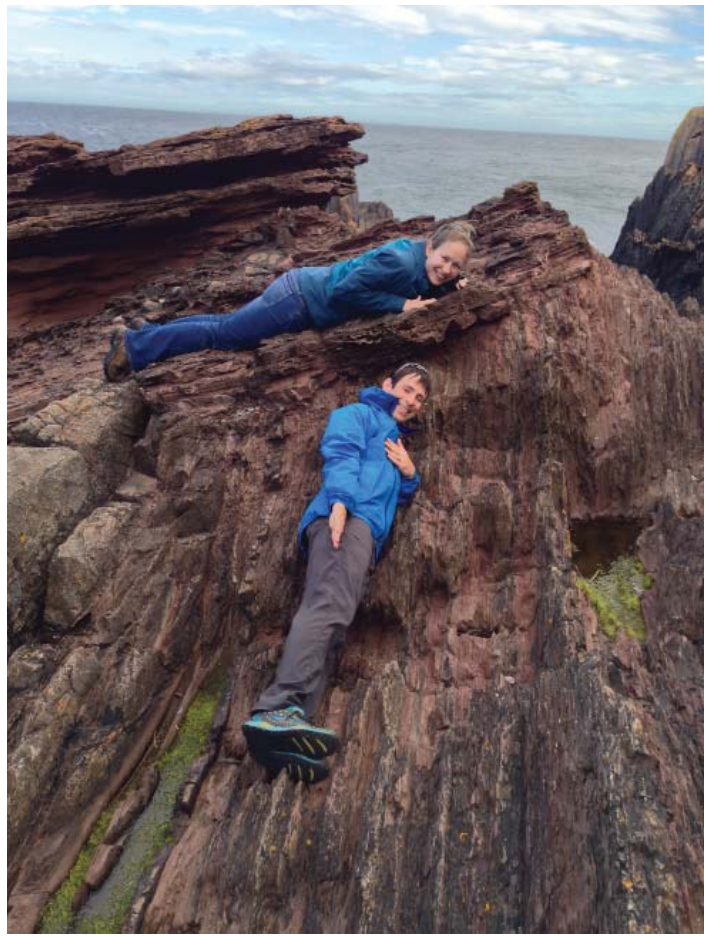
If you have any questions or need further information on the Career Guides program please do not hesitate to contact Brian Murphy at 507-222-4446 or [bmurphy@carleton.edu](mailto:bmurphy@carleton.edu).

VISITING FACULTY UPDATE - LEAH MORGAN '04

I was fortunate to be able to take leave from my postdoc in Scotland and come back to campus to teach intro this spring. I have been at the University of Glasgow for the past few years, and Amsterdam before that, working on improvements in  $40\text{Ar}/39\text{Ar}$  geochronology and potassium isotope geochemistry. At Carleton, I had a great class of intro students and enjoyed showing them all my favorite outcrops and local field trips—including Wang's Corner, the Wilderness Park, Red Wing, and Taylor's Falls.

After the term and Goldschmidt, I spent a week collecting Oligocene tephra with Klaudia Kuiper (Vrije Universiteit Amsterdam) and Anders Berglund '15 in Nebraska, South Dakota, and Wyoming. I'm now back in Scotland but am looking forward to wrapping up five years in Europe and heading back to the states this winter.

*Leah Morgan '04 & Dave Auerbach '04*



*Leah Morgan '04 and Anders Berglund '15 sampling a tephra in Eastern WY*



## Senior Projects - 2014

*Graduating senior geology majors, their hometown and title of integrative exercise (“comps”) projects:*

**Sarah O. Alexander, Shoreview, MN**, “Using field and laboratory data to characterize deformation in the outside corner of a ridge-transform intersection in the Troodos ophiolite, Cyprus”

**Cassandra Brigham, Paris, France**, “Characterization of unidentified ceramic wares from the ‘Ayn Gharandal Archaeological Project using thin section petrography and SEM analysis”

**Catherine Anne Christenson, Eden Prairie, MN**, “A Site History and Soil Contamination Source Study in the Area of 5th and 7th Streets and Washington and Water Streets, Northfield, MN”

**Jennie Chu, San Francisco, CA**, “Evidence for Heat Treated Stone Tools: The Magnetic Mineralogy of Thermally Altered Chert”

**Anderson Cole, Aspen, CO**, “Provenance analyses of siliciclastic dikes and Paleozoic formations near Colorado Springs, CO using detrital zircon U/Pb dating”

**Brian Kelly Frett, Wilmette, IL**, “Detrital zircon U/Pb ages of the Paleocene Orca Group and Upper Cretaceous”

**John R. Garlow, Triadelphia, WV**, “Grain shape and microtexture analysis to interpret provenance and transport history of Upper Mississippi Valley Cambrian - Ordovician supermature quartz arenites”

**Mary Reagan Harvey, Birmingham, AL**, “A geochemical analysis of the Bagmati River in Kathmandu Valley, Nepal”

**Rachel E. Johnson, Woodbury, MN**, “Delta Progradation in a Flood Control Reservoir: A Case Study from Littleville Lake, Huntington, Massachusetts”

**Maureen Kahn, Whitefish Bay, WI**, “Constraining exhumation of the Sawtooth and White Cloud Mountains by (U-Th)/He zircon thermochronology”

**Elizabeth Kimberly, Stillwater, MN**, Aggradation and Avulsions: A Case Study of a Carbon River Floodplain, Mount Rainier National Park, Washington

**Ryan L. Lawrence, Olympia, WA**, “Geochemistry of the Early Eocene Coast Range Volcanic Province, Pacific Northwestern United States, and Evidence for Plume-Ridge Interaction”

**Lucy F. Livesay, Manitou Springs, CO**, “Deformation bands in the Etchegoin Formation at Parkfield: Implications for stresses on the San Andreas Fault in Central California”

**Chloe L. Nelson, Madison, WI**, “Petrography and Thermobarometry of a Metamorphosed Sedimentary Sequence associated with the Western Idaho Shear Zone, West Mountain, Idaho”

**MacKenzie Persen, Paradise Valley, AZ**, “Provenance of pebbles from the Kataboi Member of the Nachukui Formation near the Turkwel River, Turkana Basin, Kenya”

**Mariah J. Radue, Mount Airy, MD**, “Three-dimensional fabric analysis and deformation of the South Mountain anticline, Harpers Ferry, West Virginia”

**Brianna J. Rick, Burnsville, MN**, “Provenance of the Chugach-Prince William terrane through U/Pb dating of detrital zircons, Baranof Island, SE Alaska”

**Milana L. Socha, Chesterton, IN**, “Complexities of Aging Mussels from the Cannon River”

**Kaopua Nani OK. Sutton, Hilo, HI**, “Exploration of Groundwater Resources in Mauna Kea Island of Hawaii

**Chelsea A. Wagner, Marlborough, MA**, “Paleomagnetic constraints on the location of a fossil spreading ridge in the Troodos ophiolite, Cyprus”

**Cameron Joseph Webb, Portland, OR**, “Distribution and geologic analysis of the indoor geohazard of radon gas in Clark County, Washington”

**Class of 2015**

Lydia Auner, Madison, WI  
 Anders Berglund, Minneapolis, MN  
 Leah Cromer, Cincinnati, OH  
 Luke Fairchild, Wausau, WI  
 William “Bill” Grimm, Hinsdale, IL  
 Emily Houlihan, Boulder, CO  
 Jabari Jones, Minneapolis, MN  
 Charles “Omar” Kaufmann, Winnetka, IL  
 Caroline Lauth, Minneapolis, MN  
 Callum McCulloch, Woodside, CA  
 Katherine McLellan, Edina, MN  
 Frank “Rudy” Molinek, Davidson, NC  
 Leah Nelson, Altamont, NY  
 Jayne Pasternak, Short Hills, NJ  
 Jeremy Randolph-Flagg, Kappa, HI  
 Ian Reeves, Berkeley, CA  
 Julia Reich, Marine on St Croix, MN  
 Lauren Salberg, Longview, WA  
 Emma Schneider, St. Paul, MN  
 Erica Sheline, Atlanta, GA  
 Jackson Van Fleet, San Francisco, CA  
 Jacob Viesselman, San Tan Valley, AZ

**Class of 2016**

Noah Anderson, Olympia, WA  
 Nelson Bandy, Loudonville, OH  
 Charlotte Beal, Chestnut Hill, MA  
 William Chapman, Saint Paul, MN  
 Ilana Crankshaw, Menlo Park, CA  
 Elizabeth Davis, Buffalo, MN  
 Sally Donovan, Minneapolis, MN  
 Sarah Jordan, West Bath, ME  
 Max Longchamp, Cornwall, VT  
 Philip-Peter Maxeiner, Bronxville, NY  
 George McAneny, Santa Cruz, CA  
 Shanti Penprase, Claremont, CA  
 Elaine Rock, Minneapolis, MN  
 Jeff Rosen, Arlington, MA  
 Forrest Williams, Manton, MI

**2014 Awards**

*Distinction in Geology Comps*

Cassandra Alison Palm Brigham '14  
 Ryan LeVan Lawrence '14  
 Chelsea Anne Wagner '14

*Mortar Board*

Rachel Elizabeth Johnson '14  
 Brianna Joy Rick '14  
 Chelsea Anne Wagner '14

*Phi Beta Kappa*

Cassandra Alison Palm Brigham '14  
 Chelsea Anne Wagner '14

*Phi Beta Kappa First Year Prize*

Lydia Claire Auner '15

*Sigma Xi*

Sarah Ostergren Alexander '14  
 Catherine Ann Christenson '14  
 Jennie Chu '14  
 Anderson Richard Cole '14  
 John Rybeck Garlow '14  
 Rachel Elizabeth Johnson '14  
 Maureen Jennings Kahn '14  
 Lucia Fay Livesay '14  
 Chloe Lynn Nelson '14  
 Mariah Josephine Radue '14  
 Chelsea Anne Wagner '14  
 Cameron Joseph Webb '14  
 Joshua Edward Zoellmer '14

*Seydel Fellowship*

Brianna Joy Rick '14

*Mortar Board Prize*

William A. Chapman '16

*Stewsie Sustainability Award*

Jackson Van Fleet '15

*Ele Hansen Award*

Kaopua Nani O Ke Kai Angelica Sutton '14

*Writing Portfolio Recognition*

Luke McCoy Fairchild '15  
 Julia Anne Reich '15

*Class of 1963 Fellowship*

Luke McCoy Fairchild

*Duncan Stewart Fellows*

Lydia Claire Auner '15  
 Cassandra Alison Palm Brigham '14  
 Jabari Coleman Jones '15

*Independent Research Fellowship*

Caroline Lauth '15

*Kolenkow Reitz Fund for Undergraduate Research*

Katherine Chandler McLellan '15  
 Erica Kimberley Sheline '15

*Sam '75 and Meg Woodside Endowed Fund for Career Exploration*

Elizabeth Rae Davis '16

## Duncan Stewart Fellows for 2013-14

Each year, the geology faculty faces the difficult task of selecting a few students to be Duncan Stewart Fellows. The Duncan Stewart Fellowship was established in 1976 by Daniel Gainey, class of 1949, in honor of Duncan Stewart, professor of geology at Carleton for nearly 25 years.

We select the Stewart Fellows based on a combination of excellence in scholarship, a high level of intellectual curiosity, potential for scientific growth, and involvement in departmental activities. As we make this selection, we realize how fortunate we are to have so many talented, interesting, and impressive students within the department. We are very pleased to announce that Cassandra Brigham '14, Lydia Auner '15, and Jabari Jones '15, have been named Duncan Stewart Fellows, extending the number of Stewart Fellows over the years to 106.

Congratulations and keep up the great work!



*GEO100 at Barn Bluff, Red Wing, MN*

## Carleton People Present Papers at GSA

The following Carleton Geology Department people presented papers in technical sessions at the meeting of the Geological Society of America in Charlotte, North Carolina; as well as regional meetings of Geological Society of America. The Carleton folks are indicated in bold face type, and students and alums are indicated with their class years. The presentations listed are only those which involved a current Carleton student or employee; many other Carleton alums, too many to list here, also presented papers at the meetings.

Garver, J., **Davidson, Cameron**, Kaminski, K., Riehl, M., Suarez, K. “Thermal Evolution of Source Rocks of Detrital Precambrian Zircon Revealed Through Integrated Radiation Damage, Chugach-Prince William Terrane, Alaska.”

Fayon, A., Tikoff, B., **Kahn ’14, Maureen**, Richard, M., Vervoot, J. “Preliminary Low-Temperature Thermochronology of Western Idaho Shear Zone and Atlanta Lobe, Idaho Batholith.”

Gilbert, L., Ramage, J., Galster, J., **Savina, Mary**, McConnell, D. “Geoscience Learning for a Sustainable Future: Integrate Hurricane Hazards Module.”

**Davidson, Cameron**, Garver, J., Roberts ’13, Nicolas M. “HF Isotope Signatures of Detrital Precambrian Zircon suggest a Southern Laurentian Source for the Upper Cretaceous Flysch of the Chugach-Prince William Terrane, Alaska.”

**Savina, Mary**. “Field Trips: A “Signature Pedagogy” for Geosciences’s “Tangled Banks”.

Lane, J., Tikoff, B., Davenport, K., Hole, J., Walker, M., Larsen, E., **Kahn ’14, Maureen**, Montz, W., Carey, A. “Gravity Measurements along the IDOR Seismic Transect”.

**Kahn ’14, Maureen**, Fayon, A., Tikoff, B., Byerly, A. “Constraining Exhumation of the Sawtooth and White Cloud Mountains by (U-Th)/He Zircon Thermochronology.”

**Radue ’14, Mariah, Yourd ’12, Amanda, and Titus, Sarah**. “Three-dimensional Fabric Analysis and Deformation of the South Mountain Anticline, Harpers Ferry, West Virginia.”

## Professional Talks Given in the Geology Department This Year

Dr. Richard Wirth: Mineralogical Society of America  
Distinguished lecturer “*Nano-inclusions in minerals and rocks: small particles tell big stories*”

Dr. Chris Crosby: *Geosphere-biosphere interactions in deep time: a case study from Paleoproterozoic rocks of India*”

Dr. Rudi Meyer: *Adventures of a feldspar grain in Western Canada*”

Dr. Roxanne Renedo: *The exhumation of deeply subducted continental crust*”

Dr. James (Jim) Pizzuto ’75: “*The Essential role of Geology in Sustainable Watershed Management*”

Dr. Ellery Frahm: “*Understanding Lifeways and Ecology in Paleolithic Armenia: Geochemistry, Magnetism, and Technology of Neanderthals’ Obsidian Tools*”

Dr. Jeff McGuire: GeoPRISMS Distinguished Lecturer  
“*20,000 Foreshocks Under the Sea: Capturing the End of a Seismic Cycle on the East Pacific Rise*”

Roy Luck ’95: “*Working in Today’s Oil & Gas Business*”

Dr. Maud Meijers: “*Paleomagnetism as a tool to reconstruct the large scale geometry of Turkish orogens*”

Dr. Frederick Chester: “*Sampling the Source of the 2011 Japan Earthquake and Tsunami*”

## Departmental Field Trips

Our fall field trip this past year was to Northern Minnesota; the weather was cool (think snow!) throughout the trip, but fall colors were fantastic. The group loaded into 12 passenger vans and spent four days locating, discussing and mapping some of the amazing geology found in our “backyard”. Field trip leaders, Bereket, Cam, Clint and Ellen were joined by Dr. Rudi Meyer, from the University of Calgary. Rudi had the opportunity to join us in the field for a few days, taking time from his working sabbatical with the Science Education Resource Center (SERC) here at Carleton.



This past spring break the department revived a decade old field trip to the Mojave and Death Valley region that was last run 2003. We started the trip off near Las Vegas, Nevada exploring the Red Rock Recreation Area near with Mike Smith '99, and then we met up Kristin Bergmann '04 near Death Valley National Park. Under Mike and Kristin's tutelage, students measured sections of the Carrara formation at Emigrant pass, mapped a late Mesozoic shear zone at War Eagle Mine, and were introduced to giant ooids of the Johnnie formation.



*Many thanks to the Geology Endowment funds for making this trip possible.*

## Girls Adventures in Learning Science - Lucy Livesay '14

This past spring Sarah Alexander '14, Mary Reagan Harvey '14, Rachel Johnson '14, Caroline Lauth '16, and I worked in collaboration with Northfield Middle School to develop a free, week-long summer camp for girls interested in the geosciences. Under the guidance of Professor Sarah Titus, whose National Science Foundation grant funded the camp, we created lesson plans and recruited students. The essential purpose of Girls Adventures in Learning Science (GALS) was to instill scientific interest and sense of enablement in middle school girls by introducing them to geoscience concepts in a creative, collaborative, and fun outdoor learning environment. The camp aimed to introduce girls to the story of Minnesota's geologic history while simultaneously developing mentorships between the campers and participating female geology majors.

We had such a blast learning about contour maps, making crinoid necklaces after a field visit to Wang's Corner, singing "I am a Paleontologist" by They Might Be Giants, playing graded shelf games to learn about Minnesota's sedimentary units, and exploring local trails to collect glacially transported river stones. The feedback from the girls was incredibly positive. It is our hope that GALS continues at Carleton, reinforcing our outreach relationship with the Northfield community, developing the teaching skills of geology majors, and encouraging girls to pursue, develop, and invest in their curiosity for science.



# NEWS FROM ALUMS

## Faculty and Staff Updates (Retired and very happy updates!)

Cynn timer and I are happy and healthy. It has been a good year for us. The highlight was a couple weeks this fall traveling to northwestern Montana topped by a visit to Glacier National Park. The superintendent of Glacier is our own Jeff Mow (Class of 1981). We visited in the park for about a week and were able to take Jeff and his wife, Amy, out to dinner one evening. Cynn timer and I had not been in Glacier for many years and had really forgotten how absolutely spectacular it is. We are happy it is in good hands with Jeff at the helm.

We just ended a great visit from son Charles and daughter-in-law Silvana who came from Mexico City to enjoy the snow and cold of Minnesota. Daughter Julie also joined us for a week having come from South Carolina. We all had much fun together.

Cynn timer and I are enjoying the company of two new miniature dachshund puppies. We had talked about it for years and a lucky trip to northern Minnesota last February made it possible to adopt them. One of the best things about them is that I have a good reason to go for a walk several times a day. For a guy my age that alone makes Jake and Lucy valuable; they are keeping me healthy.

Last June Cynn timer and I had a terrific time visiting with geology majors from the class of 1964 while they celebrated their 50th reunion. It was such good fun I hope all of you will try to get to reunion. Put it on your calendar! Please!

*Ed and Cynn timer Buchwald*

Jean and I are going to be grandparents! Our daughter Laura and her husband Fakhri are expecting a son to be born in the first week of July, so we're excited to enter a new phase in our family's life. All reports are that being grandparents is the best of both worlds – the enjoyment of parenting without the commitments and hassles – sounds great to me!

We continue our permanent vacation status, quilting and playing chamber music, volunteering here and there, and sometimes taking excursions that tickle our fancy. An interesting trip this spring was visiting the UNESCO World Heritage Site at Cahokia Mounds near East St. Louis, IL, where there was a huge Native American city that, at its peak in the 12th century, rivaled London in population (upwards of 20 thousand people).

We send our best wishes to all of you and hope you're doing well too.

*Tim and Jean Vick*



*White Island, New Zealand*

## A L U M N E W S

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**1942.** *Charles D. Edwards* Not much - retired. (Age 92 years.)

**1949.** *Jim Dorman* Retired in 1998. Now reducing my outside commitments concentrating on earth science news, American history, using the web more and more.

**1954.** *M.E. (Pat) Bickford* I have a new job! Starting in September, I will serve as “Liaison of the College of Arts and Sciences to the campus office of Design and Construction”. I will represent the Dean in matters of space planning, renovations, construction of new laboratories, and the like. This is a salaried 1/2 time position. Not bad for an Octogenarian!

**1955.** *William D. Bryant* Retired, doing the ordinary retiree stuff, trying to stay healthy, playing with grandkids, short trips now and then.

**1956.** *Richard Buchheit* There were just 3 geology majors in the class of 1956. With the passing of Don Kohls in Oct/2013, I'm the last survivor! We all were exploration geologists. Upset with obstructionist behavior of the environmental community, and their misinformation, regarding resource developments. The polymet and twin metals deposits in MN for example. Visited the Twin Metals staff in Ely this spring. The Maturi deposit is 1.2 billion tons and would be mined underground!

**1958.** *John T. Been (Tcd)* Happily retired with the 80th coming up. Still teaching part-time at the Eastern Virginia Medical School and loving it.

*George Austin* I am still attending professional meetings. We leave for Scotland tomorrow. Wife Marj insists we visit London too. She is an English major, so I had little choice.

**1960.** *Michael W. Mclanahan* Elected Chair - National Mining Association - Manufacturers & Services Division  
Elected - Vice Chair - Board of Trustees, Mount Aloysius College, Cresson, PA

**1961.** *Don Davidson* Took a wonderful golf tour in Ireland last summer and saw some geology as well. For a month this spring, I was both stroke and match play champion at our club.

**1963.** *Wendell Duffield* Anne and I moved to Whidbey Island in Puget Sound as an attempt to tame her asthma, which was increasingly troublesome in the thin dusty air of Flagstaff AZ. We've been here a year as of May and her meds are gathering dust in storage! Meanwhile, we continue to tame and reshape a two-acre verdant landscape that had been ignored for several years. We're making progress. And when I tire of that task I write whatever the muse suggests and post the products on my blog [www.waduffield.wordpress.com](http://www.waduffield.wordpress.com) Several of the postings are even geology related:)



*Morning  
view of the  
olympics  
- Wendell  
Duffield '63*



**1964. Pete Rowley** Paid work has been slower the last couple years, but I make up for it by doing free work, mostly mapping and publishing for the Utah Geological Survey. Currently, I am trying to find the breakaway fault for a 22-Ma gravity slide in the S. Marysvale volcanic field of SW Utah. It may be the World's largest! Also, just attended my 50th Carleton reunion - we had 100% turnout (4 of us) of geology majors!

**1965. Jan (Conway)Tullis** Last summer I (and my 2 sisters and brother in law) greatly enjoyed the Carleton alum trip to Orkneys & Shetland Islands led by Clint Cowan; what a privilege to experience and learn about the amazing landscape with experts.

I am now "emerita" at Brown; sadly I taught Structural Geology for the last time this spring, but I will continue co-teaching the introductory course and serving as geo undergrad advisor. I strive to foster a collaborative geo learning community as strong as that at Carleton!

**1967. Mark McBride** Off in a new direction - I'm now the lead editor for a series of NRC reports on flooding risks at operating nuclear power plants. After Fukushima, the Commission decided that we needed another look at the operating plants, some of which were licensed based on hydrological studies carried out more than 40 years ago. Methods have improved greatly over that time, and we have more historical data to go on. Next year, possibly retirement, or possibly not - things are going well, and a reduced schedule may suit me better, with more time for canoeing and building furniture.

**1969. William E. Henry** Still Chief of Staff at McLaren Northern Michigan Hospital in Petoskey, MI and providing radiology coverage for four hospitals in the tip of the Lower Peninsula. I will become Chief of Staff Emeritus in January and will serve two years in that capacity. Just passed recertification radiology Boards for another ten years but beginning to consider retirement so I can start thinking about the fascinating world of geology again! Linda and I have been enjoying cruising in the North Channel and Lake Michigan and hope to do more of that soon. It has been a long winter but finally summer has come to Northern Michigan, and we are looking forward to two months of sunshine, green forests and blue water.

**1970. Judy Boudreau** I plan on retiring from the MNDNR sometime next year. I have been lucky to work for the State Dam Safety Engineer for the last 10+ years. Various projects include working with Dam Owners to update Emergency Action Plans, submitting annual grant applications to FEMA for state projects, reviewing FERC hydropower licenses and operation plans, and serving on

our Division Safety team. My 36+ years with the DNR have been exhilarating, challenging, and rewarding. I have many interests to pursue (and 2 sons to enjoy) when I retire, so I don't expect to be bored!

**1972. Mark Taylor** Finished my first year as a Research Associate at Cornell's Johnson School of Business. Planning a trip to Tibet with some Stanford Geology Dept. classmates.

**1975. Tien Grauch** I was pleased to be invited by Sarah and Bill Titus to talk to the geophysics class this May. They allowed me to take the whole time to talk about my passion of using airborne geophysics as a geologic mapping tool, which has been the focus of much of my work at the U.S. Geological Survey. As part of this, the students participated as guinea pigs for an exercise that I was developing to give to first-year astronauts during their earth science training program. I have been involved in a small way in training astronauts for several years, sporadically, as new astronauts are selected. This year they will be doing an actual geologic mapping exercise, and use geophysical data as part of it. The area they are mapping happens to fall in my own project area, just north of Taos, NM. The exercise at Carleton went well, and I will see how it goes with the astronauts later on this month. I met many enthusiastic and sharp Carleton geology students on my visit. It was a pleasure! What better students are there besides Carleton geology majors and astronauts??

Another highlight was a visit with Ed Buchwald and Mary Savina. It was good to reconnect, reminisce, and hear some new things about the past too.

After my visit to Carleton, I went to the Institute of Lake Superior Geology annual meeting in Hibbing, where I introduced Jonathan Cooper to my former classmate Larry Meinert ('75), who is now at USGS as our Mineral Resources Program Coordinator. I am working part-time on a new project on the mineral resources of the Midcontinent Rift system. Another tie to Carleton is that part of the rift lies right under Northfield (but is evident only in geophysical data)!

**1976. Phillip Muessig** My sustainable communities work has launched a new performance metrics website for cities, at MnGreenStep.org.

**1977. Camille Parrish** I am continuing with my work in the Bates Environmental Studies Program. This summer my goal is to learn as many freshwater invertebrates that live in the Maine waters as possible for a fall class that is being taught by fellow Carleton Geology grad Holly Ewing. From rocks to critters... My family is well, with one daughter in NYC and the other in MT for graduate school. Still love living in ME.

*Bruce K. Nelson* After three years of serving as the inaugural Associate Dean for Research in the College of the Environment at the University of Washington, I decided it was enough fun and I hadn't completely destroyed my own research program, that I would sign up for another three years. At the same time my isotope geochemistry lab is expanding with new instruments and people, so it's going to be busier than ever. I'm spending more of my own research time on the environmental chemistry of toxic metals, and how to make that sort of data into information that is both useful and used by policy- and law-makers. As always, we have a contingent of Carleton grads in our graduate program, which helps staying connected.

**1978.** *Steve Ingebirten* Looking forward to having Carleton grads Alice Newman and Noah Randolph-Flagg here for the next couple of weeks to help with summer fieldwork.

*Meryl Rosenfeld Haber* I just became a grandmother and I can now plot all the exotic places to send her parents to visit so that I can stay home and play with the melogale.

*Zachary G. Wilson* My daughter, Libby, received her MBA from the University of Colorado and is getting married in August in Breckenridge, CO. I'm planning a fly-fishing trip with the guys but no RAGBRAI across Iowa this summer - too close to the wedding.

*Craig Banister* I had another interesting and fun year in 2013 with the geology club in Denver and the Colorado Archaeological Society (CAS). We toured the upper Arkansas River Valley, from Leadville down to Buena Vista. Lots of interesting glacial geology. The CAS archaeology group had several tours. In northern Colorado, I visited the Lindenmeier Site, which is a stratified archaeological site famous for its large Folsom culture campsite. A separate tour went to the Red Mountain site, in the Red Mountain Open Space, to the west of Lindenmeier. Red Mountain has artifacts dating back 7,000 years. The last trip was a 2-day archaeology field trip to the Montrose area. We visited the Eagle Rock Site (one of the few Paleo sites in Colorado), Flint Cave (lithic source for stone tool manufacture), and the Shavano Valley petroglyph site. I participated in the Pawnee Buttes site survey for the 2nd year, led by the Assistant State Archaeologist, Kevin Black. I also excavated at Blackfoot Cave (located SE of Denver) all summer and fall for the 2nd year. For the first time, I went on a llama hike which took place in Left Hand Canyon in Boulder County. Was a lot of fun and the llamas seemed to enjoy the hike through the forest and valleys too!

**1979.** *Marie Del Toro* I just returned from my 35th reunion and had a great time catching up w/Mary, Tim, Ed, and fellow geo majors! Next outing this summer is a trip to Baja, Mexico to camp, swim and explore. Our family is happy to do another trip together before Hollynd and Wilder are both off to college which happens a year from now.

*Evan Dresel* I am coming up on 5 years living in Australia, working for the State of Victoria Department of Environment and Primary Industries. My division does Agricultural Research and Development so it is a bit of an odd fit for a geochemist - now hydrogeologist. I live in the regional town of Bendigo that has its origin as a gold rush town and the bushland is full of old workings. The Chinese miners left a wonderful cross-cultural heritage of lions and dragons participating in the annual Easter Parade.

My work focuses on groundwater dependent ecosystems and how different land use affects water resources. Cut down trees and recharge increases leading to stream erosion and to rising watertables that produce land salinization. Plant trees and you reduce stream flows. The water and nutrient balance in Australia is delicately poised so even small changes make a big difference. As I said when I moved here, I never want to be too old to try something different and at least the frustrations are new frustrations. Life is good.

*Judy Lungren* My old-time band "Dead Fiddlers Society" made a CD several years ago, which is available on Amazon. My good friend and band member, Dian Newell, died in 2013 :(, so the band is no more. My goal for 2014: attend as many old-time music festivals as possible.

**1980.** *Reid Fisher* Two daughters about to swim in the drama of high school; my stock as a dad reaches new lows every day. Actually, it's a lot of fun. Having a good time w/ geology and fiddle, though one pays better than the other.

*Mindy Bell* (Biology) Now is the STEM (Science, Technology, Engineering, Math) Coordinator in Flagstaff, Arizona, "America's 1st STEM Community", where she links businesses and higher education with K-12 schools to promote STEM education. Daughter Lindsey graduated from NAU and Darrell is featured in a documentary "Taking Earth's Temperature: Delving into Climate's Past" on paleoclimatology which will show up on PBS stations soon. NAU has a great MS/PhD climate program for interested Carls!

**1981.** *Heyo Van Iten* Was fortunate to be part of the team that discovered a conulariid in latest Ediacaran (~ 543 Ma) strata in Brazil. Examination of the specimen at the University of Sao Paulo revealed it to be a Paraconularia, an advanced member of this extinct group of scyphozoan

cnidarians. Reported on it briefly in *Palaeontology* (doi: 10.1111/pala.12116) and now working on an extended description/analysis for *Nature*.

This summer it's back to the Middle Devonian of New York State and the Mississippian of SW Newfoundland.

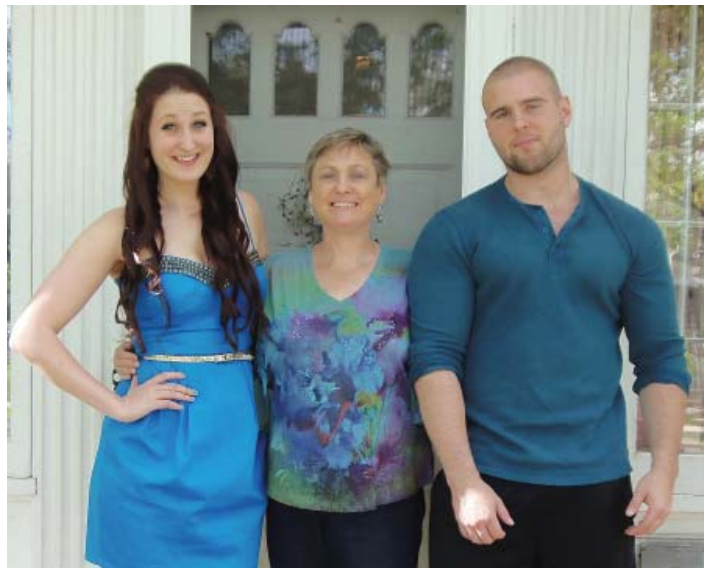
**1982. Carolyn White** Anticipating my first college reunion in June 2014! My oldest, Jasper, just graduated from high school and is on his way to Juilliard as a Kovner Fellow in the fall, with a brief stop at the Perlman Summer Music Program. Couldn't be prouder of his amazing achievements as a violist. My youngest, Corinna, has one more year of middle school. I am still working at the Harris County Flood Control District in Houston, TX incorporating constructed wetlands, reforestation areas, and principles of fluvial geomorphology (natural stable channel design) into as many of our capital and maintenance projects as possible.

**Kristin Kennedy Moeller** I have not updated for years so here goes. I have had several careers each lasting about ten years. My first was as a Cartographer (2 years) and then Hydrogeologist (6 years for one company and 2 more for another). I then made a radical change, attending Hennepin Technical College to get my floral design certification. After running a small business from my home while working for a florist for ten years, I became a Special Education Teaching Assistant at Roseville Area High School. My most recent career leap has been becoming an Art Teacher. I attended Concordia Univ. to get my K-12 Art Teaching Certificate while working full time and doing my best as a single mom. I am so proud to announce that today I signed a contract as the art teacher for Minnesota Math and Science Academy in St. Paul. I will be teaching K-6 art with the school adding a grade every year up to 12th grade. Eventually I will teach the upper grades. The school is still being built but here is the art room and adjoining storage room for art supplies. I am very excited and ready for this next adventure.

My son has graduated from NDSU and is looking to enter a career in physical training. My daughter is entering her second year at the U of M and majoring in English. Both are the light of my life. I hope all is well with everyone!

**1984. Elliot Bruhl** Was promoted this year to medical director of Mt. Edgecumbe Hospital - a new and exciting challenge for me. I am also very excited that my daughter emma will be attending Carleton starting this fall.

**1985. Bradley H. Werrell** Completed specialty training in bioidentical hormone replacement, see my blog for science behind this [redrockhealthcare.com/blog](http://redrockhealthcare.com/blog).



*Kristin Moeller (Kennedy) '82*

**1987. Christopher Carlson** I am now approaching 9 years working for the US Forest Service in the national HQs in Washington, DC. In January 2014, I started a leadership development program through the Brookings Institution called the Legis Congressional Fellowship. After a two-week crash course in how Capitol Hill works (or doesn't), they turned us loose to interview with Hill offices to find a seven-month position as a Legislative Fellow. After completing eleven interviews in four days, I received 5 offers. I accepted an offer from the Office of Senator Tim Johnson from South Dakota, where I am currently acting Legislative Assistant for Energy/Natural Resources/ Environment/ Transportation while the Senator's regular LA is on maternity leave. It is a good thing I am a Midwesterner with deep roots in South Dakota! This has been a very different experience from the internship I did 26 years on the House side as a part of my Science, Technology, and Public Policy Concentration at Carleton. As an intern in the much smaller House offices, I did a lot of mail, phones, and errands – all as a volunteer. As a Fellow, I have drafted opinion pieces, letters to agencies, and portions of speeches, made recommendations for cosponsoring legislation and on specific votes, and met with lots and lots of constituents and lobbyists. The old adage that a Legislative Assistant on the Hill has to be a mile wide and an inch deep is quite accurate. One cannot afford to spend much time on any one issue or you will get overwhelmed by the other ones needing attention.

My regular job still involves working on groundwater policy and management issues for the US Forest Service. With 193 million acres of your public lands, many of them in the headwaters and recharge areas that supply water to the rest of the country, the Forest Service has a great opportunity to make progress toward sustainable water resources management. After much delay, the

Forest Service used the opportunity of my assignment on Capitol Hill to publish the proposed national policy for management of groundwater on National Forests and Grasslands for public comment that I have been working on for my entire time with the agency. The public comment period runs through late August, so I encourage you to take the time and weigh in on what the agency has proposed. For more information, see <http://www.fs.fed.us/geology/groundwater.html>.

My wife, Martha Anderson (also Carleton '87) and I are having a great time with our 8-year-old son Niklas, who is now finishing 2nd grade and has fallen in love with playing baseball.

Best wishes to all. If you are going to be in the DC area, look us up.

**1990. Andy Garrett** Had a great week in Cody and Yellowstone and introduced my oldest daughter to the magic of geothermal features in one of my favorite places on earth. I also was one of the first people to briefly drive over a brand new hot spot that popped up near Firehole Lake next to Great Fountain Geyser-- which resulted in a thick layer of melted asphalt on my rental car tires! It was fun to be part of the news...

**1992. Christina Vosen Ostendorf** Another beautiful year for my family on the ranch in SE Montana but a sad year for me as we lost my mother to a short battle with gall bladder cancer in March. It has meant several trips out to the beautiful Clark Fork valley where my parents retired and many renewed connections to family. I continue to be involved in our local boy scout troop (thanks for the resources Ed!), our local one-room school K-8 as a school board trustee, our community orchestra in as a musician and board chair, and representing the Miles City United Methodist congregation as their lay leader. It feels a bit much. This coming year will be a challenge as we figure out the logistics of our oldest beginning high school in the nearest town. On a geological note a female mammoth skull was found in our area and we were able to get in on the excitement last spring. It is now housed in the Carter Co. Museum in Ekalaka, MT, just 50 miles away although I don't know if it's on display yet. Stop by and say hi if you're in the area.

**1993. Ben Surpliss** Another year in San Antonio now in the rearview mirror, with Kayla (8) and Daria (5) growing up too quickly! We're planning to visit a few Carls in Wyoming this summer, staying with a Geo alum, Liz (Symchych) King ('94).

**1995. Roy B. Luck** Left Shell after 12+ years to work with Conocophillips on producing oil from onshore low permeability reservoirs - with focus on the Eagle Ford formation in Texas. Family doing well, kids going to 1st grade and 4th grade. Drop me a line!

**Bryn Perkins** Our big news is Julianne Marie Perkins, born November 7, 2013 in Neratovice, Czech Republic. Julianne is named in loving memory of Julie Williams '94 -- I know we all miss Julie so much!!! In at least one sense our little Julie takes after her, she smiles when she looks at you and it is extremely contagious!



*Bryn and Julie (at 7.5 months)*

**1997. Adam Soule** Haven't written in a while! Coming up on 10 years at WHOI. Awarded tenure last year and appointed Chief Scientist for Deep Submergence this year. 2015 will be busy with cruises to Kermadec Arc, Mid-Atlantic Ridge, and Galapagos. Have two wonderful kids, Elise (5) and David (2) with my incredible wife, Melissa ('96).

**1998. Allison Payne** Baby Theodore! My husband Jesse and I welcomed baby Theo in October 2013. Babe is awesome. Motherhood is awesome. Doing some geothermal work part-time; mama work full time. NO complaints! GRC annual meeting in Portland in September, anyone? XOXO

**1999. AJ Chalom (Alison (AJ) Jerris)** Living north of Chicago with two elementary age children and her husband, a local rabbi. I have left my geology career behind me and after a long stint as a stay at home mom, I am working as the Humanist Giving Program Coordinator for a charitable foundation, Foundation Beyond Belief,

aimed at increasing financial giving from those within the secular world. I still use some geology knowledge to annoy my children with random geologic knowledge they would prefer to forget.

**2001. Carl Tape** Family (Leo 4, Sophia 1) and earthquake research seems to leave not much else for wild adventures. Please check out some earthquake simulations on the youtube channel carltapeAK!

*Peter McAuliffe* “Jenny Houghton McAuliffe (‘01) and I had our third boy on May 13th. His name is Lochlan Joseph McAuliffe. Caleb just turned five, Liam will be three in July, and now we’ve got a new baby. Life is busy and couldn’t be more wonderful! Much Love,

*Jake Eaton* Having a great summer with my 1 yr. old daughter. She loves sand and gravel!

*Anne Sawyer* I didn’t feel like writing anything last year, given that I was in the final stages of treatment for Hodgkin’s Lymphoma. I was diagnosed three weeks after getting married in October of 2012, but now I’m pleased to report that I’m both cancer-free and still married! Ha! Currently, we’re busy working on our hobby farm south of Northfield, raising several batches of egg chickens and a few pigs, trying to “right-size” our garden and keep the old historic house from getting any worse. I’m midway through a PhD in Soil Science and Sustainable Agriculture at the University of Minnesota, working on soil fertility as well as metagenomics of rooting zone microflora in switchgrass-for-biofuel plantings.

**2002. Alyssa Thomas** I’m in the last few months of my PhD on the human dimensions of recreational fishing. Thesis is due mid-September and I hope to defend by the end of the year in time to enjoy the Southern Hemisphere summer!

**2005. Will Gallin** I found the geology news solicitation in the pile of bills I’m paying while Pam Moelles (‘05) and Karen (Campbell) Christianson (‘09 - wife of Kieth Christianson ‘07) make a quilt for a Houston+Utah friend of ours who coincidentally went to high school with my Carleton roommate, Will Reckner (‘05). I also saw Kristen Bergman (‘04) presenting her poster at AAPG.

**2008. Ethan Hyland** I finished my PhD in Geology at the University of Michigan, and am moving on to a postdoc fellowship at the University of Washington.

*Lydia Staisch* It’s been a big year! I am defending my PhD on Tibetan Plateau evolution this fall, and starting a postdoc with the USGS in Seattle, WA. I’ll be studying neotectonics and seismic hazards there. Oh, and I got married too! Richard is also a geologist (Big surprise...).

**2009. Kristin Sweeney** I’m a year away from my PhD in geomorphology at the University of Oregon and spending the summer making erosional landscapes in sandbox experiments at St. Anthony Falls Lab in Minneapolis.

*Maija Sipola* I’m finishing up my PhD at the University of Iowa this summer and will immediately move back to Minnesota to start a position as Visiting Assistant Professor of geology at MSU-Mankato, where I’ll be teaching Sed/Strat and introductory courses. I’m excited to be back in the land of Ordovician stratigraphy (and hotdish!)

**2010. Stuart Sweeney Smith** I recently graduated from Stanford School of Earth Sciences with a Masters in Energy Resources Engineering, and I am now working on Sustainable Engineering at Disney R+D.

**2011. Benjamin Parks** Living in Providence doing graduate work on petrology and geochemistry of Andean back arc lavas from Argentina.

**2012. Hannah Hilbert-Wolf** It was a pleasure to see many Carleton alumni at GSA in Denver! The good news since then is that I have upgraded to a PhD degree, so I will be continuing my thesis research at James Cook University.

*Griffin Williams* Starting a microbrewery and tasting room in Seattle.

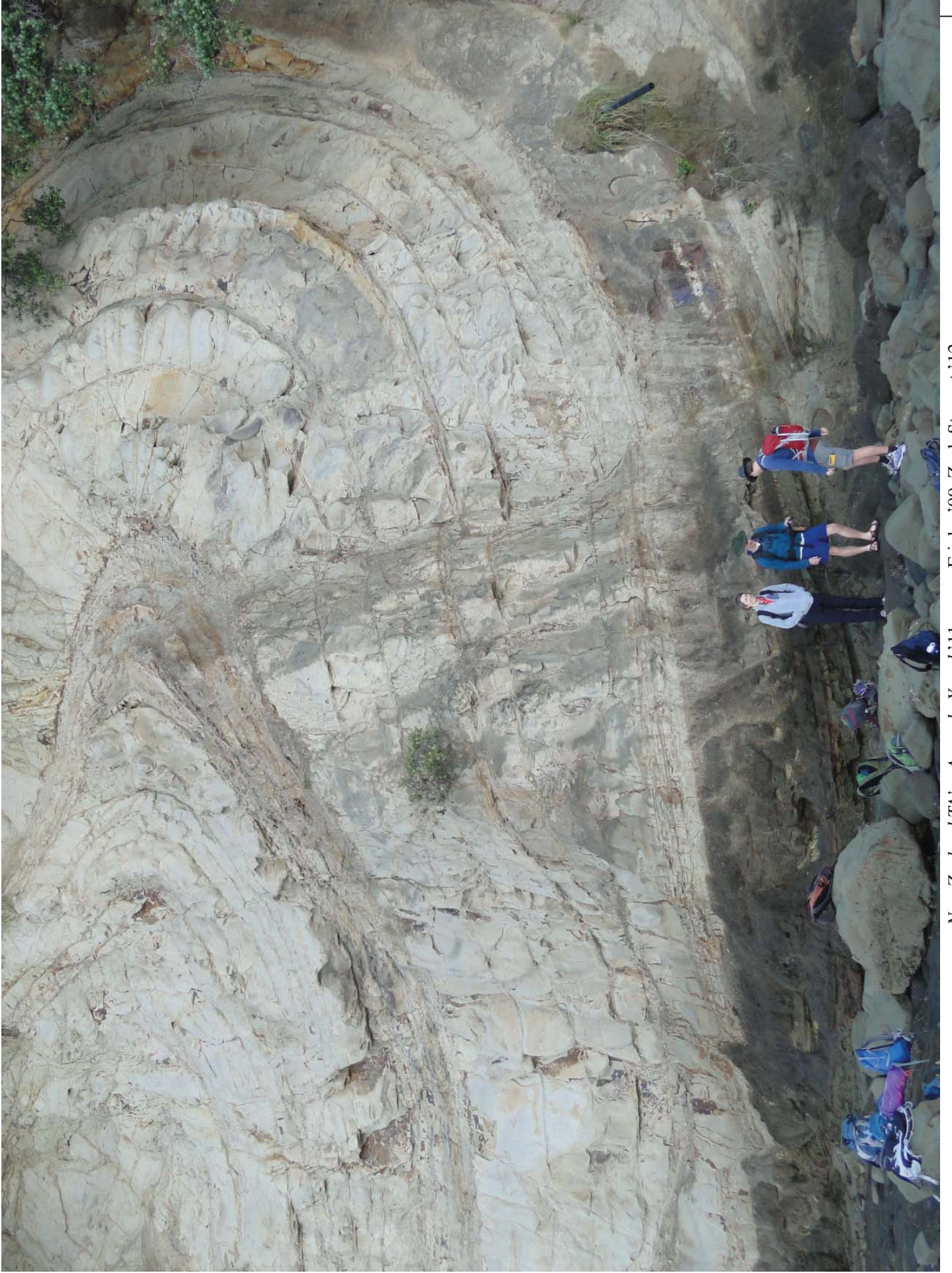
*Megan Ferrie* I finished my first year of graduate school at the University of Texas and am set to graduate with an M.A. in hydrogeology in May 2015. I am currently working for Lindamood. Bell learning processes in Austin for the summer.

*Alex Walker* I am starting an MS program at Utah State University in the School of Natural Resources.

*Kris Asp* I’m currently living in Duluth, MN, where I’m a year into my masters degree at the University of Minnesota-Duluth. The current working title is “Cu-Ni isotopes: a new technique for analyzing secondary minerals and the weathering of sulfides in the Duluth Complex, northeastern Minnesota.” Other than that, I’m playing a lot of disc golf and looking forward to the World Cup.

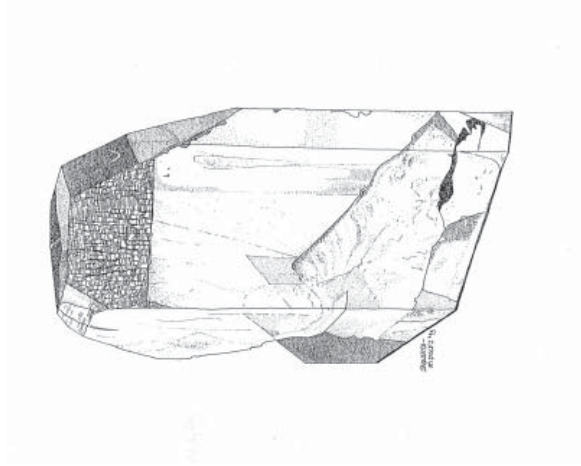
*Lydia Staisch*  
‘08





*New Zealand TA's - Amanda Yourd '11, Aaron Fricke '09, Zach Stewart '12*

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