On the cover:

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August 1, 2010

Dear Alumni and Friends,

I am pleased to write to you now in my second year as chair of the Department of Geology at Wooster. 2009-10 has been a productive and fun year for the students and faculty. We wish the Class of 2010 all the best as they pursue their various careers and interests, and we are looking forward to the upcoming academic year.

In the spring we welcomed Mark Wilson back from a highly productive leave during the fall of 2009. His travels have taken him all over the world, and with the advent of the very popular Wooster Geologist’s Blog we can keep track of all the field work and department announcements (http://woostergeologists.scotblogs.wooster.edu/). A brief glance at the blog will convince you that Geology is active and well at Wooster.

In addition to the student/faculty research in Iceland, Israel, Estonia, Svalbard, Utah, Mississippi, Alabama, and Alaska, you may read about the department weeklong trip to the Mojave Desert led by Mark. This year’s Mojave Desert trip was enriched by including volcanologic and structure stops, where we all had the opportunity to learn from Meagen Pollock and Shelley Judge.

As they begin their third year at the College, Meagen and Shelley continue to innovate and challenge us in teaching and research. In the spring Shelley will be teaching a GIS course that will enhance the curriculum, and we are pleased that Geology is taking the lead in this important effort at the College. Meagen was the recipient of a major NSF equipment grant, which will bring an XRD and XRF to Wooster. This will strengthen her research program and add new possibilities to all our courses.

We were fortunate to receive generous support for student field research to the Wengerd, Danner, and Baroffio funds. These funds have expanded student field experiences this summer in Iceland, Israel, Utah, Alaska, Mississippi, and Alabama. Check out the blog to see how these funds enrich student research in geology.

Patrice Reeder, our administrative coordinator, continues to manage departmental events and keep up-to-date our increasing technological needs; her contributions and skills are essential to the operation of the department. Lynn Downes, Shirlyn Myers, and Sue DeCapua are charged with maintaining our labs and classrooms. We greatly appreciate their efforts especially since we are aware that our science is not always the cleanest.

Please note the Alumni Information Sheet at the back of this report. We look forward to hearing from you and value your feedback and suggestions. Best wishes for the coming year!

Sincerely,

Gregory C. Wiles, Chair
Shelley A. Judge
Assistant Professor of Geology

(B.S. Mount Union University, 1991; M.A.T. Kent State University, 1993; M.S. Ohio State University, 1998; Ph.D. Ohio State University, 2007; Wooster since 2008). During the Fall Semester, Shelley taught Structural Geology and Processes and Concepts of Geology and, during the Spring Semester, she taught Oceanography and Processes and Concepts.

This past academic year, Shelley worked with two seniors, Phil Blecher (‘10) and Bill Thomas (‘10), on their I.S. projects. Both Phil and Bill worked on projects in the Eocene Green River Formation of central Utah. Specifically, their projects were located in Lake Flagstaff, one of the large intermontane lakes at that time period. Phil concentrated on a stratigraphic and petrographic analysis of several sections within the Green River, while Bill focused on a descriptive study of the tuffs that interrupted normal lacustrine deposition.

In addition to her research in Utah, Shelley continued her work with the ANDRILL (Antarctic Drilling Program) “Stress Group” (colleagues from Ohio State and the University of Utah), and a poster of her initial work on core from the Southern McMurdo Sound was presented at the ANDRILL SMS Project Science Integration Workshop in Erice, Sicily. This ANDRILL core analysis will continue during the upcoming academic year. Also during the spring, she presented a talk at NCGSA with colleagues from Eastern Illinois University on K-12 inquiry activities that focused on paleoenvironmental interpretations; this was an offshoot of some of her educational outreach to local preK-12 students.

During summer 2010, Shelley again helped teach the first half of Ohio State University’s field camp in central Utah. She has been going to Utah regularly for the past 15 years, so Utah is becoming a second home during the summer months. After teaching at field camp, she welcomed her two Wooster seniors, Elizabeth Deering (‘11) and Jesse Davenport (‘11), in Utah during July to conduct field work. For her I.S., Elizabeth worked on a paleoecological analysis of the stromatolite facies within the Green River Formation of Lake Flagstaff. Although not doing research in Utah, Jesse was a great field assistant and came to help before his research began in southwest Montana. Jesse worked on a Keck project this summer that investigated the Proterozoic Big Sky Orogeny near the Gravelly Range and Raynolds Pass. Field work during the summer was a huge success (and much fun); everyone is anxious for the academic year to begin so that the I.S. projects can continue at Woo.
Meagen Pollock  
Assistant Professor of Geology

(B.S. Marshall University, 2001; Ph.D. Duke University, 2007; Wooster since 2008). Last year, Meagen taught Mineralogy, Petrology, Geology of Natural Hazards, and a First-Year Seminar titled *Collapse of Civilization.*

In the summer of 2009, Meagen traveled to Iceland with Rob Lydell ('10), Adam Samale ('10), and Todd Spillman ('10). Rob’s and Adam’s projects focused on a region in northern Iceland, where Rob mapped the zeolite distribution in a flexure zone and Adam examined the alteration of rhyolites in central volcanoes. Todd studied subglacial pillow lavas from a location in southern Iceland. In the summer of 2010, Meagen returned to southern Iceland with Becky Alcorn ('11) to investigate the formation of subglacial pillow ridges. You can follow all of their adventures on the Wooster Geologists blog – just search for the keyword ‘Iceland.’

Meagen also spent some time in Pennsylvania, where she worked with geologists from West Chester University and Lock Haven University to understand the formation of Jurassic diabase. Senior Sam Spencer ('11) will be studying the diabase samples when she returns to Wooster this fall.

Back in Wooster, Rachel Matt ('12) worked with Meagen on a summer research project that involved long hours of powdering rocks and outlining grains on SEM images of Icelandic basalts.

Meagen took several field trips this year, including a joint field trip with the Structure class to the Valley and Ridge of Pennsylvania, a trip to the Newark Earthworks with her FYS class, and a Spring Break trip to the Mojave Desert. She was also a co-leader on a field trip to Pennsylvania diabase quarries for the PA Geological Survey.

Meagen continues to serve as a councilor for the Council on Undergraduate Research (CUR). She was a presenter at the 2010 CUR National Conference in Ogden, Utah, in an interactive session titled “GeoCUR at 25: How working with undergraduate researchers has changed with time.” She was also a co-author of “Magmatic layering and intrusive plumbing in the Jurassic Morgantown Sheet, Central Atlantic Magmatic Province,” which appeared in the Field Trip Guidebook for the 2010 Joint Meeting of the Northeastern and Southeastern GSA Sections. Finally, along with Greg and Shelley, Meagen was awarded funding from the NSF to purchase two x-ray instruments for a new geochemistry lab.
Gregory C. Wiles  
Geology Department Chair, Professor of Geology, and  
Ross K. Shoolroy Chair of Natural Resources  
(B.A. Beloit, 1984; M.S. SUNY Binghamton, 1987; Ph.D.  
University at Buffalo, 1992; Wooster since 1998). Greg taught Climate Change and Environmental Geology in the Fall. In the Spring he taught Environmental Geology and Geomorphology and Hydrogeology.

Greg advised four senior I.S. students. **Kelly Aughenbaugh** ('10) and **Colin Mennett** ('10) worked on aspects of climate change, glacial geology and forest health in Glacier Bay National Park and Preserve. Kelly completed her thesis on reconstructing the late Holocene glacial history of Muir Inlet in Glacier Bay and Colin Mennett completed a study on examining the tree-ring record of Alaskan Yellow Cedar and testing hypotheses to explain the precipitous decline of the species in southern Alaska. This work was funded by the NSF and the National Park Service. **Terry Workman** ('10; archaeology/geology) completed his thesis work on Alaska’s Kenai Peninsula on a project funded by the Keck Geology Consortium and U.S. Fish and Wildlife Service. Terry’s project involved reconstructing Holocene lake levels using lake cores. **Travis Brown** ('10) worked on a Keck project in Svalbard, Norway. He used new methods in lichenometry to assess ages of moraines. Kelly, Colin, and Terry presented posters at the GSA Annual Meeting in Portland, Oregon, and Travis and Terry presented at the annual meeting of the Keck Geology Consortium hosted by Exxon/Mobil in Houston.

During the summer of 2010, Greg traveled to Glacier Bay with **Deb Prinkey** (’01) and **Stephanie Jarvis** (’11). Deb was a great help in the field and Stephanie was able to collect multiple tree ring chronologies from across southeast Alaska. She is using these data to examine the health of mountain hemlock forests along the Gulf of Alaska. **Sarah Appleton** (’12) is also working on the project and is closely looking at the influence of climate change on the native Tlingit populations. This work is done in collaboration with the National Park Service and Dan Lawson of the Cold Regions Research Environmental Laboratory.

**La Shawna Weeks** (’11) is using remote sensing and GIS for her I.S. work, to place the contemporary (last several decades) retreat of Alaskan glaciers into a long-term context. She is focusing initially on glaciers in Kenai Fjords National Park.

Greg co-authored a review paper with **Nick Young** (’05) in *Geographisk a Annalar* on the use of lichenometry in dating glacial moraines in Alaska. He also co-authored a chapter in a book entitled *Climate Warming in Western North America/Evidence and Environmental Effects.*

Greg is in his second year as chair of the Geology Department and serves on the Educational Policy Committee. He continues to serve as associate editor of *Tree Ring Research* and as a member of the U.S. National Committee of the International Quaternary Society. ♣
Mark A. Wilson
Professor of Geology and
Lewis M. and Marian Senter Nixon
Professor of Natural Sciences

(B.A. Wooster, 1978; Ph.D. Berkeley, 1982; Wooster since 1981). Mark was on leave during the Fall Semester. In the Spring he taught History of Life, Sedimentology & Stratigraphy, and the Desert Geology half-course.

Mark had two Senior Independent Study students this year. Rob McConnell (’10) and Palmer Shonk (’10) traveled to Estonia where they met Mark and Bill Ausich of Ohio State University. This team then worked with their colleague Olev Vinn of the University of Tartu on Silurian limestones and shales exposed along the coast of Saaremaa Island. They concentrated on marine paleoecology and the systematics and distribution of Silurian crinoids. The weather was beautiful, the outcrops cooperative, and the countryside spectacular.

Mark’s summer adventures in Israel, Europe and British Columbia were described in the last report. His last research trip of his leave was to central Texas in November where he gave a talk at Texas A&M University and then worked with Tom Yancey on a series of Permian limestone outcrops that contain the mysterious “spaghetti coral” (which appears to be a microconchid). The rest of his time was spent in his lonely home office, writing furiously. Various papers with diverse co-authors appeared in *Ichnos*, the *Israel Journal of Earth Sciences*, *Palaeontology*, the *Journal of Asian Earth Sciences*, and *Palaeogeography-Palaeoclimatology-Palaeoecology*. Additional leave-related manuscripts are in press in *Special Papers in Palaeontology, Palaeontology Electronica, Neues Jahrbuch für Geologie und Paläontologie*, and *Ichnos*. Mark’s earlier essay entitled “Professors Should Embrace Wikipedia” has also been included in the ninth edition of *The Prentice Hall Guide for Writers*.

One of the advantages of being on leave is the freedom to accept invitations to give lectures to various groups. This year Mark presented eight talks ranging from water issues in Israel to the “Science and Nonsense of 2012”.

This summer Mark was in Alabama and Mississippi with Senior I.S. student Megan Innis (’11) studying changes in sclerobiont faunas below and above the Cretaceous-Paleogene boundary. They were joined by London colleague Paul Taylor and one of his graduate students, Caroline Sogot. Mark then went to southern Israel with Andrew Retzler (’11) and Micah Risacher (’11) where they began a new project on Late Cretaceous paleoecology near Makhtesh Ramon. Mark’s fourth Senior I.S. student is Michael Snader (’11) who is working on the home front with a long core donated to the department that records the entirety of the local Black Hand Sandstone (Mississippian). At the end of the summer Mark gave a talk at the International Bryozoology Association meeting in Kiel, Germany, and then took a long field trip through the Netherlands, southern Germany, and northern France.
Mark is still an Overseas Representative for the Palaeontological Association, and a member of the review boards for *Choice* and *American Reference Books Annual*.

During this coming year Mark will teach his usual courses. He was also elected to a three-year term on the Conference with Trustees Committee and will be the one-year temporary Chair of the Archaeology program.

Patrice Reeder
Administrative Coordinator for the Departments of Geology, Philosophy, and The Pre-Law Advising Program. Wooster since 2000.

Patrice was again the Tournament Coordinator of the American Collegiate Moot Court Association Midwest Regional Tournament. She organized many special activities hosted by both departments, including the holiday luncheon for Geology and Philosophy majors, The Twenty-Ninth Annual Osgood Lecture, The Thirteenth Bell Distinguished Lectureship in Law, The Third Lindner Lecture in Ethics, and Philosophy’s Phi Sigma Tau (Honor Society) dinner and induction ceremony. Patrice attended the 2009 Annual GLCA Conference of Academic Administrative Assistants in Oberlin, and attended and organized several sessions for the College of Wooster Academic Administrative Coordinators.

This spring Patrice’s son, Drew, graduated from The Ohio State University–ATI and her daughter, Danielle, graduated from Wooster High School. Danielle will be a first-year at the College in the fall.
Congratulations to Dr. Pollock on the award of the MRI-R2: Acquisition of an X-Ray Diffractometer (XRD) and X-Ray Fluorescence Spectrometer (XRF) to Enhance Undergraduate Research at a Primarily Undergraduate Institution (PUI) from the National Science Foundation.

Congratulations to Dr. Wiles on his promotion to full Professor and also receiving the Ross K. Shoolroy Chair of Natural Resources.

Andrew Retzler & Micah Risacher ('11s.)
Deep in the desert of southern Israel and loving it.

Stephanie Jarvis ('11) in Alaska, at 3000 ft.
The following attended the annual GSA Alumni Reception held October 18—21, 2009, at the Oregon Convention Center, Portland, Oregon:

Scott Bair ('73)  Katherine Marenco ('03)
Luke Blair ('94)  Becky Mellinger ('89)
Phil Blecher ('10)  Colin Mennett ('10)
Kristina Brady ('03)  Jonathan Miller ('85)
Jesse Davenport ('11)  Andrew Nichols
George Davis ('64)  Lisa Park ('88)
Sarah Gaudio ('03)  Meagen Pollock
Megan Hooker ('00)  Adam Samale ('10)
Aaron House ('04)  Palmer Shonk ('10)
Heather Hunt ('09)  John Sime ('09)
Tricia Kelley ('75)  Abe Springer ('87)
Elyssa Krivicich ('09)  James St. John ('91)
Jade Star Lackey  Greg Wiles
Terry Lahm ('89)  Mark Wilson ('78)
Sophie Lehmann ('08)  Bill Woessner ('71)
Rob Lydell ('10)  Terry Workman ('10)
Eva Lyon ('07)  
Rob McConnell ('10)

The 2010 GSA Annual Meeting will take place October 31—November 3, at the Colorado Convention Center, Denver, Colorado. We will take a group photo at 8:00 p.m. during the Alumni Reception.
GEOL OGY MAJORS

Class of 2010
Kelly Aughenbaugh
   Wooster, Ohio
Phillip Blecher
   Wilmette, Illinois
Travis Brown
   Beverly, West Virginia
Robert Lydell
   Wallingford, Connecticut
Robert McConnell
   Blairsville, Pennsylvania
Colin Mennett
   Portage, Michigan
Adam Samale
   Nashville, Tennessee
Palmer Shonk
   Dublin, New Hampshire
Todd Spillman
   Zoar, Ohio
William Thomas
   Hudson, Ohio

Class of 2011
Rebecca Alcorn
   Pittsburgh, Pennsylvania
Jesse Davenport
   Granville, Ohio
Elizabeth Deering
   Cincinnati, Ohio
Megan Innis
   Whitmore Lake, Michigan
Stephanie Jarvis
   Shelbyville, Kentucky
Andrew Retzler
   Wooster, Ohio
Micah J. Risacher
   Westerville, Ohio
Michael Snader
   West Salem, Ohio
Samantha Spencer
   Wooster, Ohio
La Shawna Weeks
   Baltimore, Maryland

Class of 2012
Sarah Appleton
   Portsmouth, Ohio
Lindsey Bowman
   Londonderry, Vermont
Andrew Collins
   South Freeport, Maine
Nicholas Fedorchuk
   Versailles, Kentucky
Travis Louvain
   Geneseo, New York
Rachel Matt
   Pinehurst, North Carolina
Katharine Schleich
   Bexley, Ohio
Anastasia Wallace
   Delaware, Ohio

Class of 2013
Anna Mudd
   Fruita, Colorado
Matthew Peppers
   St. Charles, Illinois
Katherine Price
   Ann Arbor, Michigan
Kim Stevenson
   Needham, Massachusetts
Melissa Torma
   Evanston, Illinois
Achievements of the Class of 2010

front: Bill Thomas, Rob McConnell, Kelly Aughenbaugh, Adam Samale, and Rob Lydell
back: Phil Blecher, Todd Spillman, Palmer Shonk, and Travis Brown
(Colin Mennett not pictured)

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Awards, Scholarships, Prizes, and Activities

**Kelly Aughenbaugh**
Department of Geology Teaching Assistant, spring semester
Geology Club member
Participated in Worthy Questions
Poster presentation of research at College of Wooster Senior I.S. Symposium and annual GSA meeting in Portland, Oregon
Recipient of The Don J. Miller Memorial Scholarship, The Karl Ver Steeg Memorial Scholarship, and The Frederic Kent Warner Endowed Scholarship
Women's basketball team
Wooster Christian Fellowship member
Phillip Blecher
Geology Club member
Men’s lacrosse team

Travis Brown
Dean’s List, fall semester
Geology Club member
Mohave Desert field trip during spring break
Poster presentation of research at College of Wooster Senior I.S. Symposium and Keck
Geology Consortium Meeting in Houston, Texas
Received Departmental Honors at graduation and Honors on his Senior I.S. Thesis
Recipient of The Robert W. McDowell Prize in Geology

Robert Lydell
Attended GSA meeting in Portland, Oregon
Department of Geology Teaching Assistant, spring semester
Michigan rock-hounding trip during fall break
Mohave Desert field trip during spring break
Participated in Science Day
Geology Club President
Underground employee, fall semester
Rob’s plans for the future include finding a job for the next year or two, taking a few
classes at a community college, and attending grad school. Eventually he would like
to hike the Appalachian Mountains from Maine to Georgia, be on the reality show
Survivor, and visit his relatives in Sweden.

Robert McConnell
Attended GSA meeting in Portland, Oregon
Department of Geology Departmental Assistant, fall semester
Geology Club Vice President
Men’s varsity track and field team
Michigan rock-hounding trip during fall break
Mojave Desert field trip during spring break
Poster presentation of research at the College of Wooster Senior I.S. Symposium
Received Honors on his Senior Independent Study Thesis
Recipient of The Charles B. Moke Endowed Scholarship and The Charles B. Moke Prize
This summer Rob moved back to Pennsylvania and took an Oil and Gas Technician class
at Steel Center Vocational Tech School. He is now working with Diversified Well
Logging Inc., a mud logging company based out of Louisiana.

Colin Mennett
Attended 19th Annual North American Dendroecological Fieldweek
Department of Geology Teaching Assistant, fall and spring semesters
Geology Club member
Member of the Pipe Band
Michigan rock-hounding trip during fall break
Poster presentation of research at College of Wooster Senior I.S. Symposium and annual
GSA meeting in Portland, Oregon
Received Departmental Honors at graduation and Honors on his Senior I.S. Thesis
Wooster Scottish Arts Society Treasurer
Adam Samale
Attended GSA meeting in Portland, Oregon
Geology Club member
Member of ultimate frisbee team, RamJam
Mojave Desert field trip during spring break
This summer Adam helped with the cleanup of Nashville and surrounding areas after the devastation caused by flooding.
This fall or winter he hopes to teach English in Korea for a year

Palmer Shonk
Attended GSA meeting in Portland, Oregon
Dean’s List, fall semester
Geology Club member
Member of the Pipe Band
Poster presentation of research at College of Wooster Senior I.S. Symposium
Received Honors on Senior Independent Study Thesis

Todd Spillman
Every Woman’s House program house member
Geology Club member
Intramural basketball league championship team
Intramural softball team
Starter and All-NCAC player on the Fighting Scots football team

William Thomas
College Grounds Department employee
Dean’s List, fall semester
Geology Club member
Humane Society volunteer
Member of intramural soccer and floor hockey teams
Mojave Desert field trip during spring break
Plans to attend graduate school in the fall
Poster presentation of research at College of Wooster Senior I.S. Symposium

Elizabeth Deering & Jesse Davenport ('11s) in Utah.
ACHIEVEMENTS OF THE CURRENT STUDENTS

Class of 2011
Rebecca Alcorn
Dean’s List, spring semester
Department of Geology Teaching Assistant, spring semester
Geology Club member
Scot Marching Band member
Scot Symphonic Band member
Senior I.S. research in Iceland with Dr. Pollock
Summer internship with Shaw Group, Inc.

Jesse Davenport
Assistant Scout Master - Boy Scout Troop 66
Attended GSA meeting in Portland, Oregon
Geology Club member
Judicial Board Hearing Member
Resident Assistant of Miller Manor
Senior I.S. research through Keck in southwestern Montana and research with Dr. Judge in Utah
Student Technology Assistant, Office of Information Technology
Track and Field Team member
WOODS Treasurer

Elizabeth Deering
Environmental Club member
Environmental Studies minor
Geology Club member
Senior I.S. research in central Utah with Dr. Judge
Wayne County Humane Society volunteer
Wooster Ethic Committee Board member
This summer Elizabeth worked with the Big Horn Basin Wyoming Dinosaur Center in Thermopolis, Wyoming, where she helped excavate dinosaur fossils and run field work camps.

Megan Innis
Dance: Flamenco Tango, fall semester
Dean’s List, fall and spring semesters
Department of Geology Teaching Assistant, fall semester
FYS Teaching Assistant for Dr. Pollock, fall semester
Geology Club member
Gospel Choir member
Marching Band member
Mojave Desert field trip during spring break
Pep Band member
Senior I.S. research in Alabama and Mississippi with Dr. Wilson
Summer internship position focusing on skills related to field work
**Stephanie Jarvis**  
Assistant YMCA Swim Coach  
Biology double major  
Campus Recycling Committee and Committee for a Sustainable Campus member  
Community Bike Program President  
Dean’s List, fall and spring semesters  
Department of Geology Teaching Assistant, fall semester  
Geology Club Educational Outreach Coordinator  
Mateer Greenhouse Attendant  
Member of Geology Club, WOODs, and Organic Farming Club  
Mojave Desert field trip during spring break  
Petro Evaluation Services Inc. student intern  
Phi Beta Kappa member  
Recipient of Canton Audubon Society Scholarship, Ohio Oil & Gas Energy Education Program Scholarship, The Karl Ver Steeg Prize in Geology and Geography, The Margaret Reed and John O. Clay Endowed Scholarship, and The Miles Q. White Prize in Biology  
Resident Assistant  
Senor I.S. research in Alaska with Dr. Wiles  
Student’s Voice columnist for *The Professional Geologist*  

**Andrew Retzler**  
Club Ice Hockey team  
Dean’s List, spring semester  
Department of Geology Departmental Assistant, spring semester  
Geology Club member  
Mojave Desert field trip during spring break  
Senior I.S. research in Israel with Dr. Wilson  
Summer WooCorps position, Geology Department/Visual Resources Library Assistant  

**Micah Risacher**  
Geology Club member  
Mojave Desert field trip during spring break  
Summer I.S. research in Israel with Dr. Wilson studying Cretaceous paleocology  

**Michael Snader**  
Geology Club member  
Mojave Desert field trip during spring break  
I.S. research with Dr. Wilson  

**Sam Spencer**  
Geology Club member  
Swim team member  
Zeta Phi Gamma member  

**La Shawna Weeks**  
College Chapter of the NAACP President and Women of Images President  
Department of Geology Departmental Assistant, fall semester  
Geology Club member  
Summer research assistant for Dr. Wiles  
La Shawna gave birth to twin girls, Andrea and Makayla, on July 4th
**Class of 2012**

Sarah Appleton  
Member of Res-Life Staff  
Wooster Track and Field Team  
Summer Sophomore Research Assistant for Dr. Wiles

Lindsey Bowman  
College of Wooster Dance Company member  
Department of Geology Departmental Assistant, spring semester  
Geology Club member  
Office of Admissions tour guide  
Resident Assistant  
Student Athletic Trainer  
Wooster Ethic Committee member  
This summer Lindsey lived and worked on Nantucket Island

Andrew Collins  
Cross-Cultural Living and Experiences Program Co-chair  
Dean’s List, fall and spring semesters  
Intramural Floor Hockey  
Intramural Soccer  
Member of the Symphonic Band, Orchestra, Marching Band, and Pipe Band  
Wooster *Voice* Senior Staff Photographer  
This summer Andrew worked as a Field Technician for Haley & Aldrich (Energy and Infrastructure Business Unit), in Portland, Maine

Nick Fedorchuk  
Dean’s List, spring semester  
Recipient of Margaret Kate Moke Endowed Scholarship

Rachel Matt  
Secretary of College of Wooster Rotaract chapter  
Summer Sophomore Research Assistant for Dr. Pollock  
Volunteered for the FIRST Robotics competition, held in Richmond, Virginia

Katharine Schleich  
Delta Theta Psi Service Chair  
Wooster Singers member  
Wayne County Humane Society volunteer  
Over the summer Katharine taught outdoor education at YMCA Camp Willson
Class of 2013
Anna Mudd
Dean’s List, fall and spring semesters

Katherine Price
Dean’s List, fall and spring semesters

Melissa Torma
Delta Theta Psi member
Wooster Singers

Sed/Strat field trip, April 2010
Megan Innis (’11), Andrew Collins, Travis Louvain, Nick Fedorchuk,
Sarah Appleton (‘12s), and Houston Hoskins (’11).

Petrology field trip, April 2010
Front: Colin Mennett (’10), Michael Snader, Megan Innis,
Elizabeth Deering, and Becky Alcorn (‘11s).
Back: Palmer Shonk (’10), Sam Spencer (’11), Lindsey Bowman
(’12), Andrew Retzler, and Micah Risacher (‘11s).
SCHOLARSHIPS AND AWARDS

Following are brief descriptions of the Geology scholarships and awards which have been presented to our Geology majors during this year.

The Robert W. McDowell Prize in Geology was established in 1945 by Philip C. ('14) and Sarah Wright McDowell ('14) in memory of their son, Robert W. McDowell ('45), who lost his life in World War II. It is awarded annually to the geology major who has the highest general standing during the junior and senior years. This year’s recipient was Travis Brown.

Travis Brown

The Charles B. Moke Prize is given in memory of Charlie Moke ('31) who taught in the Department of Geology for 36 years. This prize consists of a Brunton Compass which is awarded to the graduating senior who plans to make Geology a vocation and who has shown the greatest academic improvement during his or her college career. This year’s recipient was Robert McConnell.

Robert McConnell

The Margaret Reed and John O. Clay Endowed Scholarship was established in 1985 by John R. Clay, the son of Margaret ('45) and John Clay ('43). This scholarship is awarded annually to a student who has demonstrated academic achievement. This year’s recipient was Stephanie Jarvis.

Stephanie Jarvis
The Charles B. Moke and Margaret Kate Moke Endowed Scholarships were established in December of 1983 with a generous donation provided by Fritz Kate ('38), Margaret’s brother. These two scholarships are awarded annually to Geology majors who have distinguished themselves by dedication to quality in their academic work, have demonstrated self-reliance, and have a sincere interest in and a concern for other people, characteristics which were exemplified by Charlie and Margaret Moke. This year’s recipients were Robert McConnell and Nicholas Fedorchuk.

Nicholas Fedorchuk

The Karl Ver Steeg Memorial Scholarship is in honor and memory of Karl Ver Steeg, who taught in the Department of Geology from 1923 until 1952. It is awarded annually to a deserving student who is majoring in Geology. This year’s recipient was Kelly Aughenbaugh.

Kelly Aughenbaugh

The Don J. Miller Memorial Fund was established in 1961 by the family and friends of Don J. Miller, of the class of 1940. In recognition of Mr. Miller’s devotion to the science of geology, the scholarship which this fund provides is awarded annually to a student who is majoring in geology. This year’s recipient was Kelly Aughenbaugh.

The Frederic Kent Warner Endowed Scholarship Fund was established in 1986 by family and friends in memory of Fred Warner ('76). Fred, originally from Orrville, Ohio, was killed in 1985 in a helicopter crash en route to an off-shore Alabama oil rig to examine a core while working for ARCO. This scholarship is awarded annually to a Geology major. This year’s recipient was Kelly Aughenbaugh.

The Karl Ver Steeg Prize in Geology and Geography, established in 1958, honors Karl Ver Steeg who taught in the Department of Geology and Geography from 1923 until 1952. This prize is awarded annually to the Geology major who has the highest general standing at the middle of the Junior year. This year’s recipient was Stephanie Jarvis.
During the 2009-2010 academic year The College of Wooster Geology Club participated in several events. Over fall break four students from GeoClub traveled through Michigan rock-hounding for Petosky stones and fossils. In the beginning of the second semester, GeoClub visited the Cleveland Museum of Natural History, and in late March, the Creationist Museum in Kentucky. GeoClub was also a huge success at Science Day, where kids from the City of Wooster were able to dig for fossils and witness a “volcano erupt”. The GeoClub has organized an outreach program for the City’s school system to enhance the offerings of geology in their curriculum this upcoming academic year.

2009-2010 Geology Club Officers:

President: Rob Lydell
Vice President: Rob McConnell
Treasurer: Kelly Aughenbaugh

2010-2011 Geology Club Officers:

President: Andrew Retzler
Vice President: Stephanie Jarvis
Treasurer: Becky Alcorn

Front Row: Kelly Aughenbaugh ('10), Rob McConnell ('10), Megan Innis ('11), Stephanie Jarvis ('11), Becky Alcorn ('11), Michael Snader ('11).

Second Row: Phil Blecher ('10), Bill Thomas ('10), Elizabeth Deering ('11), Sam Spencer ('11), Jesse Davenport ('11), Andrew Retzler ('11).

Third Row: Meagen Pollock, Patrice Reeder, Bridget Kraynik ('11), La Shawna Weeks ('11).

Fourth Row: Adam Samale ('10), Rob Lydell ('10), Travis Louvain ('12).

Fifth Row: Shelley Judge, Greg Wiles, Todd Spillman ('10), Palmer Shonk ('10), Micah Risacher ('11), Travis Brown ('10). (not pictured: Colin Mennett and Mark Wilson)
### Geology Club Presentations

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>August 27</td>
<td>Departmental Meeting and Geology Club Photograph</td>
</tr>
<tr>
<td>September 3</td>
<td>Summer Geology Experiences (various students)</td>
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<tr>
<td>September 10</td>
<td><strong>Senior I.S. Seminars</strong></td>
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<tr>
<td></td>
<td>Rob Lydell – “Zeolite Distribution of Vatnsdalsfjall on the Skagi Peninsula of the Northwest Corner of Iceland”</td>
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<td>Adam Samale – “Rhyolite Basalt Relationship in the Skagi Peninsula, North West Iceland”</td>
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<td>September 17</td>
<td>Dr. Scott Blair</td>
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<td></td>
<td>The Ohio State University</td>
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<td></td>
<td>“Cheating the Hydrologic Budget for Future Sustainability”</td>
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<td>September 24</td>
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<td></td>
<td>Todd Spillman – “Geochemical and Thin Section Analysis of Subglacial Pillow Basalts in Southwest Iceland”</td>
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<td></td>
<td>Travis Brown – “Lichen Growth on Neoglacial moraines in Western Spitsbergen”</td>
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<tr>
<td>October 1</td>
<td><strong>Senior I.S. Seminars</strong></td>
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<td></td>
<td>Palmer Shonk – “Paleoenvironmental Reconstruction of the Late Silurian (Pridoli) Aigu Beds of Saaremaa Island, Estonia”</td>
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<td>Rob McConnell - “Paleoenvironmental Analysis of the Silurian Jaani Formation on the Island of Saaremaa, Estonia”</td>
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<td>October 8</td>
<td><strong>Senior I.S. Seminars</strong></td>
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<td></td>
<td>Kelly Aughenbaugh – “Recent Glacial History of Muir Inlet, Glacier Bay National Park and Preserve, Alaska”</td>
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<td>Colin Mennett – “Decline in Alaskan Cedar: Tree-Ring Investigations into Possible Causes, Glacier Bay, Alaska”</td>
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<td>Terry Workman – “ Dating Holocene Lake Levels Fluctuations, Kenai National Wildlife Refuge, Alaska”</td>
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<tr>
<td>October 15</td>
<td><strong>Senior I.S. Seminars</strong></td>
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<td></td>
<td>William Thomas – “Petrographic and Mapping Analysis of Volcanic Tuffs in the Green River Formation Cuestas Sanpete Valley, Utah”</td>
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<td>Phil Blecher – “Limnology of the Green River Formation, Sanpete Valley, Central Utah”</td>
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<tr>
<td>Date</td>
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<td>October 22</td>
<td>Dr. Beth O’Shea</td>
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<td>October 29</td>
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<td>November 5</td>
<td>Nick Kardulias, Professor of Anthropology &amp; Archaeology</td>
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<td>Sam Root, The College of Wooster</td>
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February 18

**Senior I.S. Seminars**

**William Thomas** - “Petrographic and Mapping Analysis of Volcanic Tuffs in the Green River Formation Cuestas Sanpete Valley, Utah”

**Phil Blecher** - “Limnology of the Green River Formation, Sanpete Valley, Central Utah”

February 25

William I. Ausich, The Ohio State University
“Lilliput Crinoids: Faunal Responses to the End-Ordovician Mass Extinction”

March 4

Robert F. Breneman
“A Conversation with Wooster’s Mayor, Bob Breneman”

March 25

James A. Kilburg, Shaw Environmental & Infrastructure, Inc.
“Engineering and Environmental Projects and Careers”

April 1

John Senko, University of Akron
“Iron-Eating and -Breathing (But Not Sleeping) Microbes in Acid Mine Drainage”

April 8

Adil Wadia, The University of Akron - Wayne College
“Advantages of Hyperspectral Remote Sensing for Soil Classification”

April 15

Dr. Mark Wilson, The College of Wooster
“Best Job Ever: An Account of a Geologist’s Semester Research Leave”

April 22

Jason Henthorne
Petroleum Geologist from Petro Evaluation Services, Inc.
“An Appalachian Oilfield Overview”

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Rob Lydell, Adam Samale, Rob McConnell ('10s), and Andrew Retzler ('11). Mohave Desert field trip.
Reconstructing Lake Holocene Glacial Movement in Muir Inlet Glacier Bay, Alaska

by Kelly Aughenbaugh

Determining the glacial history of Glacier Bay, Alaska and Muir Inlet requires information learned from dendrochronology by using wood samples from the area. Fortunately there has been data collected from researchers and other Independent Study students, previously from this region. In this study the glacial advance during the late Holocene around 2000-2500 cal. years BP is refined. The tree cores and cross sections gathered in the summer of 2009 were analyzed and were put together to help make a clearer glacial history of the late Holocene in Muir Inlet. Also, the samples collected help put together a lifespan when trees were alive in Muir Inlet and when they were not during this epoch.

In this study there are 14 tree samples (12 cross sections and 2 cores) and 35 dated series. The trees used in this study were living for a 439-year time span which tells us that Muir Inlet was ice free for this amount of time. Of the 14 tree samples, 4 have radiocarbon ages. In order to find a more exact calendar date than a radiocarbon age, the process of wiggle matching was completed and 2370 calendar years BP was found as an age for the floating chronology. The importance of studying tidewater glaciers and their movement is to learn about their effect on global sea level. Tidewater glaciers act as a “wildcard” in their effect of our future sea level rise. There is still much to learn about them. 🌍
Limnology of the Green River Formation, Sanpete Valley, Central Utah

by Phillip Blecher

Heavily silicified micritic limestones are dominant among Green River Formation rocks in the Sanpete Valley, central Utah. Research sites in Ephraim, Manti, and Gunnison are reflective of marginal lacustrine and mud-flat paleoenvironments. Lake conclusions are supported by widespread stratigraphic data and petrographic analyses of the Sanpete Valley. Correlations between these sites are suggestive of a slight inconsistency in east-west sedimentation throughout the Sanpete Valley. Saline-alkaline water chemistry and evaporative conditions are known to have existed for sedimentation throughout all Ephraim, Manti, and Gunnison localities. Particular sites are reflective of constant paleoenvironmental lake conditions. Generalizing research sites and spatial correlations allowed for a particular set of slightly variable limnological conditions, supportive of Davis et al. (2008) Lake Flagstaff orientation in the intrabasinal foreland system of central Utah.
Directly-controlled Lichen Growth Curves for Western Spitsbergen, Svalbard

by Travis Brown

A population of 15 *Pseudephebe minuscula* and 18 subgenus *Rhizocarpon* thalli on an ice-cored moraine of Linnébreen, a glacier in Western Spitsbergen, Svalbard, were measured and monitored over a period of 24 years in order to develop lichenometric growth curves. Average growth rates were plotted against initial thallus diameters to determine a growth-rate function. Growth-rate functions were then inverted and integrated to compute growth trends for each lichen group. A growth trend of $y = 0.0006x^3 - 0.0663x^2 + 3.2304x$ was determined for *P. minuscula* near Linnébreen, where $y$ is the age (yr) and $x$ is the short-axis diameter (mm) of the thallus. A growth trend of $y = 0.000075x^4 - 0.00537x^3 + 0.13635x^2 + 1.644x$ was determined for subgenus *Rhizocarpon* in the region, where $y$ is the age (yr) and $x$ is the long-axis diameter (mm) of the thallus. The growth curve for subgenus *Rhizocarpon* is similar to previously developed indirectly-controlled growth curves for the taxa on Spitsbergen as well as other directly-controlled growth curves from elsewhere in the North Atlantic. The growth curve for *P. minuscula* differed substantially in form and value from previously developed indirectly-controlled growth curves for the species on Spitsbergen, although it closely resembled directly-controlled growth curves for the species in the Canadian Arctic. Using the newly-developed growth curves, stabilization of Linnébreen’s “Little Ice Age” moraine was constrained to 1890-1910 AD. Stabilization of the “Neoglacial” moraine was constrained to 2000-1000 yr BP. The extensive length of the study period was concluded to be detrimental to the accuracy of growth-rate curves.
Zeolite Distribution of Vatnasdalsfjall on the Skagi Peninsula of the Northwest Corner of Iceland

by Robert Lydell

Vatnsdalsfjall located on the Skagi peninsula of the northwest corner of Iceland was studied in the summer of 2008 and 2009. 17 transects were made to sample and analyze the zeolites that occurred in the lavas to determine zeolite zones. 127 samples were collected with GPS coordinates, elevation and field notes. 50 of these samples were brought to Dickinson College for XRD analysis for identification. Once identified the zeolites were plotted against elevation (meters). The distributions of the zeolites were analyzed. At Gilja two zeolite zones were found, the stilbite zone overlaying the mesolite - scolecite zone. The stilbite zone is the lower temperature and pressure zone with temperatures from 55 to 90 degrees C and depths of burial from 500 to 1000 meters. The mesolite - scolecite zone is the higher temperature and pressure zone with temperatures from 55 to 120 degrees C and depths of burial from 500 to 1700 meters. Transects 3,4,5,7 and 8 reveal two zones, the laumontite zone overlayed by the stilbite, heulandite and garronite zone. The laumontite zone is the higher temperature and pressure zone with temperatures from 120 degrees C to 230 degrees C and depth of burial at 1700 to 2850 meters. The stilbite, heulandite, garronite zone is the lower temperature and pressure zone with temperatures occurs from 55 degrees to 90 degrees C and depth of burial from 500 to 1000 meters. The southern part of Vatnsdalsfjall is steeply dipping which includes transects 10, 11, 12 and 13. The two zones found here, the laumontite zone and the analcime, thomsonite, mordenite zone, demonstrate that zeolitization occurred before the dipping of the lavas. The laumontite zone is the higher temperature and pressure zone and the analcime, thomsonite and mordenite zone is the lower temperature and pressure zone with temperatures from 30 to 70 degrees C and depth of burial from 100 to 600 meters. The different zones across the mountain suggest the mountain may have underwent several periods of zeolitization.
Decline in Alaskan Yellow-Cedar: Tree-Ring Investigations into Climatic Responses and Possible Causes, Glacier Bay, Alaska

by Colin Mennett

The Alaskan yellow-cedar, Callitropsis nootkatensis (D. Don) Örsted, is in the midst of a century-long decline, coinciding with the end of the Little Ice Age, circa A.D. 1880. The leading hypothesis on this decline is decreased insulating snowpack due to climatic change. Cores were sampled from two sites in Glacier Bay: Excursion Ridge (58.444°N, 135.594°W) and Pleasant Island (58.343°N, 135.571°W). Fifty-one cores from thirty-one yellow-cedar at Excursion Ridge and sixty-five cores from thirty-two cedars at Pleasant Island were used to create master ring-width series. These two series were standardized and the detrended chronologies were compared to regional climate data from Sitka and Juneau, Alaska. The Sitka Magnetic Observatory records are among the longest continuous recorded climate record in North America, starting in 1828 and ending in 1990. In the Russian, Little Ice Age data (1828-1889), the cedar at Pleasant Island responded negatively to warmer Januarys. Comparison with the post-LIA temperatures at Sitka (1900-1990) and Juneau (1900-2003) indicated the trees responded negatively to warmer temperatures throughout the dendroclimatic year, especially in March and winter (December-February; p<0.05). Excursion Ridge responded positively to increased precipitation in January and March (current year of growth, p<0.01). These climatic responses identify Pleasant Island as potentially susceptible to the decline and lend strong support to the hypothesis that decreased snowpack over the last century is forcing the yellow-cedar decline. ✤
Paleoenvironmental Analysis of the Silurian Jaani Formation on the Island of Saaremaa, Estonia
by Robert McConnell

The older Mustjala and the younger Ninase are the two members that make up the Jaani Formation (Silurian, Wenlock) on the northern coast of Saaremaa, Estonia. The Mustjala Member is composed of an argillaceous marl which contains fossilized hard parts of sessile benthic filter feeders such as stromatoporoid sponges and brachiopods. Tabulate corals are also numerous in the Mustjala. The Ninase Member is a well cemented bioclastic grainstone which contains fewer fossils both in abundance and diversity than the Mustjala. Fossils and rock samples were collected from three localities on the northern coast of Saaremaa: Liiva Cliff, Panga Cliff, and Suuriku Cliff. A stratigraphic column from each location was documented and analyzed. At the three localities the Mustjala Member consists of the same rock type and fossilized organisms. The Ninase Member consists of the same rock type and fossils at two localities but at the Suuriku locality an interbedded shale layer occurs about .5 meters up from the Mustjala/Ninase boundary. In this study I identified 5 phyla, 8 classes, 13 orders, 10 families, and 9 genera from both members.

By observing the dominant fossils and thin sections, I constructed a paleoenvironmental analysis of the Mustjala and Ninase Members. The Mustjala was a tranquil deep marine environment which had a muddy substrate. The Ninase was a turbulent shoal facies that lacked the stromatoporoid sponges and most tabulate corals.
Fewer stromatoporoids and tabulate corals were found in the upper Mustjala by the Mustjala/Ninase boundary. The stromatoporoids that were collected here were relatively small and flat compared to the domal forms from the lower Mustjala. This suggests a shallower environment or a transition from a deeper open shelf facies to a shoal facies. Further study is needed to interpret the anomaly of the interbedded shale layers at Suuriku Cliff.

Megan Innis ('11), Mohave Desert

Desert Geology Field Trip, Mohave Desert, Spring Break 2010
From left: Jesse Wiles, Rob McConnell ('10), Rob Lydell ('10), Adam Samale ('10), Micah Risacher ('11), Stephanie Jarvis ('11), Megan Innis ('11), Mike Snader ('11), Shelley Judge, Meagen Pollock, Travis Brown ('10), Bill Thomas ('10), Andrew Retzler ('11), Mark Wilson, and Greg Wiles
The Alteration of Volcanic Rocks on the Skagi Peninsula in Northwest Iceland

by Adam Samale

Between 15-7 million years ago, volcanism associated with the Hunafloi-Skagi rift zone emplaced bodies of rhyolite and basalt on the Skagi Peninsula in Northwestern Iceland. Samples were collected from 8 sites where rhyolite was mapped on the Skagi Peninsula. All samples collected have undergone chemical weathering, primarily hydrolysis, causing a change in mineralogy. Bulk chemical analysis provides data on the enrichment and depletion of the major oxides in the samples. These enrichments/depletions are compared to rhyolite samples that have been altered at high temperatures, indicating that the Skagi samples underwent low temperature alteration. The optical identification of secondary clay minerals using thin-section analysis further supports the process of low temperature argillic alteration.
Paleocologicval Reconstruction of the Late Silurian (Pridoli)  
Aigu Beds of Saaremaa Island, Estonia

by Palmer Shonk

The Late Silurian Äigu Beds on Saaremaa Island, Estonia, represent a series of environments and storm events. They require in-depth analysis to reconstruct an ecosystem. Examination of fossils, and the lithology of the Äigu Beds, permits a series of events and environments to be extrapolated. Differences in fossils and lithology between three distinct layers at the Äigu Beds were analyzed in order to reconstruct an ecosystem from about 418 million years ago. The three layers show a sequence of events: first a calm shallow marine platform dominated by crinoids, then a high energy storm event churning up organisms and substrate, and finally a return to the first environment with evidence of a smaller storm event. This paleoecological analysis will further understanding Estonian historical geology as a whole.
Geochemical & Thin Section Analysis of Subglacial Pillow Basalts in Southwest Iceland

by Todd Spillman

An examination of subglacial pillow basalts from three quarries in southwest Iceland has led to questions as to what controls the size of the individual pillows. The goal of this study is to determine if the viscosity of a subglacial pillow basalt affects the size of the pillow. Fresh samples of a total of 14 pillow basalts were collected from three quarries in the summer of 2009. Each sample has different horizontal and vertical dimensions, and a different plunge. The samples also have different amounts of vesicles and crystals. A geochemical and thin section analysis was performed on all of the samples to calculate the viscosities, or resistance to flow, and correlate each viscosity with the size of each sample. Thin sections were made and examined to see the mineralogical and vesicular composition of each sample. After calculating the viscosities and plotting them against the size, area and plunge of each pillow, the results confirmed that there is no correlation between a subglacial pillow basalts viscosity and size. Other factors like the slope of emplacement and the pressure of the overlying ice sheet have been tested as possible contributors to the size of the subglacial pillow basalts, yet all of these factors still do not control the size.
The deposits of the Eocene Green River Formation tuffs in Sanpete Valley, Utah are found to correlate to previous studies with radiometric age dates of approximately 43.5 ± 0.7 m.y (Sheliga, 1980). The tuffs are located within the outcrops of the Sanpete Valley cuestas, these cuestas rest in between the Wasatch and Gunnison Plateaus near the city of Ephraim, Utah. The White Hill complex provides the greatest exposure of these tuffs on its northeast side where five large tuff units were found. The formation of these tuff units occurred during the Eocene (Mauger, 1977; Sheliga, 1980; Smith et al. 2003), when volcanic ash-falls deposited material into lacustrine sediments relating to the ancient lake system of Lake Flagstaff (Davis et al, 2008). Volcanic sources of the Challis magmatic field and Absaroka magmatic field are possible sources for the origin of the tuffs. The correlation between these magmatic sources and the tuffs of the Sanpete Valley in central Utah has not yet been established.
The Richard G. Osgood, Jr. Memorial Lectureship in Geology was endowed in 1981 by his three sons in memory of their father, a paleontologist with an international reputation who taught at Wooster from 1967 until 1981. Funds from this endowment are used to bring a well-known scientist interested in paleontology and/or stratigraphy to the campus each year to lecture and meet with students.

March 24, 2010, was the date of the Twenty-Ninth Annual Richard G. Osgood, Jr., Memorial Lecture in the Department of Geology. James “Whitey” Hagadorn, Ph.D., Amherst College, presented “The First Animals on Land”.

Dr. Hagadorn is currently an assistant professor at Amherst College and will soon become the Curator of Earth Sciences at the Denver Museum of Nature and Science. Dr. Hagadorn is a superb paleontologist with diverse interests from trace fossils to early shorelines to the Neoproterozoic-Cambrian transition. He has been a pioneer in bringing the often conservative world of paleontology into the digital age with a variety of extraordinary techniques (such as computerized tomography – CAT scans for fossils) and co-founding in 1996 the first online journal for the science: *Palaeontologia Electronica*.

Dr. Hagadorn received his Bachelor of Arts degree in Geology and Environmental Science from the University of Pennsylvania, and his Master of Science and Ph.D. degrees in Geology from the University of Southern California. His work appears regularly in many scientific journals in paleontology as well as sedimentary geology. He has had numerous grants from the National Science Foundation, the Petroleum Research Fund, and the National Geographic Society.
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<td>John Pojeta, Jr.</td>
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<td>J. William Schopf</td>
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<td>David Jablonski</td>
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<td>Walter Manger ('66)</td>
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<td>Susan Kidwell</td>
<td>The University of Chicago</td>
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<td>Niles Eldredge</td>
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<td>Steven Stanley</td>
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<td>Paul Taylor</td>
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<td>Erle Kauffman</td>
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<td>Rodney M. Feldmann</td>
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<td>Molly F. Miller ('69)</td>
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<td>Mark A. Norell</td>
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<td>2004</td>
<td>Lonnie Thompson</td>
<td>The Ohio State University</td>
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<td>2005</td>
<td>Patricia H. Kelley ('75)</td>
<td>University of North Carolina at Wilmington</td>
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<td>2006</td>
<td>Dr. Orrin H. Pilkey</td>
<td>Duke University</td>
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<td>2007</td>
<td>Dr. Richard Alley</td>
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<td>2008</td>
<td>Dr. Paul Olsen</td>
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<td>2009</td>
<td>David A. Burney</td>
<td>National Tropical Botanical Garden, Hawaii</td>
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<td>2010</td>
<td>James W. Hagadorn</td>
<td>Amherst College</td>
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The 2011 Osgood Lecturer:
Dr. M. Susan Lozier, Nicholas School of the Environment, Duke University
Robert Sponseller (’58) is retired and doing well. He maintains the family farm, purchased in 1899. His sons, Nathan and Daniel (both ’88), hope to continue the tradition. Bob returns to Wooster for most major events, but rarely sees anyone he knows. He still enjoys the academic atmosphere.

George H. Davis (’64), University of Arizona, is receiving the very prestigious Structural Geology and Tectonics Career Contribution Award at the upcoming GSA meeting. This award is given to an individual who throughout his/her career has made numerous distinguished contributions that have clearly advanced the science of structural geology or tectonics.

Gary Gray (’74) just completed his third year as science department chair at Trinity-Pawling School in Pawling, New York. He teaches chemistry and, until last year, geology. Last fall he gave up his geology class and one section of chemistry to teach a new course of physics for freshmen. During the summers he teaches science at the summer session of Brewster Academy, which is a short drive from their home in Moultonborough, New Hampshire.

Patricia Kelley (’75) continues with her teaching and research, running an NSF-funded “Research Experiences for Undergraduates” program and University of North Carolina Wilmington’s Evolution Learning Community. Her frequent visits to Wooster have ended with her daughter’s graduation and wedding (Katherine ’08) to John Gamble (’08), on the Wooster campus. Her son, Timothy, married in September 2009.

Kaz Aoki (’77) has returned to the Japan Atomic Energy Agency and now works at the Horonobe Underground Research Center in northern Hokkaido which carries out research and development on geological disposal for high-level radioactive waste.

Tina Niemi (’85) was featured in an October 11, 2009, article in The University News (University of Missouri at Kansas City student weekly) titled “Professor dwells on shaky ground.” You can read the entire article at http://www.unews.com/2.4805/professor-dwells-on-shaky-ground-1.655537.

Fred Siewers (’85) was featured in an April 6, 2010, article in the Herald (Western Kentucky University’s Student Newspaper) titled “Professor loves rocks, rocking out.” You can read the entire article at http://www.wkuherald.com/2010/04/06/professor-loves-rocks-rocking-out/.

Rob Piscetta (’87) and wife, Coleen (’89), have been married for 19 years. Their daughter Madeline (15) continues to focus on singing opera, dancing, and riding horses. Daughter Kate (13) continues to dance, play violin, trombone, piano, and ride horses.

For the first 20 years of his professional life, Samuel Ansara (’88) worked in the environmental industry. He took a leave from that to work for MassMutual Financial Group, to take a step back and do something completely different. This allowed him to provide a consultancy to small businesses interested in working in the federal
government contracting arena. During that time, he and his best friend started USFin Group, to provide solutions to environmental challenges for the Department of Defense. So far he is enjoying it, being his own boss. He may someday go back to working for someone, but says, “It will have to be a heck of an offer.”

Lisa Park ('88) will begin serving as a National Science Foundation (NSF) program director in Sedimentary Geology and Paleontology (SGP) in August 2010. This position is for two years with a possible extension for up to an additional two-year period. Lisa’s assignment is within the larger Surface Earth Processes Section (SEP), which is within the Earth Sciences (EAR) organization in the Geosciences (GEO) directorate. During her tenure at NSF, she will also be a visiting researcher at the Smithsonian Institution, Natural History Museum. Lisa has been a Professor of Geology and Environmental Science at the University of Akron and runs an Environmental Scanning Electron Microscopy Laboratory. She has been a faculty member since 1995.

Becky Mellinger ('89) and her husband live in Portland, Oregon. They stopped by the Hilton to attend the Penn State Geosciences Alumni Reception of the GSA. On the way to the PSU room, Becky visited the Wooster Reception. She is currently practicing technical communication (both written and visual) and her current goal is to combine her science education with her desire to write/edit.

Bill Burris ('91) is now officially the Chief of Environmental Restoration for Joint Base Andrews (formerly known as Andrews Air Force Base), home of Air Force One. He leads a team of seven professionals and several environmental consultants and contractors in the DOD effort to address soil and groundwater contamination resulting from past defense activities at Andrews and associated government properties.

Kristin Riker-Coleman ('97) has been hired in a tenure-track position as a geologist in the Science Department at University of Wisconsin - Superior.

Brian Hitchens ('97) was appointed as an Associate at Geosyntec Consultants’ San Diego office.

Philippe Kozub’s ('97) first five years after graduating from The College of Wooster included several adventures and part-time/seasonal employment. He worked in the geo-environmental group of the Gaithersburg, Maryland, office of URS Corporation for seven years (2002-2009). Projects included flood hazard determinations, soil/water/air monitoring/sampling/analysis/remediation, and disaster recovery public assistance. Clients included FEMA, U.S. Air Force, U.S. Army, U.S. Postal Service, Metropolitan Washington Airports Authority, and BP. After living in Louisiana for over two years, working with FEMA to provide public assistance for recovery from Hurricanes Katrina and Rita, he voluntarily left his job with URS and moved to Portland, Oregon, and become a professional triathlete.

Meghan (McLaughlin) Sparks ('98) is an 8th grade social studies teacher for Dublin City Schools. She and husband Matthew Sparks ('98) have two sons, Aidan is three years old and Keaton was born in May 2010.
Karrie (Karpinski) McAllister (’99), writer, nature lover, and mother of three, writes from Orrville, Ohio. Her column, Small Town Soup, appears in The Daily Record’s “This Week” papers and The Holmes County Shopper. Visit her website at www.karriemcallister.com.

Russell (’01) and Sarah Kohrs (’01) welcomed their son, Ezra Hananiah Kohrs, into their family on Saturday, April 3, 2010. He weighed 7 lbs, 12.7 oz. and was 19 inches long.

Kirk Lapham (’01) graduated from Thomas M. Cooley Law School in Lansing, Michigan, in May 2009. He accepted a position as a Judicial Law Clerk for Justice Michael F. Cavanagh on the Michigan Supreme Court. He and his wife, Kim, also welcomed their first child, Grant Alan Lapham; born on February 22, 2009.

After 8 years with Devon Energy, Sara Austin (’02), has made the decision to resign from the company. She accepted a geology position in Pittsburgh, Pennsylvania with EXCO Resources.

Jessica Conroy (’03) plans to finish up her Ph.D. next year. Her dissertation is a mixture of “modern climate analysis, paleoclimatic reconstructions from Tibet and the Galapagos, and hopefully a climate modeling experiment looking at the impact of increased surface water on the Tibetan Plateau and how it impacted the strength of the Asian Monsoon.”

Kathy (Bremar) Hollis (’03) accepted a collections management position in the Paleobiology Department at the Smithsonian NMNH. She is the first person to be hired into the collections management team since 1990. She and husband, Alan, are living in Takoma Park, Maryland.

Leslie McCluskey (’03) is now engaged to Christopher Eissing. She is also out of the Air Force and doing archaeology for a living. She began her training this summer with EMSL Analytical to be a Polarized Light Microscopy Analyst.

Katherine (Nicholson) Marenco (’03) was quoted on the November 7, 2009, Science News website in an article titled As the Worms Churn. You can read the entire article at http://www.sciencenews.org/view/feature/id/48630/title/As_the_worms_churn.

Will Driscoll (’05) advanced to Ph.D. candidacy the summer 2009 and is probably two years or so away from his degree in Ecology & Evolutionary Biology at The University of Arizona. He recently gave a talk entitled “What limits cheating in Pseudomonas chlororaphis bacterial biofilms?”

Allison Mione (’05) is engaged to Douglas Brannan, a Scot from Edinburgh. They are planning to have the wedding in May 2011 in Houston.

Erica Clites (’06) spent three months at the National Academies as a Mirzayan Science and Technology Graduate Policy Fellow. With twenty-five other fellows (including a pediatrician, coast guard officer, astronomer and others) she explored science policy at “bridge-builder breakfasts, “ congressional committee hearings and Academies’ report release briefings. She met all three Academy presidents, as well as the Academies’ congressional liaison, and education experts in the creationism—evolution debates. For
the National Academy of Engineering’s media office, she communicated with staff at Disney about their upcoming joint exhibit at the USA Science and Engineering Festival. She arranged meetings between a Hollywood TV producer and professors developing bio-inspired robotics. The coolest part was seeing news as it was made in budget hearings, floor votes, questions fielded by federal agency administrators, and meetings of the President’s Council of Advisors on Science and Technology. She discovered that geologists are marketable in the policy world due to their broad background in chemistry, physics, calculus, biology and other relevant disciplines! She recently accepted a seasonal paleontology position with Glen Canyon National Recreation Area, based out of Page, Arizona. She will be doing both field work, education/outreach and cataloging museum records. Erica says, “There is plenty to do here and the scenery is beautiful! It is nice to be back to the desert where the rocks are visible!”

Peter Johnson ('06) sent us a note in January to let us know what he was up to. He is currently working at Earth Resources Technology, right outside the Washington, D.C. area. He is staying busy with many, many different duties, which he really enjoys. His specialty is well sampling and he has also been doing a lot of geophysics. He is considering grad school in the next few years, possibly in Hydrogeology or something similar, or screenplay writing. Maybe he could tie the two together?

Anne Krawiec ('06) will be attending Northern Arizona University and is excited to be motivated again in what she is doing with her life. She was recently in Wooster for a family friend’s graduation and to visit the department.

Monica Umstead ('06) is currently in graduate school at Ursuline College in Cleveland for Early Childhood Education. She said, “I am crazy for doing this in one year, but I figured after I.S. I could do anything.”

Emily Griffin ('07) provided the photography for Borderlands: Texas Poetry Review Fall/Winter 2009 issue (http://www.borderlands.org/issue_33.html). Emily writes, “The photo series featured in this issue of Borderlands is a representation of my time spent in the Bahamas. I initially took these pictures with scientific intentions for my independent study, a research project that took me two years to complete as an undergraduate. Due to a drastic climate change during the last interglacial, approximately 125,000 years from present, the island holds perfectly preserved coral reef structures on land. I went to Great Inagua to study the paleoecology of these ancient undersea communities to unfold the story surrounding their emergence on land. Distance, both time and space, allowed me to reflect on my work in a new light. My science transformed into art.” She is also putting on an exhibit of her work in the city. Borderlands made poster size prints of her photos and she will display them and give people the opportunity to meet her to talk about her Independent Study and her photography. (This exhibit may have already taken place).

Ryan Barnett ('08) earned his MSc degree with commendation (honours) from the University of Aberdeen. He gave a talk at the Advancing Bear Care 2009 Conference in San Francisco, California, in November. He felt very excited and well-prepared, thanks in large part to the number of Wooster presentations he made during his college career.
Andrew Welshhans ('08) received a Master’s Degree in Geology at the University of Louisiana at Lafayette and is now enrolled in a Geology/Geophysics Ph.D. program at West Virginia University.

Jade Star Lackey (former faculty) and his wife, Hilary, welcomed their daughter, Siri, on May 7. Siri was born on Jade Star’s birthday, 36 years later. Talk about an amazing birthday experience.

Congratulations to Ali Drushal ('09) and Justin Sloan ('05), who were married this summer.

Jodi Sprajcar ('09) is now working with ARCADIS in Dublin, Ohio. She began her position in April. Maybe we’ll see her soon giving a GeoClub presentation!

Although we as a department celebrate the accomplishments and news we have from our alumni, we are also saddened by the death of the following alumni and friends:

Kenneth D. Woodruff ('59)  
December 22, 2009

James A. Dickson ('51)  
December 2, 2009

Robert C. Paige ('51)  
October 4, 2009

H. Bruce Grandy ('49)  
July 22, 2008

H. Douglas Preble ('49)  
September 24, 2009

George R. Grover ('47)  
April 17, 2010

Kate N. Kalkas ('43)  
July 7, 2008

Frank Koucky, Jr.  
January 29, 2010

“Frank Koucky Jr. – Wooster’s “Indian Jones,” archaeologist, mapmaker and geologist Dr. Frank L. Koucky Jr., died peacefully in his sleep in front of his fireplace at his home on Friday, Jan. 29, 2010.

Born in Chicago on June 24, 1927, his adventures took him to dozens of countries, entered him in “Who’s Who in American Men of Science” and set him in harm’s way on many occasions. As a youth he was an Eagle Scout and later he served in the U.S. Army during World War II.

He earned his Ph.D. from the University of Chicago, soon teaching at the Montana School of Mines, mapping uncharted mountain ranges for the U.S. Geological Survey by air and on foot. He then taught geology at the University of Illinois and spent summers with the Geology Field Camp in Wyoming and Montana, sometimes clearing dozens of rattlesnakes from geological sites, fighting forest fires or searching for lost hikers in dangerous terrain.

He became Professor of Geology at the University of Cincinnati and was selected as staff geologist for the Harvard Archaeological Expedition, spending more than 19 years in the Middle East, returning to teach in the winter. His ‘digs’ often took him into war zones: he was nearly shot by teenage militia in Lebanon, was rescued by British commandoes in a Cypriot war and was brutally interrogated by Saddam Hussein’s secret police for his cases of maps.

With Harvard’s team in Jordan, he helped unearth the famous “Golden Calf” covered in “National Geographic,” but his work also included such projects as the
earthquake-buried city of Kourian, Roman tin mines in Cornwall and extensive excavations in Israel, Cyprus and Iraq.

He spent a winter in Wales in the 1960s studying microfossils and then became Professor of Geology at The College of Wooster, continuing his field work in the Middle East every summer with the Harvard Archaeological Survey, the American Expedition and others.

He published many academic papers and was elected to numerous honorary societies, but Dr. Koucky’s loves were always teaching and field work – he once turned down a top corporate position at five times his professional pay to stay with his ‘digs’ and his students. A skeptic of “global warming,” his climate research was the subject of an international article in “Barron’s.”

His retirement was spent far from the harsh deserts of his earlier adventures, in his vegetable and flower gardens near Wooster with his wife, Virginia, with whom he celebrated 60 years of marriage and his old dog Bonnie.

Surviving are his wife, Virginia Falconer Ruhl Koucky; sons, Frank Louis Koucky III, David Blair Koucky, Waler Falconer Koucky and Jonathan Ruhl Koucky; grandchildren, Nicole, Jordan, Morgan, Michael, Christopher, Nicholas, Daniel, Andrew, and Jonathan Koucky; great-grandson, Aaron Koucky; and brothers, Charles and John Koucky. He was preceded in death by his parents, Frank Louis and Ella (Harshman) Koucky Sr.; a son, Daniel John Koucky; and a grandson, Frank Louis Blair Koucky. Frank was buried Monday, Feb.1, at Foxfield Preserve near Wilmot.

The family would like to hear from any of Frank’s students or friends who may have an interesting story to share at jon@koucky.com. Murray Funeral Home in Creston handled arrangements.”

-Obituary from The Daily Record

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Thank you to **John Parson (’94)** who donated mineral sets and equipment to the Department.

Thank you to **Lynn Neal (’88)** and Dennis Lapic for their gifts to the Geology Department, which were placed in The W. R. “Ted” Danner Fund for Student Geological Fieldwork.

Thank you to **Becky Jensen (’78)** for her gift to the Geology Department, which was placed in The James R. Baroffio Fund for Geologic Research.

Also, thank you to the alumni who donated the flat panel monitor to the Geology Department. We have the monitor set up in the first floor lobby of Scovel, where many photos of our students and faculty can be viewed.

If you would like to give a gift to the Geology Department, feel free to send your gift directly to the Department or to the Development Office. It is very helpful to us if you designate how you would like your gift to be used, or if you would like it placed in a specific fund. Gifts that are not specifically designated will go in the general Geology Department annual budget to be used for the day-to-day operations of the department.
Name: _______________________________________

Maiden Name (if applicable): ___________________________

Class: ____________________ I.S. Advisor: ____________________

Home Address: _______________________________________

__________________________________________________________________________

Telephone: ________________________ E-mail: ________________________

Advanced Degrees: ________________________ Year: ____________________

Institution: ___________________________________________________________________

Position Title: __________________________________________________________________

Business Name and Address: ______________________________________________________

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Telephone: ________________________ E-mail: ________________________

Occupation: ___________________________________________________________________

If your occupation is related to geology, please check one or more of the following:

_____ Environmental

_____ Government

_____ Hydrogeology/Hydrology

_____ Minerals

_____ Energy (Other)

_____ Petroleum

_____ Student

_____ Teaching

_____ Other (please explain)

__________________________________________________________________________

Other news you’d like to share:

__________________________________________________________________________

Thank you for responding to this request. You may complete this form at
http://tinyurl.com/2010GeologyAlumniUpdate, or send it to us
via U.S. Mail, fax (330-263-2249), or by e-mail to preeder@wooster.edu
Scovel Hall, originally built in 1902 and renovated in 1983-1984, houses the Departments of Geology, Philosophy, and The Pre-Law Advising Program. It bears the name of Dr. Sylvester F. Scovel, the third president of The College of Wooster.

http://www.wooster.edu/Academics/Areas-of-Study/Geology.aspx