Winter 2020

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University of Northern Iowa. Department of Earth and Environmental Sciences.

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The STORM Project (Science, Technology, and Research on Meteorology) celebrates its 50th year with special events and activities.

Over the summer, 24 middle and high school science teachers joined us for the STORM sponsored course, "Studying the Tornado Science Curriculum." Five of the 24 participants were from Iowa with the rest hailing from Arkansas, Colorado, Florida, North Dakota, Kansas, Michigan, Nebraska, New Jersey, New York, Oregon, and Texas.

The participants learned about anosity supply and demand, dust production, and how to make a tornado. They also developed an air quality and safety plan. All participants developed an air quality and safety plan for their middle or high school classrooms.

Keep an eye on the STORM website for announcements about the next offering of this course in summer 2023. As in the past, all course expenses will be covered by STORM.

If your science teacher or your school's computer has a special page for additional information, please visit www.uni.edu/environmental.
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Dear Alumni, Friends and Families,

Last year at this time, I was thinking about how we would celebrate the 50th Anniversary of the establishment of the Department of Earth Science in fall of 2020. Now all of those plans are set aside as we work within a new model of teaching, and research. We are all now operating under different conditions compared to last year, but be assured that the department faculty and staff will continue to provide students with memorable experiences and opportunities that will help them succeed like so many of our alumni.

There are several items in this newsletter that will provide you with reminders of the past. I hope some of those features cause you to recall your time at UNI and as a major in this department. Perhaps you will have memories of a class in Latham Hall, the Physics Building, one of the observatories or the Greenhouse, or you may recall the experiences you had on one of the many field courses you took part in over the years. How far have you travelled since that time? Have you revisited any of the sites that you experienced as a student with your family in recent years? How many mementoes of those days do you still have on hand? How many bad puns related to geology, meteorology or astronomy do you still remember? I hope we have helped build pleasant memories for you in all of those areas.

In spite of the difficulties over the past few months, we continue to graduate students at a steady pace, and provide them with the knowledge and skills that apply to a diverse range of future careers or graduate studies. As we get ready for the next school year, we are looking at some further cuts to our budget, which we will have to weather. We continue to appreciate the generous support of our donors – your support means a great deal to our program!

Please enjoy the memories you will have looking through this year’s newsletter. I do enjoy hearing from you and I want to extend my best wishes to all of you and your family for the future!
This has been quite a year. Moving all of my spring classes online was quite a challenge, but I succeeded. Last fall Dr. Sedlacek and I obtained money from the Carver Foundation to purchase new petrographic microscopes. Our old ones dated as far back as the late 1960s!! That's old even for me! The new scopes are amazing and very easy to use. Some of them are even WIFI enabled for taking and sharing images. We purchased an extra set for Dr. Sed's classes as well.

Other than that, I'm still teaching a combination of geology and science ed courses. I'd love to lead another trip to New Mexico, but doing so in the middle of a pandemic doesn't seem like a good idea.

KYLE GRAY
ASSOCIATE PROFESSOR OF EARTH SCIENCE AND SCIENCE ED

I continue to teach Elements of Weather and Air Quality Modeling during the 2020 spring semester. In the summer, I participated in the Quality Matters workshop “Teaching Online-An Introduction to Online Delivery (TOL)”. The workshop really helped me prepare for the online teaching. In 2020 fall semester I teach two online sessions of Elements of Weather, as well as a new course: Air Quality Management, in which I followed the EPA air quality management process cycle framework and added real world examples and case analyses. For this course, in the future I plan to add content about cost, benefit and economic analyses for air pollution regulations, as well as financial instruments for reducing air pollution.

Best wishes!

XINHUA SHEN
ASSISTANT PROFESSOR OF METEOROLOGY AND AIR QUALITY

News out of the GeoHeinzel Fort: it continues to be a strange year. Summer 2019 included a lot of travel that we are increasingly thankful for since it is now difficult leave the house. Southern Italy/Sicily continues to share important lessons and opportunities. This summer marks the first time in over 20 years that I will not be experiencing and learning from Sicily’s amazing landscapes and people. Linda and I were able to explore Ireland, thanks to all of you who provided recommendations. Why Ireland? It was on the way home to rural Iowa and Dublin hosted the International Quaternary Association’s 20th Congress. I shared two presentations: one on the geoarchaeology of western Sicily and another on our amazing yet stressed Dry Run Creek Watershed. The meeting and visit provided amazing experiences that we will treasure for a lifetime. Our family is doing well as can be, including our cats, chickens and dogs. Lilian will be a junior this year at Cornell College and is thriving in a liberal arts setting mixing Ecology, Chemistry, Theater and friends together. Estella will be a freshman in high school and is learning how to make her own positive contributions on this Earth. I am working on two interesting local projects. The first is a geoarchaeology investigation in Jackson County with Faith Luce and Pierce Matt. Secondly, Riley Eichelberger and I are collaborating with BMC Inc. and the Iowa DOT on an aggregate investigation. Parting words of wisdom: continue to learn and share your knowledge with those around you and make our civilization the best it can be. “Never regard your study as a duty, but as the enviable opportunity to learn to know the liberating influence of beauty in the realm of the spirit for your own personal joy and to the profit of the community to which your later work belongs.” -A. Einstein

Ceud mìle fàilte. Grazie mille!

(Above is as close to a selfie as I will tolerate/barely tolerate)
Hello everyone! As I write this, I’m preparing to teach face-to-face sections of Earth History and Environmental Geology. Adapting classes to be flexible for face-to-face and online learning is challenging, but I’m excited to try out new methods and continue my evolution as an educator. Last spring, students in Paleoclimatology and Earth History exhibited inspiring levels of adaptability and enthusiasm to work through the challenges created by rapidly moving online, and our success was largely due to their willingness to make things work. Thankfully, I feel more prepared to adapt my classes this fall as needed, and I’m looking forward to getting back in the classroom.

Like many other families, we adopted a pet during lockdown. Our kitten, Martin, has the energy to keep up with Penny’s maze creating and fort building, and our older cats and dog are happy to be left alone. Penny continues to participate in Girl Scouts and is becoming an increasingly adept purveyor of cookies. Patrick still works in IT at UNI, and coaches several high school robotics teams.

Keep in touch and be well!

ALEXA SEDLACEK
ASSISTANT PROFESSOR OF GEOLOGY

Hello friends! This spring I completed my 28th year at the University of Northern Iowa amidst our shift to online instruction due to COVID-19. I continue my regular teaching duties with the Elements of Weather, Elements of Weather Lab, Air Quality, and Meteorology courses. This summer I’m offering my online Weather Analysis and Forecasting course. Over the past year, Dr. Iqbal and I were team leaders for the Iowa Water and Air Quality project at UNI. Fourteen middle and high school science teachers participated in this EPA-funded Environmental Education professional development program. I also contributed to a number of papers published this past year on the 2017 Lake Michigan Ozone Study.

I hope you’ll consider sharing your best 2020 weather photos with me. It’s fun to show them to my students in Elements of Weather!

My best to all!

ALAN CZARNETZKI
PROFESSOR OF METEOROLOGY
THOMAS
HOCKEY
PROFESSOR OF ASTRONOMY

Hi, there. This school year, I’m teaching EARTHS CI 1100 Astronomy, trying to get into the new decade by incorporating more and different kinds of media within my lectures. I’m also the instructor for a new course honoring the fiftieth anniversary of Apollo 11: EARTHS CI 3400/5400 The Moon. I continue to sit on the UNI Graduate Appeals Board. (One only need stand while entering and exiting the room...)

I still serve on the American Astronomical Society’s [AAS] Working Group for the Preservation of Astronomical Heritage; this year we submitted a (too) long State of the Profession White Paper for the AAS’s Decadal Survey. In its own State of the Profession White Paper, the AAS’s Historical Astronomy Division [HAD] wrote: “Among the noteworthy large-scale historical publications of the past decade is the Biographical Encyclopedia of Astronomers (BEA), published in 2007 (T. A. Hockey, Editor-in-Chief) and reissued in an expanded second edition in 2014...The four-volume BEA is one of a kind: There is no discipline-specific counterpart in the physical or biological sciences. The BEA is the work of some 430 authors from forty countries, translators, and editors who produced biographies of approximately 1,850 persons, from antiquity to the modern era.”

Nice to hear. I’m an active member of HAD, plus the International Astronomical Union’s Inter-Commission: Archaeoastronomy and Astronomy in Culture, “Committee to Develop initiatives... Regarding Examples of Cultural Astronomy Found in Literature, Poetry, Music, [and] Films.” Plus there’s the International Society for Archaeoastronomy and Astronomy in Culture. I bet you didn’t know there was one, huh?

An interesting thing I learned teaching-wise in Honolulu is that a guy built a cheap device for the visually impaired: It converts light (such as that normally seen through a telescope in Astronomy lab) into sound. Cool! On the downside, another fellow’s polling research shows that thirty percent of introductory astronomy students are fearful of coming to lab at night.

My ninth book, Comets in the 21st Century, came out. Now all we need is an overdue bright comet in our sky to boost sales!

The common theme of my scholarship is interdisciplinary: Astronomy/Astronomy in History and Literature. My institutional home at UNI—while beloved!—often is an impediment to research, inasmuch as I am distant from most major astronomical research centers (observatories, archives, etc.). Thus, I’m taking advantage of my Iowa roots to learn about the total solar eclipse of 1869, relying on my personal contacts to write about the discovery of Pluto, and making use of my own book-publishing experience (and love of reading) to scrutinize solar eclipses in fiction. Anybody want to help?

This year we lost our dog of fifteen years. I still can’t get out of the habit of closing the gate. On the happy side, my mother-in-law is moving in with us from Ukraine. Yulianna has been at Casa Montessori School for fifteen years. This summer, she made a one-month, long-delayed trip to Europe; I’ve now dined at every restaurant in Cedar Falls. No big vacation in 2019, but we are remodeling the bathroom: It’s the first place we visit in the day, right? And at age sixty, for the first time in my life, I bought the car that I want to drive. (It’s a RAV4 Limited Hybrid, for any motor heads out there.)

Thank you to everybody, especially students, who have stopped by and welcomed me back to the fold.

I presented a couple of papers at AAS’s winter meeting in Hawai‘i. In honor of my emigrant-to-Iowa English grandfather, I’m a member of the staid Royal Astronomical Society’ (RAS); I chaired an AAS session on the two-hundredth anniversary of the RAS’s founding.

This past year Dr. Iqbal advised student projects on diverse water quality issues. The projects covered the Cedar River, Dry Run Creek, Beaver Valley Wetland, Lake Okoboji, Birdsall Pond, George Wyth Lake, Big Woods Lake, the Mississippi River watershed, and the Bagmati River in Nepal. The students who directly participated in these projects are Daniel Nielsen, Pratik Poudel, Brianna Springer, Andrew Rust, and Jacob Rivera (from Humboldt State University, CA). The projects conducted by Pratik and Andrew fulfilled their degree requirements in Earth and Environmental Sciences B.A/B.S. The project conducted by Brianna was in collaboration with the Black Hawk Soil and Water Conservation District. Daniel’s project was funded by the Black Hawk County Solid Waste Commission. Jacob’s project was a part of the Research Experience for Undergraduates (REU) program funded by the National Science Foundation. This year, two new students started working in the Department’s water projects (Dre Presswood and Morgan Jacobson) and will continue through the next year. In spring 2020, Dr. Iqbal taught Intro to Geology and Hydrogeology courses. His fall 2020 teaching duties include Intro to Geology, and Capstone.
Since this is my first update in our newsletter, I figured I better introduce myself. Some of you I have met in my short time here so far, and some I have not. My name is Nichoel (Nic-Quell) Graff, but I go by Noel. I joined the UNI Earth and Environmental Sciences Department in August 2018 and knew right away that it was the place I want to retire from some day. I started working on an Environmental Science degree before I left Upper Iowa University where I worked for 10 years before coming to UNI, so you could say I am in the perfect department to someday finish that goal. Not to mention the fact, that science and nature have been my favorite subjects my entire life.

I am a Kansas native but have been in Iowa for over 21 years. I moved here after I met my husband Monte. We have 2 children and 6 beautiful (and very energetic) grandchildren, so we keep very busy with all of them. We currently live in Oelwein so to say the least, I have a bit of a drive each day to work, but it is very worth it when you love what you do and the group that you work with.

2019 was filled with many things. I spent a good portion of it learning the different aspects and nuances of being on the other side of education. When I worked for UIU, I spent all of those years on the administration side, and only got to interact with students and faculty a few times a year, but I found during those times, that I felt more fulfilled, so being given this opportunity to work full-time with students and faculty, is very rewarding in my book.

During our off hours, my husband and I like to spend time with the grandkids, but we also like to indulge in our favorite pastime...fishing. We started taking an annual weeklong trip to Canada about 8 years ago, and 2019 was no exception. We took our trip in late June, and as always, it was a complete (electronic free) fun filled week of nonstop fishing. It’s a beautiful 6,000-acre lake in the heart of the Canadian wilderness and the fishing is heaven! This particular lake is also known to have world record Musky and it is my goal to land, at least a definite record size fish, sometime in the near future, but in the meantime, I am perfectly content just making the attempt while still getting some other great fish in the process.

I want to thank everyone I have met since joining UNI, for welcoming me into the Earth and Environmental Science family. I look forward to meeting more of the EES family in the years to come.
This year’s Gamma Sigma chapter saw another great year of volunteer work and events from all its members. Several of the events are what our SGE members love helping with every year such as our Sunday at the Quarry and Halloween House. Our group was able to participate with many events and projects this year, i.e. a Snapshot Event, Undergraduate Research Talk at Hawkeye, Planetarium and Observatory shows, a Girl Scout outdoor expo, and Astronomy tutoring.

All of our members were also very proud to have taken part in a specific project, in conjunction with UNI’s Green Fund, to switch from fluorescent to all LED bulbs in Latham Hall. An effort that has financial and environmental benefits. (Story by Nicole Baxter and pictures by Ashley Grego featured in the UNI Campus Life. April 8, 2019 edition).

SGE would like to thank everyone for their continued support. We look forward to more of our favorite annual events as well as any and all new opportunities to help our community.

FAITH LUCE
Chapter President
In April 2019, the Midwest GLOBE Program (www.globe.gov) Student Research Symposium conference participants visited the department to learn about geology, air quality and astronomy.

Chad Heinzel, Alan Czarnetzki and Siobahn Morgan worked with 35 middle and high school students from Michigan in hands-on activities, which included a visit to the planetarium and use of the nasal-rangers.
## Graduates

### Spring 2019
- **Jennifer Pauley**
  - B.A. Environmental Science
- **Laura Fraser**
  - B.A. Earth Science
  - B.A. Biology
- **Ann Oclair**
  - B.A. Geology
- **Morgan Streff**
  - B.A. Environmental Science
- **Isaac NeppeL**
  - B.S. Environmental Science
- **Thomas Frieden**
  - B.A. Earth Science
  - B.A. Environmental Science
- **Logan Winford**
  - B.A. Earth Science
  - B.A. Physics
- **Lily Conrad**
  - B.S. Environmental Science
- **Jordan Evans**
  - B.A. Environmental Science
- **James Janssen**
  - B.A. Earth Science

### Fall 2019
- **Jens Petersen**
  - B.A. Earth Science
- **Will Spurr**
  - B.A. Earth Science
  - B.A. Computer Science
- **Thomas Boyy**
  - B.A. Earth Science
  - B.A. Environmental Science
- **Brianna Springer**
  - B.A. Earth Science
- **Heather Hammersley**
  - B.A. Earth Science
- **Jared Randall**
  - B.A. Environmental Science

## Scholarships & Award Winners

### Spring 2019
- **Tiger Angel**
  - Environmental Science BA
  - Louise Hearst Speer Memorial Scholarship
- **Autumn Grawe**
  - Environmental Science BS
  - Earth Science STM Scholarship
- **Hannah Hamilton**
  - Earth Science Teaching BA
  - Bill and Teri Brecht Scholarship
- **James Janssen**
  - Earth Science BA
  - Earth Science STM Scholarship
- **Alec Mass**
  - Environmental Science BA
  - Earth Science STM Scholarship
- **Teryn Mueller**
  - Earth Science BA
  - Earth Science STM Scholarship
- **Isaac NeppeL**
  - Environmental Science BS
  - Purple and Old Gold Award
- **Dan Nielsen**
  - Environmental Science BA
  - Earth Science STM Scholarship
- **Sofia O’Neil**
  - Earth Science Teaching
  - Charles J. Hearst Scholarship
- **Pratik Poudel**
  - Environmental Science BS
  - Jan Harken Scholarship
  - C.W. Lantz Undergraduate Scholarship
- **Jared Randall**
  - Environmental Science BA
  - Donald and Marguerite McKay Scholarship
  - Charles J. Hearst Scholarship
- **William Spurr**
  - Earth Science BA and Computer Science BA
  - Earth Science STM Scholarship
  - Larry A. Kelsey Memorial Scholarship
- **Gretchen Steffensmeier**
  - Environmental Science BS and Biology BA
  - Knapp Earth Science Scholarship
- **Morgan Streff**
  - Environmental Science BA
  - Earth Science STM Scholarship
- **Summer Weed**
  - Environmental Science BA
  - Donald and Marguerite McKay Scholarship

### Fall 2019
- **Deandre Presswood**
  - Environmental Science BS: Earth Science Emphasis
  - UNI Center for Energy and Environmental Education
  - Green Iowa AmeriCorp, Land and Water Steward
  - Cedar Falls, IA
  - Summer 2019
- **Brianna Springer**
  - Earth Science BA
  - Black Hawk County Soil and Water Conservation District
  - Waterloo, IA
  - Summer 2019

## Internships

### Spring 2019
- **Tiger Angel**
  - Hiawatha National Forest, Munising, Michigan
  - Summer 2019
- **Kielely Lyon**
  - Backbone State Park, Dundee, IA
  - Summer 2019
- **Jared Randall**
  - Black Hawk County Health Department, Environmental Health
  - Waterloo, IA
  - Summer-Fall 2019
- **Jason Schutter**
  - Algona Water-Waste Treatment Plant, Algona, IA
  - Summer 2019
- **Max Mueller**
  - Cerro Gordo County Conservation Board
  - Mason City, IA
  - Summer 2019
- **Jared Randall**
  - Black Hawk County Health Department, Environmental Health
  - Waterloo, IA
  - Summer-Fall 2019
- **Jason Schutter**
  - Algona Water-Waste Treatment Plant, Algona, IA
  - Summer 2019
- **Chase Boddicker**
  - UNI Center for Energy and Environmental Education
  - Green Iowa AmeriCorp, Land and Water Steward
  - Cedar Falls, IA
  - Summer 2019
- **Morgan Jacobson**
  - UNI Center for Energy and Environmental Education
  - Green Iowa AmeriCorp, Land and Water Steward
  - Cedar Falls, IA
  - Summer 2019

### Fall 2019
- **John Judy**
  - Hiawatha National Forest, Munising, Michigan
  - Summer 2019
- **Deandre Presswood**
  - UNI Center for Energy and Environmental Education
  - Green Iowa AmeriCorp, Land and Water Steward
  - Cedar Falls, IA
  - Summer 2019
- **Brianna Springer**
  - Black Hawk County Soil and Water Conservation District
  - Waterloo, IA
  - Summer 2019
Another successful Sunday at the Quarry event, hosted and sponsored by BMC Aggregates, L.C., was held on October 6, 2019. A wide range of displays were provided to showcase rocks, minerals, fossils, water resources, soil science, flooding issues, conservation farming, and much more. Unfortunately, the weather was not so great, which may have resulted in a more modest turnout compared to previous years. Faculty and student helpers staffed tables, gave safety talks, and informed visitors about the earth sciences.

The generosity of BMC Aggregates, L.C., is a big part of why this event is possible, along with the volunteers and support of the various state, county and local agencies. Due to the COVID pandemic, the 2020 event was cancelled, but we are eager for another Sunday at the Quarry event in 2021! We hope to see you there!

Photos from Aaron Spurr
Hometown: Cedar Falls

Major: Computer science and earth science

Post-graduation plans: Currently interviewing for a full-time job

“My computer science education gave me a lot of programming experience, which is useful to know in any computer field. My campus job gave me a ton of real world tech support and system administration experience that I expect to draw upon every day in my future career.

UNI has an easy-going atmosphere. People are friendly, class sizes are small and professors want to interact with you. The dining center food is excellent, especially the desserts.”

Will is currently working at UNI as a member of the support staff of IT Client Services. He also continues with his hobby of astrophotography.

Will’s exceptional picture of the Andromeda Galaxy below was obtained while he was a student in the Observational Astronomy class.
One of my favorite parts of the Earth Science Department has always been the field trips.

With the department, I traveled to Texas, New Mexico and, this past summer, to Minnesota. Being out in the field provides an opportunity to bring knowledge that has been learned in the classroom into a physical setting.

I will never forget my first time walking up to a rock outcrop (TESNUS formation in Marathon, Texas) and being able to decipher its formation and its features. I was able to see alternating layers of shales and greywackes that had been tilted vertically with a fault running through it. After that moment I was awestruck by the intricacies that took place to form that outcrop and I decided that I wanted to dedicate my life to become a geologist. Every trip after that has increased my passion for geology and the natural world.

This past summer going to Minnesota, I was able to enhance my knowledge for glacial landscapes as well as the pre cambrian environment of Minnesota. We were able to travel to the Soudan Iron Mine and look at the Banded Iron Formations, which is one of the first indications of oxygen in the atmosphere, I would be lying if I said that I didn’t shed a tear when I first saw it.
Photometric Transformations of Cepheids in the Large Magellanic Cloud and Milky Way - Logan Winford and Siobahn Morgan

Air quality simulation using AERMOD model - Isaac Neppel, Jacob Hogan, Jens Petersen, Jason Schutter, and Xinhua Shen

EARTH AND ENVIRONMENTAL SCIENCE SEMINAR
April 2019 | University of Northern Iowa
THOMAS FRIEDEN
Are Daily High/Low Temperature Records Becoming More Common in Iowa?

131ST MEETING OF THE IOWA ACADEMY OF SCIENCE
April 2019 | Cedar Falls, Iowa
LOGAN WINFORD AND SIOBHAN MORGAN
Photometric Transformations of Cepheids in the Large Magellanic Cloud and Milky Way
ISAAC NEPPEL, JACOB HOGAN, JENS PETERSEN, JASON SCHUTTER, AND XINHUA SHEN
Air Quality simulation using AERMOD model
CHAD HEINZEL, DANIA PATTERN, THOMAS BOVY, AND LOGAN LETELLIER
Characterization of Dry Run Creek Sediments

9TH INTERNATIONAL GEOS-CHEM MEETING
May 2019 | Cambridge, MA
J. HOGAN, ISAAC NEPPEL, JENS PETERSEN, JASON SCHUTTER, AND DR. XINHUA SHEN
Air Quality Study using GEOS-Chem Model
SUMMER UNDERGRADUATE RESEARCH CONFERENCE
August 2019 | Cedar Falls, IA

FORREST CRONIN AND SIOBHAN MORGAN
Investigating Fourier Coefficient Relationships of Cepheid Variable Stars

FAITH LUCE AND CHAD HEINZEL
Determining Source of Materials Used in Artifacts found within Seeberger’s Cave, Jackson County, Iowa

JENS PETERSEN AND XINHUA SHEN
Developing Effective Air Quality Simulations using AERMOD Model

EARTH & ENVIRONMENTAL SCIENCE SEMINAR
October 2019 | Cedar Falls, IA

FORREST CRONIN
Investigating Fourier Coefficient Relationships of Cepheid Variable Stars

FAITH LUCE AND PIERCE MATT
Analysis of Artifacts within Seeberger’s Cave, Jackson County, Iowa

JENS PETERSEN
Developing and Executing a Working Simulation Using AERMOD

IOWA ARCHAEOLOGICAL SOCIETY ANNUAL MEETING
October 2019 | Iowa City, IA

CHAD HEINZEL, BILL GREEN, MICHAEL PERRY, FAITH LUCE AND PIERCE MATT
Preliminary Archaeometric Findings of the Seeberger Collection, Jackson County, Iowa
EES FACULTY AND STAFF SINCE 1970

Wayne Anderson
George Armbrust
Barbara Berquam
Lynn Brant
Paul Castleberry
Timothy Cooney
Shirley Cropper
Alan Czarnetzki
Kenneth De Nault
Walter DeKock
William Desmarais
Laura Dobson
David Dockstader
Jack Ellingson
Michael Emch
Paula Even
Donald Finsand
Joseph Gale
Noel Graff
Stanley Grant
Kyle Gray
John Groves
Chad Heinzel
Lon Hill
Thomas Hockey
Mark Hodges
Darrel Hoff
Tom Holst
Ana Houseal
Nancy Howland
Mohammad Iqbal
Nora Janssen
Lois Jerke
Kimberly Kane
Lemoine
Lancelot Kao
Linda Kelsey
Lawrence Kelsey
Patrick Leiker
John Miller
Siobahn Morgan
Andrew Odell
Lee Potter
Felix Rizk
Alexa Sedlacek
Xinhua Shen
Kendra Sibbernsen
Stephanie Skinner
Robert Smith
Steven Smith
Aaron Spurr
Michael Stevens
Alan Swanson
Carrie Thorpe
De Anna Tibben
James Walters
Mary Lou Welch
Eric Wilberg

Over the years our outstanding students have been given a range of departmental awards, but they have also been the recipients of prestigious awards from the College of Natural Sciences, the College of Humanities, Arts and Sciences, the University of Northern Iowa, Iowa professional organizations, and national professional organizations. Here is a short list of the many scholarships, recognitions and awards our students have obtained in the past.

### College and University Level Student Awards

- Student First Scholarship
- Clifford McCollum Scholarship
- Irene M. Thompson Scholarship
- C. W. Lantz Undergraduate Scholarship
- Donald and Marguerite McKay Scholarship
- Student Opportunities for Academic Research (S.O.A.R.) Award
- Albert A. Potter Endowed Scholarship
- Jessica Allen Terri Scholarship
- Grace Ohrtman Endowed Scholarship
- Streitberger/Mohr Science Education Scholarship
- Lux Service Award
- UNI Student Employee of the Year
- UNI Cares Award
- Roxy J. Carver Scholarship
- National Science Foundation Fellowship
- Sigma Gamma Epsilon National Council Best Poster Award at GSA
- American Institute of Professional Geologists National Scholarship
- Clare Booth Luce Fellowship for Women in Science
- Mineralogical Society of America Recognition Award

### Professional Organization Student Awards

- Sigma Gamma Epsilon – National Quality Chapter Award
- Sigma Gamma Epsilon – National Service Award
- NASA Iowa Space Grant Consortium Scholarship
- National Association of Geoscience Teachers Summer Field Camp Scholarship
- National Association of Geoscience Teachers Outstanding Teaching Assistant Award
- National Science Foundation Fellowship
- Sigma Gamma Epsilon National Council Best Poster Award at GSA
I was a student from 1974-1978 and received a bachelor's degree with the title of Administrative Assistant for the Department of Earth Science at the State College of Iowa. I administered the earth science offerings and the budget independently for the most part and had separate staff for the two programs operated independently: earth science and physics. I administered the earth science offerings and the budget independently for the most part and had separate staff for the two programs operated independently: earth science and physics.

I enjoyed my time in the Department of Earth Science and served as department head for 25 years. I have many special memories of UNI students, geology field trips, and interactions with faculty and students. I have been retired nearly 20 years and enjoy splitting time between Cedar Falls and rural Colorado.

Earth Science at our institution goes way back in time, back to Iowa State Normal School and Iowa State Teachers College. Melvin F. Arey held a Professorship of Natural Science at Iowa State Normal School and later Iowa State Teachers College. President Homer Seerley hired him in 1890. Natural Science was a domain that included broad training in botany, zoology, geology, and physical geography. Arey taught for more than 30 years and wrote extensively on the geology of several Iowa counties, including Black Hawk County. The Iowa Geological Survey published his work. Dr. E. J. Cable, a geologist, had a long and distinguished career at Iowa State Teachers College. Professor Cable taught from 1905 to 1947 and served as department head for some of that time. He was coauthor of a widely adopted college textbook used in general education science courses. He retired from teaching, Dr. Cable served as emeritus curator of the college museum, 1948-1963. I never met Dr. Cable, but I saw where he worked at the museum, which was then located on campus on the upper level of the library (a building known today as Seerley Hall). Dr. Cable died in 1964; his ISTC-SCI service totaled 58 years. I'll close with a segment from Professor Cable’s address as President of the Iowa Academy of Science in 1934. Some of his remarks seem timely today:

“We are truly living in a wonderful and fearful period so far as civilization is concerned. Our present social order has changed so rapidly within the last quarter century as to cause many writers and students of sociology to become somewhat alarmed as to its future stability....

Our mission as teachers and investigators is to help, in every way possible, to create an intelligent public; a public that can appreciate that the real truth once established always remains true, and that truth is not a barrier to social betterment, but on the other hand, a worthy handmaiden.”

(Wayne and Jan Anderson pictured at left)

CINDY J.
CHATFIELD FREIBERG
CLASS OF ’94

I have so many great memories from my time in the department: paleontology class, helping in Earth Science labs, Geomorphology class since it was flooding the highest ever in those years. Traveling with Dr. Walters and Dr. Anderson in the Fall Geology trip to Indiana, Illinois, Iowa, and Wisconsin. I worked in the Earth Science department as a student and it was a great experience. Helping the staff and students was a great pleasure.

DEBORAH (DEBBIE) YERKES
CLASS OF ’78

I was a student from 1974-1978 and received a BA in Geology. I loved my time at UNI. I have a lot of good memories, but I think my favorite was the spring break field trip to Big Bend National Park. Beautiful country, wonderful geology, great people and I got thrown into the Rio Grand River! It was so much fun! Our grad student that year, Lin, had been given a video camera by the department and he filmed the trip. I still have my copy of the trip, now transferred to cd. It’s black and white, and a little grainy, but so much fun. My fellow students were great friends and I wish I had kept in touch with them.

I’m now a retired librarian living in Columbia, South Carolina. After UNI I went to the University of Kentucky to get my Master’s in Library Science and then to the University of South Carolina where I was a Government Information Librarian for 37.5 years. I retired in 2017.

Not much more to say. I live a quiet life. Travel a little and crochet and knit a lot.
I have many wonderful memories of my time in the UNI Earth Science Department, but among the most memorable would be the incredible field trips.

The Spring Break field trips, for example to Big Bend, TX; Italy; the Grand Canyon; the fall field trips to Devil’s Lake, near Baraboo, WI and the welcoming facilities at the Soil Test Proving Grounds, and the Geomorphology class field trips, to BMC quarries, and Casey’s Paha, and the Cedar River and more.

We never lost anybody on a spring trip, but there was one year we left Cedar Falls without a student who didn’t show up in time for our departure (We tried to track him down but couldn’t find him — long story).

Then there was the time a Geological Society of Iowa field trip somewhere near Iowa City ended early because of rainy weather and Wayne Anderson and I had a few hours to kill before the evening banquet. So we went in to the hotel where our banquet and evening program was going to be taking place thinking maybe we’d get something to drink and wait for our social hour to start. Turns out, the hotel was also hosting a meeting of emu enthusiasts. The emu people welcomed us into their small convention and we sampled emu meat, emu jerky, emu moisturizing lotion, emu oil, emu soap, everything emu. Wayne was tempted to invest in an emu farm (just kidding). It was an entertaining and educational way to spend a couple of hours.

Years ago we had a student from Taiwan by the name of Fen Chi Lin. How he came to UNI is another story. Anyway, he was very personable and easily made friends with the other students. He was also quite naive and students sometimes played jokes on him.

Lin was taking my Geomorphology course and really liked our Wednesday afternoon field trips. The last trip of the fall was the trip to Casey’s Paha in late October. A couple of weeks before the trip I started to talk in class about what paha are (hills that are erosional remnants composed of glacial sediment capped with windblown silt), and I also began to pull Lin’s leg a bit by suggesting we might be able to climb to the top of the paha if there was no snow on the summit and not too windy. I mentioned that paha occur only in NE Iowa and are the highest features on the landscape and can be seen from a long distance. The other students realized what was going on and contributed to the ploy by exaggerating how impressive paha are. The week before the paha trip, Lin, with the innocence of a 3-year-old was telling people how excited he was to visit a paha, and he had purchased a warm hat and a scarf and gloves along with a winter coat, because he intended to make it to the crest of the paha. He would stop other students in the hallways, saying things like...“Do you know I am going to the paha? I have never seen a paha. This will be an amazing adventure for me.”

The day of the trip came and Lin was almost too excited to stay seated in class, while I distributed a field trip handout. Well, it takes about a half hour to drive down to Casey’s paha from UNI and Lin, sitting shotgun, as he always liked to do on our field trips, stared intently out the window, wanting to be the first to see the paha looming in the far distance. We got to the paha and I parked the van on the side of the road and assembled the students to talk about what we were seeing. Lin was craning his neck and looking all around for a huge landform he expected to see. All eyes were on Lin as we waited for his reaction. He seemed perplexed and didn’t understand why we had stopped here to look at this hill. I asked him what he thought of the paha. He said, “I see nothing!” So that became the phrase of the semester: I see nothing.

I have many more wonderful memories, such as the lunchtime discussions that ranged from solving the serious problems in the world to nonsensical joking around.

But what I value the most is having had the opportunity to work with a group of dedicated and talented faculty and staff and the excellent students I was able to engage with over the years.

It was a great 39 years, and after retiring in 2014 Bonnie and I moved to Michigan, our home state.
LYNN BRANT
EMERITUS PROFESSOR OF GEOLOGY

I came to the Earth Science Department, as it was called then, in 1982 and retired in 2007. I was interviewed for the job in April after a big snow storm a few days before. Coming from Montana I was not intimidated by the snow drifts on campus. I was shown where my office would be, a former dorm room in Baker Hall. Classrooms where the Department’s courses were taught included the greenhouse annex, the old Physics Building, and rooms in McCollum Hall at times. The faculty were also spread out.

Going from my office in Baker to the third floor of the Physics Building provided both exercise and a chance to examine the job the physical plant was doing in removing snow and making big tracks in the lawn with their trucks. I wrote a memo complaining about this and had it signed by all or nearly all in the Department. The physical plant was not pleased, and our Department was on their black list for a while. Wayne said he regretted signing that letter. Unfortunately, that wasn’t the only time I misbehaved.

All this changed, of course, when we moved into Latham Hall between semesters over the Christmas break in 1989-90. Our classrooms and faculty offices were together in one building. I had a nice lab next to my office with water, gas, and a fume hood. One day I returned from lunch and heard a hissing sound in my lab. I quickly realized there was a major gas leak in the cabinet under the hood. Fortunately I kept the fume hood fan on all the time to avoid a build-up of the toxic stuff I had stored in there. That removed the gas as fast as it was leaking, otherwise there would have been a major gas explosion, which would have ended the Department right then.

Moving into Latham Hall also gave us a place to eat our lunches together, which many of us took advantage of. Conversations over lunch ranged from the political to the mundane, but we all got to know each other much better. And I got pretty good at hitting the wastebasket with my lunch bag on the other side of the room. I rarely hit anyone! We also held our weekly staff meetings in that conference room. On that day I usually taught four hours of geology lab that morning and faced two more hours’ right after lunch. Well, I missed portions of those meetings while leaning my head against the pillar next to my chair with my eyes closed. I was accused of sleeping, but how could that be?

During my job interview I sat in on “Spaceship Earth” being taught by Jim Walters, and I was told that would be one of my courses to teach. I taught that course as part of the general education program for a few years until the general education program was changed and “Spaceship Earth” was eliminated from the curriculum. I really liked that course because I saw myself as a teacher of geology to the masses rather than just educating future geologists, although we did that very well in the Department as well. I always thought the educated UNI graduate, regardless of major, should know a bit of geology, geologic hazards, and where we get resources to feed our economy.

I also introduced the course “Environmental Geology” to our students. I had spent seven years working in Montana examining the environmental impacts of various projects, including electrical transmission lines through the mountains and coal-fired power plants. I was part of, then head of, an interdisciplinary team writing environmental impact statements and the like. I modeled my environmental geology class at UNI on that real-world experience. I had the class work as a team evaluating some proposal or public matter, produce a team-written environmental impact statement, and then present that in a formal public meeting. This approach was more like what the students would find themselves in after graduation than in the approach of merely studying a textbook. The work of my classes helped eliminate leaf-burning in Cedar Falls and did important initial work on Dry Run Creek that was followed by others outside of UNI.

Although there were a few days when I was exasperated by people in other departments, I always looked forward to coming to work, and I always enjoyed the company of those in our department. The Earth Science Department and the University treated me well, and I am glad to have taught there for half of its history.

STEVE GINGERICH
CLASS OF ’68

My memory is sketchy, but probably around 1968 or ’69 I took a class called Environmental Relationships, which was taught by a Mr.? Doctor Madsen. This was probably the only “A” I ever received….ever in school. To this day I remain thankful that this class was the first I ever heard of prairie restoration. This class introduced me to A Sand County Almanac. I have been informed by the idea/truth that resilience of a natural system is enhanced by complexity in that system. I am glad to recall this class to you, as what I learned then is relevant today especially as I pursue Organic, even regenerative agriculture. Thanks for the outlet to say this, if it is relevant, stick a feather in your hat.
I began working on a major in Earth Science during my sophomore year in 1970. Larry Thomas, a next door neighbor in Rider Hall, was working on an assignment for a geology class he was taking, and I thought "That looks interesting." So I changed my major to Earth Science and still consider it the best academic decision I made at UNI. My first class was physical geology, taught by Dr. Anderson. He was also my extremely helpful advisor. Over the next couple years, I recall having great instructors including Dr. Hoff in astronomy, Dr. Grant in meteorology and field geology, and Mr. Swanson in historical geology. Local field trips took us to a number of quarries, Dry Run Creek and Mossy Glenn. The field geology class took a big trip to a facility in Baraboo, Wisconsin where we got a three day course in seismic measurements. In my junior and senior years, I was a lab assistant for the physical geology classes. This was good practical experience in teaching. It was an enjoyable job, and it paid $1.25 per hour! At one point, the department received a donation of what I think were called "coal balls". They were delivered to the bottom floor of the Physics building in a number of wooden boxes weighing 50 pounds or more. They were to be stored in the attic of the building, so the lab assistant had the privilege of carrying them up four flights of stairs (there was no elevator back then). I also got to work on the preservation of a mastodon tusk donated in 1971 (pictured on previous page) and now on display in one of the hallway cabinets. This involved sealing up the broken ends with plaster of paris, wrapping the ends with machine tape, and coating it with a mixture of shellac and Elmer’s glue. I have great memories of the department and wish it a “Happy 50th.”

I think the favorite memories of being a geology major were the summer field trips. My favorite was with Dr. Stan. Which was located in Wyoming, camping in tents, finding the popular fossil fish impressions and turtle skeletons of the depositional environment of Green River formation, and much of the geology of SE Wyoming. Local field trips in Iowa also were helpful and personal as an Iowa native, learning the geology of Iowa and how the landscape was formed. While I struggled with the chemistry aspect of geology, I cherished the ancillary physics courses that helped me understand the geological and physical world around me. A two year stint in the U.S. Marine Corps, provided the GI Bill funding to help me pay for my continued education.

I was fortunate to have Dr. Wayne Anderson as my adviser, who helped guide me through my course work. He had a calming and unique perspective of the science of geology, and one of his enlightenments was the proverbial conflict of the origins of our universe between God and science, that both could be true as a complex plan of creation as being a master plan.

While I never got to apply my degree in geology to an actual geological field, it helped get my professional job as a cartographer with the Federal gov’t in U.S. Dept. of Defense Mapping agency, in the Washington, D.C. area. This led to an employment educational opportunity to achieve my Master’s degree in Remote Sensing from the University of Michigan. Which eventually ended by concluding my career as a Physical Scientist in the GIS/mapping profession with the Bureau of Land Management in Denver, Colorado, where I retired 10 years ago after 37 years of Federal service, and continue to live in this great state of Colorado. Fond memories of my alma mater.
**Larry Smith**  
**Class of ’79**

My favorite memories of my days in the UNI Earth Science Department has to be the field trips. I kind of have to say that since I met my wife, Christine, on the spring field trip of 1978. Backpacking is a great way to skip the whole first year of dating routine since there is no way not to get to know someone when you spend a week on the trails with blisters and all. Camping out in the pouring rain on the annual tri state fall field trip is another vivid memory for me. It’s a good thing that the legal drinking age was 18 then, or I don’t think we would have survived. Ha!

The other thing I remember most about my days in the UNI Earth Science Department was how much the teaching staff took their personal time to talk to you and to make sure you were ok with everything you needed any help with. I vividly remember my last week at UNI when I received word from the administration office that I wasn’t going to graduate because I took my general ed photography class in the wrong department, so it wouldn’t count as the last required credit towards graduating. I went to see Dr. Anderson in a total panic and he spent the rest of the day working with everyone he needed to in the administration to correct my problem. I graduated on schedule and left for my summer intern job with the USGS in Wyoming as scheduled. I’m still grateful, Dr. A.

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**Cathy (Kuchenreuther) Wilson**  
**Class of ’83**

I loved my time at UNI! The people in the Earth Science Department at that time were just the best. We had great field trips - I especially remember the short ones to Baraboo, Wisconsin. I think two of my favorite trips, however, were the Spring Break trip to Big Bend Texas (with Dr. Anderson and Dr. Kelsey) and the month long summer class in Wyoming (with Dr. DeNault). Not only did we learn a lot, but we had such a great time and became so close as a result of those trips. Just last fall I traveled back to Guadalupe National Park (which we visited on the Big Bend Trip). While there, we ran into a geology class from Florida. Boy, did that bring back memories! I was particularly struck by how many women were along on the trip (that’s a result of those trips. Just last fall I traveled back to Guadalupe National Park (which we visited on the Big Bend Trip). While there, we ran into a geology class from Florida. Boy, did that bring back memories! I was particularly struck by how many women were along on the trip (that’s a change!) and how young they all were. Wow! That was us a mere 35-40 years ago. I have nothing but happy memories of my time in the department. I wouldn’t change a thing!

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**Jack Northrup**  
**Class of ’01**

I had a great time on the field trips and experiences with the department. I still use pictures and diagrams from the Spring Break trip to Easter Island in my lessons on southern hemisphere astronomy (I’m willing to go back again). I was originally a Physics major and after taking Dr. Morgan’s Intro to Astronomy, I knew that Earth Science was the department for me. I had the opportunity to work in the planetarium and observatories while I was there and it helped lead me into my chosen profession.

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**Jennifer Erich**  
**Class of ’96**

I have so many memories of hanging out in the student lounge, while eating candy bars and drinking sodas from the fridge. During my time as Treasurer and President of SGE, I had to count the “cold cash” many times and make a Sam’s Club run to restock it. That lounge became my usual hang out spot, both with teachers and students and the occasional strange Home Ec person to giggle at while they perused the fridge. My favorite times were the MST3K movie nights in RM 125. What a brilliant TV series that I never would have known about if it weren’t for Siobhan.

I also loved being a TA for both Geology and Astronomy classes. As an undergrad, being given so much responsibility to help teach and grade papers was a real honor. I also loved running shows in the Planetarium and the Telescope on top of the Chemistry building. Field trips were also a bonus, it’s mostly what hooks new prospective Geology majors! My favorite trip was to Hawaii with Dr. DeNault, except we were furious with him for not letting us drink free MaiTai’s at the luau – even though we were legally old enough! I’m still mad about that. I also remember being introduced to “Buffalo Wings” in Buffalo New York with Dr. Walters and Dr. Morgan- and thinking, wow these could really be big! I remember following Dr. Anderson off a “cliff” of rubble by digging our heels into the loose rocks and sinking in ankle deep by staying vertical. My best pals from those days are still my best pals- Katie Schafer and Sheri Pressler. We would have fun rapping to the ROTAP machine and getting into shenanigans-like TP’ing Dr. Hockey’s office while he was away. Allyson Anderson and I bump into each other occasionally and reminisce about the old days. Honestly, this group of students and faculty felt like extended family. I have so many fun stories and memories... thanks for giving me the opportunity to share.

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**Kayla Beck**  
**Class of ’18**

Oh man, where to start! I would say my favorite memory is the way hydro classes brought students so close! Hours and hours spent together comparing notes, answers and tears. Just kidding, or am I? Professors in the department treat students with respect and friendship. 10/10 would recommend.
I look around and find that I’m the senior EES faculty member! Gulp.

I started teaching at UNI twice. Most astronomers hug the East and West coasts. Myself? I grew up in Arizona and went to graduate school in New Mexico. However, with my Iowa heritage (annual summer trips to the grandparents’ in Oskaaloosa), I was willing to take a one-semester temporary position in the “hinter land.” Only after signing up did I learn that my father was a graduate of Iowa State Teachers’ College (UNI), one of those “cosmic” coincidences.

That spring, the brightest supernova in 400 years appeared in the sky. An omen?

Once I completed my PhD. in astronomy and history, I returned to northern Iowa, and have been here thirty-one years (admittedly, cursing every single one of those 31 winters).*

When I think about our department in the 1980s, my mind turns to thoughts of wood: wooden classrooms, wooden offices, and changing trees out the window. Astronomy Laboratory was taught in the wood garage of the old Greenhouse (now replaced with a modern building). There were still huge doors opening up one whole end of the structure. They let in the cold, but made pulling telescopes outside easy. You still could see the grease trap running down the center of the floor.

The showpiece of the room was the planetarium: eighteen, icy, metal seats surrounding an analog projector—one in which a central lamp shown through a plastic sphere with “stars” punched into it. If the bulb burned out, the Universe disappeared. It was tight, but nobody had to worry about bumping their head. The dome surrounding the instrument was made of cardboard. Laboratories were taught exclusively at night. This might include Friday or Sunday evenings. We started as late as 10:00 PM. Students came to lab drunk.

What was then Earth Science spread over campus. It was no fun pushing a cart of teaching materials through the ice and snow. We had no lecture hall of our own: Instead, we taught in the wood garage of the old Greenhouse “Annex.” in Baker Hall, or on the fourth floor of the Physics Building. (I’m proud of the fact that I had something to do with changing the latter building’s generic name to Begeman Hall.) Baker Hall (now demolished) was a converted male dormitory built in 1936. While old, the offices were big, and had closets, sinks, and expansive window views across the central campus. Exceptions to the wood construction were stone-walled restrooms complete with embedded fossils.

Copies were made among the ill-smelling chemical odor of a ditto machine. E-mail was a secret art practiced at a single computer in the Baker basement. No WWW.anything. Speaking of computers, these were dominated by large cathode-ray tubes beaming into one’s eyes, with floppy disks for brains. Dot-matrix printers, supplied by fan-folded, perforated paper, were their amanuenses. If the computer failed, there was always the venerable IBM Selectric typewriter to fall back on. No scanners. No Word, PowerPoint, or Excel. Reams of yellow legal pads, though.

Nobody had cell phones, ear buds, piercings, or tattoos. (How did we find and recognize each other?) They had cigarettes instead.

Beside me, the department consisted of Wayne Anderson (founder and Head), Lynn Brant, Walter DeKock, Kenneth DeNault (in and out of guerilla suit), James Walters, instructor and alumnus Steve Leiker, and adjunct/alumnus Shirley Cropper (the pioneer woman on the faculty). My first student was Aaron Spurr. He is now an instructor in EES. (I’ve also had Aaron’s son as I begin a second generation of Earth Science students. Sigh.) Remarkably, the few geologists successfully prepared undergraduates for a B.S. in Geology, and graduate school and employment in the profession. Did you know we had a graduate program?

A few other fleeting memories. I obtained an NSF grant to—get this—computerize our telescope control (a feature of every ‘scope sold today). The big teacher-preparation effort was known as Preservice Elementary, Mathematics, and Science Teachers (PEMPST), a foreshadowing of today’s STEM. On occasion, I helped the Public Defender’s Office with sunrise/moonrise times for car-accident cases; they never call anymore, and I imagine they just get the information they need from the internet. No on-line classes: We mailed videotapes to students who could not study on campus. The Liberal Arts Core was called General Education. Might be again! The course Catalog included, Life Through Time, Igneous Petrology, and Astronomy Education. I got paid $27,000.00. Ooooh.

Back then we had a darkroom in the department. A darkroom is an enclosure for chemically developing photographs. Today, the term symbolizes for me all instructional spaces in which we were ignorant of a lot of things about teaching. For instance, we had little appreciation of students with different ethnicities, genders, or abilities. We now at least try to teach in the light.

What will the future bring? I look forward to Earth and Environmental Science’s next decade. And speaking of light, I’ll keep using our optics demonstration kit, purchased in the 80s at great price, even though everything it shows can be found duplicated on YouTube. You see, it’s made of wood.

*In my first semester here, I tried to acclimate by taking a UNI PE course, Cross-country Skiing. I’ve never skied since.

Many great memories of the Earth Science Dept. starting in the Spring of 1968 as a lost Freshman. I took an Astronomy class and became familiar with the dept. and with the help of Dr. Wayne L. Anderson, I changed my major from Math to Earth Science and found a home on the 3rd floor of the Physics Bldg.

The most enjoyable memories are of the field trips to various quarries and rock cuts throughout N.E. Iowa searching for those elusive trilobites. Along with the Spring Break trips to the Grand Canyon and of course the two rafting trips on the Colorado River From Lee’s Ferry to Phantom Ranch and then from Phantom Ranch to Lake Meade. 50 plus years later I can still see the rushing water and the huge rapids. Very grateful for the mentoring of the Professors within the Dept. especially Dr. Anderson and Walter DeKock (who allowed me to borrow his retriever Lab to go pheasant hunting on fall weekends).

Currently retired after 45 years of a successful and rewarding profession in the Water Well Drilling and Water Supply industry. Diane and I live in Dubuque Iowa and still get back to UNI as we follow the Men’s Basketball team and enjoy performances at the Gallagher-Bluedorn Theatre, along with other events on campus. Purple for Life, Go Panthers!
ALUMNI UPDATES

KAYLA BECK
B.A. EARTH SCIENCE AND ENVIRONMENTAL SCIENCE ('18)
MANLY, IA

IA DNR ENVIRONMENTAL SPECIALIST
I have been working with the DNR a little over a year now. As an Environmental Specialist I work with stakeholders to evaluate their compliance with environmental regulations. My main areas are in the Air Quality and Drinking Water sections. I have also recently been taking on storm water inspections.

The other parts of my position include investigating complaints and responding to environmental emergencies. This can range from large parties where open burning violations occur to baby birds that ‘are alone’. Every day is something new.

BILL BRECHT
B.A. EARTH SCIENCE TEACHING ('72)
ST. CHARLES, MO

RETIRED EARTH SCIENCE TEACHER
After graduating in 1972, I taught earth science for 30 years in St. Charles, Missouri and was then director of the Lewis & Clark Museum until retiring again a couple of years ago. In 1991, I co-authored an earth science textbook for the D.C. Heath publishing company. My wife Teri (UNI, 1973) and I still reside in St. Charles and keep busy with a number of activities. We have visited the campus several times for the fall scholarship luncheons and always make a point to stop in and visit the department.

KEITH FRANCIS
B.S. GEOLOGY ('74)
M.A. REMOTE SENSING-UNI. OF MICHIGAN ('80)
MORRISON, CO

PHYSICAL SCIENTIST – GIS/MAPPING (RETIRED)
I enjoy my retirement from Federal employment, and new home in Colorado, while many family and friends still live in the Cedar Falls/Iowa area which is still my home of memories.

JACK L. NORTHRUP
EARTH SCIENCE EDUCATION AND ASTRONOMY MINOR
COUNCIL BLUFFS, IA

ASTRONOMY EDUCATOR
I have been working with a couple of projects for getting locally collected meteor and astrophotography data in a middle school student friendly format that they can work with. I am enjoying year 2 of being a Solar System Ambassador and doing socially distanced space station watches or comet tracking. I have also finished my term as President of the Great Plains Planetarium Association.

JENNIFER ERICH
B.S. GEOLOGY & EARTH SCIENCE MINOR ('96)
HOUSTON, TX

EXXONMOBIL CULTURE MANAGER
Over a year ago I was asked to help lead a major reorganization effort within the Upstream. As that effort slowed down I was asked to continue on but help lead a Culture Change initiative that was designed to help support the new organization. I know you are thinking- what does this have to do with Geology? Well, about 1/3 of the Upstream are geoscientists and 2/3 are engineers. So- they opted to choose a person from the inside as opposed to bring in an external consultant. I spend most of my time communicating with the Leaders and helping coach them to adapt to the new culture initiatives. It’s a fascinating job, and I am happy to be in a position to help. My husband Andy and I are still in Houston, and Miranda is now in 7th grade. We are at home hiding from COVID-19, which is why I have time to type so much!

CATHY (KUCHEN-ReEThER) WILSON
B.A. GEOLOGY ('83)
IOWA CITY, IA

RETIRED TEACHER
I retired at the end of the 2017-18 school year, after having taught for 31 years. Most of that time was spent at City High in Iowa City. I taught mostly chemistry and physics, but managed to get some earth science in there whenever possible. I loved my job, but I’d had my fill. I also spent a fair amount of my summers teaching teacher workshops for various entities. I will be teaching teacher workshops again for the Blank Park Zoo in Des Moines starting this spring/summer. I have also done some work (during my retirement) for Pearson Education. Other than that, I invest time in home projects, reading and travel.

I hope this finds all of my former UNI classmates happy and well. Let me know if you’re ever in the Iowa City area. I’d love to see you!

CINDY J. CHATFIELD FREIBERG
B.A. EARTH SCIENCE & GEOGRAPHY MINOR ('94)
OSAGE, IA

SPECIAL PROJECTS – SENIOR SALES
I have been keeping really busy with projects at work which involve the signage requirements for stadiums, colleges, State Capitals etc. I really enjoy working with American made products and the metals we cast. Jim has retired so we want to do more traveling this year, our oldest Grandchildren are getting ready for college and it seems the years are flying by! I continue to collect rocks and minerals around the world from my own adventures or from friends who travel to countries I don’t get to. Hope this finds all my classmates well and keep getting out there in our wonderful outdoors.

LARRY SMITH
B.A. GEOLOGY ('79)
ANCHORAGE, AK

RETIRED
I retired last November after 38 years in the oil business. I am now trying to figure out what my new daily routine should be. Christine retired a couple years ago so she is having to get used to me kicking around the house all day long. We are still living in Anchorage and will continue to do so until we figure out if there is somewhere else we’d rather live in retirement. It has been a cold winter (in spite of climate change) so somewhere warm sounds pretty good about now but I’m sure that will change this summer now that we can go camping as much as we’d like to.

To keep myself busy this winter, I’ve been working on my family genealogy project that I inherited from my great aunt some 40 years ago. It is amazing what you can do online these days. So far I have discovered more third to fifth cousins than I thought was ever possible. It has been interesting to learn how the same attribute clustering techniques I used to use with seismic data is now being applied to DNA attributes. The cluster I report I generated after taking a DNA test, has broken all my distant relatives into family groups so if I can identify one person from the cluster group with my genealogy tree, I know who all the rest from that group belong to. Very handy.

Geology wise, I am still active in the local geology and geophysical societies and was attending the monthly meetings until we had to shut them all down because of the COVID-19 response. I am beginning to think that if spring doesn’t get here soon, we are really going to learn what the term “cabin fever” means. Ha!

Look forward to catching up with everyone’s news.
Last year’s UNI Homecoming week, October 2019 had a great theme, “To UNI and Beyond.” Of course the Earth and Environmental Sciences Department HAD to take part in the office decorating competition, or be laughed out of the college. Everyone knows that this department specializes in the UNiverse & beyond. Every member of our EES team contributed something towards the decorating and as the pictures show, we are all very proud of our science “geekiness.” Unfortunately, we didn’t place in the contest, but the fact that we had fun with it while supporting UNI was reward enough (although we did have a lot of students and faculty tell us we should have won.)
Two new funds have been established primarily to support undergraduate student research. Thanks to the generous support of Bill and Teri Brecht and James and Diane Sass for establishing, respectively, the Brecht and Sass Earth Science Funds for Excellence. These funds are now being used to support undergraduate research projects through the purchase of equipment, student travel, and laboratory expenses.

Add your name to the list! See the next page for details.
Would you like to support an Earth and Environmental Sciences student and/or the Department of Earth and Environmental Sciences? If so, please fill out the form below and return it to:

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