# **Stony Brook University** Department of Geosciences



2008 Year in Review



# Letter From the Chair



Some readers will know that I enjoy the ascending and descending that comes with exploring the mountains. But even for my taste there were too many ups and (especially) downs in 2008.

Following a brief sabbatical leave that I spent in Cambridge, I took over as Department Chair in January 2008, after Teng -fong Wong admirably completed his term. Optimism was wafting in the air. The Department had completed hiring an outstanding planetary scientist, Tim Glotch, and was finalizing the appointment of Artem Oganov, a computational mineral physicist. An education governor, Eliot Spitzer, had just taken office in Albany, signaling strong support for SUNY and especially Stony Brook, which he identified as a 'flagship' campus. The Department enjoyed an endowment to fund graduate student field work, made possible by a generous gift from former graduate student David King. Even after long-time assistant to the chair, Claire Ondrovic retired, we reveled in attracting Andrea Illausky, already well known to us as the administrative assistant for the Center for Environmental Molecular Sciences, to fill that position.

Then the storm clouds darkened. Eliot Spitzer left office amidst scandal. The economy started its rapid decline, with Stony Brook's budget following suit. Then our much cherished Andrea Illausky announced that she was leaving to return with her husband to their roots in Kansas to pursue a long-sought business opportunity. With the lingering budget crisis at Stony Brook, we are still waiting for approval to replace her. And although the storm clouds are still brooding overhead, I share the optimism of my colleagues that better weather is sure to come.

This is my capsule overview of the Department as I complete my first year as Chair. And despite the quagmire brought about by the economic downturn, I am delighted to say that the Department is more vibrant and enthusiastic than ever. The addition of new faculty, a resurgence of research in planetary sciences, and expanding research initiatives, especially involving the National Synchrotron Light Source at BNL, have energized the Department. We continue to attract top students, and bask in glory as we see our graduating students accept positions at the best universities and businesses. And the global focus on energy and the environment has fueled a resurgence of interest in the Earth sciences.

The appearance of new faces—faculty, staff, and students—has been a welcome cause for optimism. Assistant Professor Tim Glotch provides us with a glimpse of new developments in planetary science in this newsletter. We are fortunate to have Tim's wife, Research Assistant Professor Deanne Rogers, on our faculty as well. Deanne's research focuses on remote sensing and planetary geology, and further strengthens our renewed emphasis in this field. We also welcomed Research Assistant Professor Lars Ehm, whose joint appointment in the Mineral Physics Institute and the National Synchrotron Light Sources contributes to our already considerable strength in high pressure and temperature studies of Earth materials. Newly arrived Associate Professor Artem Oganov and his wife Research Assistant Professor Agnès Dewaele bring new expertise in computational modeling and high -pressure research. Artem's accomplishments in the prediction of stable crystal structures, using the novel approach he has pioneered, have already brought attention to Geosciences. Agnès Dewaele, a new member of the Mineral Physics Institute, makes



use of diamond cells in her research to produce high pressures.

Our much loved and hated ESS building continues to undergo welcome improvements. A particularly notable example is the transformation of our old mailroom to a coffee room, complete with some cozy seating to enjoy freshly brewed coffee. This newly transformed room, the brainchild of our favorite Director of Labs, Owen Evans, and former Assistant to the Chair Andrea Illausky, is now a favorite place for faculty, staff, and students to hang. Former students who frequented the X-ray lab next to the secondfloor elevator would barely recognize this space after its recent face-lift, now housing new instrumentation, with more planned to arrive soon. Other rehab projects in ESS are planned and promise to keep a fresh face for visitors. We are even being told of a major project to remodel and landscape the sunken courtyard in front of the ESS Building.

This newsletter marks the return of a tradition started by former Chair Bob Liebermann. My goal is not simply to share news and perspectives with former ESS and Geosciences students, faculty, and staff, but to reconnect you with the Department. I would like this newsletter to serve as a forum for letting you talk to your fellow alumni and colleagues and share your stories. (And, yes, another goal is to get you to open your wallets in remembering us at some point down the road.) There's no better way to start this off than with a look into the past. I'm very pleased that our own emeritus faculty member Bob Dodd has penned the first of a series of retrospectives of the history of ESS and Geosciences. I hope you will enjoy reading his first article in this newsletter as well as all the other news. And, please, let us hear from you!

Rich Reeder rjreeder@notes.cc.sunysb.edu



# Department Faculty - Fields of Specialization



**Daniel Davis, Professor** Geophysics, tectonics, analog modeling.



**Timothy Glotch, Assistant Professor** Planetary geology, remote sensing, Martian surface mineralogy.



**Gilbert Hanson, Distinguished Service Professor** Environmental geochemistry, geology and hydrology of Long Island.



William Holt, Professor Tectonophysics



**Robert Liebermann, Distinguished Service Professor** Mineral physics, solid earth geophysics. President of COMPRES.



**Donald Lindsley, Professor Emeritus** Geochemistry, petrology.



**Scott McLennan, Professor** Geochemistry, crustal evolution, sedimentary petrology.



Hanna Nekvasil, Professor Experimental mineral/melt equilibria, planetary petrology.



Artem Oganov, Associate Professor Computational crystallography, highpressure mineralogy, computational materials design.



**John Parise, Professor** Crystal structure-property relations, solid state synthesis.



**Brian Philips, Associate Professor** Mineralogy, low-temperature geochemistry.



**Troy Rasbury, Associate Professor** Sedimentary geology and geochemistry, geochronology.



**Richard Reeder, Professor and Chair** Geochemistry and mineralogy relating to near earth's surface processes.



**Deanne Rogers, Research Assistant Professor** Planetary geology, remote sensing.



Martin Schoonen, Professor Geochemistry of sulfur and sulfides, hydrogeochemistry, catalysis.



**Christiane Stidham, Lecturer** Crustal seismology and tectonics, natural hazards.



**Donald Weidner, Distinguished Professor** Mineral physics and the earth's deep interior.



**Lianxing Wen, Professor** Seismology, geodynamics, global geophysics and planetary sciences.

**Teng-fong Wong, Professor** Rock deformation and fluid flow, physical properties of geomaterials.

## Starting ESS: I. Prehistory

Robert T. Dodd (Professor Emeritus)

This is the first in a series of articles that retells the history of our department

In the late spring of 2007, I had occasion to spend some time at Stony Brook University. Unfortunately, my business – a very sick son – was on the east side of Nicolls Road, so I had little chance to see what had been, for almost 35 years, my school. What I did see during a brief drive through the main campus was so different from the Stony Brook where I had taught that I felt lost, disoriented, like a latter day Rip Van Winkle.

When Oliver Schaeffer founded Stony Brook's Department of Earth and Space Sciences, I was his first hire. Now that both he and his second hire, S. S. Goldich, are gone, I'm the only survivor of ESS's initial faculty. Like Rip, who gave his neighbors glimpses of their world at an earlier time, I want to share with you what I remember of the Department's birth and babyhood.

Because I have less than total recall of events that occurred almost 50 years ago, I have supplemented my own recollections with a delightful memoir by Francis Bonner, a colleague and friend of Schaeffer at Brookhaven National Laboratory and Stony Brook. I have also leaned on letters from Gil Hanson, who joined ESS in 1966 and is still active in Geosciences; Pete Palmer, another 1966 addition to the faculty; and Lorraine Teleky-Petrella, who was one of our first ESS students and my very first graduate student.

#### Miami Beach, November, 1964

"Ollie, what are you doing here?" "Here" was the textbook exhibit at the 1964 Geological Society of America meeting. Carleton Moore, my friend and fellow meteoriticist, had directed the question to a little man – a dwarf – who was thumbing through a freshman geology textbook. The man laughed merrily, his water-blue eyes sparkling. "As strange as it seems," he said, "I have to teach a geology course next spring!"

Oliver Schaeffer, a nuclear chemist who had spent 17 years at Brookhaven, had been recruited to build a natural science department at a new Long Island campus of New York's state university. When fully developed, his mega-department would include geology, astronomy, oceanography, and meteorology, allowing – indeed encouraging – research to flower between disciplines.



Oliver Shaeffer

"Interdisciplinary" was the rage in top shelf (and wouldbe top shelf) science schools in the early 1960's. Men like Harry Hess and Bob Dietz had shown



that geology could not crack the nut of continental drift without the help of oceanography. Others like Gene Shoemaker had shown, though it was not yet universally accepted, that impact features on Earth could throw light on the history of the scarred moon. Although multidisciplinary departments were still uncommon in 1965, ESS would not be unique even within the State University of New York: Albany, another of the four University Centers, had a nascent Earth and atmospheric sciences program to which an ESS PhD, John Delano, would soon add a lunar dimension.

I knew Dr. Schaeffer by reputation – His work on noble gases in meteorites was distantly related to mine on chondrites – but it struck me as odd to choose a chemist to head up what would start out as a geology department. And a four-discipline department seemed like a huge bite for a new school that few people had heard of. Although I would need a job when I emerged from the Air Force a few months hence, I knew nothing about Stony Brook and what I had seen of Long Island during a childhood spent in and near New York City put it very far down my list of places to live. I listened to Schaeffer's pitch politely, but without personal interest.

My perspective changed a few weeks later when my mother sent me a newspaper clipping about Stony Brook. Although the college then consisted of just 800 undergraduate and 200 graduate students and a handful of buildings, it was expected to grow rapidly to become a major research university, one of four flagship schools (with Binghamton, Albany, and Buffalo) in the burgeoning State University. Mom's clipping and her glowing description of Long Island's hilly, rural North Shore – what my grandfather called the "Long Island Mountains" – moved Stony Brook to my radar. I sent Schaeffer a resume and he soon invited me to visit the campus.

#### Stony Brook, February, 1965

I went to interview at Stony Brook bearing a thick stack of slides and a well rehearsed seminar. When I arrived, I was startled and disappointed to find myself with an audience of one: Schaeffer. He and I just sat in his office in the old Physics building (now Harriman Hall) while I told him what I was doing and planned to do. I met a few campus dignitaries – Alec Pond, then the Physics Chairman and soon to be John Toll's Executive Vice President; Dave Fox, the Graduate Dean; Stan Ross,

the Dean of Arts and Sciences; and Karl Hartzell, who served as the school's presiding officer until Toll became its President in 1965 – and Ollie took me out to meet Ray Davis and other colleagues at Brookhaven. But my visit seemed more like a cook's tour than a serious interview – a bad sign?

Oliver Schaeffer, a nuclear chemist who had spent 17 years at Brookhaven, had been recruited to build a natural science department at a new Long Island campus of New York's state university.

I had been startled by how big and empty eastern Long Island seemed when I flew over it on the way to MacArthur Airport. I had the same reaction as Ollie drove us through miles of empty pine barrens to Brookhaven. How unlike the western Long Island - Brooklyn and Queens that I had frequented as a child! There were working farms as close to the University as Mount Sinai and Port Jefferson (We would buy the kids' milk from the former, veggies from the latter.), and Gil Hanson remembers driving past grain fields where Smith Haven Mall stands today. There was not one traffic light on the Nesconset Highway between Hauppauge (then the end of the Expressway) and Port Jefferson. Not until we moved to Long Island would we discover that this rural openness had a down side: The closest Macy's was in Huntington, 45 minutes away, and we had to drive to Fresh Meadows to close on our house.



To call the Stony Brook that Oliver showed me in early 1965 unprepossessing would flatter it: A few functional (read "plain") red brick buildings were scattered over a broad swath of well trodden mud with just a few wistful patches of grass. Even making allowance for the season, "raw" describes the scene very well. It is not surprising that some of Stony Brook's first students gave Governor Rockefeller Dixie cups of mud when he came to break ground for the university.

The campus, which had already begun its program to erect 30 buildings in 2 ½ years, was even more chaotic when Rockefeller reappeared three years later to break ground for the ESS building. One protest sign of the many that greeted him asked, "Is this a university?" When the Governor replied, "If it isn't why are you here?" that sign came down, but it had made a significant point. Stony Brook's explosive growth toward future glory made many early students and junior faculty members feel like coolies preparing the way for mandarins to come.



Most of Stony Brook's first buildings survive today, though more or less modified and with new missions and names. (The original library, an exception, is interred within its replacement.) The buildings' design, called Georgian but described by generations of students and faculty as "neo-penal,\*" was a concession to Ward Melville, the local businessman and philanthropist who donated the land on which the university stands. Melville, whose principal claim to commercial fame and fortune was the Thom McAn Shoe Company, had restored colonial downtown Stony Brook. He pictured the new school as small and elite, like Dartmouth, and was upset when it roared past that stage to become something far bigger and entirely different.

Like Stony Brook's first buildings, the lamps that lit the campus and its circumferential road in 1965 looked to the past, but they did so in function rather than style. They were wired in series, like old-fashioned Christmas tree lights. It took the students no time to discover that they could ping one lamp and darken a chunk of the

\*A lively rumor said that the G and H dormitories, the only on-campus housing in 1965, were designed by the State's penal authority so a whole floor could be isolated by closing just one door.

## **Starting ESS: I. Prehistory**

#### Continued from page 4

campus or 30 degrees of the ring road.

The vulnerable lamps were not the only evidence of early Stony Brook's loose grip on competence. At least two generations of pine trees were planted (well, inserted) along the ring road before it occurred to anyone that trees need water. And when, at last, macadam paths were laid across the academic mall, they were positioned carefully to avoid the favored routes that had been marked well by hundreds of muddy feet.

Surveying Stony Brook in the late winter of 1965, I could not imagine how grand it would



look twelve years later, when I flew over it with ESS's head machinist, "Fearless" Fred Gwinner. It was easier to see dark meaning in something that Dave Fox had shown me. English Ivy had spread rampantly to cover the whole north wall of the old biology building (now part of the Student Activities Center). Those faculty members who had Ivy League backgrounds rejoiced at this omen of academic excellence to come. They were let down hard when the lush mass lost its grip on the bricks and mortar and crashed to the ground, where it lay when Fox showed it to me. Had the ivy paid a high price for overreaching? Might Stony Brook do the same?

It was dark when Schaeffer drove me to MacArthur. At that time, the airport consisted of a control tower that would have looked at home on the Burma Road and a tiny terminal building that housed every other facility, including what passed – very barely – for a restaurant. Ollie apologized for the spartan menu and kept me company while I worked my way through a plate of spaghetti.

In our few hours together, Schaeffer had infected me with his enthusiasm for Stony Brook and ESS, though the former was just a hopeful hill of beans and the latter a dream and a few blueprints. But supper at MacArthur – the can it came from was labeled "Chef Boy-Ar-Dee" – and my casual interview left me with a sense that I was not a serious faculty candidate. Nor did that surprise me: Although I had spent my three Air Force years in a lunar and planetary research outfit at Hanscom Field near Boston, I had published just a handful of papers and only two in geology, the field in which I planned to teach. Even a sluggish post-doc could have done much more in three years!

Fortunately, Schaeffer saw things differently. He was looking for a petrologist who was knowledgeable about and involved with meteorites, the moon, or both, and he was impressed – amazed! – that I had managed to publish *anything* while I was nominally defending the country. After a week or so, he called to offer me an assistant professorship.

I couldn't say "Yes!" fast enough. I would get to help water New York's hill of beans and give substance to Ollie's dream!

( To be continued...)



Bob Dodd(1967)

Surveying Stony Brook in the late winter of 1965, I could not imagine how grand it would look twelve years later, when I flew over it with ESS's head machinist, "Fearless" Fred Gwinner

### The Department of Geosciences wants to hear from you

Our directory of former students, faculty, and staff is not as complete as we'd like. A current directory allows us to keep you informed about the Department through our newsletter. We also want to hear any news that you'd like to share with other alumni.

Simply send us an email at geosciences@notes.cc.sunysb.edu or Mail to :

Dept of Geosciences 255 Earth & Space Science Building, Stony Brook NY 11794-2100



# **Geosciences Graduate Students Selected as GAANN Fellows**



In the 2008-2009 academic year, 10 graduate students in the Geosciences Department were selected as Fellows in the Department's GAANN Program (Graduate Assistance in Areas of National Need) funded by the US Department of Education. This is the sixth year we have offered this program, which provides stipends and support for leading students in the Geosciences. New GAANN Fellows (with their thesis topics) include:



**Stacey Cochiara** Using fluoride NMR as a probe of reactive mineral surfaces.

mobility in Martian basalts.

Experimental constraints on trace element

Lauren Beavon



Maria Fokin Relation between surface and compositional properties of asbestos fibers and toxicity in the lungs.



**Brian Hahn** Chemical composition and evolution of the Martian upper crust and near-surface environment.





**Harris Mason** 

Solid-state NMR spectroscopic investigation of structural defects in minerals.

#### Francis McCubbin

Magmatic volatiles in igneous systems on Mars: Inferences from Martian meteorites and experimental investigations.



**Cathy Tarabrella** High Pressure Structure of MnPS<sub>3</sub>



**Meagan Thompson** Computational study of buoyancy of subducting basalt.

Matthew Whitaker Physical properties of iron/light-element alloys studied in situ at high pressures and temperatures.

# Images from the Past

How many people can you identify?

> Answers on page 9



(Photo courtesy of Rich Walker)

# **Undergraduate Geology Club Hits the Road**



By Janette Wilson

The Undergraduate Geology Club is back and doing amazing things! Since its re-ignition two years ago, the Undergraduate Geology Club at Stony Brook University has made steady progress into becoming one of the most wellliked clubs on campus and one that appeals to more than just geology majors. A wide variety of resources are available to students through the Geology Club.



Mammoth Cave, Kentucky

The club's main goal is to reach out to the students and offer to them a learning experience outside of the classroom environment, as well as creating a network to share and collaborate within the sciences. The first step starts in the classroom; the club members have been offering free 100level tutoring to students. In addition, the club members can create a network to help each other in higher level classes, which leads to a better understanding and learning experience. The club's growing library of textbooks and journals are a valuable resource for tutoring and research interests.

The second purpose of the club is to provide experience outside the classroom and in the field. With help from student activities funds, the Undergraduate Geology Club has traveled to destinations close to home and as far as Mammoth Cave, Kentucky! Some memorable trips include behind-the-scenes tours of the American Museum of Natural



Mammoth Cave, Kentucky

History, a weekend Pennsylvania Coal Mine camping trip, and a cave/ cavern exploration camping trip in Kentucky. These trips focus on learning about geology in a safe and fun environment, while vacationing a little too!

In the upcoming month, the club will be hosting a spring break trip to the Smithsonian in Washington, D.C. The club members are also preparing for the Roth Pond Regatta next semester and hope to be a leading contender in the competition. In addition to all these exciting events, the club has more recently started a

project dealing with impact cratering processes and will have a large display in the ESS museum.



Boulderfield, Pennsylvania

The Undergraduate Geology Club continues to grow and looks forward to making more progress than ever before. For more information and current updates, the club's group page may be found on <u>www.facebook.com</u> under "Undergraduate Geology Club 2008-2009" or you can visit them at any geology open night and show your support by buying a club t-shirt.

> Contact US sbu.geo.club@gmail.com

### New Faculty Member Timothy Glotch



Hello to the Stony Brook Geosciences alumni community. I joined the Department of Geosciences in the fall of 2007, and I'm very happy to be here. I'd like to use this space to tell you a little bit about my history and my research and teaching interests. I graduated with a B.A. in astrogeophysics from Colgate University in 1999. From there, I moved on to Arizona State University, where I received my Ph.D. in geology in 2004. While at ASU, my research focused on remote sensing, infrared spectroscopy, and the geology of Mars. After receiving my Ph.D., I took a postdoctoral scholar position at the California Institute of Technology, where I continued studying Mars and fundamental vibrational spectroscopy of minerals.

Since arriving at Stony Brook, I've been building an infrared spectroscopy laboratory and remote sensing facility. I have several ongoing research projects that involve laboratory infrared spectroscopy and analysis of visible/near-infrared and mid-infrared reflectance and emissivity spectra from spacecraft in orbit around Mars and the Moon. The goals of all of these projects are to gain a greater understanding of the crustal composition of these bodies. The primary remote sensing data that I use are from the Thermal Emission Spectrometer (TES) instrument on the now-retired Mars Global Surveyor spacecraft, the Thermal Emission Imaging System (THEMIS) on the Mars 2001 Odyssey spacecraft, and the Compact Reconnaissance Imaging Spectrometer for Mars (CRISM) instrument on the Mars Reconnaissance Orbiter. I've also been recently selected as a NASA-funded Participating Scientist team member for the Diviner Lunar Radiometer Experiment (DLRE) which will launch aboard the Lunar Reconnaissance Orbiter in May 2009. This instrument will make the most accurate and precise temperature measurements of the lunar surface to date that will help us to search for ice at the lunar poles and determine the silicate composition of the lunar crust. Results from this mission will help pave the way for the return of human astronauts to the Moon in 2020.

A main goal of my Mars-related research is to elucidate the role of water in alteration of the Martian crust. Today, Mars is cold and dry, but there is both geomorphologic and mineralogic evidence that Mars was once much wetter, and perhaps warmer. Specific minerals of interest include smectite clays and halide salts. The image to the right is from an interesting part of Mars called Terra Sirenum. It was acquired by the CRISM instrument and is about 10 km across. In this false-color near-infrared image, green corresponds to a salt mineral like halite, blue corresponds to nontronite, an iron-rich smectite clay, and



Assistant Professor Tim Glotch in his laboratory

purple/pink corresponds to low-Ca pyroxene. In this region and several others on Mars, we see clays and salts intimately associated. One interpretation is that we are looking at the remains of a 4 billion year old martian Death Valley. Salts and clays are interesting from an astrobiological standpoint. Several researchers have hypothesized that the high surface area of clay minerals makes them ideal substrates for biotic and pre-biotic chemical reactions. Salt minerals, on the other hand are great preservatives of organic matter. We have a lot of work to do in analyzing



these interesting regions of Mars, but they may end up being the best place to search for past life.

Mars Terra Sirenum

#### **COMPRES and Geosciences Continue as Natural Collaborators** Robert Liebermann (Professor of Geophysics and President of COMPRES)

The Consortium for Materials Properties Research in Earth Sciences [COMPRES] is a community-based consortium whose goal is to enable Earth Science researchers to conduct the next generation of high-pressure science on world-class equipment and facilities. It facilitates the operation of beam lines, the development of new technologies for high pressure research, and advocates for science and educational programs to the various funding agencies. COMPRES has 50 U.S. academic and government member institutions and 33 foreign affiliates, with its administrative headquarters in the Mineral Physics Institute of the Department of Geosciences.

Two of the science highlights for 2008 came from experiments performed by former Geoscience graduate students using the multianvil, high-pressure facilities on the superconducting wiggler beamline X17B2 of the National Synchrotron Light Source of the Brookhaven National Laboratory, which are operated by Professors Donald Weidner and Michael Vaughan with the support of COMPRES:

(1) In a paper in Physical Review Letters, Sytle Antao [Ph.D. 2006] reported studies of the network rigidity of  $GeS_2$  glass at high pressure which demonstrated that not all glasses behave like  $SiO_2$ .

(2). In a paper in Nature, Li Li [Ph.D. 2003] reported experiments which determined the effect of phase transitions on P wave velocities; these data challenge traditional interpretations of the mineralogical causes of seismic discontinuities in the transition zone of the Earth's mantle.



Details of these science highlights may be found on the COMPRES website at: <u>http://</u> www.compres.stonybrook. <u>edu/ScienceHighlights/</u> <u>index.html</u>

# **Geosciences Staff Highlight**



Geosciences (and formerly ESS) has been fortunate to have dedicated staff members, who have contributed every bit as much as faculty and students to our success. Here we share a brief perspective from Bill Huebsch of his 39 years at Stony Brook.

Almost forty years ago, I first came to Stony Brook to look at the new Earth and Space Sciences Department. I met Professor Oliver Schaeffer and an unfinished building. I had worked for eight years at Brookhaven National Lab after serving in the US Coast Guard. I was reluctant to leave a high-tech electronics career for rock hammers and microscopes. However, Professor Schaeffer, in his inimitable manner, convinced me that this Department would be unique in the diversity of the faculty, their interests, and the interdisciplinary approach he was assembling, and emphasized the excitement of creating a new department. That summer I was really excited when the Black Panthers demonstrated on our plaza and Professor Palmer ran around the building hanging signs, "moderates of the world unite." I almost went back to Brookhaven.

Money was no problem for the new department and labs soon filled with equipment. The faculty expanded and the electronics requirements grew. Then the state money dried up. I almost went back to Brookhaven.

Thirty nine years later, Schaeffer's view still prevails. He was correct, and his stamp on the department is evident. The excitement he predicted has come to pass. I have experienced it all and time has flown by. I have given up the idea of going back to Brookhaven.

The irony is, as I write this, I am working at a facility operated by our Mineral Physics Institute, located at Brookhaven.

Bill Huebsch

#### Answers to pg 6

1(13)	Scot Stormo
2(10)	Peter Nabelek
3	Mimi Fuhrman
4	Jay Banner
5	Bob Dodd
6	Don Swanson
7	Sofia Kaczor
8	Steve Bohlen
9	Leslie Bolsover
11	Ken Livi
12	Don Lindsley
14	Walter Holzwarth
15	Rich Walker
16	Frank Smith
17	Bill Meyers

18 Carol Russ



#### Former Graduate Student Supports Field Work of Current Students

David said he wanted to provide graduate students with the same benefit that he enjoyed while conducting his thesis research. Graduate students in the Department benefit from a very generous donation made by former graduate student **David E. King** (MS '84). David's gift created a perpetual award to support field work conducted by graduate students in Geosciences. The first recipient of The David E. King Field Work Award in Geosciences was Shuangtao Zhang, whose field research focused on the origin of the Calverton Ponds, Eastern Long Island.

In making this generous gift, David said he wanted to provide graduate students with the same benefit that he enjoyed while conducting his thesis research. David's thesis topic focused on the diagensis of limestones in the Waulsortian buildups in Ireland. David's faculty advisor was former Professor Bill Meyers, who is now retired and living in Colorado. A grant from an oil company made it possible for David to conduct the field work for his research. After leav-



ing Stony Brook, David's interests turned toward financial matters. Currently David is Senior Managing Director of Irving Place Capital. He continues his relationship with Stony Brook as a member of the Graduate School Dean's Council.

#### From the Miocene to your TV screen



Many of you will have seen former Stony Brook Geosciences PhD Erik Oswald (PhD '92) on television without knowing his connection to us. Erik, now the Middle East Area Manager for ExxonMobil Exploration Company, has appeared in two of Exxon-Mobil's prime-time television commercials that have aired throughout

Erik's research at Stony Brook focused on the diagenesis and geochemistry of the dolomites in the Miocene reef complex in Mallorca, Spain. 2008, and continue today. As we watch Erik eloquently explain some of the technological breakthroughs that have kept ExxonMobil at the cutting edge of petroleum exploration and production, we'd like to think that his great presentation skills were honed in our Department. Erik has told us that the expectations for technical breadth, the use of multidisciplinary teams, and careful objective research approaches that have been championed for so many years in the Department have been of tremendous value during his career.

Erik's research at Stony Brook focused on the diagenesis and geochemistry of the dolomites in the Miocene reef complex in Mallorca, Spain. Like David King, Erik's graduate advisor was Bill Meyers. Bill remembers Erik from his first days at Stony Brook as a creative, self-motivated researcher with great communication skills. This served him well in his graduate work, which included creating his own Ph.D. research project, which became the springboard for Bill's later research on dolomites in Miocene reefs of mainland Spain.



Erik circa 1986

After leaving Stony Brook, Erik started working with Exxon Production Research Lab in Houston as a research geologist. He soon began working on exploration and development projects around the world, learning new aspects of geology as well as engineering and commercial aspects of the petroleum business. And the rest, as they say, is history. Watch for Erik next time you're surfing the channels.

## **Giving to the Department of Geosciences**

The Department of Geosciences takes great pride in the "sense of family" that we have maintained ever since our beginnings in 1965. Your contribution to the Department enriches the experience for current and future students, faculty, and staff, and helps to maintain the atmosphere that you enjoyed. Contributions have been used toward special student scholarships and awards, classroom multimedia upgrades, field trips for courses, and other Departmental activities. If you have supported us in the past, we are most grateful, and hope that you will continue to do so. If you are thinking about supporting us for the first time, we would very much like to hear from you.

If you are interested in making a gift to the department, there are several funds to select from. You can give directly online (<u>www.geosciences.stonybrook.edu/giving/index.html</u>) or by sending a check directly to us at: Department of Geosciences, Chairperson; 255 ESS Building; Stony Brook University; Stony Brook, NY 11794-2100. Checks should be made payable to **Stony Brook Foundation, Fund #** (insert number as indicated below).

- Department of Geosciences General Fund (# 250500)
- Department of Geosciences Undergraduate Fund (# 299660)

If you would like to support a new fund or initiative, please feel free to contact me.

Rich Reeder

rjreeder@notes.cc.sunysb.edu

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