An era has finally come to an end! The Office of the Department of Geography and Geology is now housed in its own space in suite 330 of the Lee Drain Building.

Our combined departments were to no small degree a product of the nineteen seventies “oil bust” when for cost savings departments were combined into “Divisions”. Our particular division involved something of a shotgun marriage wherein certain pragmatic decisions were made regarding Geography’s alliances with the sciences rather than humanities. Geology was already a foundling child under the de facto control of Biology and the new division became both of us - Geography and Geology - and Biology.

The history of our symbiosis with Biology was something of a curate’s egg: good in parts, but as Geography, in particular, grew larger it was clear that we would all benefit from a civilized divorce. When the remnants of the Psychology graduate program finally departed for their new digs in ABS we began the process of preparing our new space. The suite consists of a very large chairs office, an office for Delma, a large Xerox room with more built-in cupboards than you can shake a stick at, a good sized conference room, and four additional faculty offices. One is occupied by Brian Cooper as Geology Coordinator and another by Jim Tiller who claimed it on the basis that it took him away from direct contact with noisy live bodies that he was forced to endure with his old office location! Al Williams with his Emeritus status is also soon to move into the suite, and John Strait will complete the occupation.

The process of musical offices will free up the rooms that sit at the four corners of the square of offices that face out on to the atrium. These will now become primarily faculty research spaces. Joe Hill has already occupied the southeastern corner with his new petrological microscope and Don Albert with take over the north eastern corner with an editorial office for his new Applied journal. John Degenhardt will eventually use the old map room as a research lab for his Ground Penetrating Radar equipment.

Lots of people helped with preparation and the actual move into our new space. Joe Hyde from Physical Plant was a real asset and guided some of our more hair-brained proposals to the realm of practicality. Delma has cast an eye on the aesthetics and made the entrance if not the individual offices look very pleasant and civilized. Brian Cooper and Joe Hill did both a lot of heavy lifting and a whole lot of furniture assembly. Finally, our work study student Brandon assembled no less than 21 swivel chairs and for this service we should dedicate the conference room to him and his hard work.

Clearly, productivity is about to go stratospheric….

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GEOGRAPHY 146 and GEOLOGY 146: Foundations of Science—Have you ever wondered if Big Foot exists? Whether UFO’s are visiting the earth? Why people claim to have been abducted by aliens? Whether “crystal power” is real? If so, then the Foundations of Science course would be of interest to you. This innovative science course will use scientific information and scientific reasoning to examine a wide range of extraordinary claims pertaining to these and other topics. Through an examination of these topics, students will learn some of the basic principles and theories from many different disciplines of science. Student learning will focus upon the nature of science, the scientific method, how to more reliably evaluate evidence, and how to avoid common errors in reasoning. This is in contrast to traditional science classes which focus on the details of a specific science.

The course will combine traditional lectures with the use of case studies, in which students evaluate a variety of science-related ‘cases’ involving extraordinary claims. Research shows that students tend to express more interest, become more involved in their courses, and learn new material better via the Case Study approach. This 4-credit, lecture and lab, course WILL count toward the Core Curriculum science credit for non-science majors. It will have a lecture and a lab, but the lab will be based to a large extent on discussions and activities designed to engage student interest. The course will be cross-listed as GEO 146 (taught by Dr. Gillespie) and GEL 146 (taught by Dr. Hill.)

Weekly Topics
Week 1: Why Evidence and Reason Matter: The Nature of Science
Week 2: Why Things Aren’t Always What They Seem to Be: Errors in Reasoning and the Limits to Perception and Memory
Week 3: Why Things Aren’t Always What They Seem to Be: Errors in Reasoning and the Limits to Perception and Memory
Week 4: Astronomy and Astrology: Stars, Planets, Galaxies, The Big Bang and Your Sign
Week 5: UFO’s and Einstein: The Size of the Universe and Cosmic Speed Limits
Week 6: Energy and Heat: Perpetual Motion Machines, Fire Walking and the Laws of Nature
Weeks 7-8: Science and the Paranormal: Problems with Controls, Replication, Sufficiency and Honesty
Week 12: Alternative Medicines and Diets: The Need for Control Groups, Placebos and Double Blind Studies
Week 13: Legendary Creatures Meet Biological Constraints: Food Chains, Energy and the Evidence
Weeks 14-15: Evolutionary Theory, Creationism and Intelligent Design: More on the Nature of Scientific Theories

GEOLOGY 443: Methods in Applied Geophysics—Fall 2009 marks the second offering of GEL 443, Methods in Applied Geophysics. This course, which is offered only during the Fall semester in odd years, provides an introduction to the latest methods used to map the distribution of physical properties beneath the surface of the Earth, and is widely recommended for students who plan to pursue careers that directly or indirectly involve subsurface imaging and analysis.

Prerequisites: GEL132/I12 or 133/I13, MTH 142, PHY 138/I18, PHY 139/I19, or by permission of instructor. Credit 3.

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Course Updates

GEOGRAPHY 161: Introduction to Geography—This semester, the geographers have begun working on reconfiguring the introductory geography course. First, the geographers have proposed changes to the course name and description (in the future, the course will officially be referred to as GEOGRAPHY 161: People, Place and the Environment). These changes will help the geographers to make the course more relevant to the present state of the discipline and our particular program. For example, Dr. Strait plans to utilize GOSH-organized field trips as a means to both make this course more interesting and to more tightly incorporate it as an overall introduction to the geography program as a whole.

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GEL 443 students learn the basics of seismic surveying using the Geometrics ES-3000 portable exploration seismograph.

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Course Updates

GEOGRAPHY 343: Geo-Spatial Technologies—Starting in fall semester 2008 Dr. Leipnik introduced a new course focusing on a range of geospatial technologies, including computer mapping, global positioning systems (GPS), cell phone technologies, radio frequency tags and aerial and street level imagery. To demonstrate the integration of several of these technologies, each student was provided with a Tom Tom 1130 Personal Vehicle navigation system for their use throughout the semester. The unit incorporates GPS location finding, GIS-based maps, spatial optimization as well as databases of several million streets, street names and speed limit data. Also several million points of interest (POI) are stored on the units. However, despite this wealth of geospatial data, numerous errors and omissions exist. To explore the data more scientifically than is possible using the unit in a standalone mode, the Department purchased a copy of the Teleatlas Roadnet data set and the POI data set, the same data used in the Tom Tom unit, except that it is designed to be used in ArcGIS software. Students could explore the errors and issues they came across in the field on the computers in the GIS lab. Students used their vehicle navigation systems to travel from home and work to school but also were assigned to find a variety of errors in the data. These errors ranged from streets that were misnamed, streets that did not exist, streets that exist but were not portrayed on the maps and instances where streets were mapped correctly but the names of two streets seven miles apart had been interchanged. Other issues identified by students were the situation where an expanded lane on a freeway such as I10 is determined by the unit to be a feeder road or surface street parallel to the freeway. Points of interest also indicated the presence of a variety of interesting errors and omissions including the Voodoo Tattoo being identified as a café and Sam Houston State University being identified as located in Phelps, Texas (go figure...)

Overall students greatly enjoyed using the vehicle navigation systems and the technology encompasses a wide range of geospatial data and techniques in a small user friendly package. Several of the students also tried changing the voices on the directors from the standard ones to customized ones downloaded from the Internet. Voices that are available include Mr. T (Turn Right Now Fool!), Darth Vader (The force is to the left at the next intersection, young Skywalker) and Ozzie Osborn (*/*!!~^&#@ing Turn Right, You #+/^@#$&^^!!). geo_mrl@shsu.edu

Beyond Books....Geography & Geology in the “Field”

We recognize that much of what we teach in both Geography and Geology concerns actual phenomena – observable, measureable, ‘get-atable’, experiential. They are not simply theoretical constructs knowable only in the abstract (though models and syntheses do form an important part of our overall encounter with different topics).

A recurrent theme in a number of our courses is a field work experience wherein students confront the real challenges of first of all recognizing what is significant and measureable or observable (“signal”) versus what constitutes irrelevant information (“noise”). We feel that these sorts of encounters are valuable in terms of training for future work either in industry or in graduate schools where the primary task almost invariably is to define the problem. Working with reality, including, significantly virtual reality, we think adds both a pleasant learning experience and a valuable and more realistic insight into geological and geographical issues.

As a department we have decided to make the integration of fieldwork with lecture and lab work a mainstay of what we do. We are proud of the fact that we offer field experiences for not only upper level classes for majors but also for our introductory classes as well. You should expect to see our offerings of classes that include a field component expand as we more formally approach what we consider to be an important pedagogical niche.

Read more about some of our field trip course components on the following page.

GEL 440 students preparing relief peels on the Brazos River, Texas.
Development of Geology Modular Field Courses

Geology faculty members are currently developing a new field course curriculum that will enable students to satisfy their six credit hours of field geology requirements without enrolling in field camp programs at other universities. The curriculum, which will focus on the need for teaching ‘classic geology’ beyond the confines of Texas, will comprise a number of "modular" components, beginning with an introductory ‘Methodology’ course and ending with a 2-3 week “capstone” course that is more advanced in nature. The mandatory Methodology course is designed to teach students a variety of techniques and procedures related to basic mapping and the application of commonly used field equipment. A selection of specialized courses devoted to igneous, metamorphic, and sedimentary terrains and geomorphology will follow the introductory course. Students may select the appropriate courses from among these to best satisfy their overall academic curriculum and interests. Upon completion of these ‘specialty’ courses students will enroll in a “capstone” course, which is designed to expose them to more complex geologic environments and give them the opportunity to apply the concepts learned in previous field modules. Field locations currently under consideration include Northeastern California/South-Central Oregon, Big Bend National Park and Big Bend Ranch State Park, Southeastern Utah, Missouri, and Lander, Wyoming. These courses represent value added to our department and to the university as a whole through the expansion of course offerings and great cost savings for students. For additional information about field modules, contact Dr. Hill.

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Course Field Trips

GEOLOGY 442: Structural Geology—OKLAHOMA! No, not the musical... rather a geology field trip that is taking place the weekend of April 3-5. Dr. Hill is taking his structural geology class to observe and measure a variety of geological structures exhibited in road-cuts along I-35 as it transsects the Arbuckle Mountains of southern Oklahoma. Members of the Sam Houston Association of Geology Students (aka SHAGS) that may or may not be in the class will also travel with Dr. Hill. Dr. Cooper, our resident Arbuckle Mountain guru and guide will also be participating in this adventure. The Adventure. The group will drive to Lake Murray State Park on Friday and camp on Buzzard’s Roost Point. After a hearty breakfast of Pop Tarts or whatever, they will trek northward along I-35 and cross the crest of the Arbuckle Mountains. The rest of the day will be spent working their way southward along I-35 checking out numerous road-cuts. A group dinner and a campfire will top off the day. If time and interest permits there will be a tour of the Devil’s Kitchen Conglomerate before heading home.

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GEOGRAPHY 475: Race, Blues & Rock ‘n’ Roll—Dr. Strait’s field trip course to the Mississippi Delta will be conducted during mid-August, and students should enroll for the Fall 2009 semester. This year’s itinerary will be more “juiced” up, as the group will be in Memphis during Elvis Presley Week and will be engaged in a number of different activities. The group will undoubtedly have a great time again this year. Any students interested in participating in this field trip course experience should contact Dr. Strait.

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Dr. Derek Alderman, President of the Southeast Division of the Association of American Geographers, visited the Department on February 9-11, 2009. While on campus he spoke to a cultural geography class about his research on hurricane graffiti, gave a formal lecture titled “Where Ideology Hits Asphalt: The Politics of Naming Streets,” and visited individually and in small groups with faculty, students, and community leaders. The book he gave the Department as a gift, entitled, Civil Rights Memorial and the Geography of Memory, received the 2008 AAG Globe Book Award for Public Understanding of Geography. Dr. Alderman’s visit was supported by the Association of American Geography, Gamma Theta Upsilon, the Department of Geography and Geology at Sam Houston State University, the Geographers of Sam Houston, and Lone Star College.

Student Notes

James Scott, geography major, attended the Fifth Annual Texas Geography Student Research Symposium (TXSGRS) on March 6th and 7th. This two-day event, sponsored by the Department of Geography at Texas State University-San Marcos, was operated by undergraduate and graduate students under the tutelage of Dr. Lawrence Estaville, Faculty Advisor to TXSGRS. The first day (Friday) consisted of a range of activities including six paper sessions, two panel discussions, one poster session, a plenary session with Dr. Byron “Doc” Augustin, and over 75 door prizes valued at approximately $3,000. On the second day (Saturday), Mr. Scott and Dr. Albert joined a field trip titled “An Opening to the Texas Hill County” lead by Dr. Richard Earl, Professor of Geography at TSU-San Marcos.

Daniel Martinez, recent graduate from the Department of Geography and Geology, has informed us of his new position as an Environmental Compliance Specialist-GIS/Data Technician with the Brazoria County Engineering Department, Angleton, TX. With his usual gusto Daniel proclaims, “Have a good day and Eat ‘em Up Kats!!”

Geographers of Sam Houston Meet

After a period of inactivity, the Geographers of Sam Houston (GOSH) have re-emerged in a burst of activity. The organization has had two separate meetings in the Spring Semester, one of them being held at Humphreys’s (across Sam Houston Blvd. from campus). These meetings were quite fruitful, both in terms of stimulating ideas regarding future GOSH activities as well stimulating great collegiality. Quite simply, geographers make great conversationalists! In a unanimous vote, Melissa Stroda was elected as the new president of the organization, while Holly Staver and Brian Nietfeld were elected as officers. Others in attendance included Nancy Morris, James Scott, Alison McIlre, Ray Wilkinson, and Nate Stanfield. During the course of these meetings, group members agreed on a number of initiatives. Perhaps the most important being the reformulation of GTU (Gamma Theta Upsilon), the geography honorary society. Sam Houston State has the second oldest chapter of GTU, so all were in agreement that a concerted effort needs to be made to ensure this tradition is continued. Other initiatives discussed were the potential of engaging in regular scheduled meetings, field-trips and attempts to schedule future interactions with faculty and departmental alumni. Anybody interested in GOSH or GTU, or both, should contact Dr. Strait (Faculty sponsor of GOSH) or President Stroda.


Dr. Gong—“Population Interpolation over Changed Boundaries,” Annual Meeting of the Association of American Geographers, Las Vegas, Nevada (paper presentation)

Dr. Nelson—“Caribbean Nature Tourism and Landscape Preferences,” Annual Meeting of the Association of American Geographers, Las Vegas, Nevada (paper presentation)

Dr. Strait—“Teaching the Devil’s Music: The Geography of Blues Culture,” Annual Meeting of the Association of American Geographers, Las Vegas, Nevada (poster presentation)

Dr. Tiller—“There Should Be No Doubt About It, Dehahuit’s Timber Hill was South of Caddo Lake,” East Texas Archeological Conference, Tyler, Texas (paper presentation)
Dr. Cooper

Dr. Tiller

Dr. Nelson

Dr. Leipnik

Dr. Gillespie

Dr. Strait

Dr. Netoff

Dr. Baldwin

Dr. Hill

Dr. Degenhardt

Clockwise from top left: Athabasca Glacier, Alberta, Canada; Washington D.C.; New Hampshire; Jungfraujoch, Switzerland; Old Town Kyiv, Ukraine; Bangkok, Thailand; Ross Ice Shelf, Antarctica; Upper Devonian Catskill Deltaic system, Pennsylvania; Longs Peak, Colorado; Gilpin Peak rock glacier, Colorado; Ana'cho'omalu Bay, Hawaii.
the ground starts to shake and there is an explosion of noise as I am brought back to reality. Fire exploding from the engines as a huge cloud of smoke surrounds the shuttle while it breaks away from the launch pad into the sky. Tears are running down my face uncontrollably, but I do not make a sound and neither does anyone else. It’s too early to celebrate. Finally, after what seems like a decade of waiting, the good news comes: solid rocket booster separation. However, they are not in the clear yet. Some of the people around me have backed away from the railing to talk to the other family members and congratulate people. But my eyes never leave the shuttle. I am not going to look away until I know he is ok. Then the announcer informs us that they have had Main Engine Cut Off. The crowd erupts in noise. Everyone is cheering, giving hugs, kisses, and handshakes. My body finally relaxes as my grip loosens on the railing.

As we all slowly calm down, some of the “family support astronauts” come over to give all the spouses roses and each of us a card that our astronaut had written. We all ripped open our cards. Even though he only wrote two sentences to me, they were the best two sentences that I have ever read. I read them over and over again. Of course, this just made the tears come all over again, but I was ready for them this time. It was all over. They were safe and I was happy.

I was seven when my dad told us that he got accepted into the astronaut program. We were in the car. My mom instantly started bawling hysterically, my brother said, “Sweet,” and I just sat unmoved by my dad’s news. While growing up, I never understood why my mom cried that day in the car until I was watching the launch. She knew she would feel like this. She knew how hard it would be to watch him go.

It wasn’t until I was about 14 that a new emotion swept through me about the whole my dad being an astronaut thing. I was at a volleyball tournament in the middle of a game when people slowly started gathering around a TV that someone had. Soon, about seventy people were surrounding one 14” TV. My mom was crying along with a few other people, and my dad had a look on his face that I had never seen before. It may have been fear mixed with loss, or maybe even regret. When our game ended, we all ran over to the TV to see what all the commotion was about. It was Columbia. My body just froze. Watching the shuttle fall out of the sky with people I knew on board. I looked at my dad and a rush of anger ran through me. How could he be so selfish? He is putting his life at risk to do what? Go up in space? He would leave us for that? He would die for that?

I felt this way about it until the day of his launch. We were watching them board the shuttle and strap in, and the whole time my dad had the biggest smile on his face. He was cracking jokes and laughing. Honestly? You are strapped to four million pounds of fuel, and you are making jokes? But it was his dream finally coming true. Of course he was smiling. In a couple of hours he would be looking down at the Earth as they fly over.

And once again, my feelings about him being an astronaut have changed. I am no longer unemotional about it or angry or sad. I am now proud of him for working for so long and so hard at his dream that finally came true. Even though it’s sad for everyone that has to stay behind and watch him leave the Earth, he is happy and free. Sometimes for someone else’s dreams to come true, we must make sacrifices. But when we see that smile on their face when they realize that their dream really is coming true, it makes it all worth it. Twenty years of hard work for my dad and twenty years of sacrifices from us were forgotten with one smile.

Caroline Swanson is a computer science major at Sam Houston State University and one of the Department of Geography and Geology’s Weather and Climate lab TAs. She has a unique perspective on the world as the daughter of an astronaut. Her father, Steve Swanson, joined NASA in 1987 was selected as a mission specialist in 1998. His current mission is STS-119, which launched on March 15th, 2009 at 6:43 pm. The following is an excerpt from an essay written by Caroline about her experiences as an astronaut’s daughter:

The announcer starts the countdown from two minutes. My heart beats faster as my hands grip the railing in front of me. So many thoughts rushing through my head: What if I never see him again? What will I do without him? Does he know how much I love him?

In what seems like one second, the shuttle leaves the ground. I close my eyes. I focus on my breathing and the sun on my face. He is at 10 seconds; I open my eyes. No matter how badly I don’t want to watch, I can’t miss this. Now 5 seconds left. I hear the main engine start. Suddenly, everything just slows down. I see the families next to me gripping the very same bar I am, their faces stricken with fear, excitement and anticipation just like mine. I try to relax, but then