

# GEOLOG

Accad . Oct 2002

*Survey of graduates shows:*

## Geology is always a good bet!

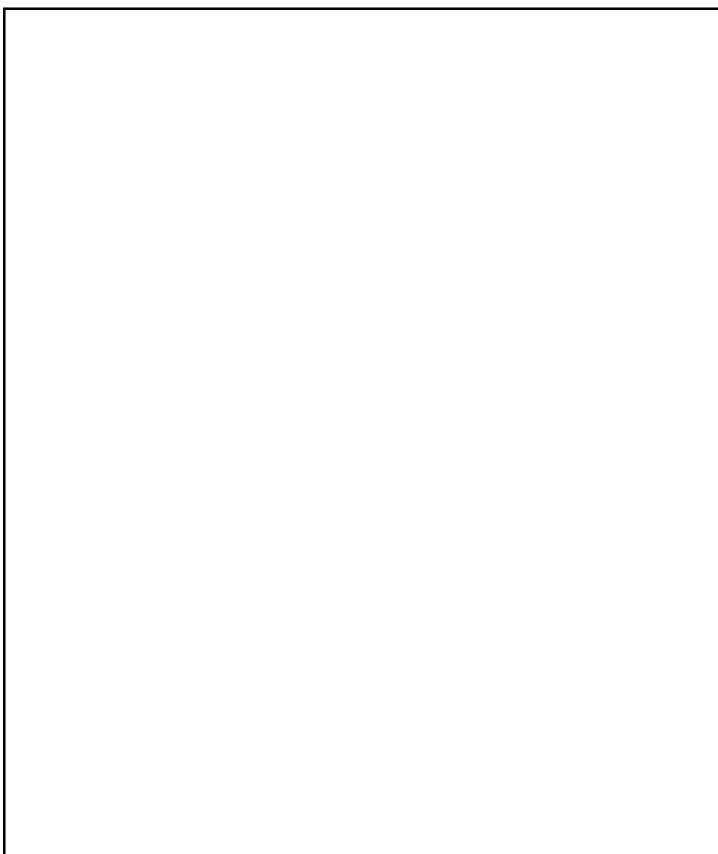
Our summer alumni survey showed the importance of career opportunities in oil and gas exploration to our graduates while illustrating the success of our graduates who choose to pursue careers in research and education. After receiving several questions about the job market in geology, we sent out approximately 600 questionnaires using our active mailing list to gather data on career paths of our alumni. The responses came in over the summer from alumni from every decade starting with the 1930's. The number of responses from each decade mimicked the total number of degrees granted in that decade; the total responses exceeded 25%.

While SMU was founded in 1911, the first earth science degree was granted in 1920. The master's degree program was started after World War II and the Ph.D. program granted its first degree in 1967 (see page 3). The registrar tells us that 735 people have earned degrees in earth science at SMU. This averages out to roughly 9 degree holders per year. The maximum number of degrees granted (37) occurred with the class 1949, probably the result of the GI bill and the attractiveness of geology in Texas.

As a group of Texas graduates, it is not surprising that the participation rate has been and continues to be high in the petroleum industry. To the present, it appears to be highest among holders of the bachelor of arts degree, decreasing to about 10% at the Ph.D. level (lower right page 3). However, even during the heights of the oil booms, our graduates have been active in research, education, and business (lower right page 5). Before 1980, more than half of the bachelor's and master's degree holders *did not go* into the petroleum industry. At the same time, the largest segment of our 1990's degree holder population still participates in some aspect of the petroleum industry.

As a department, there has been wonderful continuity with some of the faculty starting with the late Claude Albritton and continuing to the present with Gene Herrin, David Blackwell and Lee McAlester. Emeritus faculty Jim Brooks, Bob Laury and Mike Holdaway also were involved in the department for a good portion of its history. Nevertheless, in reading through the responses, it is interesting to get perspectives from people who spent time at SMU on their way to other things. The accomplishments are impressive.

Approximately 50 % of the respondents completed degrees beyond their SMU degrees. Some have gone onto medicine and law in addition to completing higher degrees in earth science. There



are also CEO's, a former ambassador, an airline pilot, a *New York Times*



## Charles W. Naeser - First among graduating PhDs

# SMU Geology grad distinguished himself at USGS

By James Brooks

Professor Emeritus

Chuck Naeser rode the crest of the first wave of graduate students in the Ph.D. program in Geological Sciences at SMU. He arrived at SMU after completing A.B. and M.A. degrees in geology at Dartmouth College, the latter in 1964.

SMU had a very strong M.S. degree program for many years but following the creation of the Southwest Center for Advanced Studies by GSI-TI Founders, Jonsson, Green and McDermott, faculty strength available for graduate studies was greatly increased. In the geological sciences, for example, a very strong group of faculty headed by Anton Hales included geochronologist Henry Faul.

The combined Geological Sciences faculties (SMU and SCAS) were integrated units that covered essentially all of the basic fields in the geosciences. Thus the SMU Ph.D. program was able to start with real strength in the mid 1960's with a new group of Ph.D. candidates. They formed a diverse and talented group, and Chuck Naeser was prominent among them.

Chuck's dissertation study, under the guidance of Henry Faul, was among the seminal studies on fission track dating of apatite, sphene, zircon, and epidote. Chuck's scientific curiosity and passion and the breadth of training that he received at Dartmouth and SMU prepared him well for a very distinguished career with the United States Geological Survey in Denver and Reston.

Only 15 years after the discovery of fission and less than a decade after the recognition of natural fission tracks in minerals, Chuck pioneered the science of fission track geochronology, and applied it in many diverse ways to solve a variety of worldwide geologic problems.

His nearly three decades of work with the USGS has encom-



### On site at the Grand Canyon

passed a wide array of subjects, including the age and thermal history of kimberlites, impact structures, ore deposits, tephra deposits, lavas, plugs, mountain ranges, faults, and plutons, and has resulted in more than 200 published papers.

One might observe that his diversions from the scientific realm have contributed to his geologic success. Chuck is also a garden model railway enthusiast and has constructed a world famous garden. Chuck was the first person to receive the Ph.D. degree in the Geological Sciences from SMU and he has clearly brought distinction, respect, and honor not only to himself but to SMU as well.

### Wendorf on math/science alumni panel

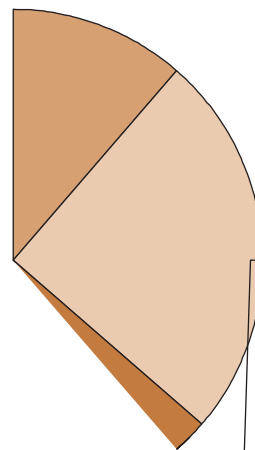
Students looking for jobs and wondering about the potential for jobs in math and science gathered April 10 on the SMU campus to hear from alumni working in the field.

Geology grad Scott Wendorf sat on the panel and shared his career experiences. In 1990 Scott received a B.S. in Geology from SMU and then earned an M.S. from Indiana in 1992.

After working for Shell Oil in New Orleans, Scott returned to law school at the University of Houston. Qualified as a patent attorney, Scott now is practicing intellectual property law



**Scott Wendorf, one of about two percent of Geology graduates who have chosen a career in the field of law.** with the Dallas law firm Baker Botts, L.L.P.



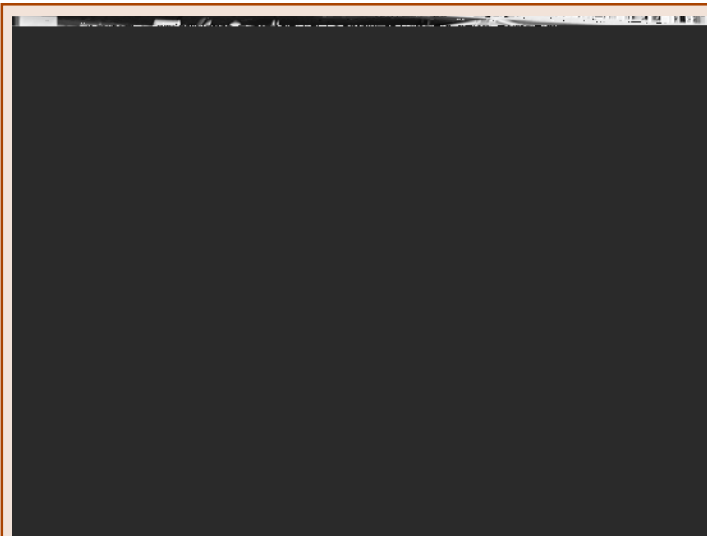
Career paths of Ph.D. respondents 1967-2002. Story on Page 1.



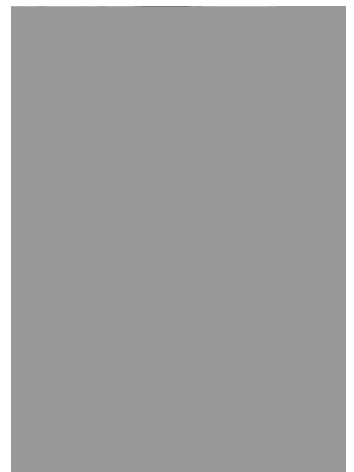
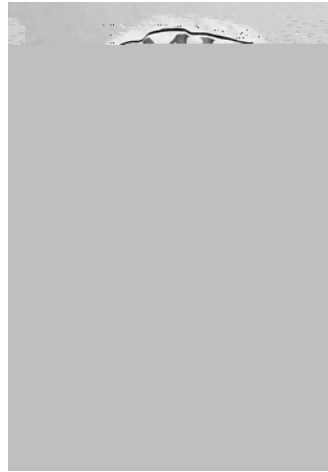
## Hamilton scholar Charles “Buck” Wilson brings years of infrasound experience to SMU students

Charles Roland “Buck” Wilson of the University of Alaska was the 2001-02 Hamilton Scholar. Dr. Wilson was on campus the first week in February 2002. Buck is one of the pioneers in the study of infrasound. Infrasound waves are acoustic waves that span the frequency range below human hearing, generally below 20 cycles per second. Many natural phenomena produce infrasound waves that travel great distances through the atmosphere. Buck Wilson spent over 40 years developing techniques for infrasound measurement and has deployed infrasound arrays in Alaska as well as at stations in Antarctica to study the infrasound waves produced by many geologic phenomena.

Being in Alaska, Buck has had the opportunity to study the sound waves produced by the Northern Lights and volcanic eruptions associated with the Aleutian magmatic arc. The auroras produced by the interaction of the solar wind with the Earth’s magnetic field generate shock waves in the atmosphere that radiate infrasound







Steven Burns shares his home town with President George W. Bush—Midland, Texas—and not surprisingly comes to Geology with a family background in the oil and gas industry. His father has had a long career in oil exploration.

Three colleges looked good to Steven upon high school graduation: SMU, TCU, and Vanderbilt. SMU prevailed with its outstanding Geology program. Steven graduated in May 2002 with a B.S. in Geology.

While in undergraduate school, Steven worked for David Blackwell as a work-study student. In that capacity he won an award as the “Outstanding Work-Study Student” at SMU.

After surveying job prospects with several independent oil companies over the summer, Steven decided to take their advice and go directly into graduate school to earn his M.S. in Geology. He hopes to concentrate his studies in petroleum geology and find opportunities

**Peter Kubik**

## Born in Poland, raised in the USA

Peter Kubik comes to the Geology graduate program with a love of both language (fluent in Polish) and geology. He was born in Warsaw, Poland, in 1979. His strong Polish stock is suggested by the fact that after Peter was born in the morning, his mother, a medical student, got up that very afternoon and took a medical exam.

Since Poland then was under communist control, his parents decided to immigrate to the U.S., settling in Buffalo, New York, when Peter was three months old. The family later relocated to Florida, where Peter and his brother Paul grew up.

After completing high school, Peter was primarily interested in two universities—Loyola in Chicago and SMU. Loyola had the draw of a large Polish community with language study opportunities, but SMU won out with its diverse opportunities in the liberal arts and sciences.

Graduating with a B.S. in Geology (with a minor in Philosophy) in May 2002, Peter decided that it was a good time to pursue the M.S. in Geology. He will focus his studies in petroleum geology. An outdoor enthusiast, he enjoys mountain biking, sailing, and travel, and he plays hockey for a local team.

**Aaron Pan**

## Panhandle's Pan educated in CA

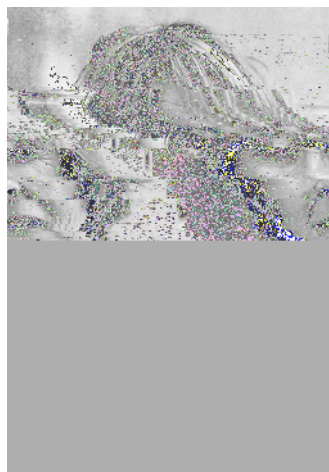
A new marriage and a new graduate program should keep Aaron Pan busy in his first year at SMU. Aaron and his bride, Jennifer (both from Amarillo), moved to Dallas after completing their undergraduate educations in California.

Aaron will be studying with Bonnie Jacobs as he pursues his M.S. degree. Biology, with Paleobotany, was Aaron's area of study at University of California at Santa Barbara.

Born in hilly San Francisco, Aaron quickly moved to the flat and straight streets of Amarillo. Aaron's father is a radiologist and his mother is a homemaker.

When researching graduate programs, Aaron considered four major institutions, University of Florida, Texas A & M, University of Michigan and SMU. He chose SMU and will have the opportunity to travel with Jacobs in December, 2002, to Ethiopia for a three-week trip to study fossil plants.

Not surprisingly, his hobbies include growing plants. He is nurturing a Hawaiian plant named *Brighamia*. The Pan household also includes an interesting assortment of small animals—five frog-eyed geckos (three adults and two babies), two African dormice, and one dwarf hamster.

**Evelyn Tennison**

## Oklahoma native pursuing Ph.D.

A native of Paul's Valley, Oklahoma, Evelyn Tennison is pursuing a Ph.D. in Geology. Evelyn recently completed an M.S. in Geology at the University of Texas at Arlington, and prior to that earned a B.S. degree at the University of Texas at San Antonio, also in Geology.

As a graduate student, Evelyn's teaching assistant responsibilities will include working in the lab for Bob Gregory's course, Earth Materials I. Embarking on her academic career as a "returning student" after raising three children (all grown now, two girls and a boy), Evelyn is enthusiastic about hard rock petrology and collects rocks whenever she is on the road. Her new husband of two months, Raul Rangel, kindly acts as "mule" to bring her rocks safely back home.

Evelyn hopes to pursue her interest in igneous rocks. Arlington, Texas, is home to Evelyn and Raul and their three cats—Miss Kitty, Gato, and Lucy, who add spice to their domestic life. Evelyn has recently become a third-time grandmother; she will have a busy fall semester here at SMU. Hobbies include hiking, camping, and traveling out west to see geology in action. Evelyn enjoys running and has successfully completed a marathon.

David Blackwell

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He will have a busy fall semester.

**David D. Blackwell**, Hamilton Professor, Ph.D., Harvard. Geothermal studies and their application to plate tectonics, especially of the western United States; energy resource estimates and geothermal exploration.

**Robert T. Gregory**

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