BAYLOR

Use the left and right arrows on your keyboard to go from page to page. If you need to access the menu bar or are ready to exit, hit the esc key.



BAY LOR UNIVERSITY

OFFICE OF THE VICE PROVOST FOR RESEARCH One Bear Place #97310 • Waco, TX 76798-7310

Forwarding Service Requested



13 180





ALL THINGS MATERIAL: JIM ROBERTS >19



EDISON MAN: BLAINE MCCORMICK >21



AND UNIVERSITY PROFESSORS >8 INTERNET

THE FAST



TRACK: NEXT-GENERATION CAPABILITY >7



NEW BEGINNINGS: NEW FACULTY JOIN BAYLOR >5

A NEW DAY DAWNING: **BAYLOR SCIENCES**

BUILDING HERALDS A BRIGHT FUTURE >1

MESSAGE FROM THE VICE PROVOST FOR RESEARCH

me hese are exciting days at Baylor with research and scholarship dramatically on the rise. In 2003-2004, Baylor faculty set new records for external funding awarded and the number of **proposals submitted**, while interdisciplinary teams of faculty collaborated with both the public and private sectors to study everything from homeland defense to nanofabrication.

This issue opens, somewhat predictably, with the dedication of Baylor's new world-class Sciences Building. In the months prior to this publication's release, I had the opportunity to become intimately acquainted with this outstanding facility, spending hour upon hour moving into my new physics office and participating in a variety of celebratory events. The University formally dedicated the building in September, inviting faculty, residents of the Waco community, students, regents and more to hear dedicatory talks given by world-renowned scientists Curtis Richardson, John Schwarz and James Willerson on subjects ranging from stem cell research to superstring theory.

Much of the rest of this issue provides a brief introduction to the scholarship and research being conducted by just a few of Baylor's faculty. Several of them carry the title of Distinguished or University Professor. I had reason to look back at this designation and events many years prior to its introduction on the occasion of Merle Alexander's memorial service in October 2004. Dr. Alexander, or Dr. "A" to those of us who studied with him, died Oct. 3. Had the Distinguished Professor title and

attendant support been in place at the time, Dr. A would surely have received the honor. As I looked around the church at Merle's memorial, I saw the fruit of a lifetime invested in Baylor his graduates, now serving as university faculty, research scientists in industrial R&D labs, or in the case of this writer, as vice provost for research at Baylor. It was a mark of the level of funding at which Merle routinely operated, funding that would be striking even now but was doubly so then, that his wife and children knew Gary Carter, director

of Baylor's Office of Sponsored Programs, at least as well as they knew his colleagues from the physics department.

Merle never had the opportunity to conduct his research in the beautiful and well-equipped environment that marks Baylor's new Sciences Building. His "lab" space (a space which generated millions of dollars in research funding from NASA and the European Space Agency, including one \$6 million grant for the Comet Rendezvous Asteroid Flyby mission) was a musty

and periodically flooded basement in Marrs McLean. There, graduate and undergraduate students worked on experiments and published papers, often as first author, with Dr. Alexander and his colleagues from around the world. During the summer of 1984, four of us traveled to Europe with Dr. A to work as part of the Dust Impact Detection System research team on the Giotto project, first at the University of Kent at Canterbury and then at the Max-Planck-Institut für Kernphysik. The opportunity to act as part of the primary working group on an active deep space project is one not often associated with graduate students unless one is discussing Caltech or Johns Hopkins. A picture of Giotto, which eventually intersected Halley's Comet in a historical space science mission, hangs on the wall of my office at Pat Neff as just one more example of Baylor's long-standing tradition of integrating great teaching with outstanding research.

building at Baylor!

A GLOBAL REPUTATION: STEPHEN PRICKETT >23

BOOK REVIEWS >25

VPR COLLOQUIUM SERIES >26

GRADUATE DEGREES AND RESEARCH CENTERS >27

RECENT GRANTS AND CONTRACTS >28

How does one put a value on this kind of experience? As I reflect on the role that research plays in Vision 2012 and look at the impressive array of speakers and faculty members depicted in this issue, I am reminded of a short, stocky man with a slightly bewildered look on his face, a look which so often dissolved into the delight of discovery sometimes accompanied by victorious hand clapping. I thought of how tickled Merle would have been to see John Schwarz, the "Father of Superstring Theory" speaking to a standing-roomonly crowd in a state-of-the-art science

At Merle's memorial service I thought of how quietly and carefully Merle integrated his teaching, research and faith, and of its results in my life and the lives of so many others. These are indeed exciting days at Baylor and Merle's lifework is just one more reminder of the scholarly history that has enriched Baylor for so long, laying the foundation for what would eventually become Baylor 2012.

As always, the 2005 issue of Research magazine can only tell a few of our faculty success stories. Please feel free to contact me to learn more or visit our website at www.baylor.edu/research. I look forward to sharing with you in the coming years all that is happening on the research and scholarship front at Baylor.



DR TRUELL HYDE

A new day davning w loss heralds a bright future

Baylor Sciences Building

in 1995, just as biology professor Ben Pierce took the position of associate dean of the College of Arts and Sciences. The existing science buildings, Marrs McLean and Sid Richardson, were just 40 years old, but the past 40 years witnessed so many advances in the sciences that Baylor, like all

universities, faced choosing between updates or obsolescence. Pierce, who has since returned to teaching and research full time, says the original plan called for consolidating the two science buildings. "We went so far as to complete a design connecting Marrs McLean and Sid Richardson, but it became apparent that it would be more efficient and less disruptive to build a new building." The concept they had in mind was novel. "The vision was not to make us a typical research university. We wanted to integrate the sciences at Baylor," Pierce says.

Plans for a new center for the sciences at Baylor started to take shape

The planners wanted to create interaction among disciplines and between faculty and students and to foster multi-departmental collaboration because they could see that the newest scientific research is taking place at the boundaries between disciplines. Seven years of planning and two of construction culminated in August 2004 when the doors of the \$103-million, state-of-the-art research and teaching facility, the Baylor Sciences Building, opened at the start of the academic year.

The building consolidates the disciplines of chemistry, biology, geology, physics and neuroscience, as well as most of Baylor's pre-health programs, in a 508,000-square-foot, five-story space. It houses a complement of classrooms and lecture halls; 75 instruction and 90 research laboratories; offices for faculty, graduate students and administration; and five multi-disciplinary centers: Prehealth Education, Drug Discovery, Molecular Biosciences, Reservoir and Aquatic Systems Research and Scientific Analysis and Computing.

THE SCIENCE SYMPOSIUM

On September 23, 2004, the building was dedicated, and the opening celebrations featured three major science symposia. Speakers for the symposia were chosen because of their connection to current research Baylor science faculty are pursuing, as well their involvement on the forefront of scientific research. Primary speakers at the symposia included ecologist Dr. Curtis J. Richardson, superstring theorist Dr. John H. Schwartz and biomedical researcher Dr. James T. Willerson. "The chosen topics were significant to our national agenda and were of great interest to our students and our community, and all three speakers are leaders in their fields," said Dr. Wallace Daniel, dean of the College of Arts and Sciences.

Since Baylor has long had a strong program in the health sciences, Dr. James Willerson, president of the University of Texas Health Sciences Center in Houston, was invited to speak. Willerson has developed the only FDA-approved adult stem cell program in the country for treatment of heart disease, and he is a world-renowned cardiologist, administrator and research scientist who has more than 800 articles and 20 edited or co-edited books to his credit.

Willerson gave his lecture, titled "Stem Cells for Failing Hearts," to an audience of chemists, biologists, psychologists, neuroscientists and others in Baylor's research community. A panel discussion followed that was moderated by Dr. David Pennington, professor of chemistry and Master Teacher. Panel participants included Dr. Jaime Diaz-Granados, professor of psychology and neuroscience, Dr. Robert Kane, professor of chemistry and biochemistry, Dr. Kevin J. Pinney, professor in chemistry and biochemistry and Dr. Mary Lynn Trawick, professor of chemistry and biochemistry.

Environmental research initiatives are a staple of the biology, chemistry, geology and environmental studies departments, so Dr. Curtis Richardson, director of the Duke University Wetland Center and professor of resources ecology at Duke, drew a standingroom-only crowd. He told the story of his Iraqi experience in "Wetlands of Mass Destruction: How the Hussein Regime Destroyed the Mesopotamian Marshes and Their 5,000-Year-Old Ma'dan Culture."

Dr. Robert Doyle, professor and interim chair of biology, said Richardson is an eminently wellgrounded scientist who is concerned with the social dimensions of science. "Curtis was part of the international coalition evaluating the potential for restoration after the deliberate destruction of the salt marshes," said Doyle. "He brings good science and good ideas to difficult environmental issues." Doyle moderated the discussion that followed Richardson's lecture with a panel that included Dr. Bryan Brooks, assistant professor of environmental studies, Dr. Owen Lind, professor of biology and Dr. Joe Yelderman, professor of geology.

String theorist Dr. John Schwarz, the Harold Brown Professor of Theoretical Physics at the California Institute of Technology, gave the third and final symposium lecture, which was titled "Superstring Theory: Past, Present and Future." It drew Baylor researchers in physics and mathematics, as well as a general audience that was interested in cutting-edge theoretical work in unification physics and its implications for the nature of the universe. The audience overflowed the lecture hall.

"John Schwarz is one of the founders of string theory," said Dr. Gerald R. Cleaver, assistant professor of physics and head of the Early Universe Cosmology and String Group in Baylor's Center for Astrophysics, Space Physics, and Engineering Research (CASPER), who earned his doctorate under Schwarz at Caltech. "What is known as the 'First String Revolution' in 1984 was due to John Schwarz and his colleague, Michael Green," he said, adding that he hopes the result of the symposium will be to draw the attention of the larger Baylor community to stringtheoretic research as something at the forefront of theoretical physics.

The 1984 achievement of Schwarz and Green, which catalyzed worldwide interest and research in string theory, was to show that general relativity and quantum theory could be reconciled in a string-theoretic framework, thus unifying the four fundamental forces of nature within one mathematical structure. The session was moderated by Dr. Truell W. Hyde II, vice provost for research, director of CASPER, and professor of physics, and was followed by short presentations of related work in theoretical physics by Cleaver and by Dr. Anzhong Wang, associate professor of physics, both members of CASPER, as well as by Dr. Bennie F.L. Ward, distinguished professor and chair of the department of physics.

CURRENT RESEARCH COLLABORATIONS

Numerous research initiatives are under way in the new science complex and elsewhere across campus. These research The Center for Molecular Biosciences, another nexus of projects range across a spectrum of disciplines, including collaboration, houses several research partnerships. Dr. Peter van neuroscience, chemistry, physics, mathematics, engineering Walsum, an environmental studies researcher who focuses on and computer science, as well as health science research seeking renewable energy and conversion of farm and ranch biomass to discover new therapeutic drugs. Many of these initiatives to renewable fuels, is collaborating with Massengale and involve interdisciplinary collaborations. graduate students in environmental science and biology on For example, among the numerous research collaborations a project attempting to use a fermentation process to convert taking place in the Baylor Sciences Building are several projects manure to fuel.

with a team comprised of Dr. Bryan Brooks of environmental studies, Dr. Rene Massengale of biology and Dr. Kevin Chambliss of chemistry. These three pursue most of their investigations in the Center for Reservoir and Aquatic Systems Research. The most prominent project they are working on is funded by a bio-defense grant, and its goal is to develop water treatments and purifications that the military can use in the field to render water safe to drink. The group also is testing remediation strategies for nuclear, biological and chemical contaminants that might possibly find their way into the military's potable drinking water.

Brooks' ongoing research on pharmaceuticals in Texas streams also has provided at least two collaborative efforts. He and Massengale are looking at the effects of selective serotonin reuptake inhibitors (SSRIs) in microbial communities



in the environment and aquatic organisms. SSRIs are the active ingredient in many popular antidepressants.

Yet another undertaking in the center, this one led by Dr. Joe Yelderman, professor of geology, and including Brooks, Massengale and David Jumper (from the Center for Reservoir and Aquatic Systems Research), along with various students, involves testing the effects of intense aeration of municipal waste to treat sewage and improve water quality.

Finally, Chambliss and van Walsum are working on a project to convert dairy waste to ethanol, since manure is the quintessential recurring biomass on dairy farms.

The Baylor Sciences Building offers impressive architecture and innovative features, but more significantly, it facilitates innovative research partnerships. The pace and variety of research currently underway at Baylor depicts the spirit of collaboration that the forward-looking planners of Baylor's science facilities are confident will be key to scientific



> Steven G. Driese, Professor of Geology and Department Chair

The sticky clay soil of North Central Texas is one of the reasons the new chair of the geology department is here. But to see the bigger picture, you have to go way back to the Paleozoic Era.

Steven Driese studies paleosols, or fossilized soils, to learn about variations in the earth's past climate and atmosphere. He's found that carbon dioxide levels in the early part of the Paleozoic Era were 16 to 20 times higher than they are now. "It was a greenhouse earth in the sense of being a lot warmer, but it was not prohibitive to plant and animal life," he says.

ω

That study led to collaboration with Lee Nordt, associate professor of geology at Baylor, because of Nordt's expertise with vertisols, a particular kind of clay soil in Texas. "They shrink and swell and crack open," says Driese. "Texas is probably the one place in the United States that has the widest distribution of that soil. Those were dead ringers for what we were seeing fossilized." Driese visited Texas many times for field research.

With a BS in geology from Southern Illinois University in Carbondale and an MS and PhD from the University of Wisconsin at Madison, Driese taught 22 years at the University of Tennessee in Knoxville. In 2003, he served on a PhD needs assessment team for Baylor's geology department. There he gained insight into Baylor's uniqueness.

His research comparing modern and ancient soils has led Driese to Kenya and Costa Rica. He's also worked with a team at the Oak Ridge National Laboratory in Oak Ridge, Tenn., studying an area where people disposed of chemicals in shallow, unlined pits. "I used my knowledge of soils and other physical properties to help people understand how contaminants move and how they can be cleaned up," he says. At Baylor, Driese has taught a course in paleosols and in sandstone petrology and in the future will teach a historical geology course.

Attracted by the new Sciences Building and its interdisciplinary setting, Driese was delighted to find two research clusters, one in paleoclimate analysis and another in environmental geology. People involved are "active, publishing and getting grants," he says.

> Christian van Gorder, Associate Professor of Religion

Dr. A. Christian van Gorder joined the Baylor faculty this year as a rather "worldly" professor in the Religion Department.

"I have four kids, born in four different countries," van Gorder says. Originally from Pennsylvania, van Gorder earned his doctorate at Queen's University in Belfast, Ireland, taught at Western China's Yunnan University and studied Chinese for two years at Singapore's National University. In addition, he's directed study courses to China, Malawi, Peru, Ireland, India, Sri Lanka, and conducted research in Greece, Ethiopia, Nigeria, Ghana, Turkey, Nepal and Papua New Guinea.

In Papua New Guinea, van Gorder studied extraversion, the ways foreign missionaries affect both native religions and local Christianity.

Van Gorder, whose primary research interest is the ways religious cultures interact – particularly Islam and Christianity – explained the passion of his six years living in China. "I lived in the Hui Muslim community. The Hui try to minimize tensions (with non-Muslim Chinese), and the government is very interested in keeping inter-religious tensions down."

At Baylor, van Gorder has taught World Religions and is teaching a course on Islamic Fundamentalism. He also will teach courses on Islamic Mysticism and Buddhism.

In summer 2005, he plans to take students to the Amazon region of Brazil to study how Christians have interacted with indigenous traditions in South America. They will look "at native Brazilian and Afro-Brazilian traditions such as Santeria [a religion that can include ritual sacrifices]," he says.

He also is researching ways various faith traditions come to terms with atrocities in their past, such as Hiroshima, Nanking, the Jewish Holocaust, the African Maafa and genocides in Buddhist Cambodia. Van Gorder gave a related presentation at Samford University's Christian Human Rights Conference addressing the historic interaction between Turkish Muslims and Armenian Christians. He also spoke about this topic at the November Global Lecture Series at Baylor

Van Gorder has authored two books, No God But God and *Three-Fifths Theology*. The first examines how Muslims and Christians understand God and how the two faith communities interact with one another theologically. The second explores the ways Euro-American Christians have historically interpreted issues of racism in "complicitous" ways in matters of intercultural discrimination.



> Mary Nichols, Professor of Political Science and Department Chair

As the new chair of the political science department, Mary Nichols has great plans in the works for the program. They include working with colleagues to develop a proposal for a PhD track, one that will – among other goals – help prepare students to become educators.



"There are many ways to be a good teacher. ... Nothing can substitute for experience in a classroom, and I am hoping that our program will provide that for future graduate students under the mentorship of individual faculty," Nichols says.

Nichols recounts her experiences working with great educators at the University of Chicago and other institutions, and says those times contributed to her growth as a teacher.

She received her bachelor's degree from Newcomb College of Tulane University in Louisiana, and then attended school in Chicago, where she received a doctorate in political science.

Prior to arriving at Baylor, Nichols taught at Northern Illinois University, St. Johns College in Annapolis, Md., and the University of Delaware.

For the past 14 years, she has been at Fordham University, where she served for several years as graduate director in the political science department. Nichols has also been a visiting professor on three separate occasions in the Department of Government at Harvard University.

Nichols' past courses have included topics on the history of classic and modern political thought, politics and literature, and politics and film. These interests have translated into books Nichols has written about Plato, Aristotle and even Woody Allen. She is working to complete another book on classical political thought titled Love and Friendship in the Political Thought of Plato and Aristotle.

She recently presented a paper to the American Political Science Association, which compared the film *The English* Patient to Casablanca and looked at issues involving political and moral choice.

> Rodney Stark, University Professor of the Social Sciences

Professor Stark comes to Baylor from the University of Washington at Seattle. The idea of joining a university run by scholars instead of professional academic administrators appealed to him. "It is wonderful to sit around with real scholars and talk about what a real university should be like," says Stark.

Stark researches, teaches and writes about the sociology of religion, which he describes as applying social science methods to understanding the different facets of religious belief and religious life. His recent work examines such questions as what makes church congregations strong or weak and why people change churches.

Professor Stark has authored, co-authored or edited almost 30 books and 140 articles. His most recent book, *Exploring the Religious Life*, was released this year by Johns Hopkins University Press. Two more books are in press and one is in preparation. His book, The Rise of Christianity, was nominated for a Pulitzer Prize in 1996.

Stark began his study of religion and sociology after getting his bachelor's degree in journalism at the University of Denver in 1959. After getting his master's and doctorate in sociology at Berkeley, he embarked on a 31-year odyssey as a professor of sociology and comparative religion at the University of Washington. His introductory sociology course there was known to draw as many as 800 students per semester.

His new mission is to help Baylor build a PhD program in the sociology of religion. He is accomplishing this goal by recruiting faculty and students. There are now six professors on campus who teach in the area of the sociology of religion, and the first PhD students enrolled this fall. "Responsible people with a really good undergraduate degree will want to go to Baylor because it's a full program," says Stark.

BY JUDY LONG THE FAST TRACK. Baylor to Receive **Next-Generation** Internet Capability

B aylor University and 30 other Texas institutions of higher learning are joining the next generation of Internet capability – developing a high-speed broadband research Internet network connection. The effort, National LambdaRail, is an undertaking by American research facilities, government agencies and companies to procure a long-term lease for utilizing fiber-optic networking, called "dark fiber" because it was laid during the dot-com boom but never used. The institutions see the 10.000 miles of cable as an opportunity to develop a next-generation Internet uncluttered by general use.

NLR will provide participating universities independence from commercial Internet providers. Participants commit to improving end-to-end capability by providing dedicated optical capabilities from their research labs to the NLR network.

NLR completed the connection between East- and West-Coast universities, and now the Southeastern Universities Research Association is collaborating to bring a connection from east to west through the south. The line will run through Dallas, with state infrastructure funds contributing \$10 million of the \$12 million needed to connect the Texas schools.

In 2002, Baylor, in partnership with Texas State Technical College, received \$175,000 from the National Science Foundation to connect with Internet2, a version of Internet service available for academic use prior to NLR. But, with the

prospect of NLR, the funding was reserved. In anticipation, the new Baylor Sciences Building also was fitted with fiber-optic capability to optimize connections with NLR.

"The LambdaRail opportunity came up in time to allow Baylor to skip Internet2 and move directly to the NLR while saving resources at the same time," said Truell Hyde, vice provost for research. "We have more than 40 faculty and researchers on campus who already need it, and this will give us phenomenal connection capability for both teaching and research. We hope to have at least minimal connection capability by the end of the year."

Reagan M. Ramsower, acting vice president for finance and administration, and chief information officer, said NLR is the next step in networking for education and research, and that Baylor will be able to utilize its capabilities years before other major universities can even be connected. "Many of the academic endeavors envisioned for Baylor 2012 will require or be stimulated by access to the National LambdaRail. We are indeed fortunate to be in a location facilitating early access to it," said Ramsower.

The primary objectives of NLR include bridging the gap between leading-edge optical network research and applications research; pushing beyond the technical and performance limitations of current Internet backbones; providing major computationally intensive science projects, initiatives and experiments with dedicated bandwidth and other capabilities; and enabling and rekindling the possibilities for creative experimentation that characterized facilities-based network research in the Internet's early years.

For more information visit www.nlr.net









F. GORDON A. STONE > Distinguished Professor of Chemistry

Dr. Gordon Stone relates with relish the story of Robert Alonzo Welch, the man who "revolutionized chemistry in Texas" by supporting chemistry research with the millions he earned in the oil and minerals industry.

ω 0 R ⊳ \cap т

Q

Stone's enthusiasm for the story is understandable. The account of Welch's unconventional life and how he came to support chemistry in Texas is a great tale. It also reveals much about Stone, an independent thinker and native of England who came to Baylor in 1990 to fill the Robert A. Welch Chair in the Department of Chemistry. This occurred after he'd built a distinguished reputation as a chemist in both the United Kingdom and the United States.

Welch was born in 1872 in South Carolina and left school at 14. With a borrowed \$50, he boarded a train for Texas. During his early years in Texas, Welch worked for different companies, including a paint company that also sold insecticides.

The famous Spindletop oilfield near Beaumont, which was discovered in 1901, piqued Welch's interest in oil. "He and a friend did some prospecting, and they noticed that in some of the swampland to the east of Houston, there were bubbles coming up through the water," says Stone. Welch began to buy property in the area.

An acre of land Welch purchased and sold for a profit in the middle of the Spindletop field provided him with money to invest in the Goose Creek oilfield near Houston. In 1905, he got drilling rights on a lease near Goose Creek. He soon founded a land company, and the money he earned from oil and other interests created his fortune.

When Welch died in 1952. his estate was valued at \$42 million. Unmarried, his only immediate family was a sister who also was wealthy. He left part of his money to his employees and their families; the rest he left to the study of chemistry in Texas. In 1954, The Welch Foundation of Houston was founded to carry out Welch's wishes.

By 2003, the foundation had provided almost \$500 million in grants, scholarships, special projects financing, awards and endowments for university chairs. "This is the extreme vision you sometimes see in the United States," says Stone. "Welch decided that he owed everything to chemistry and that chemistry worked for the betterment of mankind."

Baylor is one of 20 institutions to hold a Welch Chair, which can be found in other Texas cities including El Paso, Lubbock, Galveston and Dallas. The University of Texas at Austin has eight such chairs. The 2003 Annual Report of the Welch Foundation indicates that thirty-one of the forty-two chairs are filled.

Baylor's own Welch Chair was established in the '60s, and Stone has held it since 1990. He earned a BA and PhD from Cambridge University and spent two years as a Fulbright Scholar at the University of Southern California. From 1954 to 1962, he was an instructor and an assistant professor at Harvard, where he received a Guggenheim Fellowship. In 1963 he became professor of inorganic chemistry at Bristol University in the UK. He was elected a Fellow of the Royal Society in 1976 and in 1989 received its Davy Medal, the highest award for chemistry.

The American Chemical Society's award for inorganic chemistry was given to him in 1985. In 1990, he earned the Longstaff Medal of the Royal Society of Chemistry, given at three-year intervals to a chemist who has contributed the most to research in the United Kingdom. He also has received honorary doctorates from five universities.

Moving to Texas presented a vast change for the professor and his wife, Judith. "My wife and I were regular transatlantic commuters, but we had never lived in Texas, we had only visited," he says. The chance to further his research was too great to turn down, even though the Stones' three sons and seven grandchildren remain in England.

Most of Stone's research involves the synthesis of molecules with direct carbon-metal bonds, called organometallic molecules. He describes this as halfway between inorganic chemistry (the study of all compounds that contain metals) and organic chemistry (the study of molecules containing carbon). In recent years, organometallics have gained attention from industries as varied as electronics and pharmaceuticals, says Stone. But it is rare for a new molecule made in an academic laboratory to become useful over a short time span.

So why make new compounds? First, says Stone, you can't predict whether a new compound will be useful until you make it. "Secondly, the properties of new species, especially their molecular architectures, present new challenges for our understanding of the basic science lying behind their existence." This provides a stimulating atmosphere for students to be trained in research techniques and to learn the spirit and custom behind scientific creativity," Stone says.

His most important contribution to chemistry includes the mentoring of about 150 graduate students and postdoctoral fellows.

In an interview that will appear in *Inorganica Chimica* Acta next year, Peter Maitlis, who did postdoctoral study in organometallic chemistry with Stone at Harvard University in 1962, quotes Stone as saying his most important contribution to chemistry includes the mentoring of about 150 graduate students and postdoctoral fellows. Being accessible to his students at Bristol meant putting green, amber and red lights on the door to his office that opened to his lab. Green meant "come in," amber translated to "come in and take a look," and red meant "too busy."

"One of my students commented that he had never seen the red light on," Stone remarked. In his interview, Maitlis describes Stone as "without a doubt a world-renowned leader in organometallic chemistry and one of the most widely cited chemists." Stone simply says that he's been "very lucky to work on research that has turned out well."

Professor Stone does his work in the new Baylor Sciences Building, designed to put all of the sciences under the same roof. In addition to chemistry, the 508,000-square-foot building houses biology, neuroscience, physics and geology as well as five multidisciplinary research/education centers.

The building is designed to encourage interaction in the belief that students can learn as much from each other as from time spent in the classroom. Stone endorses that approach to learning – even for professors – and notes that it's best if it occurs naturally. "What will contribute to the cross-fertilization of ideas is, if there is a young assistant professor in one department, and he meets another young assistant professor in another department working on something different, they can talk about their work."

When he isn't studying chemistry, Stone likes to read biographies and history, including the stories of American presidents and the Civil War. He recently read The Man Who Broke Napoleon's Codes. But these are just avocational interests.

Chemistry is his life, says Stone. That's why he admires the tale of Robert Welch's purpose. "His ethos of subsidizing chemistry meant many young chemists would have the resources to carry out their research," he comments.



C. STEPHEN EVANS

> University Professor of Philosophy & Humanities

Stephen Evans remembers his fascination for Søren Kierkegaard when, as an undergraduate at Wheaton College, he studied the Danish philosopher as part of his first course in philosophy.

That study helped shape Evans' interested in the philosopher to Baylor.

"Kierkegaard is very interesting to me for two reasons. One, I think he's one Distinguished Professors Carl Vaught of the few modern Christian thinkers who and Robert C. Roberts. commands respect from the non-Christian world," says Evans, a Kierkegaard scholar. "He has profoundly deep things to say about anxiety, freedom and self. But he also has a lot to say to the church about the dangers of cultural Christianity and of taking faith for granted."

Professor Evans received his bachelor's degree at Calvin College and his master's and doctorate at Yale. He arrived at Baylor in 2002 from Calvin College, where he had taught for eight years, the last three serving as dean for research and scholarship as well. Before that. he was a professor of philosophy and curator of the Howard and Edna Hong Kierkegaard Library at St. Olaf College in Northfield, Minn., and prior to that was a professor of philosophy at Wheaton College in Illinois.

The excitement of Baylor's vision and the challenge of trying to create a first-class research university with a Christian identity drew him here. "I think that's a unique challenge, and no one's really done it," says Evans. "Equally important was the opportunity to help start a PhD program in philosophy."

Baylor has a chance to create a program distinct from other PhD programs that will attract students who want to study philosophy in a Christian context. Baylor is distinctive, says Evans, because of its focus on teaching students how to teach and its emphasis on the history of philosophy, which most other doctoral programs don't emphasize. "We also particularly focus on ethics and the philosophy of religion. Those are areas that are of particular interest to Christian

philosophers," says Evans. The program's future and in turn is helping draw students progress so far thrills him, and he notes that the department has excellent scholars in a number of areas, such as

Evans' reputation as a Kierkegaard scholar, as well as that of Roberts, who has worked on Kierkegaard in addition to his focus on ethics and moral psychology, also contribute to the distinctiveness of the philosophy program at Baylor. Although Kierkegaard is very widely read, few philosophy departments have Kierkegaard scholars. "In a way, (Baylor has) already become the best place in the country to go if you want to do a dissertation on Kierkegaard. Quite a number of our students are coming to work on Kierkegaard," savs Evans.

That is the plan of Mark Tietjen, a graduate student who hopes to teach philosophy. Before Evans arrived at Baylor, Tietjen had read some of his books and articles on Kierkegaard. "I emailed him, out of the blue, and asked for advice on graduate school." Evans was still at Calvin College, a four-year liberal arts college, so he recommended other places. But once he accepted the position at Baylor, he told Tietjen about it. "His coming to Baylor University is significant," Tietjen says. "He is wellknown in Christian philosophy circles and outside Christian philosophy circles."

Tietjen was impressed by both Evans' and Roberts' treatment of Kierkegaard and found that both professors took Kierkegaard's Christianity seriously. "I've been in every class (Evans) has been involved in at Baylor except for one. He stimulated my thinking significantly and furthered my interest."

The author of about 15 books, Evans has written a new work on Kierkegaard that came out over the summer from

Oxford University Press. Several years in the making, the work examines Kierkegaard's ethical philosophy. It's titled Kierkegaard's Ethic of Love: Divine Commands and Moral Obligations.

Evans has simultaneously been writing for and editing another book, which will be a collection of essays examining the Incarnation. Its working title, which may change, is The Self-Emptying of God: Exploring Kenotic Christology. "Kenosis" is a word deriving from the Greek, and it designates an emptying. In the context of Christology, the concept takes its impetus from the second chapter of Philippians, in which Christ, although being in the form of God, is spoken of as not grasping or clinging to equality with God, but emptying himself and taking on the form of a servant. Kenotic Christology explores what was involved in this act. The book will contain essays written by philosophers, biblical scholars and theologians dealing with this guestion from various perspectives.

Evans also is putting the finishing touches on Kierkegaard on Faith and The Self: Collected Essays, which will be published by Baylor University Press.

"Beyond that, my next brand-new project is a book on the question of arguments for God's existence. I'm going to write about why people give arguments about God's existence. What function do these arguments serve? Do they have a value? I think they do, but I don't think they're essential or necessary. I don't think that belief in God must be based on philosophical arguments, but I still think that philosophical arguments can have value," says Evans. The tentative title of the book is *Theistic Arguments as* Articulations of Natural Signs.

Also interested in the philosophy of psychology and how psychology relates to Christian faith, Evans has authored three books in this area and spoken to psychologists on the subject. One of his books is a collection of essays based on lectures he delivered at the School of Psychology at Fuller Theological Seminary in Southern California.

In a way, **Baylor has** already become the best place in the country to go if you want to do a dissertation on Kierkegaard.

"I think one of the values of philosophy is that it is an inherently interdisciplinary discipline," says Evans. "If you do philosophy of science, you are interested in science, and if you do philosophy of religion, you have to be interested in religion. As a philosopher, I have tried to reach out to other disciplines in this way. This is a natural fit at Baylor. As Christians at a Baptist university, we have something in common across disciplinary lines."

Professor Evans teaches one graduate and one undergraduate course each semester. Last spring he taught a course on Kierkegaard's ethics. This fall, he taught a course on faith and history that examined the relationship between philosophy and biblical criticism. Modern philosophy is his favorite undergraduate course because "it's such a great story."

Evans' wife, Jan, teaches Spanish in the Modern Language Department. They have three children, one studying at North Park University in Chicago, and the other two attending graduate school in Ohio.

ω





ROBERT C. ROBERTS > Distinguished Professor of Ethics

We are trying to help our students become humble, generous, persevering, creative, independent thinkers who love knowledge and want to share it with others.

One of the attractions that brought Robert Roberts to Baylor from Wheaton College in fall 2001 is the University's emphasis on teaching. Baylor's insistence that its professors not only be fine scholars but teach well sets the University apart from other research universities, says Roberts.

"A colleague of mine from a major research university came to interview for a job, and he was asked to teach a class as part of the interview process. He was shocked," says Roberts. a book titled *Emotions: An Essay in Aid of Moral Psychology* "He said Baylor had better get over such an emphasis on teaching if it wants to be a great research university."

ш ш

Roberts, who got his bachelor's and master's degrees from Wichita State and his doctorate from Yale, appreciates Baylor's emphasis on hiring professors who interact well with students. Although it narrows the pool to ask that professors be Christian, character traits like humility, generosity, honesty, perseverance, research-oriented, and good teachers, it is surprising how many people meet the requirements, he says. And Baylor is proving it by drawing first-rate people attracted to Baylor's vision.

Roberts teaches two different courses each semester. Thus far he has taught a course in ethics cross-listed between graduate and undergraduate students; a graduate course in Aristotle; epistemology; introduction to philosophy; ancient philosophy; and a University Scholars course on the modern period, Descartes to the present.

Matt Kelsey, a senior with a concentration in philosophy and literature who has taken two classes and an independent reading course under Roberts' direction, appreciates the professor's guidance.

His teaching style is conversational, says Kelsey. "He is engaged with the people he's lecturing to. But aside from courses, he's helped me make some decisions about graduate school. He gave me a list of good graduate schools and wrote letters of recommendation for me."

Roberts also wrote a letter recommending Kelsey for the Glennis McCrary Goodrich International Scholarship for study abroad, and Kelsey is sure Roberts' letter played a large role in his winning the scholarship, thus enabling him to spend six weeks at Oxford University last summer.

Roberts enjoys watching his students make intellectual progress, and he likes the way teaching catalyzes the creative exploration and analysis of a subject. "It's enjoyable to be thinking about philosophical ideas, and you get to do that a lot when you're teaching."

He likes the idea of a Christian-oriented research university, and the opportunity to be involved in implementing Baylor's plan. Other universities talk about excellence and take pride in what they've already accomplished, but take little action, said Roberts. At Baylor, he sees "a willingness to make changes, a local agency. to take risks, to spend money to make things happen.

I am very impressed with the administration's can-do attitude. I have never seen anything like the attitude of this administration toward improving the University," he said

Roberts also has had more time to pursue his research than he had in earlier university appointments. He recently published (Cambridge University Press, 2003). He currently is writing the sequel to that book, which examines the relationship between emotions and the moral virtues.

Roberts is co-authoring another book, *Epistemic Virtues*, with Jay Wood, a colleague from Wheaton College, on and autonomy that promote the acquisition of knowledge and understanding. That book is under contract with Oxford University Press.

Roberts is excited about the project because of its fresh approach. In recent decades, epistemology has been a very technical discipline pursued only by specialists and lacking a wide readership. But when the subject is approached from the standpoint of the intellectual virtues, says Roberts, epistemology is relevant to all the disciplines in the university.

"In a Christian university we are trying to help our students become humble, generous, persevering, creative, independent thinkers who love knowledge and want to share it with others," he says. "We are in the business of promoting the intellectual virtues. This book will offer a relevant discussion of what has been an esoteric discipline stuck for decades on the guestion of 'What is knowledge?'

Since the university is involved in creating intellectually virtuous scholars, the concerns of the book are relevant beyond the philosophy department. "You want students to become mature inquirers, people who love knowledge and continue to be readers and have enthusiasm for cultivating their minds That's part of what a university education is all about. I think this book would be of interest to people of all disciplines."

Roberts spent 16 years at Wheaton College in Illinois, where he was a professor of philosophy and taught in the clinical psychology program. He and his wife, Elizabeth, delayed moving to Waco a year to allow their youngest child to graduate from high school. That daughter is now a biology major at Calvin College. An older son is a computer programmer interested in becoming a writer and another daughter is an elementary school teacher. Roberts' wife is a social worker at











The importance of storytelling is not lost on Carl Vaught. He grew up with the powerful storytelling of his father, W.O. Vaught, who was the pastor of Immanuel Baptist Church in Little Rock, Ark., for 38 years.

"Throughout his ministry he was a magnificent storyteller," says Vaught, who relates stories in his books and classes, and often asks students to tell stories of their own. "The first element in the philosophical system that I am developing is the telling of stories. I often ask my students what their story is, and then I suggest that if they don't know, they need to find out," he says.

One student who explored her story with Vaught is Erika Kidd, who graduated in May 2004 and is pursuing a PhD in philosophy from Villanova University in Pennsylvania. Kidd found the opportunity to discuss her story numerous times with Vaught because he advised her senior honors thesis.

"A person's story is wrapped up in her philosophy, so it would be impossible for us to talk about philosophy without making reference to our stories," says Kidd. "Dr. Vaught emphasizes that human experience is rich enough to sustain philosophical discussions, so the questions that a person asks come out of her experience. This sets the context and raises the questions for the philosophical enterprise."

In his classes, she says, he talked about the role of storytelling in communicating ideas. "He would talk about ideas and then tell a story that set it in our minds. And because of his emphasis on story, he never required that students leave their personal lives at the door," Kidd notes. "This made for a positive working experience. He didn't pry in my personal life, but he recognized that these sorts of things have a very real impact on a person's work and the ability to do that work," Kidd says.

Vaught's own story includes graduating summa cum laude from Baylor in 1961 before earning an MA and PhD at Yale. He spent 31 years at Penn State and was head of the Department of Philosophy for ten of those years. Baylor feels like home now, he says, although he and his wife, Jane, find opportunities to escape the summertime heat to visit family in Pennsylvania.

One of professor Vaught's chief interests is the philosophy of religion, the area in which he wrote his doctoral dissertation at Yale. He also is interested in the history of philosophy. "I don't believe that you can do philosophy without doing it within the context of the history of philosophy. So a lot of times I deal with historical figures in the classroom," Vaught says. This is especially true in metaphysics, where he uses classical philosophical figures to bring the issues into focus.

I often ask my students what their story is, and then I suggest that if they don't know, they need to find out.

Vaught says that Baylor students are responsive to this kind of approach, reinforcing his commitment to the classroom. "Glenn Gentry, one of my graduate students, is writing a dissertation with me now, the last two chapters of which will be about Augustine," says Vaught.

Since Vaught is an Augustinian scholar, he says he wouldn't be surprised if many graduate students who write dissertations with him in the future will also have this interest in Augustine. He knows this won't always be the case, but he hopes his love of teaching and his love of the subject will nonetheless be reflected in the work of his students.

This love inspires students to emulate Vaught. "He gave me the kind of gift that was so rich that it demanded of my life some kind of repayment by passing it on to others," says Marty Gallagher, who took courses with Vaught six of his eight semesters at Baylor. "That's the best gift you can get from someone. It's not something to be stored up, rather it demands something of you, and it demands something be given to others. That's why I am pursuing an academic career."

Now a graduate student at the University of Kansas, Gallagher's goals are to get a PhD in philosophy and then a position teaching the subject.

Despite his love for the classroom, Vaught is seeking time away from the campus to finish two books. Both are about metaphysics and illustrate his philosophical method in their treatment of ten historically important thinkers. Plato, Aristotle, Augustine, Anselm and Aquinas appear in the first volume. Volume two examines Leibniz, Kant, Hegel, Wittgenstein and Heidegger. The two volumes are titled A New Metaphysics.

Although published widely and a sought-after speaker, Vaught recalls a time when he was better known as his father's son. "My father once said to me, 'Son, wherever you go, you will never be able to get away from people who have an acquaintance with me.'"

True to this prediction, Vaught says, that when he got to Yale, the first person whose hand he shook said, "You must be the son of W.O. Vaught."

Vaught clearly loves to tell stories about his father. He relates a tale about the aging pastor's determination to preach each Sunday even though an ice storm in Little Rock had frozen the city into immobility for weeks. "He would go to the church in his Volkswagen and crawl into the building," says Vaught. "He knew that there would be only about 100 people there, but at this stage of his ministry he was on statewide television. With so many people 'imprisoned' in their houses, he preached to them for six weeks. I will never forget that story, both about the preacher and about the man."



т

EARL L. GRINOLS > Distinguished Professor of Economics

If economist Earl Grinols shines a glaring spotlight on other controversial economic issues the way he does on casino gambling, we'll all be betting on some changes.

Grinols, the author of *Gambling in America: Costs and Benefits* (Cambridge University Press, 2004) has researched the subject of casino gambling for more than a decade. The social costs of such recreation far outweigh the benefits, he says.

Grinols, who has two bachelor's degrees from the University of Minnesota and a doctorate from MIT, was drawn to economics as a discipline for several reasons. One attraction was the practical good that an economist might do by advocating sound policies. Good economic strategies can circumvent recessions, increase the standard of living and save people billions of dollars. Economic analysis also provides a way to think clearly about issues that affect us all.

Grinols arrived at Baylor from the economics department at the University of Illinois, where he'd worked since 1984. He was a senior economist for the Council of Economic Advisers to President Reagan from 1987-88 and tackled casino gambling in the 1990s when he recommended to Congress the formation of a commission to study its effects. The National Gambling Impact Study Commission was established in 1996. It issued a report in 1999 recommending a moratorium on gambling expansion, including casinos. No research completed since then has suggested any need to alter that recommendation.

Grinols testified twice before Congress and more than 20 times before state legislatures on the subject. His analysis shows that the social costs of such gambling in the form of bankruptcies, health issues, crime and other costs are about \$3 for every \$1 gained.

Grinols' current research focuses on questions involved in public health care and free trade, as well as examines the nature of the positive correlation between the presence of casinos in communities and the crime rate.

With respect to health care, Grinols is concerned about the affordability of health insurance, with finding an appropriate and sustainable way to see that everyone has health care insurance and with the question of public provision.

"Health care is predominantly a private good. That means that the benefits go primarily to the person consuming it," Grinols says. He adds that sometimes there are concomitant public benefits, such as when infectious diseases are contained. "This is different from public goods, such as defense, or governmental dissemination of information on the Internet that can benefit many people simultaneously."

The question therefore becomes, "Is there a rationale for the government to publicly provide private goods that apply to health care?" To offer an answer, he compares health care to education. Although public education also is predominantly a private good, an educated populace generates wealth through the creation of ideas and innovations that inevitably flow freely to society to benefit it. Public education also equips people to provide for themselves, as well as makes for a more civilized society, which adds to its stability and value.

(0)

Grinols reasons similarly about health care. One can make the case, he claims, that it's a proper function of government to ensure that people are equipped to make their way in the world as responsible adults. Promoting a healthy population is casino industry's claim that it is merely part of that task. Another advantage to if the state manages to guarantee that everyone with the ability to provide for themselves is equipped to do so, then only those who are incapable of doing so and in need of help will be left as deserving of special state attention. This makes the state's work easier in other areas.

Grinols also has research interests in international trade. His current focus involves finding ways to make the creation of free trade areas more politically attractive. He also is examining the role of the World Trade Organization in international trade disputes.

Finally, he intends to return to casino research and look more closely at correlations between casinos and crime rates. His research will have two primary foci: how long it takes for crime rates to increase in a community after a casino is

PDIME

built, and whether casino visitors differ as a demographic group from other types continues to be his mentor. of visitors, such as those who visit national parks, monuments and other tourist areas. The latter research responds to the the increase in visitors to an area – not ensuring that everyone is equipped is that the kind of visitors that casinos attract – which contributes to increased crime in areas where casinos are introduced. Grinols' research involves populations he is a very knowledgeable person in within tourist areas, the number of visitors international economics," says to each area, and crime statistics, to determine the correct interpretation. Data obtained for the Mall of America, Disneyworld, and the city of Branson, Mo., seem to dispute the visitors-causecrime thesis. "Tiny Branson is hosting six million visitors a year, which matches what the entire state of Hawaii does, so it ought to be one of the most crime-laden spots on Earth," says Grinols. "Except it isn't. Las Vegas, which receives far fewer visitors per capita, is the most crimeintensive location in the study group." Richard Mshomba, who earned his PhD at the University of Illinois at Urbana-Champaign with Grinols as his



Grinols testified twice before Congress and more than 20 times before state legislatures on the subject. His analysis shows that the social costs of such gambling in the form of bankruptcies, health issues, crime and other costs are about \$3 for every \$1 gained.

principal adviser, says that Grinols

"I share my research with him. and he gives me advice," says Mshomba, a professor of economics at La Salle University in Philadelphia, Pa. "He has a wonderful work ethic that I certainly benefited from." Although Grinols was busy, he always had time for students, adds Mshomba. "I should also mention Mshomba, who is from Tanzania and wrote his dissertation on the smuggling of illegally consumed goods from Tanzania into Kenya.

"Dr. Grinols is easy to work with because he is a very devout Christian," Mshomba says. "In addition to talking about our profession, it was easy to talk with him about ethics and moral issues from a Christian perspective. This was very meaningful to me."

Grinols moved here this year with his wife, Anne, who took a position at Baylor as assistant dean for graduate programs in the Hankamer School of Business.



"(Earlier) research found that young adults from divorced homes reported higher levels of materialism," Roberts says. "The thought is that divorce creates stress and reduces intangible and

On a broader level. **Roberts explains.** people with higher Based on that idea, Roberts, along with fellow levels of materialism are less likely to be involved in their communities. less likely to work Roberts and his coauthors found that levels of with charitable organizations and may exhibit less concern for the environment.

tangible family resources that lead adolescents to shift their focus from interpersonal relationships to material possessions as a means of coping," he says. Baylor marketing professor Jeff Tanner, set out to examine the impact such a shift might have on family stress levels. Other researchers' work has suggested that post-divorce family stress levels were lower for young adults having higher materialistic goals. This finding runs contrary to the common understanding that materialism has been linked to lower levels of general well-being. family stress were higher for more materialistic teens regardless of whether they came from divorced or intact homes. However, the impact of materialism on family stress levels was more pronounced for teens from divorced homes. Roberts suggests this finding shows that materialism may be a common coping strategy when dealing with family disruption and that it may influence the values we hold as we enter adulthood.

"These are people who value material possessions and put less value on personal relationships," he says. "In the long run it's not a good thing."

On a broader level, Roberts explains, people with higher levels of materialism are less likely to be involved in their communities, less likely to work with charitable organizations and may exhibit less concern for the environment.

The study, to be published in an upcoming issue of the Journal of Consumer Psychology, is a prelude to further research. Roberts will look at how materialistic values may lead to compulsive buying, credit card abuse and debt. His earlier research shows that abuse of credit cards is an important contributing factor in compulsive buying.

In addition, Roberts is exploring other early life experiences such as the death of a parent or other family disruptions and the impact they may have on the consumer behavior and attitudes of adults. "In other words, what roles do early life experiences play in our self-esteem, and how does our sense of worth impact our attitudes and behavior?"

ased on his most current research, some might be tempted to believe Jim Roberts, associate professor of marketing and holder of The Mrs. W.A. (Agnes) Mays **Professorship in** Entrepreneurship, has a good idea of how much teens like to spend. But his goal in measuring materialistic attitudes among youth is different. Roberts' recent work looks at the influence divorce has on the materialistic acquisitiveness of young people.

-> PI : Y P

Jim Roberts, Associate Professor of Marketing

Roberts says he hopes the results of such studies will shed light on which family resources can reduce stress and which personal characteristics help some people cope better than others.

Roberts, who teaches marketing research. says his work on the societal effects of materialism provides a useful teaching tool. "I use examples from my work to show students how to conduct a survey and how to choose a sample," he says, adding that this also enables him to share indirectly the lessons implicit in his results.

Studying the effects of materialism is fair game in the advertising and promotions class. "It's what runs the economy," he says, "but we need to look at the outcome, too."

Case No. PETITION FOR DISSOLUTION OF MARRIAGE

Co. Petitionery

Station of the Advertisition of Adverticity

Ask who invented the light bulb and the response you expect to get is "Thomas Edison." The answer is almost right.

What Blaine McCormick, assistant professor of management, is eager to share with professionals and students alike is that while Edison did not invent the concept of a light bulb, he was the first to work the idea to his advantage by producing a marketable product. The results of his savvy business practices have paid off in the form of a professional legend and legacy.

McCormick, who has studied the business practices of both Edison and Benjamin Franklin, spent much of 2003 working in the Edison archives at Rutgers University in New Jersey. "There were 23 people who had working light bulbs prior to Edison," McCormick explains. "But he understood the marketplace, having worked in the telegraphy industry, so he created the first massmarketable, mass-manufactured and mass-capitalized bulb!"



BY JENNIFER ALEXANDER toison Van

Thomas Edison, 1916.

McCormick adds that Edison had to convince the public that electricity was safe, so he put his skills to use in the form of a human light parade that marched through the streets of New York City. "He was a clever marketer," McCormick says. These business strategies were just a few of dozens that Edison used to become a successful entrepreneur. The five million documents that he left behind, the featured subject of the multi-volume The Papers of Thomas Edison, for which McCormick is one of many contributing editors, reveal just how Edison employed business to his advantage.

McCormick says many things have made Edison stand out as a successful businessman, and one in particular was his practice of working with a team to create products. "He was not a lonewolf inventor," McCormick says. "He had a team of people, a whole organization; he came late, but beat everybody. Edison invented the modern research and development lab, and modern institutional research functions."

McCormick also has been studying the life and work of Benjamin Franklin and has been working on a new edition of Franklin's autobiography that will be published by the University of Pennsylvania Press. McCormick notices many similarities between the two men, evidenced by the fact that "Edison was called the Franklin of the 19th century."

Thomas Edison, 1904



Blaine McCormick, Assistant Professor of Management

> "They ran parallel tracks, and both were characterized by the intersection of science and business," he says. "Franklin mapped the precise course of the Gulf Stream and published maps detailing its flow, which helped trade immensely by improving the speed of ships. He also created new ways of printing pictures and money that replaced the older wood block technology."

One major difference between the two men, McCormick points out, is patent activity. While Edison became a poster child for patents, Franklin did not even seek a patent on what is commonly called the Franklin stove.

"He said it was for the good of all humankind." remarks McCormick. explaining Franklin's decision to let others replicate the invention.

McCormick hopes the works of Edison and Franklin demonstrate how entrepreneurial activity has made "a very positive contribution to American culture and history – business has always mattered in the equation," he says.

Thomas Edison photographs used with permission from the U.S. Department of the Interior National Park Service Edison National Historic Site

BY JENNIFER ALEXANDER GL BAL Reputation



r he Armstrong Browning Library has long been a prominent feature of Baylor's campus. With the world's largest collection of books and manuscripts related to Victorian poets Robert and Elizabeth Barrett Browning, it draws scholars to Baylor from all over the world, strengthening the University's global academic reputation.

> For its director, Dr. Stephen Prickett, the collection is one way to share Baylor with the world. "This library is unique," Prickett says. "Not merely do we have the Brownings' (collection), but a constantly expanding collection of 19th-century literature including some of Matthew Arnold's personal library and substantial collections of Emerson, MacDonald, Ruskin and 19th-century women poets not to mention the Stokes Shakespeare collection."

> Most recently, the library acquired 25 lots at the Christie's sale of the Vander Poel collection in London. Halstead B. Vander Poel was a wealthy New Yorker who lived in Italy for many years and, with little publicity, amassed a huge collection of first and other valuable editions. Among the items bought were the Kelmscott Chaucer, created by William Morris and Edward Burne-Jones, the correspondence between Robert Browning and Julia Wedgwood, the niece of Charles Darwin, and a manuscript of Elizabeth Browning's An Essay on Mind.

Prickett sees it as his job not merely to promote research about the Brownings, but to develop other associated areas of literature as well. This year, the library will host an international conference on the

Scottish fantasy author George MacDonald, and in 2006, on the bi-centenary of her birth, a conference on Elizabeth Barrett Browning. The library also is preparing to acquire the private papers of the 19th-century French philosopher, Joseph Milsand, who was a close friend of Robert Browning, of which Prickett says "will change our view of Anglo-French relationships during that period." Prickett also recently organized a conference in Budapest, Hungary, to plan the 1,200-page multi-lingual Anthology of European Romanticism, to be published jointly by Baylor University Press and Argumentum, a Hungarian Press, in 2007.

"It's the culmination of six years

of work," says Prickett, who is serving as general editor. "Nothing like this has ever been done." Part of the reason, he says, is that the volume covers literature in 12 languages, and few scholars know them all. The project has involved researchers from as far away as Japan and Australia. "This anthology truly is an international effort," he says, adding that joint publication of the work will enhance recognition of Baylor in the European community and put the University on the international map in a new way. The anthology's focus on Romantic literature is related to other

Stephen Prickett, Director of the Armstrong **Browning Library**

research Prickett has undertaken. In 2002, Cambridge University Press published his Narrative, Religion and Science: Fundamentalism versus Irony, 1700-1999, which argues that scientific narratives share similar interpretative rules with literary and religious ones. Baylor University Press will soon publish a second edition of Prickett's 1979 book *Victorian Fantasy*, and he is currently doing research on the evolution of the concept of tradition since the mid-18th century.

Prickett, who has degrees from Cambridge and Oxford Universities, comes to Baylor most recently from the University of Glasgow, where he was Regius Professor of English Language and Literature. He has been the director of the Armstrong Browning Library since 2003 and also serves as The Margaret Root Brown Chair for Robert Browning and Victorian Studies and visiting professor of English.

It's the culmination of six years of work. ... The volume covers literature in 12 languages, and few scholars know them all.

reviews



1 TOWARD A JEWISH THEOLOGY OF LIBERATION: The Challenge of the 21st Century

> Marc H. Ellis

 \prec

г 0

R

R

m

S

т Р

R C

т

25

Turmoil still grips the Middle East and fear continues to terrorize post-9/11 America. The comforts and challenges of this book are thus as timely as when first published in 1987. With new reflections on the future of Judaism and Israel, Ellis underscores the enduring problem of justice

Ellis' use of liberation theology to make connections between the Holocaust and contemporary communities from the Third World reminds both Jews and oppressed Christians that they share common ground in the experiences of abandonment, suffering and death. According to Ellis, Jews and Christians must never allow the reality of anti-Semitism to become an excuse for evading solidarity with the oppressed peoples - be they African, Asian, Latin American or, especially, Palestinian.

Marc Ellis is University Professor of American and Jewish Studies and director of the Center for American and Jewish Studies at Baylor University. Ellis has authored over ten books and three collections of essays, including Revolutionary Forgiveness: Judaism, Christianity and the Future of Religious Life (2000) and a second edition of A Year at the Catholic Worker: A Spiritual Journey Among the Poor (2000), both published by Baylor University Press.

2 METAPHOR, ANALOGY AND THE PLACE OF PLACES: Where Religion and Philosophy Meet

> Carl G. Vaught

The relationship between religion and philosophy has a long and troubled history, with one or the other often asserting its primacy of place. Among intellectual efforts at rapprochement. Carl Vaught's Metaphor. Analogy and the Place of Places introduces a new perspective that cannot but change the landscape in contemporary philosophical theology and philosophy of religion.

Vaught identifies the place where religion and philosophy meet - and he does so in constant conversation with Augustine, Hegel, Heidegger and Jaspers. Specifically, he argues that both religious and philosophical discourse assume one of four modes: figurative, analytical, systematic and analogical. Vaught contends that any real innovation occurs by moving from one mode of discourse to another. He also explores the relationship among space, time and place as well as mystery, power and structure. Remarkably, Vaught shows how the category of place serves as the intersection of them all. In the end, place is the orientation that guides the discussions of Being and God, where philosophy and religion are joined.

Carl Vaught is Distinguished Professor of Philosophy at Baylor University. He is the author or editor of eight books, including The Journey Toward God in Augustine's Confessions (2003), The Quest for God (1982), Essays in Metaphysics (1970), and The Sermon on the Mount (2001).

3 FLANNERY O'CONNOR AND THE CHRIST-HAUNTED SOUTH

> Ralph C. Wood

Flannery O'Connor was only the second 20th-century writer (after William Faulkner) to have her work collected for the Library of America, the definitive edition of American authors. Forty years after her death, O'Connor's fiction still retains its original power and pertinence. This new groundbreaking study of O'Connor's work by Ralph C. Wood offers one of the finest introductions available.

Unique to Wood's approach is his concern to show how O'Connor's stories, novels, and essays impinge on America's cultural and ecclesial condition. He uses O'Connor's work as a window onto its own regional and religious ethos. Indeed, he argues here that O'Connor's fiction has lasting, even universal, significance precisely because it is rooted in the confessional witness of her Roman Catholicism and in the Christ-haunted character of the American South

Far more than a critical analysis of O'Connor's writing, Wood's book is devoted to cultural and theological criticism by way of O'Connor's searing insights into our time and place.

Wood explores the role of religious fundamentalism in American culture and in relation to both Protestant liberalism and Roman Catholicism; the practice of racial slavery and its continuing legacy in the literature and religion of the South; the debate over Southern identity, especially whether it is a culture rooted in ancient or modern values; the place of preaching and the sacraments in secular society and beleaguered Christendom; and the lure of nihilism in contemporary American culture.

Ralph Wood is University Professor of Theology and Literature at Baylor University. He serves as an editor at large for Christian Century and as a member of the editorial board for the Flannery O'Connor Review. His other books include The Comedy of Redemption: Christian Faith and Comic Vision in Four American Novelists and The Gospel According to Tolkien: Visions of the Kingdom in Middle-earth.

Vice Provost for Research Colloquium Series

VPR Colloquium Series Brings Outstanding Teachers and Researchers to Campus BY JUDY LONG

Baylor students and faculty have many opportunities to hear exceptional scholars and attend major academic conferences, thanks to the support of the Office of the Vice Provost for Research (VPR). The VPR Colloquium Series, intended for the benefit of the entire Baylor community, hosts distinguished scholars from diverse disciplines to lecture on topics of interest each year.

The series seeks to foster the cross-fertilization of research and scholarly pursuits taking place at various institutions and to enlighten general audiences concerning new frontiers within a broad range of academic and professional fields relevant to the Baylor community. These colloguia have the additional benefit of providing Baylor's undergraduate and graduate students the opportunity to observe and converse with world-renowned scholars.

Fourteen speakers in seven different disciplines came to Baylor in the 2003-04 academic year, and the 2004-05 year will bring to campus at least twelve speakers with different academic specializations. Literary theory, religion, physics, astronomy and polymer science are among the research fields represented on the slate of exceptional lecturers for the colloquia.

For example, in August 2003, Dr. Wubbo J. Ockels, Dutch aerospace engineer and former astronaut, gave a talk titled "Space Perspectives." Ockels, who is chair of the aerospace engineering department at Technical University in Delft, Netherlands, applies his engineering expertise to the invention of sustainable energy devices and is committed to inspiring a new generation to develop imaginative sustainable energy solutions. His research includes real-time software programming and gamma-ray decay of nuclear systems. He served as head of the European Space Agency Office for Education before joining the faculty of Technical University in 2003.

Dr. Francois Bovon, professor at the Divinity School of Harvard University,

among other works.

In April 2004, Dr. Ian Hutchinson, head of the Department of Nuclear Engineering and Alcator C-Mod Tokamak Project at the Massachusetts Institute of Technology, presented a two-part series, "Warfare and Wedlock: Life in Science and Faith." Hutchinson's research interests include plasma physics, controlled fusion energy and the relationship between science and Christianity. He has published numerous articles and a book, *Principles* of Plasma Diagnostics, and he serves on the editorial boards of *Plasma Physics* and Controlled Fusion and the New Journal of Physics.

Also in April 2004, Dr. Chris Impey, University of Arizona Distinguished Professor of Astronomy who has received the National Science Foundation (NSF) Director's Award for Distinguished Teaching Scholars (NSF's highest award for teaching and research), gave a lecture on quasars. Impey said seeing young people get excited about science constantly motivates him. "I teach because the universe is so cool, and the simple laws that govern it are so elegant that it makes you want to shout it from the rooftops!" The VPR Colloquium Series brought the 2003-04 year to a close by sponsoring a two-day conference of the South Central Region of the Society of Environmental Toxicology and Chemistry (SETAC). The keynote speaker was nationally known water researcher Dana Kolpin, a hydrologist and the head of the emerging issues in water quality project of the U.S. Geological Survey. The conference dealt with emerging issues in environmental toxicology and chemistry, and Kolpin discussed his research, which focuses on identifying a broad range of common drugs in water

spoke at Truett Seminary in January 2004 on the topic "Beyond the Book of Acts: Stephen, the First Martyr, in Traditions Outside the Canon." A specialist on the Gospel of Luke and the Acts of the Apostles, he is the author of *Luke, the* Theologian (Pickwick Publications, 1987),

downstream from urban areas. Although finding these compounds in effluent water is not surprising, Kolpin said, their presence signals a need to study their environmental impact.

The VPR Colloquium Series launched the 2004-2005 academic year by organizing a high-profile and significant conference, the fall meeting of the Texas Section of the American Physical Society, which was held on campus Oct. 7-9, 2004. It was one of the largest conferences held at Baylor and the first conference to be held in the new Sciences Building. Physicists attending the conference discussed diverse topics ranging from black holes to musical scores, and from nanotechnology to the history of the universe.

Among the prominent physicists featured at the conference were Dr. Rick Trebino, a professor at Georgia Tech who has developed techniques for generating and measuring ultra-short laser pulses; Dr. Lei Dong, a radiation physicist at the M.D. Anderson Cancer Center in Houston; Dr. Don Page, the renowned guantum cosmologist from the University of Alberta who studied under Stephen Hawking; and Dr. George Skidmore, who was recently named Inventor of the Year by the intellectual property division of the State Bar of Texas.

The impressive roster of upcoming colloguium speakers includes Dr. Paul Ruud, professor of economics at the University of California at Berkeley, and Dr. Kitty Dickerson, chair of the Department of Textile and Apparel Management at the University of Missouri in Columbia, who is a global textile trade expert. Also coming to campus will be Dr. Roger Finke, professor of sociology and religious studies at Penn State, and Dr. Stanley Fish, dean of the College of Liberal Arts and Sciences at the University of Illinois at Chicago, a leading Milton scholar and prominent literary theorist.

Graduate Degrees at Baylor

Accounting — MAcc, MAcc/BBA, MAcc/JD

Advanced Neonatal Nursing — MSN

Advanced Nursing Leadership — MSN

œ ⊳ 0 R R ш ⊳ \cap т Ν

American Studies — MA Biology — MA, MS, PhD Biomedical Engineering — MSBME, MSBME/BSECE, MSBME/BSME, MSBME/BSE Biomedical Studies — MS. PhD Business Administration — MBA, MBA/JD Business Administration in Informational Systems Management — MBA/ISM Business Administration in International Management — MBI Business Administration/Information Systems — MBA/MSIS Chemistry — MS, PhD Church Music — MM, MM/MDiv Church-State Studies — MA, PhD Clinical Psychology — PsyD Communication Sciences and Disorders — MA. MSCd Communication Studies — MA Composition — MM Computer Science — MS Conducting — MM Curriculum and Instruction — EdD, MA, MSEd, Directing — MFA Earth Sciences — MA Economics — MSEco Educational Administration — MSEd Educational Psychology — EdS, MA, MSEd, MSEd/MDiv, PhD Electrical and Computer Engineering — MSECE, MSECE/BSECE Engineering — ME, ME/BSECE, ME/BSME, ME/BSE English — MA, PhD Environmental Biology — MS Environmental Studies — MES, MS Exercise, Nutrition, and Preventative Health — PhD Family Nurse Practitioner — MSN

Geology — MS, PhD Health Care Administration, Fort Sam Houston — MHA Health, Human Performance, and Recreation — MSEd History — MA Information Systems — MSIS International Economics — MA, MS International Journalism — MU International Relations — MA Journalism — MA Limnology — MSL Mathematics — MS, PhD Mechanical Engineering — MSME, MSME/BSME Museum Studies — MA Music Education — MM Music History and Literature — MM Music Theory — MM Neuroscience — MA, PhD Performance — MM Philosophy — MA, PhD Physical Therapy, Brooke Army Medical Center — DScPT Physical Therapy, Fort Sam Houston — MPT, DPT Physical Therapy, West Point — DScPT Physics — MA, MS, PhD Piano Accompanying — MM Piano Pedagogy and Performance — MM Political Science — MA Public Policy and Administration — MPPA, MPPA/JD Religion — MA, PhD Religion, Politics, and Society — PhD Social Work — MSW, MSW/MDiv Sociology — MA, PhD Spanish — MA Statistics — MA. PhD Taxation — MTax, BBA/MTax, MTax/JD

>University Research Centers and Institutes

Center for American & Jewish Studies Center for Analytical Spectroscopy Center for Applied Geographic and Spatial Research Center for Astrophysics, Space Physics & Engineering Research (CASPER) Center for Business and Economic Research Center for Christian Education Center for Christian Ethics Center for Christian Music Studies Center for Community Learning and Enrichment Center for Community Research & Development Center for Drug Discovery Center for Exercise, Nutrition & Preventative Health Research

Center for Family & Community Ministries Center for International Education Center for Ministry Effectiveness Center for Reservoir and Aquatic Systems Research Allbritton Art Institute Institute for Air Science Institute of Archeology Institute of Biblical & Related Languages Institute of Biomedical Studies Institute for Faith & Learning Institute of Gerontological Studies Institute for Oral History J.M. Dawson Institute of Church-State Studies

selected recent project grants and contracts of Baylor faculty members:

Dr. Brad Keele, Psychology and Neuroscience – \$119,743; **Dr. Erich Baker**, Computer Science – \$69,123; Neural Correlates of Emotion; National Institutes of Health Bioinformatics for Mouse Phenotype Analysis; National Institutes of Health through the University of Tennessee **Dr. Richard Kreider**. HHPR – \$5,000,000: The Curves **Dr. Lori Baker**, Anthropology – \$15,400; Mexico Funding Women's Health Initiative; Curves, International for Independent DNA Analysis for Keicker Case; Management Systems International **Dr. Robert Marks**, Engineering – \$50,000; Collective Behavior of Biological Swarms: System Modeling, Drs. Walter Bradley, Ian Gravagne and Brian Garner, Analysis and Algorithmic Development for Distributed Engineering – \$392,242; Exercise Equipment – Phase II, Dynamic Resource Allocation Problems; NASA's Jet Development of a New Generation of Exercise Equipment; Propulsion Laboratory Curves, International **Dr. Bill Petty**, Hankamer School of Business – \$48,000; Dr. Bryan Brooks, Environmental Studies – \$68,774; Collegiate Network; Marion Ewing Kauffman Foundation Promotion of "Good Data" Efforts of EPA and State Agencies to Support NPDES Decisions; Environmental Dr. Kevin Pinney, Chemistry and Biochemistry – \$100,000; Vascular Targeting Agents (VTAs) for Cancer Protection Agency Chemotherapy and the Treatment of Wet Age-Related Drs. Robert Doyle, Owen Lind, Joseph White, Macular Degeneration; OXiGENE, Inc. Rene Massengale and Ms. Laura Davalos-Lind, Biology; **Dr. Bryan Brooks**, Environmental Studies; **Bruce Byars** Dr. Kevin Pinney and Ms. Graciela Miranda – \$172,299; and Lisa Zygo, CAGSR – \$335,875; Phase II for a project Novel Serotonin Reuptake Inhibitors for Autism Treatment; involving water quality of Lake Waco; ENSR Corporation National Institutes of Health through the city of Waco Drs. Michela Ritter and David Rivers, Department Drs. Charles Garner, Robert Kane, Kevin Klausmeyer of Communication Sciences and Disorders – \$42,956; and **Carlos Manzanares**, Chemistry and Biochemistry – Rite Care Camp Success 2004; Waco Scottish Rite Learning \$600,000; Individual three-year grants in support of basic Center/Scottish Rite Charitable Foundation chemical research; Robert A. Welch Foundation Dr. Max Shauck, Baylor Institute for Air Science -**Dr. Carole Hanks**, Nursing – \$52,289; Memphis New \$650,000; TCEQ 04; Texas Commission on Environmental Mothers Study; W.T. Grant Foundation through the Quality, renewal amendment to existing contract University of Rochester **Dr. Lisa Taylor**, Nursing – \$238,669; Basic Nurse Drs. James Henderson and Beck Taylor. Economics: Education Program – BEAR Clinic, Year 2 funding; Dr. Allen Seward, Finance, Insurance, and Real Estate – Department of Health and Human Services, Health \$162,647; Study on Regulation of Health Care: The Resources and Services Administration Impact of Regulation on the Health Insurance Market **Dr. Bennie Ward**, Physics – \$25,000; Radiative and Health Care Providers: National Institutes of Health Corrections; North Atlantic Treaty Organization, through Duke University Scientific Affairs Division **Dr. Truell Hyde**, Center for Astrophysics, Space Physics Dr. Joseph White, Biology – \$29,044; Fire Risk & Engineering Research – \$123,750; REU/RET Site Program; Assessment for the Habitat of the Golden-Cheeked National Science Foundation Warbler, Year 1; U.S. Geological Survey **Dr. Susan Johnsen**, Educational Psychology – \$48,050; Project Promise, 29th year; U.S. Department of Housing **Dr. Ralph Wood**. Religion – \$56,000: Reading Tolkien and Urban Development through the city of Waco and Living the Virtues; Lilly Fellows Program

President Robert B. Sloan Jr. > Provost David Jeffrey > Vice Provost for Research Truell Hyde > Research Project Manager Charles Patterson > Contributing Editor Bruce Gordon > Administrative Assistant to the VPR Amy Skaggs > Web Programmer/Analyst Jeffrey Lemaster > Office of Sponsored Programs Gary Carter, Elizabeth Reaves, Brian Sadler, Rene Coker > Design Pollei DesignWorks > Project Editors Paul Carr, Dana Wallace > Writers Jennifer Alexander, Barbara Elmore, Judy Long > Photographers Cliff Cheney, Chris Hansen, Joe Griffin Editorial Office Baylor Research

One Bear Place #97310 > Waco, TX 76798-7310 > (254) 710-3763 phone > (254) 710-7309 fax > http://www.baylor.edu/research Baylor Research is published annually by the Baylor University Office of the Vice Provost for Research to provide alumni, faculty, staff, supporters and friends with

a sampling of the many research and scholarly activities conducted at Baylor. This issue was published in January 2005. For additional information about projects reported in this issue, contact Truell Hyde, Vice Provost for Research. Research is produced by the Baylor University Office of Public Relations. Send address changes to Baylor Research, Office of the Vice Provost for Research, Baylor University, One Bear Place #97310, Waco, TX 76798-7310. For further information visit our website at http://www.baylor.edu/research. MEDIA REPRESENTATIVES: Permission is granted to use part or all of any article published here. Appropriate credit and a tearsheet are requested.