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## SCHOLA WKU

THE SPIRIT OF SCHOLARSHIP AND RESEARCH AT WESTERN KENTUCKY UNIVERSITY





Sam Evans, Ph.D.

Scholarship can take many forms, and what we value in terms of scholarship is often guided by our discipline and the mentoring that has been provided during our individual professional development. Regardless of the type of scholarship in which we are engaged, the products of our efforts are the life blood of our society. In our current economic environment individuals are facing many uncertainties and are searching for new and unique ways of solving the problems of our society and essentially those of the larger world. The American system of higher

education is without question one of the crown jewels of our society and envied throughout the world. It has provided an environment conducive to the development of new ideas and ways to solve problems and issues that are insurmountable in the eyes of some individuals. This environment has provided us with freedom to work in ways that are envied by our colleagues in other nations, and it also challenges our commitment to the phrase "of those to whom much is given, much is expected."

We have colleagues who are involved in cutting edge research, while others are involved in creative endeavors that add beauty and enjoyment to the community and world in which we live and work. These efforts not only contribute to the well-being of society but also inform our teaching and provide opportunities for students to connect the theoretical world of the classroom to the world of practice. Whether in a laboratory, studio, clinical, or field setting, through our scholarship we have the opportunity and obligation to equip future generations in a way that will help them address issues and problems that are known and sometime unknown. To accomplish this goal, we must provide a learning environment that fosters creative and critical thinking and challenges our students to maximize their potential.

In addition to providing us with professional opportunities that are personally satisfying, individually and collectively our scholarly agendas have the potential to open doors for others and help to fulfill WKU's vision to be a Leading American University with International Reach. Our challenges become new opportunities for ourselves and others, and our commitment to scholarship will help us recognize and utilize these opportunities for the betterment of society.

Sam Evans, Ph.D.

Dean, College of Education and Behavioral Sciences



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Carl Kell investigates the role of rhetoric and persuasion in the history of the Southern Baptist Convention. *Illustration by Tom Meacham.* 

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## A Positive Exchange

BY MOLLY SWIETEK

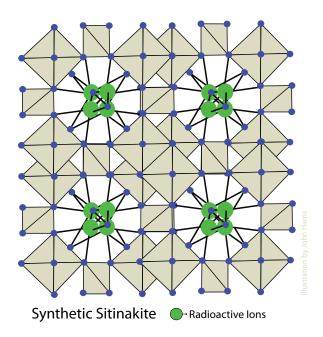


NINETY MILES NORTHWEST OF LAS VEGAS SITS YUCCA MOUNTAIN, A VOLCANIC RIDGE PROPOSED AS THE

Dr. Aaron Celestian SITE FOR THE NATION'S NUCLEAR WASTE REPOSITORY.

POTENTIALLY — PENDING A FINAL DECISION BY THE GOVERNMENT — TONS
OF SPENT NUCLEAR FUEL AND HIGH-LEVEL RADIOACTIVE WASTE MAY BE
TRANSPORTED THERE FROM OVER 120 CURRENT STORAGE SITES FROM
ALL ACROSS THE COUNTRY. TRANSPORTING AND STORING SUCH HIGHLY
RADIOACTIVE MATERIAL HAS ITS DANGERS, BUT DR. AARON J. CELESTIAN,
AN ASSISTANT PROFESSOR IN THE DEPARTMENT OF GEOLOGY AND
GEOGRAPHY AT WESTERN KENTUCKY UNIVERSITY, IS WORKING TO MAKE
SURE WHAT HAPPENS IN YUCCA MOUNTAIN STAYS IN YUCCA MOUNTAIN —
SAFELY.

Celestian's research focuses on engineering crystalline materials to selectively separate high-level radioactive waste into an environmentally stable form. The process is known as ion exchange. Celestian, along with his team of graduate and undergraduate researchers, is working to develop a material that will selectively target and sequester radioactive ions, such as cesium and strontium. Both elements occur naturally in the environment but become unstable and toxic through nuclear fission. Nuclear power plants producing atomic energy and weapons generate large quantities of radioactive cesium and strontium. "Currently, thirty-nine states have radioactive material storage sites," said Dr. Celestian. "There is an abundance of radioactive waste contaminants, and the question is, 'What do we do with it?'" Celestian believes the answer is sequestration, or "locking up" the radioactive elements so they can be safely transported and put into long-term storage with other environmentally hazardous materials. According to Celestian, "We're researching ways to permanently isolate unstable ions, such as cesium, and to reduce the negative environmental and health impacts of radioactive waste."





### Celestian's research focuses on engineering crystalline materials to selectively separate high-level radioactive waste into an environmentally stable form. The process is known as ion exchange.

To achieve such a feat, Dr. Celestian studies ion exchange in synthetic sitinakite, a porous structure known for its very high ion selectivity. Sitinakite possesses characteristics similar to naturally occurring zeolites and clays minerals with the molecular ability to remove positively-charged ions known as cations. "By examining naturally occurring selectivity, we can begin to understand how nature fine-tunes structure for functionality," said Celestian. "Observing such a phenomenon provides hope that biological-like functionality, in terms of ion selectivity, might be possible in other synthetic materials."

Understanding the natural functions of minerals in the earth is the first step toward engineering artificial materials manufactured for a specific function, like sequestering radioactive contaminants. Zeolites are used for many practical day-to-day purposes, such as absorbing ammonium in cat litter, replacing calcium with sodium to

soften water, and refining oil to generate gasoline. Another example of natural ion exchange can be found in the use of clay to sequester toxins from contaminated soil. Clay minerals are porous materials that are mechanically capable of exchanging ions. However, clay is not a highly selective mineral, nor does it "lock in" ions. By examining how ions move in and out of a crystal structure, such as clay, scientists like Aaron Celestian can begin engineering efforts to design a crystalline structure capable of targeting and encapsulating specific ions. "We want to know exactly how minerals behave in the environment and how they react to toxins," he said. "By understanding the principal atomistic mechanisms responsible for a material's functionality, we are able to establish methodologies to modify its properties to develop enhanced synthetic materials for ion separation technologies in waste remediation."

Dr. Celestian's interests in ion exchange processes developed from

his early studies in mineralogy. After earning his bachelor's degree from the University of Arizona, he continued his academic pursuits at Stony Brook University, where he earned his master's degree in 2002 and a doctorate in geosciences in 2006. Following his faculty appointment at WKU in 2007, Celestian immediately began engaging his students in researching the ion exchange process in crystalline structures. "I really enjoy teaching in the classroom and get a lot of satisfaction from working directly with students in the lab," he said. "The research I enjoy doing directly supports the training and experimental studies of these students." Celestian's collaborative efforts with his students have resulted in the development of the Celestian Group, a team comprised of WKU graduate and undergraduate researchers. Experiments conducted by Celestian and Samantha Kramer, a graduate student studying geosciences, led to

a joint presentation at the American Geophysical Union's 2008 meeting.

In WKU's Crystal Kinetics Laboratory and Materials Characterization Center, the Celestian Group is currently working to develop synthetic ion exchangers. The group focuses their research efforts on engineering crystalline silicotitanates (CST), a nanoporous material designed for the targeted removal of cesium. According to the group's website (www.wku.edu/~aaron. *celestian/*), "combining information from time-resolved X-ray and neutron scattering with theoretical calculations reveals the elegant mechanism whereby CST achieve their remarkable ion exchange selectivity from cesium."

Due to the speed at which ion diffusion takes place, it is difficult to view the complex structure of crystalline materials and to study the exact process of ion exchange in real-time. X-ray diffraction and neutron scattering techniques provide relevant information needed to determine the characteristics of ion mobility and pathways of exchange. Only national laboratories are capable of monitoring chemical

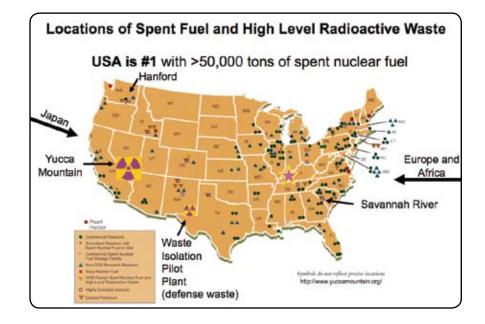
## Future applications of synthetic ion exchangers could include preventing viruses from penetrating cells and also lead to the development of more effective antiviral drugs.

reactions fast enough to provide realtime observation of the ion exchange process. With grant funds provided by a WKU-sponsored Faculty Scholarship Award, Celestian and several students were able to travel to the National Synchrotron Light Source laboratory in Brookhaven, New York, to initiate experiments on the exchange process between the element strontium and the CST materials engineered by the Celestian Group.

The initial results of the experiments showed how strontium migrated into the synthetic sitinakites, and how the crystal structures expanded to accommodate the selected ions. The broader results, however, indicate this preliminary data will serve as a stepping stone to developing more exploratory benefits of selective ion exchange. "With greater knowledge of the exchange

mechanisms, we can more accurately develop new materials with an eye toward permanent sequestration of selective ions," said Celestian. Future applications of synthetic ion exchangers could include preventing viruses from penetrating cells and also lead to the development of more effective anti-viral drugs. In the case of radioactive contaminants, as concern grows over the environmental and health impacts of nuclear waste, the real-world applications of Celestian's research are more timely and relevant than ever. "We could potentially discover a way to permanently sequester radioactive elements and prevent them from entering the environment,"

The knowledge gained from the research on ion exchange has far-reaching implications, yet it appears the most positive exchange occurs in the lab between Celestian and his students who are active participants in his highly important work. "I hope to provide my students with scientifically enriching experiences and collaborative development," said Celestian. "I enjoy giving them the opportunity to travel and work in worldrenowned research laboratories. Our studies address a number of real-world problems, from healthcare concerns to environmental issues, and it's exciting to think about the possible impact we could have on a global scale."





STUDYING WEATHER FROM

Med to East

BY KATHERINE PENNAVARIA

Theories about the Pacific Decadal Oscillation (PDO), have developed in the last decade. The PDO is a northern Pacific phenomenon occurring roughly every thirty to fifty years. Both El Niño and the PDO have warm, cold, and neutral phases to each cycle.



ANYONE WATCHING
THE WEATHER NEWS
IN THE PAST FEW
MONTHS MIGHT HAVE
NOTICED SOMETHING:
THE WEATHER
SYSTEMS ALL MOVE

Dr. Greg Goodrich

FROM WEST TO EAST. EVER WONDER WHY? DR. GREG GOODRICH OF THE WESTERN KENTUCKY UNIVERSITY DEPARTMENT OF GEOGRAPHY AND GEOLOGY HAS THE ANSWER.

Goodrich, who joined the WKU faculty in 2005 after completing his Ph.D. from Arizona State University, studies the long-term temperature changes in the oceans and how those changes affect the world's atmosphere. Since weather moves from west to east and because he lives in the United States, Goodrich has concentrated his research primarily on the Pacific. "The weather we have now, two days ago was in the Rocky Mountains," he says. "The Atlantic is where our weather goes." Goodrich has published his research in numerous peer-reviewed journals, including Climate Research, the Bulletin of the American Meteorology Society, and Weather and Forecasting.

The most famous weather phenomenon is El Niño, which refers to annual disturbances caused by temperature fluctuations in the surface of the tropical eastern Pacific Ocean. The name, which means "the little boy," was given because the phenomenon is usually noticed around Christmastime off the western coast of South America. El Niño is associated with floods and droughts

all over the world. But the tropical region isn't alone in creating the world's weather. According to Goodrich, the El Niño phenomenon has been understood for about half a century, but theories about another cycle, the Pacific Decadal Oscillation (PDO), have developed in the last decade. The PDO is a northern Pacific phenomenon occurring roughly every thirty to fifty vears. Both El Niño and the PDO have warm, cold, and neutral phases to each cycle.

It's the combination of the phases between the two cycles that fascinates Goodrich. "If they're both in the same phase, the effect on climate is enhanced; if they're out of phase, the effect on climate is weakened," he explains. Some scientists do not accept that the PDO exists, because climate modelers have yet to figure out how and why it works. "The only way you can see it is in a map of sea surface temperatures," says Goodrich.

Understanding and predicting the PDO has practical applications. "The wine producers in the west really care about this," Goodrich notes. For the last few decades, wine growers have had "perfect wine-growing weather" because the El Niño and PDO cycles have not combined to create spring frosts and summer rain, weather that would ruin the grape crop. But a few years ago, Goodrich and a colleague predicted that the PDO would shift from warm to cold, making spring frosts more likely. Some researchers

disagreed, saying the temperatures would remain high because of global warming. However, Goodrich notes, "April of 2008 brought the worst frost in thirty years to Napa Valley, which caused great damage to the grapes." Now the wine-growers pay more attention to the PDO.

Another West coast group interested in Goodrich's research is the National Forest Service (NFS). The same cycles that can create a terrible season for grapes can create prime fire conditions. "A wet winter causes growth of vegetation," he says, "and if the following summer is hot and dry, there is more fuel for fires." The NFS has asked Goodrich to help them create a forecasting tool so they can plan ahead for demanding fire seasons. The research is in its early stages, he says. "My goal is to develop a fire forecasting model."



Goodrich likes to involve students in studying weather phenomena that particularly affect Kentucky. Under his guidance, a group of seven graduate and undergraduate students developed a list of the worst snowstorms to hit Kentucky since 1960. They used the relationship between the El Niño and PDO cycles to explain why some years bring no major snowstorms and other years bring several. 2009 appears to be one of the latter so far.

Goodrich became interested in weather and climate when he lived in Arizona and witnessed how the cycles affected the local environment. "The population growth out there is unsustainable relative to the water supply," he says, "and we're heading into a cycle of possible decadal drought. They're not prepared for that." He thinks we might see some serious "water wars" in the West over who gets what share of the Colorado River. Right now the states share the water according to an agreement that is almost one hundred years old. But, Goodrich points out, "they divided the river water according to the population at that time and how the river was flowing at that time." According to his research, the agreement was drawn up during one of the wettest cycles in the past thousand years. Now the area is in a period of drought, and the river cannot keep up with demand. To illustrate the difference between the climate of the Ohio Valley and that of the

southwest, Goodrich notes that the former receives about fifty inches of rain a year, and the latter about seven inches. "In Nevada, they pay people to take out grass lawns and put in rock yards," but other steps are more difficult. He thinks that in order for the population of the southwest to continue at its present growth rate, they'll have to commit to large-scale use of recycled ("gray") water, especially for car washes and golf courses. "There are no more reservoirs to tap," he says, "and no more wells to drill."

Recently, Goodrich has begun looking at the Atlantic Ocean cycles as well. The circulations of the Atlantic are not directly connected to those of the Pacific, so the cycles don't affect each other, but the Atlantic cycles do affect Florida and Texas, both of which have rapidly growing populations. He sees his future research moving more toward the eastern United States, and focusing on how weather cycles affect agriculture. Notes Goodrich, "It's harder, though, because the farther you get from the Pacific, the more subtle these signals become."

According to Mark Twain, everyone always talks about the weather, but no one does anything about it. Perhaps someday, if Goodrich and his colleagues succeed in compiling enough data about meteorological cycles, we might be able to.

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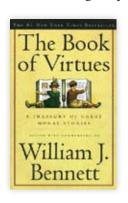


BY KATHERINE PENNAVARIA

IF YOU MAKE PUBLIC COMMENTS ON WEB PAGES, SCOTT AIKIN
JUST MIGHT BE WATCHING. AIKIN, A PART-TIME INSTRUCTOR
FOR THE PHILOSOPHY AND RELIGION DEPARTMENT, IS
CURRENTLY STUDYING, AMONG OTHER THINGS, THE
PHENOMENON OF INTERNET COMMENTS ON NEWS ARTICLES
AND BLOGS. THE STUDY IS PART OF A RESEARCH PROGRAM
THAT INVOLVES THE ETHICS OF INTERNET COMMUNICATION.

Aikin is interested particularly in examining the focus of such Internet comments. Are the writers of comments focusing on the ideas of the original writer, or do they attack the character of the writer instead? Internet communication often involves the latter. Often, he says, people disagree with or dismiss the political views of a

person simply because they dislike the speaker's character. Aikin studies the way that assessing arguments through the lens of character derails other reasoning processes. "We are motivated highly to focus on people's characters," he says. "It's easier to talk about people's characters than about the things they say."



But a person's character does not make or break the validity of that person's ideas, insists Aikin. For example, former Secretary of Education William Bennett published a book called *The Book of Virtues*, which extolled, among other things, the value of self-discipline. The ideas expressed by the book have a universally agreed-on merit, and this merit is in no way undermined by the fact

that Bennett had a self-admitted gambling problem. "It's crazy that we dismiss a person's arguments because we don't like his actions," says Aikin. "People completely dismiss ideas when they dismiss a person."

The Latin phrase for attacking the character of someone rather than his/her argument is ad hominem (or "to the man"). "Ad hominem reasoning works," Aikin says, "by distracting you from an issue that you think is important, because assessing the character is easier and more compelling." Fear of personal attack keeps many people from making public statements, even though such attacks have almost no relation to the ideas expressed.

In a larger sense,
Aikin studies the nature
of knowledge, called
"epistemology." How do we know
what we know? Why do we believe
what we believe? And when do we
finally, truly, "know" something? In
other words, when does questioning
end? The possible answers are
abstract, and fascinating to Aikin.

Three positions have been put forward to explain what happens during the reasoning process. The first, foundationalism, says that reasoning stops by itself at a natural end point; the second, coherentism, says that reasoning isn't linear, but sometimes reasons come in large sets that have to "hang together" as plausible, interconnected stories. Aikin is interested in a third position, called epistemic infinitism, which promotes the idea that reasoning could theoretically go on forever. "If I know something," he says, "I must



justification. However, any justification will require support, since nothing can be true just because it is true. We can always ask how we know something is true. So justifications can be questioned infinitely. (Any parent who has been stuck in a "but why?" loop with a child will understand this.)

In addition to his research on the regress problem, Aikin is about to publish a book on the ethics of belief. He teaches an ethics class at WKU, and as part of the class, encourages students to think about "group fidelity," or the idea that if one is a member of a group, people expect certain behaviors that conform to the group. Those expectations can stifle questioning. He tries to instill in the students

How do we know what we know? Why do we believe what we believe? And when do we finally, truly, "know" something? In other words, when does questioning end? The possible answers are abstract, and fascinating to Aikin.

have good reasons for knowing it. Well, what makes something a good reason? For that first good reason, I've got to have another good reason, and so on." In other words, to hold a single position, one must hold multiple positions.

The notion that any proposition can be endlessly questioned is called the "regress problem." A regress of questions gets started by the thought that every proposition requires a

a sense that they are free to inquire, that one can disagree with a position or an argument while remaining respectful of the person arguing. In fact, Aikin sees something positive in disagreement: "People who disagree with you and question you really care about the truth." Asking people to defend their positions, he says, is "part of the democratic process. It's good citizenship to question. The eighteenth-century Enlightenment

Aikin tries to instill in the students a sense that they are free to inquire, that one can disagree with a position or an argument while remaining respectful of the person arguing. In fact, he sees something positive in disagreement: "People who disagree with you and question you really care about the truth."

taught us this very thing," he adds. "The truth matters and we shouldn't be afraid of inquiry."

Aikin's career studying knowledge started during his studies at Washington University in St. Louis (BA '94). A classics major, he was expected to focus on the linguistic and historic aspects of Greek and Roman culture. But instead, he found himself far more interested in the "eternally important questions" the ancient writers asked about art, politics, nature, knowledge, justice, and virtue. So when he started graduate school, he traded classics for philosophy, and has never looked back. He completed an MA in 1999 at the University of Montana and a Ph.D. at Nashville's Vanderbilt University in 2006. From the first philosophy class, Aikin was hooked. "The first class I took was one in epistemology, and I just felt the force of the proposed ideas about knowledge." He has created his current research project around the ideas absorbed in that first class in Montana.

Aikin is the author of one book and the editor of another; he has also published numerous articles in journals such as *Philosophical Studies, Argumentation, Synthese, Philosophy and Rhetoric,* and *Teaching Philosophy* on such topics as epistemology, argumentation, pragmatism, and hypocrisy. And when he isn't writing for publication or teaching classes, he is online, collecting data. So next time you leave a comment at <cnn. com> or one of the many blog pages on the Internet, remember that Scott Aikin just might be reading it.

Aikin found himself far more interested in the "eternally important questions" the ancient writers asked about art, politics, nature, knowledge, justice, and



virtue.

# CLASSICAL COLLABO



## Cousic RATIONS

BY MOLLY SWIETEK

Illustration by Cal Long

TWO WESTERN KENTUCKY UNIVERSITY FACULTY MEMBERS ARE MAKING THEIR MARK ON THE CLASSICAL MUSIC SCENE WITH RECENTLY RELEASED COMPACT DISCS. DR. MICHELE FIALA'S THE LIGHT WRAPS YOU: NEW MUSIC FOR OBOE AND DR. HEIDI PINTNER'S FLUTE **CHAMBER MUSIC BY MICHAEL KALLSTROM ARE** THE LATEST CREATIVE ACCOMPLISHMENTS TO EMERGE FROM THE DEPARTMENT OF MUSIC. THE CDs CONTRIBUTE RELEVANT RECORDINGS TO THE CLASSICAL MUSIC GENRE AND ADD TO THE REPERTOIRE OF MUSIC FOR OBOE AND FLUTE. AND THOUGH THE FEATURED INSTRUMENTS, AND THE ARTISTS WHO PLAY THEM, ARE VERY DIFFERENT, THE TWO CDs HAVE **QUITE A BIT IN COMMON.** 

As debut releases for both Fiala and Pintner, the CDs feature new music recorded for the first time. All pieces are original works written by living composers — some of whom actually perform on the tracks — and both discs were recorded on WKU's campus. For several months, the artists endured the rigorous process of securing funding, figuring out which pieces to record, constructing the musical arrangements, and, of course, practicing. And though performing, engineering, and producing a full-length CD can certainly take its toll on a musician, Fiala and Pintner achieved their final products with a little help from their friends . . . and each other. Released on nationally distributed labels, Fiala's and Pintner's compilations feature guest performances by a number of their colleagues, exposing a broad audience to the diverse range of talented musicians among WKU's faculty.



"The music department at WKU is a very closely-knit community," said Pintner, whose first track, It Had to Be, features Fiala on oboe. "We know this kind of collaboration doesn't happen in every department or at every university." On Fiala's CD, Pintner plays flute on the whimsical Cats in the Kitchen, a work they commissioned from composer Phillip Bimstein featuring the two players accompanied by cat noises and domestic breakfast sounds. Both musicians agree that mutual respect and admiration is the foundation for their collaborations. "We feel fortunate to work in such a supportive environment," said Fiala. "We share in each other's accomplishments and enjoy working together."

Fiala's CD features premiere recordings of seven musical pieces

written specifically for oboe. The recordings on the disc were written by six composers — Phillip Bimstein, Fulvio Caldini, Andrea Clearfield, Bill Douglas, James MacMillan, and Rodney Rodgers — and the works were performed by musicians from New York, Arizona, Canada, Colorado, and, of course, Kentucky. In addition to Pintner's guest performance on Fiala's *The Light Wraps You*, WKU's Dr. John Cipolla, who teaches clarinet and saxophone, and Dr. Donald Speer, professor of piano, perform on her CD.

Since its release on the MSR Classics label in 2007, the CD has drawn positive attention from several music critics. *The Double Reed* describes her compilation as "a classy affair from start to finish" and her playing as "light, mellow, and flexible." The *American Record* 

Guide calls the compositions "light and nonchalant," and finds that Fiala "seems to enjoy herself in this style." Carla Rees of MusicWeb International declares the CD is "well worth listening to [and] any performer who makes the effort to disseminate new repertoire, such as Michele Fiala has done here, is to be applauded. The standard of playing is consistently high."

Playing the oboe is certainly Michele Fiala's passion, but it is also her life's work. She is an assistant professor of double reeds, and as a performer, has played throughout the United States, Italy, and Canada. Her career highlights include performing with the Banff Summer Music Festival, Louisville Orchestra, and Phoenix Symphony. She holds a master's and doctorate in music from Arizona State University and



Michele Fiala

Carla Rees declares the CD is "well worth listening to [and] any performer who makes the effort to disseminate new repertoire, such as Michele Fiala has done here, is to be applauded."

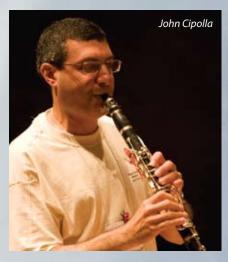
a bachelor's of music from the University of Kentucky.

Heidi Pintner, a dedicated flutist, shares Fiala's passion for music. The foundation for her CD, Flute *Chamber Music by Michael Kallstrom* (Centaur Records 2007), began nearly eight years ago when Pintner joined the faculty at WKU. "Michael Kallstrom [a WKU professor] wrote a piece of music for me when I joined the music department, and since then, he's written several other pieces," she said. "I thought putting together a CD that featured his compositions was a nice way to recognize him."

Dr. Kallstrom is a Kentucky composer and distinguished university professor of music. The compositions recorded on Pintner's CD are all original chamber works written for flute by Kallstrom. Pintner describes his compositions as "enjoyable, audience-accessible pieces of high-quality music," and said she enjoys playing the pieces because they were written for instrumental combinations that are not normally written together, such as flute, percussion, and bass voice.

Kallstrom not only composed each piece of music for Pintner's CD, but performs on the disc as well. Several of the tracks feature lyrics extracted from poems written by Kallstrom, and as an operatic bass singer, it was a natural fit for him to perform on his colleague's CD. "We think of ourselves as a community of supporters, and we work together very well," he said. "I enjoy the way Heidi plays, and when I compose a piece of music I think not only about the personality of the instrument, but of the person I'm writing it for. She is very friendly and outgoing, and I wanted to write pieces that embody her personality."

In addition to Kallstrom's bass voice and Fiala's oboe accompaniments, the CD features guest performances by WKU's



Cipolla (clarinet), Speer (piano), and Mark Berry, assistant professor of percussion. "The entire CD was a group effort and everyone put a lot of time and effort into it," said Pintner. "I'm proud of the CD and hope it furthers the reputations of WKU's faculty members as high-quality performers."

Pintner, who is an associate professor of flute and music theory, has performed throughout the United States and in Mexico. She plays second flute in Orchestra Kentucky of Bowling Green and is the treasurer for the Flute Society of Kentucky. She earned her master's and doctorate in music from Florida State University and holds a bachelor's in flute performance from Oberlin Conservatory of Music.

Through distribution of their CDs, Pintner and Fiala hope WKU and the music department will gain recognition for their creative efforts. The CDs serve as student recruitment tools and also further WKU's mission to be a "leading American university with international reach." Fiala explained, "Many of the faculty members who play on our CDs perform recitals throughout the world. Our CDs will be distributed to our international musical colleagues and will make WKU more visible to a wider audience."

The production of the CDs also allowed Fiala and Pintner to engage more with their students. One of the many positive experiences Fiala



and Pintner said they gained from their recordings was working closely with their colleagues, and they hope the collaboration among the music department's faculty is a positive influence on their students. "Our students know we work and perform together, and I think it's positive for them to see us collaborate," Pintner said. "In our department, student engagement happens on a daily basis," Fiala added. "Through this project, several students got to watch us perform as we recorded the tracks, and some worked with the recording engineer on preparing the recordings," she said. "We also brought in several nationally known musicians to perform on the CD, so the students were exposed to different musicians from all across the country."

Having gone through the process of producing their own CDs, Fiala and Pintner feel it has improved their ability to relate to students. Many of their students aspire to be part of the recording process and having firsthand knowledge of CD production allows the professors to teach through experience. "We guide them better because we've gone through it ourselves," said Fiala. Pintner agreed, adding, "We learned so much from the process, it's made it easier for us tell our students what to expect in their own career aspirations. We've chosen this profession because we love it, and these CDs are the outcomes of that passion."

## 





in the Southern Baptist battle over the Bible

BY MICHAEL J. SOBIECH

Illustration by Tom Meacham



Dr Carl Kell

AS THE INTERIM HEAD
OF WKU'S DEPARTMENT
OF COMMUNICATION,
DR. CARL KELL DOES
NOT TEACH MUSIC;
BUT IN TEACHING
AND RESEARCHING

PERSUASIVE COMMUNICATION, HE
PURSUES (AS HE DESCRIBES IT) A "MUSIC
WITHOUT NOTES." AND OVER THE LAST
THREE DECADES, THE TUNE TO WHICH
HE HAS ESPECIALLY LISTENED IS ONE
FILLED WITH THE DISCORDANT NOTES OF
RELIGIOUS DIVISION.

### Early on I understood... this conservative movement was going to be pushed and developed by the best preachers of major SBC churches.

Kell's work as a southern rhetorical historian has led him to analyze the pulpit of the nation's largest Protestant denomination — the Southern Baptist Convention (SBC). In particular, he has focused on the changes brought about during the decade-long battle for control between moderates and conservatives. Since the SBC's president can make various administrative appointments that have a broad impact on the denomination, the battle often focused on his election. And with conservative presidents consistently elected from 1980 to 1990, "the constitutional configuration of boards, committees, and administrative divisions was peopled by those who believed, generally, in a strongly conservative approach to the study and understanding of the Bible," states Kell. "And while it can be safely argued that the SBC controversy still goes on, the war has been settled."

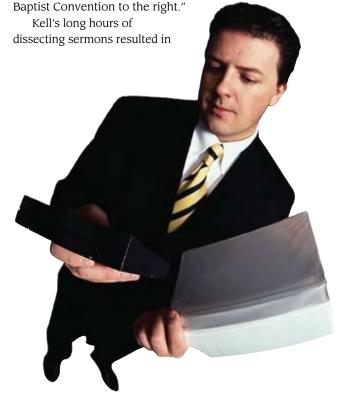
Kell maintains that the power of persuasion is paramount in the Baptist battle over the Bible. "Along with several other communication scholars from around the country, early on I understood that this was primarily a rhetorical phenomenon — this conservative movement was going to be pushed and developed by the best preachers of major SBC churches. Baptist ministers from churches all over the country would come to the national pastors' conference and the national SBC meeting where they would hear the best sermons about the need to restore the Southern Baptist Church to its conservative roots, to let the chips fall where they may, so to speak. If individual members and churches felt like they were outside this — at least in some perspectives — 'restrictive' view about the Bible and the nature of Southern Baptist life, then they just needed to find another place to worship" said Kell.

"The pastors who came would take notes, buy books, and buy tapes because this was a place you came to get argument. Pastors went 'shopping' for argument — shopping for Scripture, shopping for sermon topics, shopping for ideas and language to develop and sustain the increasingly popular conservative message. These pastors would then go home, and, in their own way, they would replicate, duplicate, and send out the messages they had heard. In effect, this was a rhetorical expo for SBC ministers to learn and return home, armed with a powerful body of arguments."

How did the pastors craft their arguments and sermons to make their case? Based on years of research and hours of analyzing sermons, Kell argues that three basic rhetorical theories drove the division in the denomination: inerrancy, fundamentalism, and exclusion. "Inerrancy affirms that every word of the Bible is literally true. Fundamentalism affirms that there are bedrock concepts

concerning the nature of God as Father, Son, and Holy Spirit that are inviolate. And exclusion is a result — anyone who does not follow the Bible literally is not in line with historic Baptist theology and the nature of the New Testament Church," he explains.

"In the history of this country, we have never turned away from a great public speech event. We are always looking and listening for the skilled orator," says Kell. "And over those years the conservatives had the finest orators in Baptist life, men who heralded the scriptural and theological themes of inerrancy and fundamentalism with fire and style. Rhetorically, they were extraordinarily successful in moving the Southern



Pastors went 'shopping' for argument — shopping for Scripture, shopping for sermon topics, shopping for ideas and language to develop and sustain the increasingly popular conservative message.

a collaborative publication with co-researcher and longtime friend Ray Camp of North Carolina State University. In the Name of the Father: The Rhetoric of the New Southern Baptist Convention (Southern Illinois University Press, 1999) was selected the Religious Communication Association's

2000 Book of the Year, and helped both men to be named 2000 Communication Scholars by their state communication associations. And *Name* would land another honor on Kell's desk — the distinguished 2001 James A. Applegate Award, given to Kentucky's leading scholar in the field of communication.

Having examined how a conservative leadership had persuaded the convention to their point-of-view, Kell's next book, Exiled: Voices of the Southern Baptist Convention Holy War (University of Tennessee Press, 2006), looked at the consequences of that decision in the lives of those who were not persuaded: "Exiled was about a people who had lost their pew." Kell's edited collection of essays by exiled Baptists garnered both a second Applegate in 2007 — making him the award's only two-time recipient — and a favorable review from moderate Southern Baptist and former President Jimmy Carter.

In Against the Wind, Kell's latest contribution to the history of the SBC's schism, he examines the beliefs and makeup of the moderates as a separate group, as well as peers into their future. To accomplish this, he felt the need to call on three significant scholars: Bill Leonard, William Hull, and Duke McCall. When Dr. McCall, who is in

his early 90s, said that at his age he would have problems accurately remembering past events, Dr. Kell assured him, "I'm interested in your predictions, your foresight about the future trajectory of Southern Baptists." To which the initially reluctant McCall said, "Oh, I can do that." *Against the Wind: The Moderate Voice in Baptist Life* will be published in 2009 by the University of Tennessee Press.

Having finished writing *Against*, Kell had no plans for another book — until he saw an online, anonymous review of *Exiled* while at a conference in Slovenia. "I was passing

the time one night looking at online reviews of my books, and I came across one that was written by a SBC missionary in Kenya. The first paragraph was a supportive, probing, and favorable analysis of the book; the second paragraph was written to me — at least, that's the way I read it. In so many

words the woman said that she was the daughter of a man who had lost his job because of this controversy. And I felt like she was saying to me, 'I have a story to tell — and you need to tell it,'" said Kell.

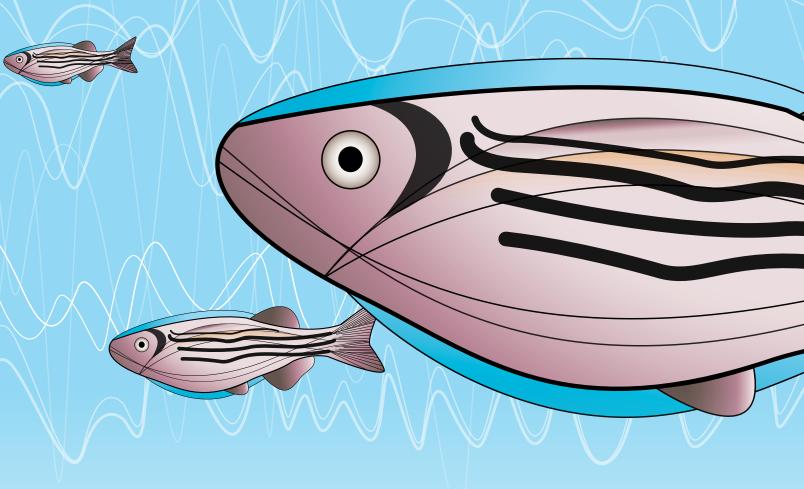
"Exiled II is right now in the birthing stages, and I don't know what we'll find. Along with many new voices waiting to tell their story, I've just started making contacts with the sons and daughters of the thirty or so who talked to me for Exiled. I do know that we'll have an original poem written by a creative writing teacher who is the son of an Exiled contributor. And the son of the woman who wrote the first essay in Exiled will probably write the lead essay for Exiled II."

While Kell has focused on the troubles in one church, he foresees challenging days ahead for many denominations: "In truth, all non-Catholic denominations are suffering from declining numbers; and yet, at the same time, the non-denominational churches are gaining ground with each passing year. Add to that the fact that Americans are becoming more accepting of the idea that there are more ways to Heaven than that traditionally taught by the Christian church. The American church - and not just the Baptist church — has entered a new age. And when the

academy and popular culture seek answers to the shifts in American church life, I believe that the SBC work will be a part of the conversation."

But even while things change, Kell sees a predictable constant: "The organized church in the South and around the country is a world apart from the 1980s. But at the end of the day, the gifted pulpiteer, no matter the church or denomination, will always have an audience when he shouts, yells, or whispers the joy of accepting a higher power to control one's life."





## EXAMINING BIOAC

LOCAL RESEARCH, GLOBAL IMPACT



Dr Michael Smith

CURRENT RESEARCH WITHIN
THE DEPARTMENT OF
BIOLOGY EXEMPLIFIES WKU'S
COMMITMENT TO STUDENT
ENGAGEMENT. FOR ASSISTANT
PROFESSOR MICHAEL SMITH,

WHAT BEGAN AS A CHILDHOOD

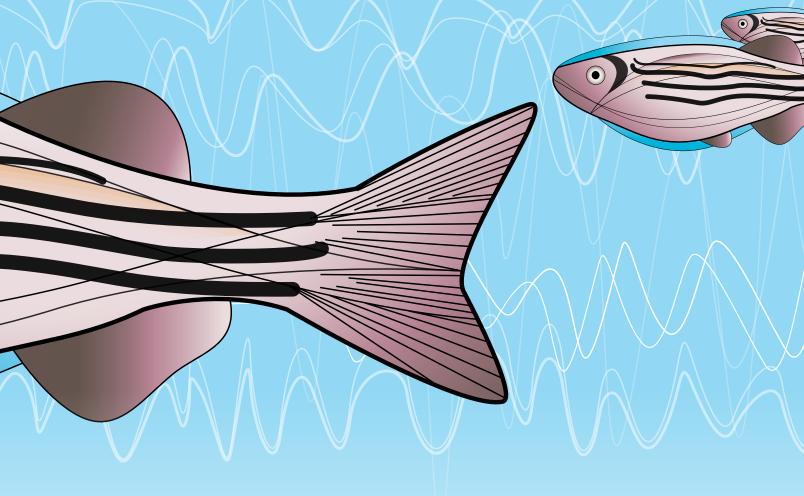
INTEREST IN OUTDOOR HOBBIES, PARTICULARLY FISHING, HAS EVOLVED INTO YEARS OF PROFESSIONAL RESEARCH. THE RESULTS OF HIS WORK ARE CONTRIBUTING TO ADVANCEMENTS IN

**BIOMEDICINE, ENVIRONMENTAL SCIENCE, AND THE** 

STUDY OF EVOLUTION.

After completing bachelor's and master's degrees in zoology at Brigham Young University, the Houston native earned his Ph.D. in marine science from The University of Texas at Austin in 2001. "As part of my dissertation research, I tested various behavioral capabilities of marine fish larvae," he states. "One of these capabilities is called a 'startle response' that larval fish use to escape from predators. I used acoustical and visual cues to initiate these responses and so became familiar with the sensory development of the visual and auditory systems of fishes."

Between 2002 and 2005, Smith conducted post-doctoral research at The University of Maryland in College Park. During that time he worked with Dr. Arthur Popper, a world renowned authority on the fish auditory system, and



## COUSTICS IN FISHES

BY AARON S. DUGGER

Illustration by Karen Ford

learned how to conduct hearing tests on fishes. "I submitted two grants my first year, both of which were funded. One was a Maryland Sea Grant that proposed to examine the effects of loud sounds on fishes in terms of hearing and physiological stress response," Smith explains. "The other was a National Institutes of Health (NIH) National Research Service Award to use zebrafish as a model of aging in the auditory system. Essentially, my current research is an extension of my postdoctoral research experiences." In the fall of 2005, the neurobiologist joined the faculty at WKU. "My overall research goal is to examine various aspects of the bioacoustics of fishes, that is, how they receive and produce sounds. The current main project in my lab is to examine the process of auditory sensory cell regeneration

in zebrafish." Smith's research can be divided into three categories, the first of which may lead to cutting edge biomedical applications.

Auditory sensory cells are commonly referred to as hair cells. They are responsible for converting acoustic signals into neural signals, thus allowing an organism to hear. While the hair cells found in fish and mammals are structurally similar and function in much the same way, they differ in one crucial aspect. "When inner ear mammalian hair cells are lost due to loud noise or ototoxic chemicals, such as some antibiotics, they do not come back; in other words, we are deaf for good," Smith explains. "In fish and birds," however, "auditory hair cells will grow back, or regenerate, and allow for a recovery of hearing."



His experimentation with goldfish has demonstrated that intense noise exposure results in a decrease in the number of inner ear hair cells and consequent hearing loss. "Within two weeks following the exposure, hair cell densities and hearing capabilities are close to control levels," Smith reports. Understanding such hair cell regeneration in fish may eventually allow scientists to replicate the process in humans. Dr. Smith, the students in his lab, and fellow researchers, such as

Dr. Nigel Cooper of the University of Louisville, are potentially paving the way toward treating deafness in humans. "If we can find out which genes are being expressed in fish hair cells that are undergoing regeneration, then perhaps genetic manipulation or injections of specific proteins into the inner ear could produce hair cell regeneration in mammals," says Smith. He also points out that scientists have experienced some initial success with hair cell regeneration in mice. The process, however, is still in its infancy.

Smith's ongoing research is primarily undertaken at WKU's Biotechnology Center, although he has collaborated with fellow researchers at the University of Washington, Auburn University, and the University of Louisville. Students are a vital component of his work. "I have had one postdoctoral, three graduate, and eight undergraduate researchers working in my lab," he states. "I also have a postdoctoral colleague from China visiting my lab and working on a project this spring." Smith's

commitment to preparing students for lifelong success is palpable. "I hope to affect my students by giving them important laboratory opportunities learning specialized techniques, learning how to analyze data and present it in oral and poster formats, and how to write scientific papers," he says. "This will give them an edge when applying for graduate or professional programs. I also feel that students should have a fun time doing their research. If they are not, then they should switch projects." To that end, Smith offers learners a variety of innovative and relevant research opportunities.

Hearing tests and microarray analysis are examples of such projects. "We do hearing tests in fishes by electrophysiologically measuring auditory evoked potentials, which are brain waves that result when the auditory system detects sound signals," Dr. Smith explains. The fish is held in place in the water by means of a mesh sling. One electrode is attached over the brainstem area, another near the nose, and a ground



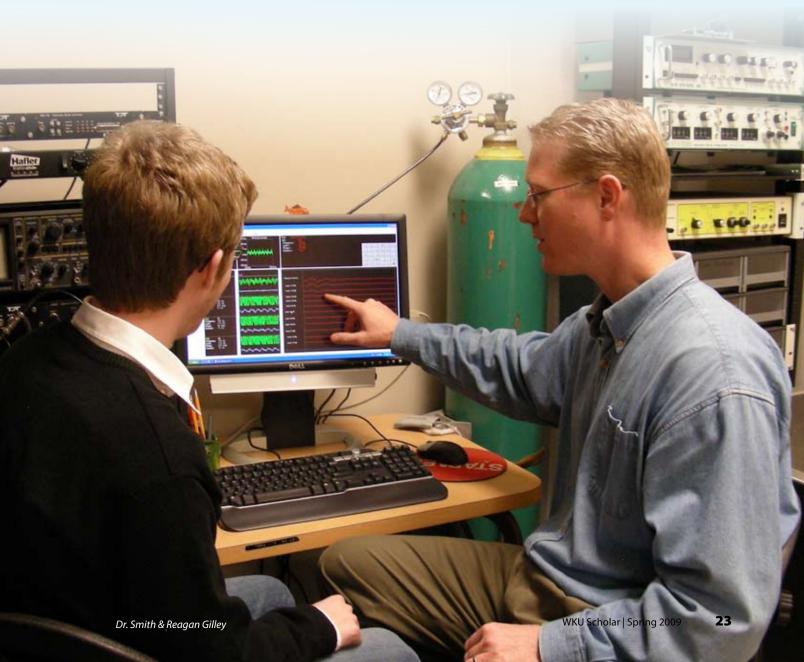
electrode is affixed to the tail. "The technique is similar to that used to check the hearing of newborn baby humans," Smith adds. Short tone bursts are then delivered via an underwater speaker. "When a tone is played that is loud enough for the fish to hear, an auditory evoked potential is evident." In other words, the electrodes record the brain's response to sound. The results are then displayed on a computer screen.

"To examine hair cells, we dissect out the ears of the fish under a microscope. Then we trim off the patches of sensory hair cells, called maculae, and mount them

on microscope slides after staining them with various markers," Smith explains. Certain chemical markers, such as phalloidin, bind to the hair cell bundles and fluoresce green. This fluorescence allows the researcher to obtain an accurate hair cell count. To determine which genes play a significant role in the regeneration process, Dr. Smith and graduate student Julie Shuck exposed zebrafish to noise, and then dissected ear tissue at specified intervals following that exposure.

Dr. Smith's study of hearing in fishes will likely benefit global aquatic habitats as well. In recent decades

there has been a significant increase in the level of manmade noise pollution in oceans, lakes, and rivers. Sources of these loud sounds include sonar, seismic surveys, shipping, and construction. Concern for this phenomenon is growing. "While the focus of research on underwater anthropogenic sound has been on marine mammals, little is known about the effects of loud sounds on fishes," Smith points out. "My goal is to develop predictive models to assess hearing loss in fishes resulting from various sound sources." he adds. The results will be useful for the creation of environmental impact statements.



"In general, hearing loss increases with increased sound exposure levels, but patterns are species and frequency dependent since species vary as to which frequencies they are most sensitive to." Undergraduate honors student Reagan Gilley is a participant in this aspect of Smith's research. He recently tested the Equal Energy Hypothesis using rainbow trout, channel catfish, and goldfish. "This hypothesis states that the amount of hearing loss expected is dependent upon the total amount of acoustic energy the ear receives," Smith

explains. "The conclusion from his experiments is that while the Equal Energy Hypothesis may be valid for some situations, it is not very robust for a number of species over a wider array of sound levels."

The study of bioacoustics in fishes contributes to yet another field of scientific endeavor: the study of evolution. It is widely believed that the sense of hearing first evolved in fishes, some of which have undergone adaptations to improve their hearing. "Most of these adaptations involve the coupling of an air-filled structure

to the inner ear," Smith explains. He and his students are seeking to shed light on the evolution of such morphological structures. They are presently studying loricariid catfishes. "These fishes have reduced their swim bladder to two smaller swim bladders on either side of their ears. The skull structure adjacent to these swim bladders is full of holes that are filled with lipids. We hypothesize that this anatomical set-up amplifies sounds coming into and/or away from the fish." This research focuses not only on loricariid hearing but also on the sounds they produce: clicklike noises resulting from a process known as stridulation. Smith defines this process as "the rubbing of ridges at the medial tip of the pectoral spine and the pectoral girdle." He adds that three honors students, Brian Rogers, Amanda Webb, and Patrick Stewart, are currently conducting research on this family of fishes.

When asked what motivates his research projects, Smith is quick to answer. "What is exciting about my research is the novelty of each topic and the thrill of discovering something no one else has discovered." For example, "With the hair cell regeneration I am learning new, cutting edge molecular biology techniques. With the loricariid work it is a challenge to design experiments to test the acoustical functionality of their 'head holes'. It is completely unknown what the functions of these holes are." Although he is by no means at a loss for ideas, Smith's future research is dependent on several factors. "I am waiting to hear about a pending NIH grant to continue my hair cell regeneration research. My research will also depend partially upon the interests and capabilities of my students and collaborators."



## Psychotherapy with Religious Beliefs

BY MICHAEL J. SOBIECH











Dr. Jill Duba

AS A PRACTICING CATHOLIC AND A PROFESSIONAL COUNSELOR, WKU'S DR. JILL DUBA KNOWS THE VALUE OF BOTH COUNSELING AND FAITH. BUT FOR MANY, THE TWO DO NOT MIX. "FREUD THOUGHT THAT RELIGION WAS SOMETHING HARMFUL," STATES DUBA,

"AND B. F. SKINNER BELIEVED THAT IT WAS NOTHING MORE THAN FICTION HELD IN PLACE BY NEGATIVE REINFORCEMENTS AND THREATS OF PUNISHMENT." BUT DUBA IS RAISING QUESTIONS THAT MIGHT LEAD TO A NEW DYNAMIC — ONE THAT WILL GIVE THAT OLD-TIME RELIGION A POSITIVE PLACE IN MODERN PSYCHOTHERAPY.

Duba began her graduate work surrounded by dead bodies. Interested in medicine, especially alternative medicine, she initially applied to chiropractic school. While on her program orientation, she entered a laboratory with dozens of students examining cadavers. The presence of the deceased did not bother her — what bothered her was the uniform silence of the living: "There were three students assigned to each body, and nobody said anything. Since I can't keep my mouth shut for thirty seconds," she says with a laugh, "I knew this wasn't for me." And so she entered a field that would draw on both her desire to speak and her ability to listen: marriage and family counseling.

Duba completed her Ph.D. in Counselor Education and Supervision at Kent State University, and today she serves as an assistant professor in WKU's Department of Counseling and Student Affairs. area. One 1994 study found that 25% of counselor education programs had no course specifically addressing spiritual or religious issues, and 73% of those programs did not have religion or spirituality as a part of

#### Nationwide, approximately 95% of married couples identify with a particular religion.

While Duba has been at WKU, her religious and scholarly interests have led her to paradigm-questioning research: How are future mental health practitioners being trained about working with religious clients? And what kind of training should they receive? "If someone goes to a therapist and throws out 'God language,' how does the practitioner deal with it? I know of a situation where someone was giving out religious cues during a therapy session and the therapist, who is a good therapist, in effect ignored it. Situations like that make me wonder about what we are doing in terms of educating our students about the very real likelihood that some, if not many, of their clients will be affected negatively or positively — by religion," said Duba.

"It does not appear that students are receiving much training in this

any course," continued Duba. "And according to a 2004 study, religion is suppressed in many training programs because some in the field believe that religious issues should be referred to religious counselors. In light of this, you can understand why many students report feeling unprepared when it comes to addressing religious concerns. I will say this about my courses: when I bring up religion in class, my students put down their Starbucks and listen."

At WKU, Duba is directly involved in supervising and training counseling students who are working in the Clinical Education Complex Family Counseling Clinic (FCC). "There and in my private practice, most of the clients that I have observed identify themselves, in various ways, as 'religious.'" Religion is not just a concern in southern Kentucky. "Nationwide,

approximately 95% of married couples identify with a particular religion; 90% of Americans describe themselves as either being Protestant or Catholic; and 40% report that they attend religious services on a weekly basis. Additionally, 75% of the world's population is affiliated with a particular religion. It is quite likely then that persons coming to counseling will have some sort of religious affiliation," Duba explained.

"When it is appropriate, how are counselors using some of the religious aspects of the client to help them work through problems?" Duba continued. "And how do they know it's appropriate? This is actually an ethical issue for all mental health counselors, whether or not they profess a religious choice, because this falls under the umbrella of respecting client spirituality. This concern for religious perspectives is really about respecting diversity."

While the percentage is markedly lower than the general population, a majority of mental health professionals do identify with a particular religion, which raises more questions. "If the counselor has a religious problem with a client's behavior, how does he or she deal with that client? How are we teaching counseling students to work through that? How can a student acknowledge that 'This is where I am' and still work with the person who has come for help? That's what I'm trying to find out," said Duba.

In 2005 the opportunity came for her to write a book on anything she wanted: "The first thing that came to my mind was that I wanted to do something on religion." In 2008, The Role of Religion in Marriage and Family Counseling was published. Duba, who is both a contributor and editor, sought a wide spectrum of religious perspectives including Catholic, conservative and liberal Protestant, Hindu, Muslim, Buddhist, and Native



American. "I am very conscious of the line between my personal draw to this and my professional one because it can get fuzzy. When I'm talking about religion, I'm not limiting it to Christianity. In fact, I feel this was a gap in my training — for instance, unless I studied this, which I have, I wouldn't know how to counsel someone of the Hindu faith. What do counselors do with clients who have a religion different from their own? This is not about Christianity; this is about any religion or any faith perspective."

Currently, Duba is pursuing fundamental and largely unexplored questions for mental health professionals. "Right now, I'm working on a grant proposal for interviewing and surveying counselor educators on what they think the competencies should be of students working with religious issues in counseling. What are the skills required to work with clients who are either religious or who have religious issues that are affecting them or presenting problems? What is their knowledge of other religions? What is their self-awareness when a client speaks the language of his or her faith?"



and/or spiritual expressions in a client's communication." But these competencies tend to focus on spirituality and not religion. While she grants that the two terms are sometimes used interchangeably, Duba argues for a distinction. "One can be spiritual without being religious."

Duba's lifelong interest in religion can be traced, in part, to having been raised in a tight-knit Catholic family, which also helps explain her interest in a potentially related field of research: marital satisfaction. "What causes couples

her field — Duba notices a theme in her conversation with the couples: "I don't know if marriage satisfaction and religion are connected, but religion came up a great deal in my interviews. The majority of the couples mentioned that when things got tough, they prayed. They believed that things would get better. The point isn't that God made things better; the point is that they had hope and they believed in something else, greater than themselves, and that helped them get through things."

Although religion can be a socially taboo topic for discussion, perhaps because it is so personal, it can be helpful during counseling. "Research shows that many clients are reluctant to bring up anything concerning religion, especially to 'secular' counselors," Duba said. "But it is imperative that we pay attention to how they use their faith to cope, as well as how their faith gives them meaning and direction. As mental health professionals, the question we face is how can we use a client's religion as a positive resource for helping someone through some of the most challenging times of life?"

## Spirituality and religion are sometimes used interchangeably, but Duba argues for a distinction. "One can be spiritual without being religious."

In 1996, the Association for Spiritual, Ethical, and Religious Values in Counseling (ASERVIC), a division of the American Counseling Association, developed a list of nine competencies for the ethical integration of religion and spirituality into counseling. Duba explained, "For example, ASERVIC suggests that counselors should be able to demonstrate sensitivity to and acceptance of a variety of religious

like my grandparents, who were married for more than fifty years, or my parents, who will soon celebrate their fortieth wedding anniversary, to stay together? What role does religion play? And can religion play a part in successful marital therapy?" In an ongoing research project examining the marital satisfaction and coping strategies of couples who have been married for over forty years — another area that is new territory in



# Culture & Economy

BY BROOKE HADLEY

Illustration by I-Ping Kuan



Dr. Scott Droege

SCOTT DROEGE'S LOVE FOR ASIAN COUNTRIES IS APPARENT.

MEMENTOS OF PAST TRIPS TO ASIAN COUNTRIES ARE DISPLAYED

PROUDLY IN HIS OFFICE. DURING A RECENT INTERVIEW, HE EAGERLY

POINTED TO ONE OF HIS MOST PRIZED TREASURES — THREE SMALL

HANDMADE BEIGE THREAD BRACELETS THAT HANG ON THE WALL.

"THESE WERE GIVEN TO ME BY A BUDDHIST MONK DURING A

RELIGIOUS CEREMONY." HE POINTED TO SEVERAL OTHER ITEMS IN

HIS OFFICE, SUCH AS A SMALL DECORATIVE PLATE THAT FEATURED A PICTURE OF A PANDA ON THE FRONT AND A SMALL JAR OF MENTHO-EUCALYPTUS SALVE.

Dr. Droege, associate professor of management at Western Kentucky University, did not discover his passion for Asia until a visit to a bookstore while working on his Ph.D. at the University of Kentucky nearly eight years ago. "I was browsing and came across a book written by a Canadian journalist who had lived in China from about 1985 to 1995. She wrote about her experiences as a journalist living in China during that decade of change. It was something that I never knew about, something I never studied in high school or college, although I was in school during the time the changes were going on. These were massive events that changed the cultural and political landscape of China. One thing led to another and I started getting interested in Chinese history and the changes of economic institutions and I started to think what a cool research topic this would make for a dissertation."



To complete his dissertation, a qualitative study of institutional change and the impact of learning from previous failures on the Chinese economy, Droege made extended visits to China three times to interview local entrepreneurs who owned companies which employed between five and five-hundred people. "I lived in a small village of approximately two-hundred people. There were none of the modern conveniences that we Americans are accustomed to, such as indoor plumbing or paved roads. For example, just to go to the restroom, I had to get up, get dressed, and walk approximately five-hundred feet."

"While in China, I focused on looking at institutional change in China and at how that change affected entrepreneurs. How did they learn from past failures? Part of the learning from failure in China was stimulated at the highest political and institutional level in China. You have to go back in history a bit. In 1978, Dung Xao Ping became chairman of the Chinese Communist Party. Ping had a saying that it doesn't matter if a cat is black or white — if it catches mice, it's a good cat. In other words, it doesn't matter if we use Mao Tse Dong's ideas or western thought; whatever works and maintains

social stability while improving the economy is good. Ping recognized he did not know what worked, but he was willing to try different things. He allowed people to break the law when they started certain companies. For example, in the 1980s, private companies could not have more than fifty employees, but many companies did and were successful. Ping did not prosecute these companies even though they were against the law. Instead, Ping set out to change the law. I think that's something we in the U.S. can learn. We need to look at what works rather than focus on our idea of how an economy should work; it's a conflict between ideology and what really works."

What began as a focus on institutional change in the Chinese economy evolved into a focus on emerging Asian economies. "I just kept going back and got connections there, which led to somewhere else in Asia, so I just began to focus on Asia in default. The connections in China led to a connection in Thailand, which led to another connection; it was all connections." His interest turned into a quest for research that has taken him to many Asian countries, including China, Thailand, Myanmar (Burma), Vietnam, and the Philippines.

#### ...the quality of life and economic conditions in emerging economies,...would be investing in these economies and offering education to the people.

Dr. Droege's research has helped students at WKU dispel the misconceptions held by many Americans about the economic systems of such countries as China. "Students come with "sound bites" of information; a shallow look at a much deeper issue. Listening only to these sound bites and not realizing the depth of the issues makes it seem as though solutions to the problems, such as poverty and poor working conditions, faced by many of the emerging economies are easy and can be fixed by a simple solution. Part of what I do is educate my students about the complexities of economies and the impact institutional changes have on not only that country, but other countries in the global marketplace."

One of the misconceptions Dr. Droege seeks to dispel relates to China's economic model. Most people assume that because China is a communist state, there are very few, if any, privately owned businesses. Dr. Droege points out, "There's not really that much difference between China and the U.S. as far as businesses go. The Chinese people are free to open private businesses. Not everything is owned by the government. Just like in the U.S. where some businesses, such as the post office or public education, are run by the government, China has some government run businesses, but by in large, China has a capitalist economy."

Another misconception Dr. Droege addresses with his students is that of over-simplified solutions to economic and social problems. Several years ago, Americans became aware of the sweat shops that manufactured goods sold in the U.S. The solution for many Americans was to boycott all goods made in sweat shops. This simple solution might sound like a valid response to a pressing social issue, but really does nothing to address the problem of poor working conditions.

Dr. Droege explains, "I've been to several of these sweat shops in China, Thailand, and the Philippines. For example, one shop made sausage casings. There were young girls from age fourteen to eighteen working eight to ten hour shifts making about \$1.25 per day. If

you know what sausage casings are made of, you can imagine how the shop smelled. Even though the wages are low, and the conditions far below what we in the U.S. would consider good, this job was the best option for most of these girls. Their only other alternative, in many cases, was prostitution. So, by purchasing goods from these sweat shops, we're actually helping many young girls avoid a much worse fate. While these conditions are deplorable and should be changed, boycotting the goods does nothing to improve the conditions. Rather than simply avoiding purchasing goods made in sweat shops altogether, we should focus on giving assistance to emerging economies so that they may improve working conditions and the people's quality of life. "

The extensive research has led Dr. Droege to the conclusion that the best solution for improving the quality of life and economic conditions in emerging economies, such as those in Asia, would be investing in these economies and offering education to the people. "Introducing large multi-national corporations to an area in the Philippines, for example, would have tremendous impact. These companies would pay better wages to the people, who would in turn be able to spend this money in the local market places. The company would most likely train the work force, thus increasing the education and skill level of the people. The Philippine government would benefit from the taxes the company would pay and the company benefits from lower costs (especially labor) and higher profits."

"Even in our current economic recession, Americans could make a tremendous impact on emerging economies by investing in businesses, purchasing goods from these areas, or even providing assistance and education. We need to recognize, however, that imposing our ideologies on these countries and insisting upon dramatic, fast changes, will not work. This change for improving the quality of life and economic conditions must be gradual," Dr. Droege warned. "We have seen throughout history in not only Asia, but Eastern Europe and other areas as well, that dramatic fast change does not work."

#### RESEARCH BRIEFS

#### WKU Faculty Scholarship Grant Funds Feature-length Horror Film Production



**Ron DeMarse** School of Journalism and Broadcasting

Using funds from a recently awarded Faculty Scholarship (WKU's internal grants program), Ron DeMarse will be producing a feature-length horror film this summer. DeMarse is writing the script

and will engage WKU students in all areas of preparation, production, and post-production.

The project will provide students an experience similar to a professional,

independent film-making venture. Students are already involved in script revisions, casting, and location scouting. Later, they will design sets, costumes and special effects, capture all of the images and audio, perform as actors, and finally edit the movie. Upon completion, the film will be submitted to a variety of national film festivals and competitions.

DeMarse is an assistant professor in the School of Journalism and Broadcasting. He regularly teaches courses in film and video production and post-production, as well as news videography.



#### National Science Foundation Grant Funds Math & Science Partnership



**Dr. Heather Johnson** *Department of Biology* 

The National
Science
Foundation has
awarded Heather
Johnson of
WKU's Biology
Department a
Phase I grant
through its
Math Science
Partnership
(MSP) program.

Dr. Johnson will lead a consortium of thirty-two local school districts in Kentucky, two regional community colleges, the WKU main campus, and the three WKU regional campuses to develop improved methods for teaching and learning in middle school classrooms to ensure future access for all students to rigorous high school math and science courses.

The MSP-Start project will involve collecting and analyzing student and school data related to the lack of preparedness of middle school students for math and science success, developing a comprehensive plan of evidence-based, research-supported programs and strategies that have a high potential to ensure preparedness, and developing a plan to increase the number of minority teachers of middle school math and science. Upon successful completion of Phase I, Dr. Johnson will be eligible for Phase II funding to put the plan into action.

The long-term goals of the project will be measured by Kentucky's Education Planning System that administers the EXPLORE test in eighth grade, the PLAN in tenth grade, and the ACT in eleventh and twelfth grade.



#### FIPSE Grant Funds Student Exchange Program



**Dr. Dan Myers**Department of
Economics

A grant from the U.S. Department of Education's Fund for the Improvement of Secondary Education is allowing WKU faculty and students from the Gordon Ford College of

Business to develop relationships with students and faculty in partner schools in Mexico and Canada. This four-year grant project will train students to serve as resources to entrepreneurs in a cross cultural setting.

The Program for North American Mobility in Higher Education is

designed to foster student exchange and curricular development. Partner schools are in the process of identifying joint research projects and developing a summer institute. Beginning in the fall of 2009, participating students will receive a \$2,500 stipend to study at one of the participating partner schools.

WKU is one of only nine applicants for this grant to be funded in the 2008 competition. Dr. Daniel Myers, a professor of economics in the Gordon Ford College of Business, is the project director. Working with him are Center for Entrepreneurship and Innovation faculty members Dr. Matthew Marvel, Dr. Dawn Bolton, and Dr. Wil Clouse.



Students from the Gordon Ford College of Business visit Mexico.

#### P.E.O. Scholar Award Funds Study of Asian American and Native American Fiction



Office of Scholar Development

Jeanne Sokolowski currently serves as the Fulbright Application Coordinator with the Office of Scholar Development. She comes to the position having been a junior Fulbright scholar herself in South Korea, and with significant experience from having lived and worked abroad in England, Japan, and China.

Currently a Ph.D. candidate in

English at Indiana University Bloomington, Sokolowski's research asks important questions about place and identity. A Philanthropic Educational Organization (P.E.O.) Scholar Award for the 2008-2009 academic year has allowed Sokolowski to work full time on her dissertation, which links contemporary Asian American and Native American fiction. This comparative ethnic study brings the

two minority literatures into dialogue with one another rather than comparing them to "canonical" texts by EuroAmerican authors.

Both Asian American and Native American literature challenge ways scholars tend to think about "the nation" as a large group of people linked to a particular territory. These groups, after all, occupy opposite positions in relation to the nation: Asian Americans are often situated as immigrants and members of the transnational class, while the Native community comprise its displaced indigenous population. While Asian American texts explore the implications of globalization on identity, Native American Studies attempts to redefine itself through calls for "intellectual sovereignty" and "literary separatism." Both literatures force readers to question how they understand the categories of "American" and "national" literature.