More than ever before, we’re conscious of our planet’s environment. Discussions of climate change, diminishing energy reserves and escalating population growth loom large in our media; at home we’re becoming more aware of how we use gas, electricity and water—and this awareness has an impact on the cars we drive, the light bulbs we buy, the detergents we use to wash our clothes and our dishes. It’s becoming clear that, as a global culture, we need to change the ways we inhabit and interact with the environment, by conserving our natural resources; by developing new, environmentally-conscious technologies; by learning to live gently as part of our planet’s complex ecosystem, and to educate others to do the same. These challenges will continue to play a significant role in the lives of both our current and future students, who are often called “millennials” in recognition of their emerging citizenship in the 21st century.

Universities must take the lead in preparing our students to face these challenges. The College of Arts & Sciences is especially well-positioned to fulfill this role because we are committed to providing students with a range of intellectual and practical skills; an understanding of the physical, natural and cultural worlds we inhabit and, importantly, a strong sense of personal and social responsibility rooted in values-based education. BGSU’s graduates will inherit an environmental legacy hardly of their own choosing, but we hope they will be equipped to make considered, informed and ethical decisions for a brighter future—for themselves and for successive generations.

With that said, I’m proud to be able to write that the faculty and students in the College of Arts & Sciences find themselves on the cutting edge of innovations in environmentalism and sustainability. As you read the stories that follow, I hope that you’ll get a sense of our commitment to preparing students to face the challenges of living in tomorrow’s world, whether they choose paths that follow the natural sciences, social sciences or arts and humanities. In this issue you’ll learn about our new, innovative School of Earth, Environment and Society, which brings together geology, geography and environmental studies to provide students and faculty with opportunities for multidisciplinary teaching and research, and introduces our students to the competitive field of geospatial technology. You’ll discover our new ecology and conservation specialization in biological sciences, and our opportunities for students to study the emerging competitive field of bioinformatics. You’ll read about how our students and faculty are working to change the ways we inhabit and interact with the environment, by conserving our natural resources; by developing new, environmentally-conscious technologies; by learning to live gently as part of our planet’s complex ecosystem, and to educate others to do the same. These challenges will continue to play a significant role in the lives of both our current and future students, who are often called “millennials” in recognition of their emerging citizenship in the 21st century.

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From sustainable growth and rapid consumption of natural resources to environmental degradation and climate change, all of our most pressing environmental issues have both a natural and social science component," states Onasch. "Each side informs the other as we search for scientific and policy-driven solutions. It is imperative for our faculty and students to be working in an interdisciplinary way if we hope to contribute to these solutions.”

SEES offers a wide range of graduate and undergraduate courses in environmental policy and analysis, environmental science, geography and geology as well as graduate courses in geology and a certification in geospatial technology. Onasch is particularly excited about the opportunities within geospatial technology. "This is an exploding technology," he explains. The technology is used for the acquisition, management, visualization and analysis of features or phenomena that occur on the Earth and the interactions between the Earth, the environment and humans. A recent report by the U.S. Department of Labor cited geospatial as "one of the key areas of job growth" in the technology sector, along with nanotechnology and biotechnology.

The components of the geospatial field are Geographic Information Systems (GIS), remote sensing—which Onasch described as gathering information about the Earth's surface without being in physical contact with it—and the Global Positioning System (GPS) technology with which many people are familiar and use for navigation in their automobiles. GIS is a technology widely used in the natural, social and health sciences, as well as in business and government. It is used to examine relationships between spatial information, which includes anything that is tied to a location.

Onasch finds that today's students, those that have been termed as millennials, are particularly well suited to interdisciplinary study. He explains, “One of the characteristics of millennials is their ability and willingness to multitask. They are accustomed to thinking in multiple dimensions at the same time and poised to make the connections that will lead to innovations.”

Cameron Williams, a sophomore majoring in geography and computer science, agrees with Onasch's analysis of students, saying, “Many students, myself included, see that too much academic specialization limits both our opportunities as well as our future contributions. We are used to managing data from different sources at once, so it just makes sense that our classes inform us in multidimensional ways too. Studying geography without the context of policy issues or emerging geospatial technology doesn't really engage me in the subject in ways that will allow me to make a difference in the future.”

In December, the School of Earth, Environment and Society broadened its interdisciplinary reach with the merger of the Environmental Studies Program with the Environmental Health Program to form the Department of Environment and Sustainability. The new department offers students the opportunity to earn a bachelor of science in environmental science or environmental health or a bachelor of arts in environmental policy. The Center for Environmental Programs will be supported by the new department.

“Joining these three degrees will help promote interdisciplinary opportunities for students and faculty,” says Dr. Gary Silverman, who is chair of the new department. "The use of 'sustainability' in the department's name reflects increased focus on the critical necessity of planning for the future and the stewardship of resources.”
Can wind power and wildlife co-exist in northwest Ohio?

In 2006, U.S. Representative Marcy Kaptur secured a $2 million U.S. Department of Energy grant to study the wind-wildlife issue. The project, carried out by Bowling Green State University’s Firelands campus, is one of only two accredited graduate environmental health programs in the United States. The recruiting effort also dovetails with Ohio Board of Regents Chancellor Eric Fingerhut’s plan to enhance Ohio’s economy by enrolling and retaining more college students in the state and preparing them for the work force.

Can wind power and wildlife co-exist in northwest Ohio? (Terri Carroll ’98)

BSU environmental health majors talk with high school students

Because other students are such effective communicators when it comes to reaching high school students, BSU is enlisting current environmental health majors to share information about their field at their former high schools. The Association of Environmental Health Academic Partnerships (AEHAP) has awarded $4,000 to BSU to develop and implement the recruiting strategy. The award is made possible through a cooperative agreement with AEHAP and the National Center for Environmental Health, part of the Centers for Disease Control and Prevention.

“We believe this project fits well with the goals of the grant, which are, ultimately, to increase the number of students enrolled in environmental health degree programs,” the association told Dr. Gary Silverman, director of BSU’s Environmental Health Program and chair of the new Department of the Environment and Sustainability. “We hope it is that the high school students will enroll as environmental health majors at one of the three accredited undergraduate programs in Ohio. BSU’s program is one of only 27 nationally accredited undergraduate environmental health programs in the United States.

Fingerhut said the plan to enhance Ohio’s economy by enrolling and retaining more college students in the state and preparing them for the work force.

BSU environmental health majors will develop presentations about opportunities available to graduates of environmental health programs. The experience of preparing and giving the presentations will also be helpful to the college students, according to Silverman. He explains, “Ultimately, people will need to change their behaviors in response to environmental challenges. Our students will be at the forefront of educating people about the relationship between individual lifestyle choices and the planet’s health and persuading them to make wise choices.”

Onasch credits BSU’s faculty and leaders for supporting and facilitating the school’s reconfiguration. “Our past dean, Don Nieman, was a tremendous advocate for interdisciplinary teaching and research. His efforts, as well as those of faculty within all of the participating programs, allow us to build on past informal collaboration and common interests for a future of innovation and engagement.”

Additionally, the state of Ohio has targeted GIS for Third Frontier funding and developed STEM (Science Technology Engineering Mathematics) to increase student enrollment in critical fields. Onasch states, “With SEES faculty and student efforts directed toward practical applications, we are poised to take advantage of the state’s focus on growth and innovation. We want to be at the forefront, both as a University and region, in bringing research, technology and scientific innovations to bear on the environmental challenges facing the world.”

When Eileen O’Neill ’90, president and general manager of Discovery Communications’ TLC and graduate of Bowling Green’s Popular Culture master’s degree program, was tapped to lead the launch of Discovery’s Planet Green, she was light green. That is, she was aware of the scientific warnings about our planet’s declining health, but believed protecting the planet was expensive, time-consuming and out of her control.

While building Planet Green she became bright green. That is, aware of how small, everyday decisions affect the planet and empowered to make environmentally conscious lifestyle choices. “I want all of our viewers to become bright green,” states O’Neill. “By showing people the cumulative effect of switching to products that use recycled packaging, drinking tap water instead of bottled, or washing your clothes in cold water to save energy, we start a conversation about what it means to be environmentally responsible and move as many people as possible to bright green.”

O’Neill is currently president and general manager of Discovery Communications’ TLC which includes a string of hit shows–including “Jon & Kate Plus 8” (now the top-rated series on TLC), “Little People, Big World,” “What Not To Wear,” “American Chopper” and “Trading Spaces.” Prior to her Planet Green leadership, she served as executive vice president and general manager of Discovery Health Channel. In 2007, she simultaneously ran Discovery Health and TLC on an interim basis during a period of management transition at TLC. Under O’Neill’s leadership, Discovery Health earned record ratings and developed standout shows such as “Mystery Diagnosis” and “Dr. G Medical Examiner.”

Similarly, Discovery also realized that a company starting an environmentally friendly television network ought to lead by example. The company’s headquarters is only the ninth pre-existing building in the U.S. to receive the Leadership in Energy and Environmental Design (LEED) platinum status for initiatives such as installing 400-gallon reservoirs to collect rainwater, and motion-detector lights and toilets that use less water. Employees who bicycle to work are given a small bonus and the Web site is solar-powered.

With examples like these, a bright green future can’t be far behind.

How are you?
It's a good learning experience for me."

The Great Lakes, so it will be good to get more oceanic experience under my belt."

Department. Then she prioritized which agencies, NOAA, NASA and even the State Department. Then she prioritized which agencies she interviewed with agencies such as the Environmental Protection Agency.

"I've grown up around the Great Lakes and my research has been on the Great Lakes, so it will be good to get more oceanic experience under my belt."

with "hosts" in the legislative and executive branches of government for the one-year, paid fellowship. The program is named in honor of one of Sea Grant's founders, former NOAA administrator John A. Knauss. Opfer's master's thesis deals with heavy metal uptake in burrowing mayflies and contamination in sediments in western Lake Erie. Historically, research has focused on contamination from organic compounds in the lake, including PCBs. But heavy metals—such as cadmium, zinc and lead—can also present health dangers if consumed, Opfer noted. Opfer, who is co-advised by Dr. Jeffrey Miner, biology, and Dr. John Farver, geology, was in Canada at an International Association of Great Lakes Research conference presenting her research results when she learned she had been selected for the prestigious award. She is one of two students to be chosen from Ohio among this year’s 51 Knauss fellows.

"We're not sure yet if there is 'trophic transfer' of these heavy metals from the mayflies to the fish and to humans who eat the fish," Opfer said. Determining that will be a later step in the research. In spring 2007, she collected mayfly specimens and lake sediment samples, which she analyzed with a new, optical emissions spectrometer in the geochemistry laboratory at BGSU. "So far, we've found higher metal concentrations in the lake near the shore," she said. These toxic metals appear to adhere to organic sediment particles that are lightweight and drift into deeper areas of western Lake Erie. Lack of turbulence from waves in these deep areas allows the heavy-metal-bound particles to settle. However, this is also where the mayfly nymphs are abundant and consuming the sediments. "Ongoing research is addressing whether these heavy metals in sediment and insects are accumulating in yellow perch when the insects become available as prey in June and July," Miner said. While Opfer is in Washington, the research will be continued by Farver and Miner. Other graduate and undergraduate students are ready to take on the project.

"Sarah's research indicates that these heavy metals are reaching levels of health concern, especially in sediments in the middle of the western Lake Erie basin," Miner said. The research was supported by a grant from the Lake Erie Protection Fund to her co-advisers. Mayfly nymphs spend one to two years in the sediment at the bottom of the lake before rising to the surface for their one-day life, during which they mate. Their eggs drop back to the bottom to begin the cycle again. The emerging mayflies are most abundant in June and early July and are eagerly eaten by important sport fish such as yellow perch.

A new grant from the Ohio Research Scholars Program (ORSP) will support progress toward creating the next generation of photovoltaics—the direct conversion of sunlight to electricity—as well as the next generation of fuels and energy-efficient lighting, now being developed by Bowling Green State University and the University of Toledo.

Both universities have been deeply involved in the alternative energy arena for many years. According to the Ohio Third Frontier Commission, the grant strengthens the "photovoltaics cluster in the region by leveraging existing research activities at the universities."

BGSU researchers Drs. Felix Castellano and Pavel Anzenbacher, chemistry and photochemical sciences, are using $7.5 million of the overall $8.9 million ORSP grant to bring two research professors to their labs for the five-year duration of the program, and to assist with other associated operating expenses.

The program is directed at energy-relevant projects: producing and utilizing energy more efficiently," says Castellano. "The grant builds on existing strengths and infrastructures. BGSU, UT and Ohio State University are all sites of the Center for Photovoltaics Innovation and Commercialization (PVIC). The center is "very infrastructure-heavy," providing the state-of-the-art hardware and facilities, according to Castellano and Anzenbacher. The Northwest Ohio Innovators in Thin Film Photovoltaics grant gives support for personnel and operating costs.

Anzenbacher’s research group focuses on developing organic, light-emitting materials that use energy much more efficiently than traditional incandescent and phosphorescent tubes. "We’re working on solid-state technology to produce less expensive general lighting," Anzenbacher explains of the more efficient lighting technology. "Because a substantial portion of U.S. energy consumption is used for lighting, more efficient light sources lead to a lower demand for energy."

The lead faculty member on the grant is UT’s Dr. Robert Collins, the Nippon Electric Glass Endowed Chair in Silicate and Materials Science in the physics and astronomy department. Dr. Sylvain Marsillac, also a physics faculty member, is the co-lead at UT and assisted with critical aspects of the proposal, identifying the mechanisms through which new personnel can link to and collaborate with the Ohio photovoltaics industry.

"The Ohio Department of Development is putting its confidence in us that we help to support and expand the solar industry in Ohio," Collins says, pointing out that overall funding for the photovoltaics center is $34.6 million, with nearly $30 million in cost-share commitments.

Because of complementary work on different aspects of photovoltaics, or how light interacts with molecular and solid-state systems, Collins says, "that’s a nice overlap and opportunity to collaborate. The BGSU-UT collaboration was one of only two proposals from Ohio to get the green light from both the National Academy of Science and the Ohio Department of Development."

"BGSU is doing world-leading scientific research but it also links well into the regional strengths in glass and polymers and promotes regional economic development."

As part of the Third Frontier project, the ORSP provides grants to strengthen and increase the number of clusters of research excellence, led by Ohio’s academic institutions that support regional economic priorities. Jointly funded and administered by the Department of Development and the Chancellor of the Board of Regents, the program will achieve this through “aggressive investment in the attraction of senior research talent and related facilities and equipment, and promotion of unique collaborations needed to build and sustain scientifically and commercially promising lines of research.”

With high priority on building a critical mass of research scientists and engineers in five targeted technology research focus areas.

This summer will find BGSU master’s degree student Sarah Opfer in Washington, D.C. As the recipient of a 2009 Knauss Fellowship, sponsored by the National Oceanic and Atmospheric Administration (NOAA), Opfer will trade long days collecting specimens in Lake Erie and weekends analyzing samples in the lab for urban life and environmental policy work.

Opfer, a biological sciences major from Oak Harbor specializing in aquatic ecology and spatial environmental chemistry, will receive $43,000 to spend a year in the capital working with a federal agency on environmental regulations and policy.

In preparation for beginning the work, she spent a week in Washington in a sort of matchmaking process in which she interviewed with agencies such as the Environmental Protection Agency, NOAA, NASA and even the State Department. Then she prioritized which she felt best suited her interests and skills, the agencies did likewise, and the matches were made.

"I’ve grown up around the Great Lakes and my research has been on the Great Lakes, so it will be good to get more oceanic experience under my belt. It’s a good learning experience for me."
New biology track prepares students for ecology, conservation work

Students with a passion for the environment and preserving the diversity of life can now follow a course of study at BGSU tailored to their interests. The biological sciences department last fall added a specialization in ecology and conservation (ECB) that will prepare graduates for the growing number of jobs requiring knowledge in both areas.

The curriculum provides a strong foundation in basic biology, genetics, ecology, evolution and conservation biology, with the addition of focused coursework in biodiversity, organismal biology, statistics and geographic information systems (GIS).

The curriculum gives a "unifying foundation that cuts across all organisms, habitats, environments and scales and provides a customized path and the proper sequence of classes," says ECB advisor Dr. Karen Root, biology.

"This is really timely," says biologist Dr. Helen Michaels, lead designer of the program. "There's a great deal of public support now for conservation and dealing with the environment's problems. People realize that dealing with problems now will help us ahead of the curve."

"The nature of jobs has changed," Root adds. "There's a call for this sort of expertise, and entry-level jobs are available with a bachelor's degree. You're a lot more competitive having that specialization right on your diploma." Jobs exist in the private sector, at the federal level, in consulting and with the U.S. Geological Survey as well.

Students who enroll in the ECB specialization tend to be students with a passion for the environment and preserving the diversity of life, to prepare for meaningful work. They want to know what they can do."

Root adds, "They're concerned that nothing's happening and there's a caring and a passion there," Michaels says, to which Dr. Karen Root, biology.

Students who enroll in the ECB specialization tend to be concerned that nothing's happening and there's a caring and a passion there," Michaels says, to which Dr. Karen Root adds, "They're concerned that nothing's happening and there's a caring and a passion there."

"There's a caring and a passion there," Michaels says, to which Dr. Karen Root adds, "They're concerned that nothing's happening and they want to know what they can do."

There are currently 12 students in the ECB track, including Rebecca Saffron, a senior from North Ridgeville who exemplifies the attitude described by Michaels. "I like to do fieldwork in conservation and restoration of natural spaces and native species," she says. "We have the ability to make wise and long-term choices to positively or negatively affect the environment. I believe we need to use our knowledge to protect what is most vulnerable."

An emphasis of the new program is providing field experiences, independent research and internships for students to give them hands-on training in the skills they will need. Saffron has had multiple experiences, ranging from assessing areas identified for planned burning in the West to monitoring a major green-turtle nesting site in Costa Rica to tracking diamondback terrapins in brackish-water estuaries in New Jersey.

Michaels and Root are also developing service-learning opportunities for students in such areas as restoration ecology where they may become involved in local issues. "The more we can connect with them, the better scientists they'll be, and certainly they will be better citizens," Root says.

The ECB track relates well to the environmental science program in the School of Earth, Environment and Society, say the two biologists. In fact, some students may choose to have an environmental science minor, or vice versa. One of Root's jobs as advisor is to help students select which is best for them.

"There's a caring and a passion there," Michaels says, to which Root adds, "They're concerned that nothing's happening and they want to know what they can do."

When Drs. Catherine Cassara-Jemai and Nancy Brendlinger, journalism, took seven BGSU students to Tunisia for a week in November, the immediate purpose was an environmental communication workshop with Tunisian and Algerian counterparts, but the goal was far larger.

"At the heart of the project is the development of interpersonal contacts between Americans and North Africans," which counteracts negative misperceptions between cultures, Cassara-Jemai says.

At the Tunis end, the workshop was hosted jointly by the Institute for Press and Information Sciences (IPS), the University of Manouba and the Tunis International Center for Environmental Technologies (CITE), a division of the Tunisian Ministry of the Environment and Sustainable Development.

Attending were faculty from the University of Algiers and three of their students. The BGSU travelers included four journalism majors, one telecommunications major and two students majoring in international studies, one with a second major in environmental policy and the other with a second major in French.

The four institutions are involved in "Partners for a Sustainable Future: Aiding Future Practitioners of Algerian and Tunisian Environmental Journalism and Communication," a three-year, $38,800 grant from the Bureau of Educational and Cultural Affairs of the U.S. Department of State under the authority of the Fulbright-Hays Act of 1961, as amended. BGSU has committed an additional $177,733 in funds and other resources to the endeavor.

For some of the students, the trip to North Africa was their first experience of international travel. Others were traveling for the first time in the Arab world. The trip was an unqualified success, say the participants.

“This was my first trip outside North America and an incredible experience,” explains Lauren Farnsworth, a senior journalism major. "We all attended a conference on environmental issues, traveled to a hazardous-waste treatment facility and visited several nongovernmental organization projects. We had the opportunity to get to know one another and learn about one another’s cultures, challenges and concerns.”

They also went on trips to Lake Ichkeul—a nature and bird sanctuary and UNESCO World Heritage Site, and a community-run recycling and education center.

This is the third trip between northwest Ohio and North Africa and there are exchanges still to come. Plans call for BGSU and IPSI faculty to travel to Algiers in the spring to conduct an environmental communication workshop for University of Algiers students. Additional workshops and exchanges are planned through 2010.

“The opportunity to travel breaks down barriers on both ends of the exchange so we can work together on shared concerns such as environmental issues,” says Dr. Lara Martin Lengel, chair of interpersonal communication and one of the grant program co-directors.

“The challenge in education and in journalism today is to engage much more proactively with the great crises of our time,” says journalism professor Dr. Oliver Boyd Barrett, a well-known scholar on global media issues. “Climate change, resource depletion and the conflicts that are already occurring related to those developments have not been adequately addressed by journalists. This initiative puts us in a part of the world which is a significant player in the crisis of vanishing resources."

BGSU and IPSI have been working together in grant-funded projects dealing with journalism and communication education since 2004. BGSU and the University of Manouba also have an agreement to pursue efforts to extend their partnerships to include research and exchange programs.

Left to right: Students Laura Simmons (America), Nor El Houda Bouzegaou (Algeria) and Saniha Badwaik (Tunisia) are planting a tree at a community center which teaches children to recycle trash and create artwork out of it.
At about 93,000 square feet, the building will be large enough for classes and rehearsals while providing performance, design and office space. It will also be the new home of the Department of Theatre and Film, currently housed in the aging South Hall.

In counterpart to the gently angled walls of the building, a tall, vertical “fly tower” above the 400-seat main theater will allow the use of more extensive scenery and backdrops than in other campus theaters. On the site of the former Saddlemire Student Services Building, the Wolfe Center will bridge the College of Musical Arts and the Fine Arts Center. A glassed-in walkway across the building will suggest the connection between the Fine Arts Center and the Moore Musical Arts Center.

Construction is projected to begin this spring, with completion in 2011. The cost is estimated at $40 million, including the roadway and parking ($2.5 million). Frederic and Mary Wolfe of Perryburg provided generous leadership for the project. Another major gift, from Thomas and Kathleen Donnell of Findlay, will support the construction of the main theater.

Most of the remainder of the cost will come from state capital appropriations. The Collaborative, a Toledo-based firm, is the local partner on the project, and Ryan Miller of the University’s Office of Design and Construction is the project manager.

Since prehistoric times, ceramic artists have followed these three basic steps to shape clay to their will. Though refined and personalized through the years, the fundamental methods for creating ceramics have remained unchanged. Now, BGSU’s John Balistreri is poised to revolutionize this time-tested process. He still aims to create original ceramic art pieces; but instead of shaping each piece by hand, he is using a three-dimensional rapid prototyping process traditionally used in medical and high-tech industries.

In 2006, as a ceramics professor in the School of Art, Balistreri served on the thesis committee of Sebastian Dion, then a graduate student in the digital arts program. Dion was interested in trying to use ceramics in the Zcorp rapid prototype printer that was housed in the College of Technology. “The idea was intriguing,” explains Balistreri, “but I was skeptical that clay could be used in this manufacturing environment.”

However, once Balistreri saw the items coming out of the machine intact and ready to fire, he became more interested in the potential combination of the technology with ceramics. To use the Zcorp system, an object is designed using digital rendering software. Then, using the digital file, the system’s printer disperses a thin layer of powder, after which another printer head disperses a binder material. The process is repeated layer by layer until a three-dimensional object is built up from the original digital file. When the layers are completed, a “build box” is lifted from the machine. The unbound powders fall away from the created object.

In its traditional manufacturing setting, the Zcorp object is used as a prototype for developing a mold for further production. Balistreri and Dion saw the potential for the object to be the final product—a one of a kind piece of ceramic art. Balistreri explains, “When we looked at how ceramics had been combined with rapid prototyping and computer assisted design, I was surprised that we couldn’t find anything quite like our discoveries.”

In medical and high-tech industries, the focus on using ceramics and digital technology is purely on prototypes, using exotic materials for very specific manufacturing purposes. However, our process uses plastic clay to create an original ceramic art object.

If you have trouble envisioning the process, you’re not alone. When Balistreri presented his ideas and findings to the digital arts and ceramics communities, both groups, in Balistreri’s words, “were blown away.”

However, Balistreri and Dion could see enormous potential in the idea and began experimenting with different binders and clay recipes. The binder is crucial to the printing process; it must be able to travel through the printer head and also act like a glue to hold the clay particles together. The ingredients also have to be both strong and porous to withstand transfer to the kiln and firing.

Balistreri and Dion were awarded a $50,000 BGSU Technology Innovation Grant to extend their research. In 2007, they received a follow-up grant that allowed them to purchase a new printer from Zcorp to continue their research.

While the funding has expired for Dion’s role, Balistreri continues to perfect the process and is negotiating licensing agreements with Zcorp for the production and sale of his binders and powders.

“This is exciting news on several levels,” says Balistreri. “First, it has become clear to me that this technology will have a significant impact on the field of ceramics and allow artists to create ceramic objects that can contribute both technically and intellectually to the medium’s development. Second, this is a new tool for interacting with clay—a phenomenon that is very rare indeed in the field of ceramics. Even today’s high tech ceramic tools rely on hand manipulation of some type. This innovation allows the artists to conceive and create a ceramic object purely from digital information. Finally, we want to bring this process to marketability which will create jobs and additional research opportunities here in northwest Ohio.”

—Terri Carroll ’88

SHAPEx, GLAZEx, FIRE
Digital technology helps create one-of-a-kind ceramic art

The new Wolfe Center for the Arts will provide a space on campus where the arts can flourish and robust collaborations between them can take root. The building itself will offer an environment conducive to creativity and synergistic partnerships.

In addition to being a place for students and faculty to learn and work on theatrical, dance, musical, film and digital arts productions, the center will offer the community an exceptional venue in which to see a wide range of performances.

Designed by the international architectural firm Snøhetta, based in Oslo, Norway, the Wolfe Center will feature an abundance of natural light and open, welcoming public areas. A number of green initiatives have been included in the building design to reduce energy costs and make use of environmentally friendly paints and finishes.

A sustainability consultant, who is part of the design team, reviews each phase of the design and provides a building energy assessment. Estimates have increased cost of operations savings of the building from less than 8 percent to approximately 21 percent.

Also, engineers are implementing a “demand control ventilation” heating system that only allows outside air into the system when it is required and only in the amounts required on a per-minute basis. Standard practice has been that a system is estimated that steam energy requirements for the building will accommodate full occupancy (needing to heat this new air). It always assumes the building is occupied to capacity during scheduled occupancy hours and should always be ventilated to accommodate full occupancy (needing to heat this new air). It is estimated that steam energy requirements for the building could be reduced and offer substantial savings over what a standard baseline building would expect to use. Wolfe Center to be environmentally friendly space where arts can flourish
BGSU to promote student study of

**BIOINFORMATICS**

With the help of $235,000 in funding from the Choose Ohio First Scholarship Program, Bowling Green State University will encourage students to study and use bioinformatics to solve important medical, biological and environmental problems.

Bioinformatics is “a new interdisciplinary field that draws on biochemistry, molecular biology, computer science and mathematics to use the vast amounts of DNA, RNA and Protein data that are coming out of the genomics and proteomics projects to address important health and environmental issues,” explains Dr. Necoles L. Leontis, professor of chemistry, who is involved in the program.

Modern technology allows scientists to quickly determine the entire DNA sequences of humans and other organisms, and even identify their differences. This information can then be used to identify those who show the most promise of making fundamental contributions to their field. Researchers are learning which genes are turned on in different cell types at different times. Many diseases are the result of the wrong parts of the DNA (genes) being turned on or off at the wrong time or the wrong place, and can lead to cancer, diabetes and heart disease, according to Leontis.

The scholarship program is designed to make Ohio more competitive in bioinformatics, a field that is growing rapidly, and to link researchers to offer teleconferencing and collaborative teaching. The consortium hopes to attract nearly 345 STEM students over the next five years.

**Dr. Pavel Anzenbacher receives Olscamp Research Award**

Dr. Pavel Anzenbacher, an associate professor of chemistry, was the winner of this year’s Olscamp Research Award. Given annually to a faculty member for outstanding scholarly or creative accomplishments during the last three years, the award includes $2,000 and a reserved parking spot for one year.

When the University named Anzenbacher the “Outstanding Young Scholar” in 2003, his potential was already evident. He had been with BGSU for barely three years but had already secured more than $1 million in external grant funding as principal investigator. Dr. Michael Ogawa, chemistry department chair, nominated his colleague for the Olscamp Award, describing him as an “internationally recognized supramolecular photochemist who has made creative contributions in such diverse areas as the design of electrochromic materials and the development of new types of chemical sensors.”

His potential was also seen in 2003 by the Sloan Foundation, which gave him an Alfred P. Sloan Research Fellowship, a highly competitive national award designed to identify those who show the most promise of making fundamental contributions to the development of new knowledge in the sciences. Anzenbacher’s research group has been continually successful in attracting external funding from such agencies as the National Science Foundation, the U.S. Air Force and the state of Ohio.

**Barbara Moses named first Bailey endowed professor in mathematics**

A talk by Dr. Barbara Moses on the importance of society to math education and teacher preparation—and of countering the disturbing decline in interest in math and science—helped shape the direction of a $1 million gift that James Bailey, his wife Judy, and their daughters made to BGSU in 2004. Of the $500,000 cash portion of the donation, $250,000 is designated for an endowed professorship in mathematics.

When determining who should be the first recipient of the Bailey Family Endowed Professorship in Mathematics, Bailey said, “There was no one more deserving of the honor than Dr. Barbara Moses.”

She was the founding director, in 2002, of COSMOS (Center of Excellence in Science and Mathematics: Opportunities for Success) at BGSU. Over the years, Moses and her teams have received more than $1.7 million in external funding. Her research focuses on visualization in algebraic thinking.

Moses received a bachelor’s degree in mathematics education from Carnegie-Mellon University and master’s and Ph.D. degrees from Indiana University. She came to BGSU in 1987 and was promoted to full professor in 2003. Bailey ‘69, a former executive vice president of Citibank’s North American consumer bank, retired as executive vice president in 2000. Until 2003, he was a consultant in such areas as consumer marketing and financial modeling. From 2003-05, Bailey was chief operating officer of U.S. Trust and a member of the executive committee at Schwab.

Currently, he is a member of the BGSU Foundation Board.

**Dr. Jeffrey Moriarty named Outstanding Young Scholar**

Dr. Jeffrey Moriarty, an assistant professor of philosophy, has been named the 2008 Outstanding Young Scholar. The award is given annually to a young faculty member who has excelled in his or her scholarly endeavors.

He has written seven articles published in top-level, refereed philosophy journals; a book chapter; two encyclopedia entries and a book review—all since receiving his Ph.D. in 2002 from Rutgers University.

Based upon this prolific output and contributions to his field, Moriarty was given the award, along with $2,000, and another $1,000 in his departmental account to be used to further his scholarship. Presented by the Office of Sponsored Programs and Research (SPAR), funding for the award comes from a variety of internal and external donors.

Moriarty, who came to BGSU in 2005, specializes in both political philosophy and business ethics and has already become internationally known for the latter, having been invited to speak last year at the University of Zurich and this fall in Belgium and New York.

**Dr. Verner Bingman named Distinguished Research Professor**

Dr. Verner Bingman, a professor of psychology, has been honored as the Distinguished Research Professor by the University’s Board of Trustees.

A BGSU faculty member since 1989, Bingman has studied the relationship between the brain structures called the hippocampus and spatial cognition and memory in birds. His work has offered a different perspective into the role of the hippocampus in naturally occurring spatial navigation.
Neckers elected photochemical society Fellow

Dr. Douglas C. Neckers, McMaster Distinguished Research Scholar, and professor of chemistry, has been elected a Fellow of the American Chemical Society (ACS). The ACS, which was established in 1879, promotes and advances the chemical sciences by disseminating knowledge and encourages the development of photochemical sciences and allied subjects to the general public.

Williams’ film screened at festivals

A feature film by Daniel Williams, assistant professor, theatre and film, has been accepted into the American Black Film Festival. “Cigarettes for Breakfast” was written, directed and edited by Williams.

Schocket’s book wins state history award

A book by Dr. Andrew M. Schocket, associate professor, history, is the most-owed winner of the Ohio Academy of History Outstanding Publication Award. In Founding Corporate Power in Early National Philadelphia, Schocket analyzes the establishment, growth and operations of both commercial and municipal corporations in the nation’s premier city.

McMaster Visiting Scientist discusses duality of human nature

Dr. Andrew M. Schocket, known for his work on the social intelligence of primates, explored the duality of human nature by looking at our two closest relatives. His book was highlighted during the UC Seminar Series and he was also highlighted during the UC Seminar Series and he was also highlighted during the UC Seminar Series and he was also highlighted during the UC Seminar Series and he was also highlighted during the UC Seminar Series and he was also highlighted during the UC Seminar Series and he was also highlighted during the UC Seminar Series.
Director of the Living Links Center at the Yerkes National Primate Center in Atlanta and the C.R. Quinlan Professor in the psychology department at Emory University, de Waal’s first book, Chimpanzee Politics, compared the scheming and scheming of chimpanzees involved in power struggles with that of human politicians. Ever since, he has drawn parallels between primate and human behavior, from peacemaking and morality to culture. His scientific work—published in hundreds of technical articles, in journals and books, and translated into 15 languages—makes him one of the world’s most influential scientists.

Patricia Lawrence (Gossman) ’68, culture studies, has retired from Pacific Gas and Electric Company after 29 years. She was the business manager for the energy efficiency programs. She resides in Sausalito, Calif.

Jeff Yeager ’80, political science, has appeared on NBC’s Today show as a guest correspondent and his first book, The Ultimate Cheapskate’s Road Map to True Riches, was released in December 2009 and now is the best selling personal finance book on Amazon.com. He resides in Azleoke, MI.

Michael Santac 95, computer science, holds the military rank of colonel and has assumed command of the Protected Satellite Communications group, Military Communications Satellite Systems Wing, Los Angeles Air Force Base, Calif.

Deborah Wieczorek-Warmanek ’75, theatre, received her Master’s degree in interpersonal and public communication in 1989. She then received her Juris Doctorate from Dickinson School of Law in 1994. She is a lecturer at the University of Pittsburgh where she teaches public speaking, interpersonal communication and First Amendment freedom of speech and press. She resides in Bethel Park, Pa.


Jeffrey Day ’93, political science, joined the law firm of Germs & Day PLLC in Bay City, Mich., as a partner in June 2009, after eight years as an assistant prosecuting attorney in the Bay County prosecutor’s office. He resides in Bay City with his wife and these children.

Carrie Lofti ’98, history and English, will have a romance novel, What A Scoundrel Wants, released in late 2008 from Kensington Publishing. It’s sequel, Scoundrel’s Kiss, will be released in late 2009. She resides in Kenosha, Wis.

Ryan Knoy ’99, interpersonal communication, will complete his Ph.D. in organizational communication with a minor in quantitative statistics, at the University of Buffalo (The State University of New York). He has accepted a post-doctoral position at the University at Buffalo and will step into the role of national program manager of GCM, Inc., a faith-based nonprofit in Winter Park, Fla. He resides in Buffalo, N.Y.

Alisha Coplin ’03, biology, is a science teacher and robotics coach at Bethel Regional High School in Bethel, Alaska, where she resides.

Bob Moser ’06, print journalism, works as a business reporter for The Daily Advertiser, a newspaper in Lafayette, La. In 2007 he was one of 13 U.S. reporters to win a World Affairs Journalism Fellowship from the International Center for Journalists in Washington, D.C. He was the youngest ever to win the fellowship at age 22, and went to Sao Paulo, Brazil, for two weeks to study the country’s public sugar cane and ethanol production, and compare it to Louisiana’s own industries. His series can be read at www.thedailyadvertiser.com/(Bundle). He resides in Kenai/975, Alaska.

Deborah Snyder ’74, telecommunications, is working as a radio news reporter and anchor in the Minneapolis-St. Paul market. She resides in Brooklyn Park, Minn.

Alkie Jones, German, Russian and East Asian Languages (GREAL), has been named Ohio’s outstanding college language instructor. She was recognized at the Ohio Foreign Language Association’s annual awards luncheon during the organization’s conference.

Jones, who has taught at BGU since 1983, has gained a reputation as one of the state’s best college teachers of an Asian language.

In addition to teaching, Jones is director of the Asian Studies Program in the College of Arts & Sciences, advisor to the Japanese Club and director of the University’s summer program in Japan. She also organizes many cultural events on campus each year, including the Ohanami (Cherry Blossom) Festival.

It’s Telefund Time...

A total of $110,605 in gifts and pledges was given by College of Arts and Sciences alumni during the 2008 annual appeal. Your generosity helped fund numerous activities that contributed to advancing our students, faculty and the programs mentioned in this issue of Dimensions.

One of our students will be calling you soon to ask for your support of the College of Arts and Sciences in 2009. Thank you for your continued confidence in your alma mater.

For more information about giving opportunities, please contact Julie Pontasch, major gifts officer, Office of Alumni & Development, 419-372-7617.
Longitude & Latitude

Where are you? What are you doing?

We encourage our alumni to submit information about their professional accomplishments using our Web site: www.bgsu.edu/colleges/as/page44805.html.

The form below is also provided. Please send it to Jasmine Gordon Schulz, College of Arts and Sciences, 205 Administration Building, Bowling Green State University, Bowling Green, Ohio 43403.

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