This is the best time of day. The sun is free-falling out of the Arizona sky, exhausted after another full day of flame-throwing 100-degree temperatures that slow-roast the earth below.

Fred Phillips, BS ’95, slowly paddles his canoe through the placid backwater channel of the Colorado River. There is no urgency to his stroke. He has nowhere to go and all evening to get there as he admires the full glory of his six-year labor of love, sweat and tears.

In 1994, as a junior in Purdue’s Department of Horticulture and Landscape Architecture, Phillips came to the Colorado River Indian Reservation to help transform a vision into reality. By the time he left the tribal grounds in October 1999 to start his own consulting business in northern Arizona, Phillips had helped restore 250 acres of cottonwood and willow trees and 600 acres of wetland and aquatic habitat along the river, enhancing God’s matchless beauty by creating the 1,042-acre Ahakhav Tribal Preserve.

On this 2.5-mile stretch of placid Colorado River backwater about 140 miles west of Phoenix, the sight of the canoe draws the curiosity of a sandhill crane fishing the reedy banks. Nearby, beavers stop tail-slapping the water, and coots curiously eyeball the passing canoeist as they dart in and out of the safety net of cattails.

Over his shoulder, the sun begins to duck behind the mountains. In its wake, the arid desert sky turns from gold to deep blue.

As sunsets go, it’s two-for-one time on the water. The glorious show above is doubled below by its own reflection, dancing across the small wake of the canoe.

It is difficult, at any price, to improve on what Mother Nature has provided for free. But that is what Phillips has done, generating and spending more than $5 million in grant money to create the preserve, which had become overrun by non-native salt cedar. The oxygen-depleted wetlands sustained little significant life beyond the 10-foot cattails that rose out of the mud and into the sky.

This is not the roaring Colorado River of Grand Canyon fame with boulders as big as subdivisions and white water as fast and fearless as a teenager. This is downstream, where the

Fred Phillips (above) steered a revegetation project for Arizona’s Colorado River Indian Tribes, transforming wasteland into the Ahakhav Tribal Preserve.

Grad makes trees grow and waters flow
Arizona internship blossoms into 6-year project

BY TOM CAMPBELL

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“You get to run free,” says 10-year-old Justin Martinez, finding sanctuary and a friend in a grove of mesquite trees.
Arizona, continued from page 1

river has been damned up and leved down to quietly nurse all who draw from it, plants and people alike.

The revegetation project, which to date has included planting some 30,000 trees over a 250-acre tract, was the vision of Dennis Patch, a Colorado River Indian Tribes council member. Patch wanted a preserve full of the woodlands and wetlands he remembered from childhood, before the needs of farmers and homeowners changed the flow of the Colorado.

In 1994, when Patch started the project, Fred Phillips was an underachieving junior in landscape architecture at Purdue. He heard there might be a summer job in Arizona working on a restoration project.

He had nearly been bounced from the landscape architecture program the year before because he had difficulty applying himself to the curriculum until he came under the wing of Bernie Dahl, assistant professor of landscape architecture. Dahl opened Phillips’ eyes to a nontraditional approach to landscape architecture, one that is environment-based.

“I was an idiot for a year-and-a-half,” Phillips says bluntly. “I wasn’t a bad student, I just wasn’t committed.”

But working on the project that summer, making $8 an hour, lit a fire under Phillips that burned hotter than the Arizona desert itself. And it burned white-hot for the better part of six years.

“That was a magical summer,” Phillips recalls. He spent days drawing maps that would reflect Patch’s vision of the preserve. Many of his evenings were spent painting the same glowing desert sunset he was enjoying this day.

His nights, however, didn’t have the same romantic quality. Phillips slept on an air mattress in the basement in the home of the tribe’s attorney general. The rent for the basement that summer was a handshake agreement to cook supper for the attorney one night a week.

After that summer, Phillips turned his maps, plans and charts over to Patch and returned to Purdue to finish up. At the second session of summer 1996, he recruited two other Purdue students, Adam Perillo (HLA ’96) and Sonia Mullenix (Biology ’96) to join him. They were the first of nine Purdue students who worked on various phases of the project.

That money paid for Phillips to return to the preserve $10,000 to fund tree plantings in two acres of the park. That money paid for Phillips to return to the preserve during the summer of 1996. He recruited two other Purdue students, Adam Perillo (HLA ’96) and Sonia Mullenix (Biology ’96) to join him. They were the first of nine Purdue students who worked on various phases of the project.

The $10,000 was the trickle that started the flood. To date, Phillips has secured more than $5 million in grants to support the Ahakhav Preserve since September 1996. He took the job for two reasons: He wanted to build something his family could be proud of, but he also left his job at the Parker hardware store.

“People were and still are amazed and thrilled by the Ahakhav Preserve,” Phillips says. “The Ahakhav Preserve has provided a lot of opportunities for a lot of people. Dennis and Fred have done a great job. I get to work with people who have a strong cultural background who really need a lot of environmental education.”

The biggest part of the project, to date, has been the removal of 230,000 cubic yards of mud to create a 2.5-mile channel of backwater running parallel to the Colorado River. The mud was used to create varied terrain within the preserve. The leftover sand and gravel provided a spacious beach and fishing area, where trout, striped bass, crappie, blue gill and catfish have been caught. That is, when swimmers Marcus and Justin Martinez aren’t scaring them away.

“This place is so cool,” says 12-year-old Marcus “You can go fishing, swimming and canoeing all in one place.”

“You get to run free,” adds 10-year-old Justin, “it’s awesome.”

Victor Cuadras (pronounced QUAD-rah) has been project foreman at the Ahakhav Preserve since September 1996. He took the job for two reasons: He wanted to build something his family could be proud of, but he also left his job at the Parker hardware store for a chance to work with Fred Phillips.

“Before there was a preserve, there were some old refrigerators, junked cars and trash. Let me put it this way: I’ve been living in the room, slowly going through the latest issue of Rolling Stone (Oct. 26, 2000). I happen upon the “College 2000” section and find the article titled “No Major Too Minor” by Eliza Truit. It looks interesting, so I start to read it. Lo and behold, one of Rolling Stone’s 18 “highly specialized college majors” is turf grass science at Purdue University.

“Want to manage golf courses and athletic fields? This degree gives you some agricultural know-how and some business savvy, as well as a required class titled ‘Wooly Ornamental Plants,’ all of which should help you nail down that groundskeeper position,” p. 104).

Although I’m in the School of Liberal Arts, I’m incredibly proud of the School of Agriculture and honored by this recognition of Purdue.

Slyam Siratun, senior, political science

This aerial photo taken in May 1999 shows the desert oasis created along the backwater of the Colorado River. Trees planted in the revegetation project were grown in the preserve’s nurseries (left center of photo).
New leaders take over in agronomy and entomology

BY TOM CAMPBELL

By becoming head of Purdue’s entomology department in September, Steve Yaninek got a head start on Craig Beyrouty, who takes over as head of the agronomy department in January.

But both say the first 12 months of their respective tenures will allow them to plot courses that will direct their departments for years to come. And both say they want to hire top professionals. "My first goal is to get to know the faculty and staff in our department and in the School of Agriculture," says Yaninek. "Second, we are going to prepare a plan for where we see ourselves over the next five to 10 years. That plan should be completed within a year. We need to look at what we can do to not just be competitive, but be among the best programs in the entire country."

Yaninek replaced Chris Osto in September after serving as national program leader for the USDA Cooperative State Research, Extension, and Education Service. Before that, the Cal-Berkeley grad, BS ’77, MA ’80, PhD ’85 was project coordinator for the International Institute of Tropical Agriculture. Yaninek hopes to achieve his goals by hiring top professionals.

"We could be looking at one-third of the faculty turning over in the next five to 10 years," he says. "We want to come up with the areas we think are the cutting-edge areas in research, education and extension, get our priorities laid out, and then go after them."
Some 50 judges sequestered themselves for nearly three days at the Indiana State Fairgrounds this summer for intense sessions of sighting, smelling, sipping, spitting and scoring wines.

They rated wines that ranged from whites to reds to ports and everything in between, including amateur wines made from fruits, vegetables and honey.

A record 2,505 wines competed for gold, silver and bronze medals at the 2000 Indy International Wine Competition which is coordinated by the Purdue based Indiana Wine Grape Council.

“We give them a variety. If you spent the whole day tasting nothing but heavy red wines, your tongue would feel like the whole Turkish army had marched across it,” joked Richard Vine, Purdue enologist and honorary chairman of the event.

The Indy International is now the largest American wine competition held outside California, this year attracting entries from 15 different countries.

“The Midwest is attractive to vintners from around the world who are searching for new markets,” says Vine. “To win a medal, particularly if it is gold, is a powerful sales tool.”

The “best-of-show award” went to the 1997 Haywood Winery Rocky Terrace Zinfandel from Sonoma Valley, Calif. Indiana wineries earned 142 awards, including 20 gold medals.

A team from the Purdue School of Agriculture — four faculty members and one grad student — produced two French hybrid variety wines that won silver awards at the competition. Peter Hirst (horticulture and landscape architecture), Rado Gazo and grad student Eva Haviarova (forestry and natural resources), Cindy Nakatsu (agronomy) and Anton Sumali (agricultural and biological engineering) won the awards for their Seyval Blanc and Cuyoga wines. Contact the Indiana Wine Grape Council at www.indianawines.org
Stephen Sears calls his year in Rome the greatest experience of his life. So great, in fact, that he’s moving back to Italy.

BY TOM CAMPBELL

Stephen Sears, BS ’92, is finally doing what he always wanted, thanks to winning the prestigious 2000 Prince Charitable Trusts Fellowship in Landscape Architecture.

The fellowship, also known as the Rome Prize, is awarded annually to 26 ambitious, early to mid-career professionals in archeology, architecture, classical studies, design arts, historic preservation and conservation, history of art, landscape architecture, literature, modern Italian studies, musical composition, post-classical humanistic studies, and visual arts.

The prize provides $15,000 in cash, but it also includes room and board at the prestigious American Academy in Rome and private use of a large studio. The academy is the only American overseas center for independent study and advanced research in the fine arts and the humanities.

“Basically, I’m now doing what I used to do on vacation,” says Sears, who recently moved into an apartment in Rome, Italy, after completion of his fellowship.

“When I was working as a landscape architect, I would take a vacation and go on a three-week photographic tour of Kansas, or I would stay home and paint. Now I’m doing those things all the time.” Sears left Carol R. Johnson Associates, a Massachusetts-based landscape architectural firm, to live in Italy from September 1999 through August 2000. He lived with and exchanged thoughts and ideas with fellow prize winners, a collection of similarly motivated writers, artists, musicians and designers.

“It was the greatest experience I’ve ever had,” Sears says of the sabbatical. “It was just amazing. It was completely self-motivated, and you could make what you wanted out of it. I was completely left to my own devices.”

Sears’ project proposal submitted to the Rome Prize committee was titled “Reflections on the Agrarian Landscape.” Having grown up in central Indiana, Sears feels that his Midwestern roots provide an “innate appreciation for the agrarian way of life.” Sears wanted to travel throughout Italy observing and recording agrarian landscapes through sketches, video, still photography and paintings.

Once ensconced in Rome and exposed not only to Roman landscapes but also to Italian culture, Sears’ project changed directions. He combined photography, video and painting to produce a series of multimedia pieces he calls “The Worth of the Working Landscape.”

His experiences have been channeled into his artwork, beautifully stark representations of landscapes, buildings, people, and — true to the dreamer in him — clouds.

“It seems that about one-third of my photographs are of clouds,” Sears says. “Something about them really intrigues me.” Sears has compiled collections of images that reflect his feelings and values about the agrarian world, examples of how humans are tied to the earth.

“There are patterns, symbols and designs in agriculture that might be applied to landscape architecture, to the built environment,” says Sears, who is eagerly moving into the next phase of his professional life. He is now free to pursue a variety of creative interests, without the burden or benefits that come from working for a large company.

“When you are on your own, there is no one else to rely on. You are always wondering where the projects are going to come from,” he says.

Sears first learned of the Rome Prize from Kent Schuette, an adjunct professor in Purdue’s landscape architecture program.

“I wasn’t necessarily looking to go to Rome, I was just looking for time to do my work,” he says. “I was applying for time to do my own work, the painting and the photography and how it works with landscape architecture. You work 60-hour weeks, and you don’t have much time to work on your own projects.”

His fellowship at the American Academy in Rome, where talented people from varied disciplines lived and worked together, caused Sears to dream of one day harnessing all of that creative power and applying it toward a successful business.

“I have spent the last eight years patiently waiting for the proper opportunity to begin working on my own in the manner I see fit,” Sears says. “I spent those years gaining professional experience, establishing myself in the field of landscape architecture. Last year I was given a rare chance by some of the leading members of my profession to do something well beyond the field of professional practice. I’m trying now to capitalize on those years and my recent good fortune, by investing all of my energies into establishing a viable professional practice.”

Contact Sears at ssears033@earthlink.net

Cash cow

Auction raises $27,000 for dairy team

BY BETH FORBES

A sale of unique dairy-related items raised more than $27,000 for the Purdue dairy judging team. The Nov. 11 event was dubbed the “Once in a Lifetime Dairy Auction.”

Animal sciences professor emeritus Jack Albright, a long-time Purdue dairy cattle judging team coach, donated some 1,600 dairy and Purdue-related items from his collection. Several other dairy alumni contributed milk bottles and other items.

A large, cast iron model of a Holstein bull fetched the highest bid of $3,000. Other popular items included memorabilia representing the former Purdue Creamery. An original Purdue milk bottle sold for $675.

“We were all amazed at the turnout and willingness of attendees to pay a bit more for these unique items for a great cause,” said Steve Hendress, assistant manager of the dairy research center and current dairy judging coach. “It speaks volumes to the admiration everyone has for Dr. Albright and the opportunity this represents for the future of the dairy judging teams at Purdue.”

All the proceeds from the sale will support Purdue dairy judging activities. Each year the dairy judging team travels to four or five contests and regional workouts, and it also travels extensively around the state.

Ag Tailgate 2000, held in conjunction with Purdue’s Homecoming Sept. 23, gave people like Jack Long a chance to visit with friends of Purdue’s School of Ag in one location. Long is professor emeritus of Animal Sciences.
Two ag economists chronicle 'agricultural revolution'

BY STEVE LEER


The book comes with words and pictures to create a literary time capsule of what the Paarlbergs describe as the most significant century in agricultural history — a century that birthed gasoline-powered tractors and combines; rural electrification; safer and more effective farm chemicals; and breakthroughs in biotechnology and other fields.

As a result, more food is produced in far less time: “It took about 90 minutes of labor to produce a bushel of corn in 1910. It takes about two minutes now,” Philip Paarlberg says.

Not all the history is rosy. The book recounts the land and price depressions of the early 1920s and the post-World War II American farm export slump.

“The declining farm population brought with it a loss of self-worth,” says Don Paarlberg, 89, who also served in the U.S. Department of Agriculture under Presidents Eisenhower, Nixon and Ford.

“Farmers have been reduced to less than 2 percent of the population, and they’re losing their identity,” he says. “They’re not as sure about their status. The whole rural culture has been eroded.”

The Agricultural Revolution of the 20th Century also includes a chapter on the century ahead. Don Paarlberg says the next 100 years should bring “profound changes” in germplasm research, agricultural communications, and a shift in migration from urban to rural areas.

Photos for the book came from a variety of sources. Most are from the U.S. Department of Agriculture, Purdue, J.C. Allen & Sons and Paarlberg family collections. One circa 1927 photo is from the U.S. Department of Agriculture, Purdue, J.C. Allen & Sons and Paarlberg family collections.

The Agricultural Revolution of the 20th Century

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**Agri Facts**

From the end of the Civil War through World War II, U.S. corn production increased slightly. But technological breakthroughs developed since then have more than quadrupled production.

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*Purdue Ag Statistics*
Agricultural and Biological Engineering

Mack Strickland, BS ’71, MS ’72, PhD ’76, was one of 10 individuals to receive a special VIP citation from the National FFA organization during its convention in Louisville on Oct. 27. Strickland was nominated by the Indiana state association and national office for assisting with the National Agriculture Mechanics Event (NAME). Strickland has been a member of the NAME committee for nearly 25 years.

Agricultural Communication

Becky Goetz has been appointed an editor in the publishing unit of the department. She previously was a science writer in the news unit. Steve Leer is the new editor of Ag Answers, an online agricultural information service of the news unit. Leer previously was a news writer.

Agricultural Economics

Jay Akridge, MS ’83, PhD ’86 and the Executive MBA (EMBA) program received the outstanding distance learning program award from R1.edu, a consortium of 88 universities classified by the Carnegie Foundation as major U.S. research universities. John Cranfield received the outstanding PhD dissertation award at the American Association of Agricultural Economists annual convention in Tampa, Fla. Frank Dooley received the undergraduate teaching award (for those with less than 10 years experience) at the same convention in August.

Agricultural Education

The National Association of Agricultural Educators has named senior Elisha Priebe a recipient of the 2000-2001 Upper Division Agricultural Education Scholarship. Priebe, who expects to graduate in May, is one of nine students nationwide to receive the award.

Agronomy

The Purdue Soils Team placed second (out of five) in the Region III American Society of Agronomy Collegiate Soils Contest. Individual awards at the Oct. 21 competition went to Andrew Pitstick (sixth place), Andrew Linvill (eighth), and Natalie Stoops (ninth). Other team members were Wayne Skeens, Ryan McNinch, Kristi Kahlenbeck and Phyllis Robinson.

Animal Sciences

In recognition of his contributions to poultry science and the worldwide poultry industry, William Stadelman has been inducted into the International Poultry Hall of Fame. Stadelman, professor emeritus since 1983, is one of only 20 hall of fame inductees. He was named into the American Poultry Hall of Fame in 1992. The award was made in Montreal on Aug. 23, during the association’s annual congress. Stadelman also received the 2000 Outstanding Alumnus Award from Penn State University. The award said Stadelman is known to many as the “father of poultry products technology” because many of his students have emerged as leaders in industry, government and academic poultry programs. Stadelman has been a major professor of 35 PhD and 34 master’s degree candidates during his 45-year career at Purdue.

Food Science

Bruce Watkins has been selected as a 2000/2001 Fellow for the Committee on Institutional Cooperation Academic Leadership Program for the Big Ten universities. Watkins was appointed director of the Center for Enhancing Foods to Protect Health in August. The center, located at Purdue, has received $2.5 million in support this year, including $2 million from Indiana’s 21st Century Research and Technology Fund. The center utilizes faculty from five Purdue schools: agriculture, veterinary medicine, pharmacy, consumer and family sciences, and liberal arts. Graduate students Genyi Zhang and Suhaa Ilyukhin have received the Dr. Allen W. Kirleis International Scholarship Award.

Forestry and Natural Resources

The Association of Consulting Foresters of America presented Jack Seifert the public service award at an annual meeting in Charlottesville, Va. Seifert was honored for “persistent and extraordinary efforts in educating the public about good forest management and providing Consulting Foresters with continuing education opportunities.”

4-H Youth

For their entry in the 2000 educational aids competition, Roger Tormoehlen, BS ’80, MS ’82, PhD ’85, Richard Fox, Ernie Sheldon, BS ’90, MS ’92, and Craig Personett, BA ’92, earned the American Society of Agricultural Engineers blue ribbon award. The awards are presented each year by the society to recognize outstanding effort and achievement in the development of noteworthy educational aids. Their winning entry is Tractor Operation: Gearing Up For Safety.

Entomology

University of Arizona entomologist William S. Bowers, MS ’59, PhD ’62, has been named winner of the 2000 John V. Osmun Alumni Professional Achievement Award. Presented annually since 1988 to an alumnus of Purdue’s Department of Entomology, the award is named after Osmun, who was department head from 1956 to 1972. The award serves to recognize and promote high achievement and professionalism in entomology and its related fields. Bowers was department head of entomology at the University of Arizona from 1984 to 1988, and he helped establish that university’s Center for Insect Science. Jamal Faghihi, PhD ’83 received the department’s 2000 Outstanding Service Award. A staff member since 1996, Faghihi directs all laboratory activities in nematology in diagnosing and solving nematode problems throughout Indiana. Senior Andy Michel has been appointed to the School of Agriculture’s outstanding undergraduate teacher and counselor selection committee.

Horticulture and Landscape Architecture

Robert J. Joly is the North Central district recipient of the USDA/ NASULGC Food and Agriculture Sciences Excellence in College and University Teaching Award.
Biochem grad inspired by Boiler football

BY STEVE TALLY

If you were to walk into a certain laboratory of the Swiss Federal Institute of Technology in Zurich, Switzerland, late on an autumn Saturday night, you might find a scientist and his team of researchers hard at work. Nothing unusual about that, until you notice that a computer is broadcasting the familiar sounds of a football game at Purdue's Ross-Ade Stadium.

Tim Richmond (Biochemistry, ’70), known to scientists and biochemists around the world for his work in cellular structural biology and X-ray crystallography, is a Boilermaker fan from the days of Mike Phipps and Lewy Keys.

If you ask the man on the street what he thinks of when he imagines a world-famous biochemist (especially one who works at the renowned Eidgenoessische Technische Hochschule, Switzerland’s federal institute of technology), “football fan” probably isn’t going to be on the list. Biochemists’ minds thrill to metabolic cycles and transduction pathways, not pass routes and blocking schemes.

But Richmond enjoys — and is inspired by — Purdue football, just as he enjoys applying the competitive nature of the sport to molecular biology. When Tim Richmond has been faced with seemingly insurmountable problems, he has found a way to come back and win, with a can-do drive that would bring a smile onto any football coach’s face.

Richmond is so much a football fan that when the Purdue Department of Biochemistry invited him to return to campus for a few days this year to deliver the David W. Beach Memorial Lectureship, he picked a weekend in October that would allow him to also attend the Purdue-Michigan game.

It was a good choice. That Saturday, Richmond watched the Boilermakers play the then-No. 6 ranked Michigan Wolverines for the Big Ten Conference lead and the inside track to the Rose Bowl. Purdue fell behind 21-3 in the first half, on the way to what looked like a Michigan rout. Purdue came back with a chance to win the game on a 32-yard field goal with just over two minutes remaining in the game, but the kick was wide to the left.

But instead of giving up against what seemed to be an impossible situation, Purdue held its ground, and drove down the field for a second field goal with just four seconds remaining. This was the game winner, and Purdue went on to have its best season in 30 years. The game reminded some of Richmond’s own pursuit of excellence.

Richmond grew up in Seattle and Philadelphia but moved to Purdue, to help him get hands-on experience. He was studying biochemistry. He asked his adviser, Larry Butler, to help him get hands-on experience. He was quickly put to work in the laboratories of the Indiana State Seed Commissioner’s office. “I was impressed with the way the professors worked with me,” Richmond says. “I had an awful lot of desire to succeed, but even given that, they still encouraged me constantly.”

During his junior year Richmond decided he wanted to know more about the structure of the biological molecules he was working with. Purdue has one of the world’s leading laboratories that studies macromolecular biological structures, operated by Michael Rossmann, Purdue’s Hanley Distinguished Professor of Biological Sciences. It was there that Richmond was introduced to X-ray crystallography, a technique to determine the three-dimensional structure of a molecule by analyzing how X-rays bounce off crystals made up of the molecule.

“From the beginning, Tim Richmond was always eager to understand everything he was doing, down to the last detail of the experimental procedure,” Rossmann now says. “He has never changed, and as a result he has been highly successful in his very ambitious projects.”

Richmond’s research is on the structure and mechanics of DNA organization in living cells from yeast to man. How cells tightly but reversibly package their DNA is one of the marvels of the natural world. Each cell nucleus contains the equivalent of about a yard-long string of DNA. “There is so much DNA that it must have some interesting principles of packaging,” Richmond says. “If you want to understand that, you need to see what it looks like.”

Richmond’s group solved the atomic structure of the nucleosome core particle, the fundamental repeating unit of chromatin that determines how genes are turned on and off. Mark Hermodson, head of the Department of Biochemistry, says the nucleosome is an amazing, and complex, structure. “Inside a cell, DNA is wound like thread on spools so it can fit into a nucleus one millionth of a meter in diameter,” Hermodson says. “But it has to be wound so the cell can retrieve the information in a single gene from the nucleus at the proper times in the life of the cell. This requires unwinding the spools, reading the information, then repackaging the gene, one of maybe 100,000 genes in a human cell.”

In 1984, while working at the MRC Laboratory of Molecular Biology in Cambridge, England, Richmond was able to describe the nucleosome structure at a resolution of 7 Angstrom (an Angstrom is one-billionth of a meter). But Richmond knew this resolution wasn’t good enough to allow him to view the DNA structure well enough to understand it. Rather than accept this as the final answer, Richmond continued on next page

Tim Richmond shares lunch and conversation with senior Erika Huver (right) and Karl Brund, assistant dean of academic programs, during his visit to campus in October.

Tim Richmond’s return to campus in October featured lectures where the world-renowned researcher shared his discoveries on the structure and workings of genetic material.
decided to improve the quality of the crystals and devised a scheme to do it using new technologies. After moving to Zurich in 1987, it took his colleagues six years to successfully produce the new crystals. The nucleosome core structure was solved by X-ray crystallography in 1996 at the improved resolution of 2.8 Angstrom (and since, 1.9 Angstrom).

“That was at the end of 1996, and we published the paper in 1997,” Richmond says. “We patted each other on the back once or twice and went back to work.” Others in the sciences weren’t so nonchalant about the research. “There have been two key structures of molecular complexes involved in expression of genes that have been solved in the past three years: the nucleosome core particle and the ribosome,” Hermodson says. “Dr. Richmond’s study of the nucleosome is a major advance in our understanding of how this complicated process occurs.”

Although Richmond receives professional awards and accolades now, he wasn’t always confident his research would be successful. When talking about his days of doubt, Richmond speaks as though he wasn’t there, even though he is talking about his own life. “One has a young family and nothing seems to be going very well,” he says, carefully choosing his words. “People tell younger researchers that the problems they are working on are too big, that their plans are too ambitious. One can get worried about that.”

But Richmond knew his research was important for biologists and the medical advances that would arise from it. “I was silly, I guess, for taking on such a difficult problem” he says, laughing. “I like to study things that are at the center of what we need to know. If you want to have a deep understanding of themes central to biology, you need to know these things, and that is what has attracted me.”

Richmond compares the research process to a football player heading toward the goal line. “How do you keep going? You’ve got the ball and you’ve got to carry it to the end. You can’t stop and say, ‘I’m tired of this. This is as far as I go.’ Too much depends on it.” It’s that sentiment that has propelled Richmond, and he says that he still draws encouragement from the Purdues community today. “It sounds terribly corny, but Purdue sports do inspire me. I know, when I listen to the games, that the Purdue teams are going to win. On Saturday against Michigan, I knew that they were going to win.”

On Saturday against Michigan, I knew that they were going to win. They knew that they were going to win. On Saturday against Michigan, I knew that they were going to win.

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Frank Howat, BS ’40, is a retired agronomist living in Elwood, Ind., with his wife of 52 years, Phyllis. Over the years he has built and given away more than 8,700 bluebird houses.

Del Guard, BS ’55, West Lafayette, has been inducted into the Indiana Livestock Breeders Association Hall of Fame for his contributions to the livestock breeding industry. Guard has been a pork producer with Young & Guard Purebred Hampshire and Yorkshire Corp. since 1958 and has sold breeding stock in countries all over the world.

Bela Roberts, BS ’50, Fort Myers, Fla., is co-owner of The Cotton Veranda, a cotton clothing business in Sanibel Island, Fla.

Edgar E. Smith, MS ’57, PhD ’60, Jackson, Miss., was awarded an honorary doctor of science degree by the University of Massachusetts at Amherst on May 21.

Richard Reid, BS ’60, Indianapolis, is a consultant doing international study tours and management services for natural resource-based associations.

Bill Gossett, PhD ’62, Marion, Ohio, after being active for 38 years in the meat industry, announced his retirement in July. He plans to work part-time, but yet allow enough time for golf, line dancing, bowling, bridge and volunteer work.

Gary Scott, BS ’69, MS ’72, Corona De Tucson, Ariz., retired in October 1999. He is spending time golfing, traveling, hosting friends from the eastern United States and doing volunteer work at spring training games of the White Sox and Diamondbacks.

Len D. Dobbins, BS ’74, and Rebecca K. (Søttong) Dobbins, were married on Aug. 3, 1999, and reside in Noblesville, Ind. Both are employed by FMC Corp., Rebecca as a sales representative and Len as a technical markets specialist.

Steven Hopkins, BS ’78, Noblesville, Ind., is a research technician at the Monsanto/Dekalb corn research station in Windfall, Ind.

Edward J. Wallpe, BS ’90, McCordsville, Ind., was recently promoted to head of the purchasing department within Eli Lilly and Co.

Matthew Saucerian, BS ’96, and his wife, Linda, have moved to New York City, where he works for the New York City Department of Parks and Recreation as the first-ever forester for the borough of Brooklyn.

Myndee (Paddock) Giron, BS ’97, El Paso, Texas, was married in April in Seoul, Korea.

William Lukins, BS ’97, Indianapolis, is working with the Indiana Department of Natural Resources as an ecologist aide.

Jada Philabaum, BS ’97, Bluffton, Ind., will be relocated to Sao Paulo, Brazil, in June. She has worked for Caterpillar Inc. for three years.

Marcy Streifling, BS ’98, Three Rivers, Mich., is employed by Michigan State University as agricultural and natural resources agent in St. Joseph County.

Todd Theobald, BS ’98, and Amy Kolb, BS ’98, were recently married and are living in Shelbyville, Ind.

James Wollheter, BS ‘00, Jackson, Miss., and his wife, Jenny, are working on getting their MA degrees in Christian studies from Wesley College, a Bible college in Florence, Miss., in preparation for mission work in Bolivia with Evangelical Church Missions.

Marvin Phillips, BS ’53, MS ’58, died Sept. 3. Phillips enjoyed a 31-year career in agronomy at Purdue, serving as department head from 1971 to 1991. He had been professor emeritus since 1994. Phillips was known for his enthusiasm, positive approach, fairness, dedication, and ability to create and maintain a collegial and supportive work environment.

Norman R. Swarts, BS ’41, Rushville, Ind., passed away August 15.

Harlan Frienshehn, BS ’43, Trenton, Fla., passed away March 28 at home.

Thomas Baldwin, BS ’47, Huntington Beach, Calif., passed away April 9.

John D. Axtell, a member of the Purdue faculty since 1967 and the university’s Lynn Distinguished Professor of Agronomy, died Dec. 2. His research achievements include increasing the lysine content of sorghum, which is the primary food source for over 300 million Africans, to make it more nutritious.
BY TOM CAMPBELL

Don’t let the fact that Max Bales, BS ’89 grew up in Bloomington, Ind., fool you; he is old gold and black through and through. Reared by two Boilermakers, Kenneth (BS ’51), and Joan (CFS ’58), there was never a loyalty question in his upbringing.

“Throw in brother Roger (BS ’73) and sister Joni, who also attended Purdue, and I would say that we are a pretty strong Purdue family,” says Bales, who was recently appointed assistant director of development for Purdue’s School of Agriculture.

“As a 4-H’er and FFA member in Monroe County, I showed livestock and spent the summers baling hay, hauling manure (fill in your own IU joke here) and raising chrysanthemums.”

Bales’ Purdue experience included instruction from nine faculty who have been voted the most outstanding teachers in the School of Agriculture. “My faculty adviser, Dr. Lee Schweitzer, was also voted the most outstanding faculty adviser,” Bales says. Additionally, seven of his instructors are named in the Book of Great Teachers in the Purdue Memorial Union.

“The Purdue diploma in my office is one of my most valued possessions,” says Bales, adding that receiving his agronomy degree in December 1989 was the culmination of a nearly lifelong dream.

“I could barely hold back the tears as I walked across the stage on that sub-zero winter day,” he says. An evening phone call in late November 1989 from Mark Sigler, now the executive secretary for the Indiana Farm Bureau, set the course of Bales’ career for the next eight years, when he served as a Farm Bureau regional field representative for members in 16 northwest Indiana counties.

After a three-year stint in Purdue’s Office of University Development, Bales is excited to be back working with agriculture.

“To say that I am excited to be working for the School of Agriculture would be an understatement. I am looking forward to renewing old friendships and cultivating many new ones,” he says. “In the first few months, I want to get to know our faculty and learn about their research. I plan to visit the labs, classrooms and research plots to get as much information as I can.”

Purdue is very much a part of Bales’ family life. “With wife Kris (a converted Boilermaker and full-time mom), and our two daughters, Jacqueline, 6, and Rachel, 3, we attend all Purdue home football and basketball games, PMO Christmas Shows, Convocations presentations and other special events,” he says. “Kris and I are proud members of the Agriculture Dean’s Club, the John Purdue Club, President’s Council, the PMO Club and the Friends of Convocations.”

Contact Bales at balesM@agad.purdue.edu or at (765) 494-8672

BY THERESA LAWTON and BETH FORBES

Enrollment in Purdue’s School of Agriculture is up slightly over last year, due, in part, to the number of scholarships awarded to incoming freshmen.

“More than 100 scholarships were offered to admitted freshmen this year,” says Thomas Atkinson, assistant to the director of academic programs.

“Our School of Agriculture scholarships reward academic excellence achieved during high school and recognize top incoming students for their accomplishments, making it possible for students to take smaller loans or to work fewer hours during the school year.”

The cost of attending Purdue for a year, including room and board, is an estimated $11,652 for Indiana residents and $20,774 for nonresidents. Last year, 196 students applied for scholarships, and 102 were offered awards.

Most scholarships are based on academic merit. Students graduating in the top 5 percent of their class and having an SAT score of 1,250 or higher or a minimum ACT score of 28 automatically receive a $1,500 Award of Excellence.

But Atkinson says there are other scholarships available to support students from diverse backgrounds.

“For example, some scholarships are for students from particular counties,” Atkinson says. “One is for students with distinguished backgrounds in high school agricultural education, and one is for sons and daughters of Indiana farmers.”

Students can apply for the Award of Excellence or get more information by visiting the School of Agriculture Academic Programs Web page at http://www.agriculture.purdue.edu/oap/future.html. Click on “Scholarships,” then “2001 Freshman Scholarship Application.”

Overall enrollment in the School of Agriculture is on a slight increase, up 33 students from a year ago, according to Karl Brandt, associate dean and director of academic programs. Fall enrollment figures indicated there were 2,479 students in the School of Agriculture.

“We’re pleased with our fall enrollment,” Brandt says. “We are right around the optimum number of students we can handle and still maintain high job placement.”

For the first time last spring, Purdue closed enrollment in late April in all programs and schools for beginning students.

“We know that additional students wanted to get into the School of Agriculture, but applied too late,” Brandt says.

“As the university tries to keep overall enrollment steady, we anticipate the same thing may happen next spring. The message to students applying for fall 2001 is ‘apply early.’”

Contact Atkinson at twa@agad.purdue.edu

Scholarships help ag freshmen succeed

Hundreds of Purdue students like Lining Li (right) visited the School of Agriculture Job Fair at the Memorial Union this fall. Li, a graduate student in agricultural finance, visited with Antonette Carter (left), a recruiter for the USDA agricultural marketing service.

A wood-fired kiln heats a barrel of creosote in this photo of a fencepost dipping demonstration. The forestry department provided the demonstration as part of the Purdue agricultural conference held in January 1933.
When the curtain rises on the Purdue Ag Fish Fry on Friday, Jan. 26, both our country and our university will be operating under the leadership of new presidents. So the theme for the 2001 Fish Fry, which begins at 11:30 a.m. in the Purdue Armory, is "Hail to the Chief."

“It isn’t often that new presidents take office both in the U.S. and at Purdue during the same year,” says Donya Lester, executive secretary of the Purdue Ag Alumni Association. “Our committee really enjoys themes that allow us to express our patriotism, and this year’s program will feature plenty of that. We are planning a real flag-waving, heart-stirring, all-American spectacle. And celebrating our new university president, Martin Jischke, will give everyone a chance to reflect on all of the reasons they are proud supporters of Purdue University and everything that is old gold and black.”

Fish Fry planning committee members have been working since midsummer on the 2001 event, which is the annual meeting of the Ag Alumni Association. Lester says there will be plenty of reminders of former presidents, both U.S. and Purdue, at the program. “Our archives’ include lots of presidential masks, and this will give us a good opportunity to bring them out of storage for a day of fun,” she says. “We also have people who have portrayed former Purdue presidents at Fish Fries of the past, and many of them are being asked to reprise their roles for this year’s celebration. With the nature of politics, I’m sure there will be plenty of fuel for the usual Fish Fry skits and shenanigans. So, you’ll not only have your heart stirred, but you’ll get your funny bone tickled to boot.”

The program will feature performances by the Purdue Band and ensembles from the Purdue Musical Organizations, including the Varsity Glee Club. The alumni association also will present its highest honor, the Certificate of Distinction, to honorees selected for dedicated service to agriculture.

For the third year, the Fish Fry menu will be “fishless.” Attendees have so enjoyed the breaded pork tenderloin that was served for the past two years, Lester says, that pork will remain on the menu “for the foreseeable future.” But the planning committee has decided to keep the event’s name. After all, they point out, having a Fish Fry with no fish is the kind of humor that is the essence of the Purdue Ag Fish Fry.

Tickets for the Fish Fry are $12 each and must be purchased in advance. Tickets are available at the Purdue Cooperative Extension Service office in each Indiana county, or through the Ag Alumni office, (765) 494-8593, fax (765) 494-7420. Group discounts are available for parties of 10 or more when tickets are purchased from the Ag Alumni office. Tickets can be paid for with Visa or MasterCard by calling the alumni office, or by ordering online. Go to http://www.agriculture.purdue.edu/fishfry to find the link to the association’s secure ordering site.

Presidents and tenderloins to be roasted at Fish Fry

Will the real president please raise his hand? Of the trio of George Bush (left), Martin Jischke (center) and Al Gore, only Jischke’s presidency was a certainty as December arrived. But you can bet that no matter what the outcome of the legal battles over the Nov. 7 presidential election, all three men will be a major part of the shenanigans at the annual Ag Alumni Fish Fry on Jan. 26.
BY TOM CAMPBELL

Stan Parka (MS '58, PhD '60) may have retired as a plant scientist in 1991, but that just means his research plot moved from Eli Lilly to his backyard garden. And the benefactor of his research is no longer Lilly, where he worked for 31 years, but Gleaners Food Bank.

“I consider my garden a research plot,” Parka says. “Last year we grew about seven different varieties of peppers and six different varieties of tomatoes. We plan on whittling it down to two peppers and two or three varieties of tomatoes that produce consistently.”

In 1999, Parka turned over 10,000 pounds of food to Gleaners. In 2000, Parka upped the ante, producing almost 10 tons of tomatoes, summer squash, peppers, green beans, eggplants, sweet potatoes and pumpkins.

“It was his wife’s idea to grow and give to the food bank in Indianapolis,” Parka says. “Every year I grow about 1,000 sweet potato plants. Back in the fall of 1998, I had a bunch of sweet potatoes I didn’t know what to do with. We had already given them to all our friends and family. It was his wife’s idea to grow sweet potatoes and give to the food bank in Indianapolis. That’s when it all started.”

Parka is now Gleaners’ largest individual donor.

“People like Stan are the lifeblood of food banks,” says Darren Boyd, donor relations coordinator for Gleaners. “Without the help of people like Stan, we wouldn’t be able to provide the food to those in need.”