I WORK IN THE MIDDLE OF AN ART MUSEUM.

It's the best kind of art museum – public. Its pieces belong to all of us.

My office overlooks the centerpiece of Iowa State's Art on Campus collection. Two farmers designed the lush, green expanse of Central Campus – a fact that only makes me love it more. I pass treasured works by Christian Petersen and Grant Wood on my way to meetings. I try, as often as I can, to slow my pace and take in the beauty surrounding me.

Hear more about these farmers, their vision and how our heritage of art and agriculture developed together at Iowa State from Lynette Pohlman, director and chief curator, on page 16. We thank Lynette and all the staff at University Museums for their assistance with this issue as we share recent additions to ISU's Art on Campus collection related to agriculture and life sciences with our alumni and friends around the world.

While reviewing story ideas and artwork for this issue a few themes surfaced. Much of our campus art captures the cutting-edge science and technology of the time. Many pieces illustrate the interdependence of livestock, plants, soil, water and human health. But, most inspiring is the celebration of student mentorship and teaching excellence.

These core values are personified in the special edition poster featured in the center spread of this issue – a reproduction of a new painting for the College of Agriculture and Life Sciences gifted by alums Jim and Marcia Borel, Do You Know What's Inside This Flower? George Washington Carver Mentors a Young Henry A. Wallace. (Read more on page 20.)

Please save the date for our biggest alumni gathering of the year, our annual CALS BBQ on September 5. Prior to the Cyclone football home opener, this year’s event will debut a CALS Kid’s Corner of fun, educational activities. We’ll once again be located at the Jeff and Deb Hansen Agricultural Student Learning Center on Mortensen Road, with free parking and a short one-mile walk to Jack Trice Stadium. We’ll be in touch with more details.

While you’re on campus I encourage you to seek out and discover the recent additions to the Art on Campus collection and visit old favorites. University Museums offers a helpful map on its website www.museums.iastate.edu. Don’t miss your chance to slow your pace and take in all these amazing new works. After all, they belong to you, too.

Kind regards,

Melea Reicks Licht
In the 1930s Grant Wood designed murals for Iowa State’s library that depict agriculture and other fields of study. The murals are based on a Daniel Webster quote: “When tillage begins, other arts follow.” (Learn more about the mural and its visual subtext on page 16.)
Can you guess what the largest piece of public artwork is on Iowa State’s campus?

It’s the Farm House Museum. The museum recently completed a significant restoration and the result is simply beautiful. It was fitting that University Museums kicked off its yearlong celebration of 40 years on campus with a reception at the Farm House Museum in January.

Built in 1860, the Farm House was the first structure of the Iowa Agricultural College and Model Farm. The first campus farm managers and deans lived here. Adonijah Welch, Iowa State's first president, and his family lived there.

It’s not a stretch to say that advances in agriculture rippled from the Farm House to the rest of the world. Within its walls, Tama Jim Wilson, Seaman Knapp and Charles Curtiss especially influenced agricultural practices and policies. Portions of the Hatch Act, which created the nation’s agriculture experiment station system, were drafted there. Early planning meetings for 4-H were held in its library.

Four of Iowa State’s 10 deans of agriculture called the Farm House “home”: Seaman Knapp, Tama Jim Wilson, Charles Curtiss and Floyd Andre. Dean Curtiss lived there 50 years — so long that many knew it as “the Curtiss House.”

The Farm House reminds us of Iowa State’s place in the history of agricultural progress, and also that the beauty of our campus grew from agricultural roots. To see the Farm House so well preserved today is to see Iowa State’s legacy in agriculture and the arts. Your next visit to campus should include a stop at this National Historic Landmark and largest of Iowa State's many public works of art.

You also should come and see a stunningly beautiful new painting in Curtiss Hall that depicts George Washington Carver mentoring a young Henry A. Wallace. In this issue of STORIES we’ve included a poster-size copy of the painting. The painting by Rose Frantzen was made possible by a generous gift from our alum Jim Borel (’78 agricultural business) and his wife Marcia.

George Washington Carver, a lover of both science and art, was a familiar face in the Farm House when Tama Jim Wilson lived there. It was Wilson who encouraged Charles Curtiss to hire Carver as Iowa State’s first African-American faculty member. The rest is history.

Wendy Wintersteen
Endowed Dean of Agriculture and Life Sciences

STORIES EXTRA: www.stories.cals.iastate.edu
Tour Farm House Museum, a National Historic Landmark, and take in the recent renovations with Dean Wendy Wintersteen and Director of University Museums Lynnette Pohlman in a video online.
Lori Abendroth sees everything as data. “Whether it’s project management or research data,” Abendroth says, “that’s how my mind works.”

As manager for the Climate and Corn-based Cropping Systems Coordinated Agricultural Project, she manages 140 scientists, graduate students and extension educators working in different scientific disciplines in 11 institutions and 8 states. It’s her job to help them work together to achieve project goals and objectives within five years.

She says management of big, “kitchen sink” projects is a good fit for her. The five-year, $20 million USDA-NIFA project began in 2011, is led by Iowa State University and is aimed at discovering strategies to increase the resilience and sustainability of Corn Belt agriculture in a changing and increasingly variable climate.

“I thrive with complexity and I love data. The challenge of big projects like ours really excites me. And the people I get to work with are incredible and inspiring,” says Abendroth.

Abendroth’s responsibilities include developing spreadsheets and other web-based tools that support long-distance teamwork. She co-developed and manages a centralized and complex research database, which houses field research data from 35 sites. Team members use the “Big Data” to analyze and publish results of tested cropping practices and to conduct predictive analysis using climate models.

Though the project ends in 2016, Abendroth leaves a legacy of data and methods upon which others can build. In fact, Abendroth and others on the project were recently awarded a $5 million USDA-NIFA grant, which will allow them to expand on the project’s research on drainage water management.

Lois Wright Morton, the project’s director and sociology professor, says Abendroth is a catalyst for achieving the team’s vision.

“She very much has a vision for what people can accomplish individually. And then she holds them to it in a way that causes them to exceed what they would normally do, which is very remarkable,” she says.

Abendroth was honored by the College of Agriculture and Life Sciences with the Professional and Scientific Excellence Award in 2014.

Describing herself as driven and focused, Abendroth says she works to stay “a few steps ahead of the team to identify potential gaps, bottlenecks and pitfalls that would limit the team from realizing their success.”

“I think people always want to be successful. But there are things that get in the way and make it difficult. I strive to take out the roadblocks and make it as streamlined as possible – so they can get their work done, feel successful and move on to their next task,” says Abendroth.

Abendroth spent weekends and summers on her family’s farm north of Omaha, Nebraska. Her love of science and agriculture led to a master’s in agronomy at the University of Nebraska in 2004 and later a position in agronomy at Iowa State, managing a statewide research program in corn production. In 2011 she began managing this program and last year Abendroth was admitted into the crop production and physiology doctorate program at Iowa State.

“My goal is to become a computational agronomist and to continue to be a part of identifying solutions to the environmental and climate challenges Midwest agriculture faces now and will face in the future,” she says.
A full to-do list greeted Don Beermann when he started as animal science department chair in January. It was a bit different than his to-do list while a student at Iowa State some 40 years before.

His first weeks on the job found him visiting with external stakeholders at meetings held by the Iowa State Dairy Association, the Iowa Cattlemen’s Association, the Iowa Pork Producers Association and the Iowa Association of Meat Processors. He flipped pancakes for students at the Collegiate FFA breakfast.

“It’s been fun crossing paths with people I haven’t seen, literally in decades, and others I didn’t know who have just come up and provided good interaction,” he says.

Beermann traveled from the University of Nebraska to return to Iowa State, where he earned a bachelor’s degree in animal science in 1971. His career took the native Iowan to the University of Wisconsin for graduate degrees, then to Cornell University before Nebraska.

Engaging with stakeholders is one of Beermann’s top priorities. He knows that accomplishing many of his goals depends on the support of partners from around the state.

New and updated facilities are high on his list of goals. The most pressing needs include a central feed mill, swine test facility, grow-finish and farrowing-nursery units, along with an update of many poultry facilities.

Also included is a renovation of the meats facility, which was constructed in 1977. Developing a mid-to-large classroom in the Farm Bureau Pavilion also is on his wish list.

“Those are all pretty big-ticket items, but the good news is we’re keeping stakeholders involved and keeping Maynard (Hogberg, former chair) involved,” he says.

Beermann’s experience and relationships with Iowa livestock and poultry producers and processors will come in handy.

As director of the Institutional Animal Care Program, at the University of Nebraska, Beermann sourced funding for animal facilities in the School of Biological Sciences, supervising remodeling of rodent, avian and fish research facilities. He also was involved in supervising design and renovation of a 42,000-square-foot, multi-species research facility – a three-year, $15 million project funded by the Office of Research and the Institute of Agriculture and Natural Resources.

Managing a department with more than 1,000 students and 55 faculty members
tops his new duties at Iowa State. The department was in the process of filling faculty positions in poultry nutrition, dairy nutrition and meta-genomics when he came on board.

The department’s growing enrollment attracted Beermann to the position. He’s always considered Iowa State animal science as one of the top departments in the country.

“It’s my goal to make sure we offer the best education that incorporates science, practice and innovation to prepare students for careers in the animal sciences,” he says. “I am a strong proponent of offering students experiential learning in research, outreach, international study opportunities and internships to provide a diverse foundation.”

He wants to strengthen the department’s international programs and to provide students “real world” animal facilities and technologies as part of their education, making the updated facilities an integral part of the teaching program.

Beermann grew up near Denison, Iowa, on a farm that raised crops and a mixture of livestock. At Iowa State, he worked for David Topel and his graduate students on pig projects in the Meat Lab starting his sophomore year.

Topel says Beermann was a great candidate for graduate school and remembers Wisconsin was pleased to get him as a grad student.

“Don was a very understanding, caring and friendly person who worked well with his fellow students, staff and faculty,” Topel says. “He continues to have the same traits and personality today and because of these traits, Don is an outstanding administrator.”

As a graduate student, he worked with pigs looking for a blood variable to use to screen for porcine stress syndrome.

“When I started my docorate, I got more involved in muscle growth and development and started looking at fetal muscle development,” he says.

Research is one thing he’s missed since getting into administration. He was able to teach a senior seminar course and give lectures in some courses while at Nebraska, and would like to continue at Iowa State.

At a time when many are thinking about retirement, Beermann is energized by his new position.

“It’s an attractive proposition to come back to my alma mater and serve in an administrative role where I feel I can make some significant contributions and help with the leadership of the department. I can’t think of a better way to end my career, however many years that may be from now,” he says.

Max Morris was named chair of the Department of Statistics in November, making it the second Iowa State department he has led. He got practice serving as interim chair of industrial management systems engineering. His background is primarily in the physical sciences and engineering. Designing experiments is his research specialty.

“The importance of experimental design is fully understood in the College of Agriculture and Life Sciences because that’s a big piece of what happens in the collaborations with ag faculty,” he says.

Morris calls work for CALS an “integral part” of the statistics department, which is co-administered with the College of Liberal Arts and Sciences.

Morris joined Iowa State 15 years ago, after a stint at the Oakridge National Laboratory, the Department of Energy facility in Tennessee. Morris “grew up” at land grants, with an undergraduate degree at Oklahoma State University and graduate degrees at Virginia Tech.

Read more at www.stories.cals.iastate.edu.
The Irish economy was tanking. It was 1981 and workers’ strikes, stagnant economic growth and a lack of private sector jobs caught the attention of Dermot Hayes, a new college grad with a degree in agriculture science from the University College Dublin. He became fascinated with economics and agriculture – two interests that quickly turned into a lifelong career path.

After graduating from University College in Dublin, he went on to earn a master’s in agricultural economics and a doctorate in international trade, both from Berkeley, before arriving at Iowa State University in 1988.

Hayes, Pioneer Hi-Bred International Chair in Agribusiness and professor of economics, has a deep-rooted knowledge of agriculture, economics and the intricacies of trade agreements. He uses his transcontinental view to inform his work in global trade policy at Iowa State.
Free Trade Impacts Iowa

The United States is currently laying groundwork to expand trade across the globe through several new trade agreements. Two new deals, the Trans-Atlantic Trade Investment Partnership and the Trans-Pacific Partnership (TPP), have taken center stage. The agreements, if enacted, could deepen the market for U.S. products, including Iowa-raised meat and grain, in countries such as Chile, Japan, Vietnam and the European Union.

Introducing free trade with Japan and Vietnam, Hayes says, will have a huge impact on U.S. exports of pork, beef and poultry. “Once TPP is in place, it’s likely that China will join. This would be so important and will change the face of Iowa agriculture,” Hayes says.

Despite the beneficial nature of the trade agreements, there has been some resistance from non-governmental groups in Europe.

“Their consumers have formed beliefs their food is more eco-friendly and more organic. They view U.S. food as being more of a commodity, of course I disagree, but some of the non-government European organizations are adamantly against trade with the United States,” says Hayes. “The pork industry alone could be looking at five to ten percent growth if even one of those trade agreements went through,” he says.

Trusted Expert, Partner

“Dr. Hayes is at the tip of the spear when we look at new markets in which trade barriers preclude us from shipping,” says Nick Giordano, vice president and council for international affairs at the National Pork Producers Association (NPPC). Giordano has been with NPPC for 20 years, and has worked with Hayes as long.

“Dermot’s analysis is critically important to pork producers. Many, including me, regard him as the foremost authority on the global pork industry and pork trade,” he says. “NPPC has an outstanding global network of lawyers, economists, scientists, policy experts and political insiders. Dermot is at the top of the list and viewed as an invaluable asset to the industry.”

While Hayes says he has had a lifelong interest in global meat trade policy, he didn’t develop a formal interest until he started his job with the Meat Export Research Center at Iowa State in 1986. In 1990, he became the leader of the Trade and Agricultural Policy Division of the Center for Agricultural and Rural Development.

His latest research examines links between Chinese and U.S. commodity markets, corn yields in Iowa and how these might respond to global warming and sourcing feedstock for next-generation biofuels.

Hayes has been working with another Iowa State researcher, Sergio Lence, studying intellectual property in the seed sector as part of his role as Pioneer Hi-Bred International Chair in Agribusiness.

“Seed companies invest enormous resources in developing improved seed varieties, which they wouldn’t do unless they were allowed to capture this investment via higher prices on the seed they sell,” Hayes says. Their work traces the incentive structure to show how societies benefit from stronger intellectual property laws.

Economist and Teacher

Hayes’ work in the classroom currently involves two classes at different ends of the spectrum—he teaches Economics 101 and an MBA class on financial derivatives. Economics 101 is the first class agriculture business students take, with 124 enrolled this year. The financial derivatives class is optional.

Advising graduate students also is a responsibility for Hayes, and he is currently advising six students.

“Graduate students have to be very self-motivated. By the time they start writing their dissertation, which is where I get involved, they’ve already shown a lot of self-discipline. I’m there to provide a clear direction,” he says.

For aspiring economics students, Hayes has some advice.

“Publish research papers and travel as much as possible,” he says. Students should also remember the global marketplace is “huge, but also very unpredictable.”

Of course, not everyone heeds his advice—two of his children pursued degrees in economics. “I told them if you’re smart enough to do economics, you’re smart enough to do engineering, and engineering pays better, but they didn’t listen to me,” he laughs.
There wasn’t much graffiti on the buildings in Rock Rapids, Iowa, where Nick Van Berkum grew up, but he “always loved the style of street artists.”

Now an artist himself, the Iowa State College of Design grad enjoys creating large pop art using spray paint and hand-cut stencils based on his original drawings. You won’t find his art on exterior walls around Ames, Iowa, where he now lives and works as communications specialist for sociology and anthropology. Instead, some of his art, in the form of department event posters, hangs on the walls in East Hall on Iowa State campus. Off campus his preferred canvases are large found objects – not as large as the exterior walls of buildings on campus – they have to fit into his garage studio.

“I like painting on a cool, found piece—something that relates to the subject of the art,” says Van Berkum.

The objects inspire him to create stenciled images based on popular movies he watched growing up in the 1980s and ’90s. An old locker door he found on Craigslist inspired him to paint with images based on the movie Breakfast Club (1985). The movie is about five high school students who endure one Saturday in detention together.

A friend brought him an old surfboard for inspiration. It reminded him of the movie Point Break (1991), a cult classic about a string of bank robberies possibly being committed by surfers. The surfboard, now pop art bearing Van Berkum’s painted images of Keanu Reeves and Patrick Swayze, hangs in his friend’s living room.

When Van Berkum replaced the front door on his house, the old door became a canvas on which he painted the DeLorean time machine from the classic movie Back to the Future (1985).

His art is influenced by past pop artists, such as Keith Haring who painted his public art in subways, and current artists like Banksy, an English graffiti artist who combines dark humor with his political opinions to create provocative, stenciled street art.

Van Berkum says, “If you look at street artists, a lot of them do political art or it will just be a funny mashup of images. I lean toward the comical.”
Van Berkum takes every opportunity to demonstrate his creativity from scholarship announcements to holiday party invites.

A communications specialist for sociology and anthropology, Nick Van Berkum gets creative on and off campus. He made this Beatles tribute as a gift for his wife Shandra by layering spray paint over intricate hand-cut stencils based on his original drawings. It’s a technique he’s used for a variety of projects including a locker door based on the movie Breakfast Club and a surfboard that reminded him of the movie Point Break (opposite page).

“I want to do more spray paintings. I think it would be cool if someday my son would find some of the things I’ve created.”

He explains that a mashup is art combing two or more disparate elements. His comical mashups include a painting of R2-D2, the iconic Star Wars robot, as if it was a karaoke machine. “C-3PO is singing a Journey song into the microphone. I don’t know why; it’s just a fun image to me,” says Van Berkum.

Van Berkum’s sense of humor and drawing skills have been a winning combination for bringing in freelance work as a graphic artist for small business owners, bands and comedians. Though time for such projects was curtailed when his son, Rosco, was born two years ago, he still makes time for a few regular clients such as Three Chicks Bakery and comedian Mike Birbiglia.

Iowa State’s sociology and anthropology departments also benefit from his creativity. For the departments, he does “all the web work, news releases, the alumni newsletter, brochures, photography, video work and event posters – anything and everything,” says Van Berkum.

The favorite part of his job, of course, is graphic design. A winter holiday party advertised on an image of an ugly Christmas sweater and scholarships announced across a pinball machine are two of his posters you might have enjoyed if you were in East Hall this past winter.

His plans for the future?

“I want to do more spray paintings. I think it would be cool if someday my son would find some of the things I’ve created—posters from a comedian or something else that I did. And he would know I made them when he was growing up and think it was pretty cool,” says Van Berkum.

**Youngs Receives National USDA Teaching Award**

Curtis Youngs, professor in animal science, was one of 10 educators nationwide to receive the USDA Food and Agricultural Sciences Regional Excellence in Teaching Award. Youngs is the eighth CALS professor in nine years to receive this award.

**Smith Selected to Attend USDA Student Diversity Forum**

Malcolm Smith, junior in global resource systems, was one of 30 students nationwide selected to attend the 2015 USDA Agricultural Outlook Forum in Washington, D.C.

**CALS Faculty Honored for Years of Service**

Walter Fehr (’67 PhD agronomy), Charles F. Curtiss Distinguished Professor in agriculture and agronomy, was honored for 50 years of service to Iowa State University. Fehr, well known for his research in food grade soybeans, was the first person to develop heart-healthy soybeans free of trans-fat. College faculty honored for 35 years of service include:

- Nick Christians, university professor, horticulture
- Rick Cruse (’72 agronomy), professor, agronomy
- Manjit Misra, director, Seed Science Center, Biosafety Institute for Genetically Modified Agricultural Products
- James Russell, professor, animal science
- Richard Schultz (’65 forestry, ’88 MS, ’70 PhD), university professor, natural resource ecology and management
- Elwynn Taylor, professor, agronomy
- Wendy Wintersteen (’88 PhD entomology), endowed dean, college of agriculture and life sciences

**ISU Student Teams Win Overall Prize at National Judging Competition**

CALS student judging teams won the overall “sweepstakes award” at the North American Colleges and Teachers of Agriculture Judging Contest. ISU teams have won first place in this competition for the past five years. The competition included 823 contestants from 51 teams.

Honors received in individual categories included:

- Ag communications—first place
- Ag computers—second place
- Ag Knowledge Bowl—first place
- Agribusiness—first place
- Crops—first place
- Dairy Judging—second place
- Horticulture—second place
- Livestock Judging—first place
- Meat Animal and Livestock Management—first place

**Block & Bridle’s Animal Learning Day Draws 1,000**

Iowa State University Block and Bridle students hosted the first Animal Learning Day on April 11 in the Jeff and Deb Hansen Agriculture Student Learning Center. The event provided a fun and educational way for students, members of the Ames community, alumni and families to participate in activities previously featured at VEISHEA Village. More than 1,000 attendees participated in hands-on agriculture activities, interacted with live animals and enjoyed a “Taste of Iowa” sampling of meat products.

**Hearty Hellos:**

- Don Beerman (’71 animal science), professor and chair, animal science
- Max Morris, professor and chair, statistics
- Clarke McGrath (’91 agricultural business, ’06 MS professional agriculture), on-farm research and extension coordinator, Iowa Soybean Research Center
- Pat Hipple (’98 PhD sociology), director, Center for Sustainable Rural Livelihoods

**Fond Farewells:**

- Maynard Hogberg (’66 agricultural and life sciences education, ’72 MS animal science, ’76 PhD animal science), professor and chair of animal science, retired in January
- Larry Johnson, professor of food science and human nutrition, director, Center for Crops Utilization Research, retired in April
- Lee Kilmer, professor of animal science, retired in July

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**So Many Stories:**

Vol. 9 No. 1

10
Mikayla Sullivan first saw real poverty helping her grandparents distribute food and clothing to needy families in Mexico when she was 10 years old. “It made me realize that there are people who need help and I could do something to help,” she says. That experience has shaped her life. Sullivan, who is a sophomore in agriculture and society and global resource systems, is working towards a career in international development and food security.

In 2014 she attended the Thought for Food Challenge in Germany – a movement dedicated to using new ideas to tackle the global challenge of feeding 9 billion people in 2050. “I knew I wanted to go again, but this time I wanted to compete,” Sullivan says. In September she and four other students, called the Gung-ho Globies, began brainstorming ideas on how they could address the food challenge. They came up with a mobile dehydrator called KinoSol – Kino for mobile and Sol for solar. The team was selected as one of 10 teams out of 336 entries from 51 countries to go to Lisbon, Portugal, and present their idea.

Team member Clayton Mooney (‘12 English), a senior in global resource systems, says Sullivan coordinated the team and kept everyone on the same page. “Her preparation made our 4,300 mile trip to Portugal incredibly smooth and I know her efforts will help KinoSol become sustainable,” Mooney says.

The team didn’t win the competition, but Sullivan says they made connections to promote KinoSol to non-governmental organizations (NGOs). “It was amazing,” Sullivan says. “Now we can promote the KinSol to international markets and help get it to the people who need it.” The team hopes NGOs can offer microloans to farmers in developing countries to purchase the KinoSol units. The farmers can use the dehydrator to extend the life of their crops for their own use or to take to market.

Ted MacDonald, horticulture adjunct assistant professor, was one of several advisers to coach and encourage the Gung-ho Globies. He says Sullivan’s leadership and enthusiasm helped the team make the top 10. “She had a clear vision about what needed to get done from the start and that really served the team well,” MacDonald says.

Sullivan has traveled to a dozen countries and is currently the regional director of North and South America for the International Association of Students in Agricultural and Related Sciences (IAAS). Last fall she interned at the World Food Prize Foundation in Des Moines.

Sullivan grew up in Ames, Iowa, and received several scholarships including the Baker Excellence in Agriculture Scholarship and the Presidents Award for Competitive Excellence. This summer she is interning at the Expo Milano in Milan. More than 140 countries will attend the six-month global expo to showcase technology with the goal of producing safe, healthy and sufficient food.
Students express themselves through involvement in their major and other extracurricular activities on campus. For some students, participation in the performing arts provides a valuable outlet to relieve stress, pursue lifelong passions and discover their niche. Three students in the College of Agriculture and Life Sciences share their stories of how the performing arts have allowed them to excel on stage and in their college careers.

Daniel Schnadt

Daniel Schnadt, a senior in biology from Sumner, Iowa, participated in the Iowa Statesman choir for three years. His love for music led him to join the all male ensemble under the direction of James Rodde.

What inspired you to join the Iowa Statesman?

“Throughout high school I was involved with the whole nine yards as far as vocal music was concerned, so when I came to college I wanted to find a way to continue that. I’ve learned a lot about myself, ways to improve my singing and just had fun. It was a nice community and I really enjoyed the people I was with.”

What is your favorite memory of participating in the Iowa Statesman?

“Last year we took a four-day trip to New York and sang at Carnegie Hall for a special event. That was one of my coolest memories from college. Being able to fly to New York and explore downtown, take in the experience and sing in a performance with so many other fantastic singers was truly inspiring.”

Reflecting on your college career, what advice would you give to students regarding campus involvement?

“Work hard and enjoy your free time. Don’t let your short-term goals compromise your long-term goals, and don’t let your long-terms goals compromise your short-term enjoyment. Life is too short to spend it stressed out.”

What are your plans following graduation?

“I will be attending medical school this fall at Des Moines University. I will be pursuing a Doctor of Osteopathic Medicine degree with the goal of becoming a physician.”
McKaila von Rentzell

McKaila von Rentzell is a senior majoring in animal science, pre-vet from Earlham, Iowa. Her lifelong love of dance motivated her to join two dance clubs at Iowa State – Tap Iowa State and Orchesis II.

What influenced you to pursue dance at Iowa State?
“I've been dancing since I was five years old. It’s been a huge part of my life. I wasn’t involved in dance my freshman year and I really missed it, so I decided to see what opportunities I had to be in dance on campus. I found the Tap Club and Orchesis II and I am in love with it. I can’t imagine quitting anytime soon.”

How has your continued involvement in dance impacted your college experience?
“It’s a huge stress reliever. Dance is something I enjoy and it’s something completely different than what I do on a regular basis. It’s kind of like my getaway. Some people like to go to the gym but I prefer to go dance. It helps me keep my stress levels down and keep a level head with all of my classes.”

Would you encourage other students to be involved in a dance club?
“Definitely. It’s a good form of stress relief and everyone loves to dance, so why not? The clubs I’m in try to incorporate all difficulty levels, so even if you have no experience at all you can join and catch up pretty quickly. It’s a really friendly environment and a lot of fun.”

What are your career goals?
“I want to become either a livestock or equine veterinarian and I hope to attend veterinary school at Iowa State.”

Douglas Todey

Douglas Todey, a junior in environmental science from Brookings, South Dakota, found his sense of community through the Iowa State University Marching Band. As a third year trumpet player, he has made unforgettable memories wearing the distinctive red bibs, cardinal and gold jacket and white shako topped with a white and gold plume.

What motivated you to become involved in the Iowa State Marching Band?
“I’ve been involved in the band program since the fifth grade. Both of my parents were in the marching band when they went to school here, so it’s kind of a family tradition. We have a fantastic marching band, two great directors and it’s a good way to get to know people and have a good time at Iowa State.”

How would you describe the experience of performing with the Cyclone Marching Band?
“It’s a really incredible experience. Being able to perform in front of 60,000 people at Jack Trice Stadium is absolutely indescribable. Stepping out on the field for the first time in the fall is incredible. It’s a blast.”

What has been the highlight of your participation in the performing arts?
“My favorite thing about marching band is the people I get to be around. These people I am going to remember for the rest of my life. I met them when I first came to Iowa State and they are my friends. It’s what I love about this band; it’s such a family atmosphere.”

How do you envision your interests in environmental science transpiring in your future career?
“I’d like to be involved in water quality. It’s a very big problem in our society and I’d like to be part of the solution.”
IT IS SAID THAT A PICTURE IS WORTH A THOUSAND WORDS. IF THE OLD ADAGE IS TRUE, LAUREN BORKOWSKI HAS WRITTEN NOVELS ON ONE OF HER FAVORITE TOPICS – AGRICULTURE.

Growing up on her family farm in Irwin, Iowa, Borkowski was involved in 4-H and FFA. It was through these organizations she first was exposed to the possibilities of agriculture in art. As a participant in the county fair, she often had a submission in photography. Many of those early entries were of her pet chickens. “I have tons of photos of chickens,” she says. So many, in fact, that she earned the nickname “chicken lady.” Borkowski considers herself a self-taught photographer from her early experiences, learning about the rule of two-thirds to fill the frame from her days in 4-H. “I’m a very observant person,” she says. “This is my way to share my views of agriculture with others.”

With a double major in agricultural studies and international agriculture plus a minor in agronomy, Borkowski has been accepted into the Emerging Leaders Program at DuPont Pioneer. She’s on track to become a field agronomist after graduation in May 2015. The program is designed to allow Borkowski to “get her hands dirty” being in charge of regulatory compliance of soybean fields in a region.

It comes as no surprise that one of her favorite classes combined her passions for agriculture and photography.

Looking through the lens of a student leader...

Lauren Borkowski, a senior in agricultural studies (left), shares a few of her study abroad photographs with her friend Kara Orr, horticulture.
art and agriculture. An assignment in the class was to create a work of art that reflects what agriculture means. Borkowski turned in a photograph that has become one of her favorites.

“I asked my dad to help with the project,” she says. “It’s of my dad petting one of our bulls on our farm. With the sun shadowing the figures, you can really see the gentleness of the bull and the beauty behind a tough exterior.”

For Borkowski, her photography has become more than a hobby and occasional class project. Some of the principles she applies to photography, she uses in life. The attention to detail seen in her photos is reflected in her service as a College of Agriculture and Life Sciences Ambassador. Borkowski has served on the campus visit committee, as secretary of the leadership team and, in her senior year, as chair of the group.

In the ambassadors she found kindred spirits, creating friendships founded on similar goals and interests. As chair, she carefully monitors the group and provides clarification on items to help with the goal of recruiting new students to the college.

“Lauren has definitely displayed a commitment to the college through her work in the ambassadors,” says Beth Foreman, CALS ambassadors adviser and program coordinator in the College of Agriculture and Life Sciences Student Services. “Meeting students and sharing her experience and interests is really important to Lauren,” Foreman says.

Her interest in agriculture has led her around the world. During a visit to Thailand Borkowski’s eyes were opened to international agriculture.

“It was beautiful and I took some great photos,” she says of the experience to a place she never expected to visit. She enjoyed it so much she traveled to Costa Rica over spring break on another study abroad program.

Though the “chicken lady” may have graduated on to other subjects, the passion she found for agriculture and photography remain. A whole new set of content awaits at her new position; she will be ready with a creative eye to capture the unexpected and highlight agriculture.
Iowa State University is proud to have the largest public art collection of any university in the nation.

More than half of the 2,000 works in Iowa State's Art on Campus Collection — murals, sculptures, drawings, paintings and more — represent agricultural themes. This is not by happy accident, but by purposeful planning.

This statement is grounded in a 19th century concept of inspired learning and agricultural values. The beauty of Iowa State was a practical, educational and aesthetic core value of the institution’s founders. That core value has continued nearly 160 years to ensure that beauty and aesthetics inspire learning while also being a transformative experience.

Because this publication is all about stories, let me share a few brief stories of art and agriculture at Iowa State.

Two farmers, one vision. Two farmers were responsible for conceiving the visual beauty of what was to become Iowa State College and Model Farm. Together, Peter Melendy and Adonijah Welch held many titles besides farmer, including board trustee, U.S. marshal, landscape designer, herdsman, politician, educator, orator, father and husband, college president and entrepreneur. Melendy first conceived of the central lawn of Iowa State. Upon Welch’s arrival as the founding president, he designed the central green with trees, lawns, shrubs and beautiful vistas. Together these two men established an aesthetic identity at Iowa State that continues today and has been cherished by hundreds of thousands.

Portraits of success. The animal science department was the first to routinely commission works of art to commemorate and celebrate distinguished faculty and alumni. These paintings established the Iowa State Portrait Collection, which was based on the famous portrait tradition of the Saddle and Sirloin Club in Chicago. By the early 1930s, Edward N. Wentworth (class of 1907 in animal science) chaired the Alumni Association Portrait Committee, resulting in many portraits of Iowa State’s presidents, division heads, distinguished faculty and alumni.
Iowa State Gothic. Begun in 1934, Grant Wood’s When Tillage Begins mural illustrates the founding of Iowa agriculture in the 1840s; the founding and opening of Iowa State College in 1860 and 1870s; and, the condition of higher education and agriculture in 1930s. Wood depicted Abraham Lincoln farming the land in youth, middle age and maturity — the visual subtext being: “Work hard (in agriculture), get an education (at Iowa State) and you, too, can grow up to be president and sign the Morrill Act that secured an education for millions of people.”

An historic first. The History of Dairying bas relief mural is believed to be the first site-specific, federal Public Works of Art Project (popularly known as WPA) sculpture project in the United States. The sculpture, located in the Food Sciences Building courtyard, was undertaken by Christian Petersen within the first weeks of the law passing in late 1933. With the commissioning of this mural, Petersen became the nation’s first, permanent campus sculptor-in-residence. He created 12 public works of art from 1934 to 1955, most of which referenced agricultural themes, including many of Iowa State’s most iconic, including The History of Dairying (1934-35), Fountain of the Four Seasons (1941), the Veterinary Medicine Mural (1936-37) and The Gentle Doctor (1937).

Soil and civilizations. Janus Agri Altar (1984-1986) in the Agronomy Hall courtyard was sculpted in bronze by internationally acclaimed artist Beverly Pepper in her Todi, Italy, studio. Agronomy faculty tutored Pepper in the role of agriculture in world development. Janus Agri Altar depicts an ancient digging adze portrayed in heroic scale, and symbolizes when humanity works the soil with seed and relies upon weather cycles, agriculture establishes civilizations.

The Dean’s Gallery. Opening in 2013, the College of Agriculture and Life Sciences Dean’s Art Gallery in Curtiss Hall is the first of its kind at Iowa State. Selections from the permanent collections create exhibitions exploring aesthetics and agriculture. Currently the exhibition focuses on round hay bales. Patented by Wesley Buchele, professor of agricultural engineering from 1963 to 1989, the round baler is a farm innovation with a profound visual impact of popularly characterizing Midwestern agricultural landscapes — similar to the 19th century painted hay stacks by French Impressionist Claude Monet.

Want to know more stories about why and how Iowa State is one of the most beautiful campuses in the United States? Campus Beautiful: Shaping the Aesthetic Identity of Iowa State University is a scholarship book that explores the landscape, architecture and public art developments at Iowa State University over its 160 years. Researched and published by the University Museums, the 450-page book with over 400 photographs will be available September 2015.
TELLING AGRICULTURE’S STORY WITH COLOR, LIGHT, EMOTION

By Melea Reicks Licht

Fragments of glass, layers of plaster, mounds of oil paint on canvas, grooves burnt into wood – these are not what many consider tools of the trade in agriculture and life sciences. But, in the hands of some of the nation’s finest artists they transform ordinary materials into extraordinary and compelling works of art illustrating Iowa’s agricultural heritage and future possibilities.

All the Way Home
Colored stone and glass integrated with brass and bronze insets provide a colorful foundation for the ground-floor rotunda of Curtiss Hall in *All the Way Home* by Julie Chang (far left). Using epoxy terrazzo, Chang portrays aspects of agriculture that include a flowering soybean, wind energy, brass weevils and bronze cow hoofprints. Overlapped with a strong circular arrow, the interconnectivity of agriculture is emphasized.

A Sustained Legacy: Advancing Science, Students, Farms, the World
Created with tens of thousands of pieces of stained glass by ISU alum Clint Hansen, *A Sustained Legacy: Advancing Science, Students, Farms, the World* was installed in May. Hansen spent more than a year working on the mural, incorporating suggestions of animal scientists. Funded by ISU alumni Rich and Nancy Degner and the Art in Public State Buildings program, the piece was commissioned to be a timeless representation of agriculture and technology. The 40-foot-by-6-foot work features youth caring for and showing livestock and includes former department chair Maynard Hogberg. (See page 36 to learn more about the mural and about Rich and Nancy Degner.)

Thanks to Iowa’s Art in State Buildings program, the university recently added several such pieces to the ISU Art on Campus. The program requires one half of one percent of the state’s portion of total construction costs for new and renovated state buildings to be used for public works of art. Additionally, the support of Iowa State friends and alumni have provided for several new agriculture and life sciences related pieces.

Floating World
The Biorenewables Complex, which includes the new Sukup Hall and Elings Hall, features *Floating World* by artist Ralph Helmick (shown on the cover). Suspended in the Sukup Atrium, the sculpture consists of 14 painted steel scrim panels that weigh around 3,000 pounds. Light infuses and reflects off the surfaces, creating endless variations of light throughout the day and with the change of seasons. The sculpture embodies the university’s central role in the history of agriculture, while subtly reflecting ISU’s groundbreaking contemporary endeavors. The panels start with an early family farmstead and ascend to a modern large-scale agricultural operation.

ISU Horticulture…looking back, looking ahead…cultivating knowledge now
In the fall of 2011, ISU honorary alum Sarah Grant, principal artist and founder of Sticks, Inc. took up residency in the atrium of Horticulture Hall. There she designed several mural panels which she took to her Des Moines studio to burn, paint and seal before installation. The artwork illustrates the history of the department and its faculty beginning in 1866. It exemplifies Iowa beauty in every season from the ripe green of watermelon to the burnt red and orange colors of fall.
Dean’s Gallery

The Dean’s Gallery in Curtiss Hall celebrates the rich history of agriculture and life sciences at Iowa State. Opened in 2012, the gallery transformed the entrance to the dean’s office suite from a cluttered corridor to a warm gathering space welcoming visitors and students.

*George Washington Carver*, a sculpture by Christian Petersen, welcomes visitors to the gallery. Other Petersen works featured include casts of the well-known *Fountain of the Four Seasons* and *4-H Calf*. Historic judging trophies provide links to the college’s past and paintings by Iowa artist Ellen Wagener line the walls. Wagener’s work in pastel relays the drama of Iowa weather in all four seasons, including the formidable *Cyclone*.

**Honoring a “Magic Connection”**

A work of art gifted by Iowa State alumni Jim and Marcia Borel is the newest centerpiece of the Dean’s Gallery. *Do you Know What’s Inside This Flower? George Washington Carver Mentors a Young Henry A. Wallace*, is featured as a poster on the following pages. Jim ('78 agricultural business) is the executive vice president of DuPont and a member of the company’s Office of the Chief Executive.

“We are art lovers. We are Iowa children. We love Iowa State. Jim’s career has been in agriculture around the world. Both of our families are multigenerational farmers, or involved somehow in agriculture,” says Marcia. “This gift is meant to honor the magic of that connection between teacher and student, academia and application, discovery and development, seeds and growth – and potential. All wrapped up in it is the love for our fathers, and all farmers, whose lives’ work feeds the world.”

Dean Wendy Wintersteen says she hopes the painting inspires faculty, staff and students to reflect on how Henry A. Wallace’s family welcomed George Washington Carver to Iowa State and into their home.

“I hope they will see the value of sharing ideas, accepting diversity, mentoring students and building friendships based on mutual goals and interests,” says Wintersteen. “The amazing legacy of Carver and Wallace show the extraordinary potential of this college to help the students, the state and the world become a better place.”

The Borels agree the painting represents the important role of mentors and achievement made possible through education.

“This painting opened my eyes to the story of these two extraordinary people,” says Marcia. “One was a young man, one a child, when their paths crossed at Iowa State University. One born to slave parents, one a son of privilege. Both were loners with a curiosity about nature. It is a story about learning—on many levels. It is a story about a teacher, and a little tag-along student, and how the light of education can transcend all and lift the world to a better place. I am so proud of Iowa State for not just ‘allowing’ George Washington Carver to enroll here in that day and time, but to champion him when the biases of the day reared. You can see just how far that light of knowledge rippled through the mind of his young student, Henry Wallace, into a world fed by the science and the miracles and mysteries of the nature they both loved.”

**STORIES EXTRA: www.stories.cals.iastate.edu**

Experience more of the recent additions to the ISU Art on Campus collection in videos online. Join CALS students for a tour of the Dean’s Gallery with Dean Wendy Wintersteen. Check out a time-lapse video of the installation of the terrazzo floor in Curtiss Hall and watch the light play upon Floating World throughout the day.
Rose Frantzen (American, b. 1965)

Do You Know What’s Inside This Flower?

George Washington Carver Mentors a Young Henry A. Wallace

Commissioned by the College of Agriculture and Life Sciences and University Museums with funds generously provided by Jim and Marcia Henderson Borel (class of 1978). In the Art on Campus Collection, University Museums, Iowa State University, Ames, Iowa. Accession Number U2015.2

64 x 48 inches Oil on panel
In 2008, Steve Nissen was entering his 26th year of an extraordinary career as a professor of animal science at Iowa State. He was a renowned scientist who made key discoveries in understanding animal and human growth and metabolism. He was an entrepreneur who founded Metabolic Technologies, Inc., a company in the ISU Research Park that commercialized his patented research, focusing on nutritional supplements targeted at preventing muscle loss in the elderly and those suffering from disease. He was an inaugural co-director of the Agricultural Entrepreneurship Initiative in the College of Agriculture and Life Sciences.

In 2000, he planted the first vines that would become the family-owned and operated Prairie Moon Winery and Vineyards in Ames. (This year, the Nissen family, led by son-in-law Elliot Thompson, opened a new business next door, the Alluvial Brewing Company.)

But in August 2008, a stroke paralyzed Nissen’s right side and took his speech. Over time, he has learned to walk with a brace and cane and to use his left hand for daily functions. He can speak a few phrases, but where his eloquence now is in his expressions, his eyes, the gestures of his left hand and, perhaps most vividly, through his art. In 2010, he took up painting. His work now adorns the walls of Prairie Moon and Alluvial.

On a recent visit, Steve’s wife, Holly, and daughter, Lyndsay, join him in his studio, a short walk from Steve and Holly’s home. It’s a small building built in a style reminiscent of former barns on the Iowa State campus.

Inside it is warm, inviting and redolent of paint. Large, medium and small paintings are stacked against the walls. He works on four or five canvases at a time. (“You may be the most prolific painter I know,” Lyndsay tells her father; she is an Iowa State graduate student in integrated studio arts.) The colors are often bold, thick and vibrant. When asked if there’s a technical name for Steve’s style of painting, Lyndsay says, “It’s called loading the brush. It’s fully loaded.” Steve smiles at her.

During the visit, Steve’s sense of humor is ever-present, as vital as it ever was. Holly and Lyndsay channel answers to questions that are posed, with Steve supplying his own phrases, agreements, endorsements, questions or nods.

“Painting is a pretty important part of his life,” says Holly. “He’s usually in the studio by 8 o’clock every morning. He’ll spend the mornings painting, come up to the house for lunch and then maybe come back to work another couple hours in the afternoon. He’s in the studio every day, unless he doesn’t feel well.”

“I believe he paints three main subjects,” says Lyndsay. “One is very abstract, where he’s referencing scientific things, such as blood vessels or microscopic things that are blown up so big they almost become outerspacey. He tries to communicate certain things about his stroke through some of these. He paints people. He’s got a series of a lot of people and also individuals. Some are quite intriguing and they’re mystical and spiritual in a way. He paints flowers, which are big and gorgeous and very bright, and reminiscent of Van Gogh or Matisse.”
Steve reacts to this comparison with an exaggerated impressed sound.

“Lyndsay was his inspiration to get started,” Holly says. “She would set up a canvas on the floor of our living room and he’d sit in his chair and she would show him the paints and what to do. That’s how it started. He really has evolved since then. We thought his early works were amazing, but now some of them lately are truly wonderful, layer after layer.”

Steve says, “Van Gogh,” and they laugh together.

“Steve’s painting has been so inspiring to me,” Holly says. “I’m just so happy that he has this passion and he has this place to come to every day and work on his art. It gives you a purpose, I think” — Steve nods in agreement — “and a way you can express the creativity and inventiveness you’ve always had. And you love to show off your artwork, don’t you?” — Steve shrugs and smiles — “He likes to have people visit and share his work with them.”

“He’s always been a creator,” Lyndsay says. “He always wanted to build things.”

Steve says, “Yeah,” emphatically.

“Before the stroke, it was in a more collaborative and social way,” Lyndsay says, “with his work in the college, in building businesses and working with many people. Now, his painting allows him another way of building something that he can do on his own.”

Steve lifts his left hand and nods, “Yeah.”
“The common thread that connects his artwork with the rest of his earlier accomplishments,” says Lyndsay, “is creativity, that building of a world.”

She looks at her father. “You were always curating everything around you, from your lab and your business to our house and yard. You were always building a world. Now you’re doing it with your painting, which is just as fascinating if not more so, because it’s a blank canvas. Instead of modifying what’s around you, you start from nothing and build.”

“The best word to describe Steve’s spirit,” Holly says, “would be determined. He’s always been a very determined person. He’s going to do it his way.”

Steve looks from Holly to Lyndsay and says, “You?”

“Fearless describes you best,” Lyndsay says. “You enjoy the risk-taking, knowing that what you may do might fall flat, but it might turn out amazing. It’s served you well in your science, your business and now in your art. You’re not worried if a painting isn’t perfect. You’re not trying to make it look like or be anything other than what it is.”

Steve nods, murmuring his agreement. Holly and Lyndsay put their heads together to try to recall whether Steve ever had a quote or a saying he was partial to.

Then Lyndsay remembers something. “His favorite book and his favorite movie is A River Runs Through It, written by Norman Maclean,” she says. “There’s a quote in the book, something about art imitating life and that art is hard.”

Steve’s eyes fill and, for a moment, they are the brightest things in the studio. “Yeah,” he says, nodding. “To him, all good things . . . came by grace; and grace comes by art; and art does not come easy.” — Norman Maclean, “A River Runs Through It and Other Stories.”

Holly and Steve Nissen (center) are shown with their children, from left, daughter Lyndsay Nissen and husband Elliot Thompson, son Matt Nissen and wife Janet, and daughter Kaitlyn Nissen.
Farm Manager’s Mansion

It’s hard to miss a piece of art at the Allee Memorial Demonstration Farm. The artwork stands three stories tall and is painted a dozen colors.

When George Allee left his farm near Newell, Iowa, to Iowa State upon his death in 1958, the 15-room Victorian mansion he lived in on the property became the home of the farm manager. Over time, CALS administrators wondered what to do with the home because of the expense of maintaining the building built in 1891.

Local residents formed the Newell Historical Society to restore and preserve the Queen Anne style structure, and began leasing the mansion for $1 in 1989. Period furnishings, wallpaper and memorabilia decorate the mansion, which was placed on the National Registry of Historic Places in 1992.

Marilyn Monson and her husband, Paul, are members of the society and among the dozens of volunteers who have put in thousands of hours restoring the home. She helps with furnishings and displays, while Paul papers the walls and ceilings. Bradbury & Bradbury Art Wallpaper of California supply the coverings that make the walls and ceilings, themselves, works of art.

Hundreds of visitors tour the Allee Mansion each year as both gallery and artwork. Homes in the Queen Anne style feature elaborate details and bright colors.

“We’re trying to recreate a Victorian lifestyle, not necessarily depict the home the way it was when the Allees lived there,” Marilyn Monson says.

Displays in the home connect it to agriculture. Mark Honeyman, animal science professor who is coordinator of the research farms, says the mansion attracts visitors who might not otherwise come to the farm.

“Once there, they often learn about agriculture and the Allee Farm’s research activities like the beef cattle that are part of a breeding project. The mansion is a strong tie to not only the local community but the state’s agricultural past,” Honeyman says.
One display contains information about the Allee family and parts of its collections. George Allee was a corn breeder who sponsored yield contests in the early 1900s. He commissioned a painting that served as a trophy for the best ear of corn judged at a statewide contest, which hangs in the mansion. A silver corn trophy is among others on display, on loan from the State Historical Society of Iowa.

Visitors touring the home are invited to work a hand corn sheller and grindstone. Monson said plans include renovating a bunkhouse near the mansion where the farm’s hired hands used to stay.

Native soils, community mural
Nature has long inspired artistic expression. An example can be viewed in the Wallace Learning Center that houses the extension offices at the Armstrong Research and Demonstration Farm. The farm includes crops planted in strips to manage erosion on the sloping ground.

Ceramic artist Ingrid Lilligren, who is professor and chair of Iowa State University’s Department of Art and Visual Culture in the College of Design, produced a floor-to-ceiling artwork in the center’s lobby depicting the farm in tiles created with clay made from soils of the area. Her inspiration came from several sources.

“I was privileged to participate in the ISU Road Scholars Tour my second semester on campus,” she says. “We went to southwest Iowa and visited the Armstrong farm. I was deeply impressed by the impact of extension on the communities beyond Ames, and I continue to be humbled by all that we do in this arena.”

“When I was approached to create the mural, I remembered the research on row crops and obtained an aerial photo that I used in creating the imagery,” she says. Lilligren met with local extension staff at the time about involving the community in naming the mural. “Field of Dreams,” suggested by an Extra couple, was judged the winning title.

Borlaug’s likeness and legacy
At the Borlaug Learning Center on the Northeast Farm near Nashua, an exhibit features Norman Borlaug, Northeast Iowa’s native son and Nobel Prize laureate, and his impact on agriculture and the world. The centerpiece is a smaller version of a statue of Borlaug that was produced for, and stands in, the U.S. Capitol’s National Statuary Hall Collection. The farm is known for its field research on crop and pest management and water quality.

Additionally, Iowa State students designed or produced several pieces displayed at the center including a medallion on the floor of its entryway, ceramic sheaves of wheat and benches made from cherry grown in the area and other woods from countries where Borlaug did his research.

STORIES EXTRA: www.stories.cals.iastate.edu
See more of the art on Iowa State’s research and demonstration farms online including pieces from the Borlaug Center, details of the Allee Mansion and more.
The Department of Animal Science at Iowa State University offers courses about nutrition, breeding and genetics, meat science and physiology to help students learn about the science of animals.

In addition to this curriculum is a class incorporating livestock with art. This was exactly what Brittany Menke, senior in dairy science, was looking for. “Most of my classes are science based, so it was fun to switch it up with the history of art and livestock,” she says.

Jodi Sterle, associate professor of animal science, teaches “Art and Heritage of Livestock,” animal science course 207. She uses art to show the heritage of livestock and the contribution livestock has had on civilization. Course enrollment is around 100 students each semester it is offered.

Sterle’s course carries on the tradition of a similar class created by emeritus professor Richard Willham (’55 MS animal science, ’60 PhD) – “Our Livestock Heritage.” Willham, known for his love of history and art, created and taught that course for years at Iowa State, then at Colorado State University after his retirement in 1997.

Like Willham, Sterle wants students to realize the role of livestock in meeting agricultural and social needs throughout history can be identified and appreciated through works of art.

“I want them to understand the feeling that livestock is in art all around them,” she says.

Students begin the semester by learning about when animals were first domesticated as represented in early cave paintings, Sterle says. They discuss changes during warfare, such as when man started riding the horse versus being pulled in a chariot and how weapons had to be modified.

“I think this is one of the guys’ favorite parts,” Sterle says.

The students say they also enjoy learning about the art. Works include contemporary and western pieces, art displayed around Iowa State’s campus and art shows. Discussions about the art revolve around interpretation of the pieces and personal reactions.

“The average person spends less than six seconds looking at a piece of art, and I want students to be able to appreciate it in that time frame,” says Sterle.

Students also play the role of an artist creating a project portraying livestock. Then they share their original creations in an art show in Kildee Hall open to members of the Iowa State University community.

Projects range from sculptures to paintings and everything in between. Recent works included horseshoes welded into sculptures, decorated horse collars and burned wood pieces. Class members vote for their favorite pieces and the best of show are featured the following spring in the department’s display case.

McKenzie Shaffer, senior in animal science, says the art show was her favorite part of the class.

Her own project used parts of ribbons she won from showing her horse and refashioning them into a bouquet of flowers.

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McKenzie Shaffer’s art project used ribbons she won from showing her horse. She learned to focus more on the meaning put into a piece of art rather than just looking at the face value.

By Liz Sample

McKenzie Shaffer’s art project used ribbons she won from showing her horse. She learned to focus more on the meaning put into a piece of art rather than just looking at the face value.

Animal scientist Jodi Sterle hopes her course helps students like Carl Frame appreciate the art that surrounds them including this piece – Balance of Life – in Kildee Hall.
At face value, it’s a simple game. High school students use imaginary money to start and operate a mock business in the swine industry. The reality is much greater—students earn a better understanding of what it takes to run a successful pork business.

“We give them $100,000 to start so they have purchasing power,” says Cody McKinley. “We bring in other producers and resources throughout the semester to help them along the way, but the key is their level of ambition.”

The game uses real-time markets, but is accelerated so each week represents one month making the semester-long class represent a “year” of operation for their business.

McKinley (‘07 agricultural business) and Ben Isaacson (‘06 animal science, ’09 MS) created the Swine Simulation Game at North Linn high school in Tom Murray’s (‘94 agricultural and life sciences education) agricultural business class.

Both McKinley, public policy director for the Iowa Pork Producers Association and Isaacson, farm manager and appraiser with Agri-Management Services, are graduates of North Linn. They created the game in 2009.

The game includes lessons on buying and selling commodities, applying for loans, making decisions on animal welfare including genetics, nutrition and management protocols and more.

“We’ve had farrow to finish, farrow to wean, niche market, show pigs, a gilt multiplier, spot market buying – a little bit of everything,” says Isaacson.

“Even though the students are in FFA, most have never had a hands-on experience with a farming operation,” says Murray. “Their knowledge level increases 90 to 100 percent by the end of the semester.”

McKinley and Isaacson develop “chance” cards with unexpected scenarios students must incorporate into their plans.

“One year the chance card was a building fire,” says Isaacson. “One of the students chose not to purchase insurance for his operation. It was the perfect example of how this game is beneficial—we had a 17-year-old learning the value of insurance.”

McKinley, Isaacson and other college alumni provide the winner of the game a $500 scholarship. They double the scholarship if a student attends Iowa State University. Three of six of the winners have chosen to attend Iowa State.

The students involved in the class are surveyed on their knowledge of basic finance and the agriculture industry at the beginning and end of the semester.

“The results are dramatic, and prove this template works,” says Isaacson.

“The ultimate goal would be to grow this curriculum to be included in other FFA programs,” says McKinley. “We want to help the next generation of agriculturalists.”
Jasmine Lopez earned her master’s degree in plant breeding at Iowa State while working full time and raising two small children in Florida. The first graduate of the distance education program says her degree led to career advancement and better understanding of the work she loves.

VARIETIES OF SUCCESS VIA DISTANCE

By Virginia Kovach

When Jasmine Lopez was small, she played in the soil, barefoot. The feel of earth on the soles of her feet brought her joy.

That was years before she knew about the microscopic materials in the soil or the infinitesimal genetic blueprints that determined the form and flavor of the plants growing in it.

“I like being in the field. It’s my therapy,” Lopez says.

As she grew up, moving at age 9 from Methuen, Massachusetts, to San Sebastian, Puerto Rico, Lopez (MS ’14 plant breeding) kept her delight in the outdoors. The climate of her surroundings may have changed, but her appreciation of the earth and its produce did not.

She received her bachelor’s in agronomy from the University of Puerto Rico Mayaguez Campus in 2001. She put her expanding knowledge to work as a chrysanthemum grower for Syngenta in Fort Myers, Florida, in 2007. And she moved to the position of an assistant sweet corn breeder in 2010.

Plant breeders view their vocation, which involves identifying and reproducing desirable traits in plants to meet consumer and producer needs, as key to feeding a growing world population.

“Part of the future increase in food production must come from improved varieties that are developed by plant breeders,” says Walter Fehr, Distinguished Professor of Agriculture and Life Sciences. “As a result, there will continue to be a strong demand in the future for young people who are well-trained in the discipline.”

Lopez’s career was coming into focus, moving from technical work into the more specialized world of plant breeding. She needed more education and training. A mother of two elementary-aged children with a full-time job, she sought out an online degree.

She started looking for a good online master’s program, and ultimately decided on Iowa State’s Master of Science in Plant Breeding online option, which was brand new at the time. In August of 2011, she started her master’s degree.

“An online program was the only option I had due to the advantage of doing a master’s program after a work day and without sacrificing much of family time – or so I thought,” Lopez says.

Lopez found what many online students find — that an online education is convenient in many ways, but it is a time commitment. Complex courses such as Molecular Plant Breeding and Quantitative Genetics for Plant Breeding require commitment in the classroom and at a distance. Nevertheless, Lopez found a way to distinguish herself.
“Just having completed credits in my master’s in plant breeding landed me with a higher job opportunity at Lipman in 2012,” Lopez says. Lopez started at Lipman Produce as a product advancement specialist. Lipman is the largest field tomato grower in the United States.

Two years later, in August of 2014, Lopez became the first graduate of the M.S. in Plant Breeding online program. Her dedication to understanding and applying the material in her courses inspired her peers as well as her professors.

Walter Fehr says Lopez was “in many ways the ideal student.” Fehr was most impressed with how she integrated her training at Lipman into her studies.

“It was obvious from the discussions I had with her and the other students I taught online that she was actively interacting with the breeders in her company,” Fehr says.

Mark Barineau, the director of breeding at Lipman, also observed Lopez’s sincere engagement with her education and her work.

“I was pleasantly surprised to see that she was able to effectively work with me in the field and lab doing many of the selection and evaluation tasks almost from the start,” Barineau says. “So gaining the basic education enabled her to integrate rapidly into the daily breeding level operations of the tomato program.”

Lopez says being a part of feeding people motivates her as she continues to move her career forward.

But food is not only about sustenance. Plant breeding, in its efforts to feed the world, also requires creativity and consideration for consumers’ tastes.

Different companies breed for different reasons, Lopez says. Some companies breed for big production numbers. Lipman’s research team breeds for a multitude of desirable traits that consumers could be looking for. Flavor, color and nutrients are all considered when creating new varieties.

When Lopez speaks of the research and development team at Lipman, her voice is full of pride.

“A high percent of the product grown by Lipman is our research and development product,” she says. “That percentage is growing every year.”

That means the company is turning out new varieties of tomatoes at a fast clip.

As Lopez keeps proving herself as a young leader at Lipman, there is one question that needs to be asked: does she even like their signature crop? Thankfully, she does.

“I love tomatoes,” Lopez says.
Adriana Murillo Williams’ lab looks over rice – and other important food crops – grown in or imported to Costa Rica before they land on people’s plates.

“Rice is our staple food. We check for toxins harmful to human health – aflatoxins – and other impurities and make sure what is on the bag is actually what’s inside,” she says.

Testing grain quality is one part of Williams’ (MS ’04 crop production and physiology, PhD ’07) role as director of the University of Costa Rica Center for Research in Grains and Seeds (CIGRAS). She oversees the divisions of the research center – biotechnology, grain analysis, mycotoxin analysis, agricultural processes and seed analysis.
Adriana Murrillo Williams and Victor Jimenez review specimens from the University of Costa Rica’s plant breeding labs which focuses on tropical plants such as avocado, guava, papaya and bamboo.

Opening the door to the center during a recent visit, visitors are hit with the smell of nutmeg. The spice is being tested for safety and quality before export. The lab provides services in quality analysis of seeds and grains for the public and private sector.

An expert in seed pathology, physiology and production, Williams focuses on how rice, dry beans and corn are affected by mycotoxins (toxic fungus). She has presented internationally on the impact of climate change on mycotoxins.

Williams coordinates graduate student seminars and teaches courses on plant physiology for the University of Costa Rica as part of her work with the center. The university’s enrollment is around 30,000. CIGRAS also holds training for agribusinesses, farmers and consumers.

Williams grew up five minutes from the city center of San Jose. The capital city, with a population of more than 280,000, is far from an agrarian center. Her interest in crop production began at home as the daughter of two microbiologists.

“I loved plants and wanted to know all about how they grow and develop ever since my father explained to me how a seed works,” Williams says.

She looked to Iowa State to further her education at the recommendation of her professors. Williams knew she would return to her home country after completing her Iowa State degrees. “I wanted to contribute to my country by teaching and mentoring students, sharing what I learned,” she says.

She met her husband Paul Esker (MS ’01 plant pathology, PhD ’05 statistics and plant pathology) at Iowa State. An expert in plant disease epidemiology, statistics and field crop diseases, he also is a professor at the University of Costa Rica.

Adriana Murrillo Williams is the director of the Center for Research in Grains and Seeds in San Jose, Costa Rica. She and husband Paul Esker, a fellow Iowa Stater, are professors at the University of Costa Rica where a mural depicting Costa Rican agriculture welcomes visitors.

A few years back while working late at night on her graduate research at Iowa State, Adriana Murrillo Williams noticed the colorful patterns appearing through the lens of her microscope. “When it is 10 p.m., and you are by yourself working on the microscope in a dark room a good way to stay awake is to incorporate something fun into the work you are doing,” she says. “Gary Munkvold, my adviser, and I examined several stalk tissues to track down a GFP strain of Fusarium verticillioides. As you can see from my photo, I saved pictures I thought had nice color contrasts or reminded me of other things – in this case, infected vascular bundles reminded me of Edvard Munch’s ‘The Scream.’

MICROSCOPIC SCREAM
Norma “Duffy” Lyon (1929-2011) may have best been known to the world as “The Butter Cow Lady,” but she was also one of Iowa State’s pioneering female graduates in animal science in 1951. She met her husband Joe while they were students at Iowa State (read more about Joe Lyon and family in the next STORIES magazine), and trained with Iowa State artist-in-residence Christian Petersen. Duffy sculpted the life-sized Iowa State Fair Butter Cow annually for 46 years, as well as a selection of other works in butter. The creamy creations attracted worldwide attention to the dairy industry. While she primarily worked with butter, in 2007 she created the beautiful bronze Jersey Jewel on display at ISU’s dairy farm and a Jersey cow-calf pair on display near the family’s home farm in Toledo, Iowa. Duffy died in June 2011, the same year the State Fair celebrated 100 years of the Butter Cow.
In 2011, Michael Koenig (’12 ag and life sciences education), Holden Nyhus (’13 ag and life sciences education) and Stuart McCulloh (’13 ag and life sciences education) created Scout Pro as a class project in a CALS agricultural entrepreneurship course. In January, the group was named Entrepreneur of the Year by the Rural Entrepreneurship Initiative, a joint program of the American Farm Bureau Federation and Georgetown University’s McDonough School of Business.

Bill Northey (‘81 ag business), Iowa Secretary of Agriculture, was honored by the National Association of Clean Water Agencies for excellence in public service. Northey is the first state Secretary of Agriculture to receive the award.

Steve Berger (’86 agricultural business), of Wellman, Iowa, was awarded the 2015 National Conservation Legacy Award by the American Soybean Association. Prior to his recognition as the national winner, Berger was named the Midwest Regional winner.

Jacob Thomsen (’06 agronomy), of Kalona, Iowa, received the inaugural Emerging Iowa Leader Award from the College of Agriculture and Life Sciences. Thomsen was selected for taking on significant leadership roles in the college’s young alumni program, Curtiss League, an initiative providing recruitment, advocacy and recognition opportunities for alumni age 40 and younger.

Ted Crosbie, retired vice president of Monsanto Co., presented the 2015 Carl and Marjory Hertz Lecture on Emerging Issues in Agriculture April 1 at Iowa State University. Crosbie’s (’73 ag education, MS ’76 plant breeding and cytogenetics, PhD ’78) presentation “Applying an Iowa State Education to Life: A Tribute to My Teachers” is available online at www.stories.cals.iastate.edu.
Rich and Nancy Degner are in their kitchen, surrounded by cooking tools of past generations. Lining their kitchen walls are Sellers cabinets, vintage meat scales and antique pottery.

Nancy is slicing beef, pork and vegetables preparing them for kabobs. “Beef or pork, whatever Nancy prepares is what’s for dinner,” Rich jokes. “And I’m grateful for it.”

The couple’s dinner table has been the site of countless conversations about Iowa agriculture during the 42 years of their marriage.

For 40 of those years Nancy has been with the Iowa Beef Industry Council. For 35 years Rich has been with the Iowa Pork Producers Association. Both are currently executive directors, and say they feel honored to have made a career working for Iowa livestock producers.

Nancy (’72 food science) and Rich (’72 agriculture and life sciences education, ‘77 MS) are set to retire on September 30, 2015. “I can’t think of another couple who have made such a lasting impact on the Iowa agriculture industry,” says Maynard Hogberg, emeritus professor and chair of animal science. “Rich and Nancy are masters at bringing people together. The approach they have taken in building meaningful and lasting relationships at Iowa Beef and Iowa Pork help us to serve our land grant mission,” Hogberg says.

Meaty Conversations
It’s not surprising Rich and Nancy see eye-to-eye on most issues facing the meat industry. They’d like to see better representation in federal guidelines of the role of red meat in American diets. And, both believe expanding global meat trade benefits Iowa farmers.

At their core, it’s the role and value of meat production in sustaining Iowa agriculture that ties them and drives them. “Our biggest challenge is customer perception of livestock’s role in a sustainable agricultural system,” Nancy says.

Rich agrees, adding, “For agriculture to be sustainable in our state we need more livestock production. To meet the nutrient needs for our crops we are importing fertilizers. We could get them through livestock manure. And its application increases our soil’s organic matter and water holding capacity.”

Producer Partners
The Iowa Pork Producers Association and the Iowa Beef Industry Council are active supporters of Iowa State University research, extension and student programs.

Rich oversees the grassroots organization of more than 4,000 Iowa pork producers. Funded by checkoff dollars, the association promotes and educates for, “a sustainable, socially responsible, profitable and globally competitive pork industry.”

Bringing the right people together at the right time is what Rich sees as one of the lasting impacts of his career. “Being able to bring all our members from different segments of pork production together – large and small – that was a real accomplishment for our organization,” Rich says.
PARTNERS

Cut meat into equal-sized cubes, about 1-inch in size, or in thin strips (1/4 inch thick) and weave back and forth on the skewer.

Choose vegetables/fruit that take about the same amount of time to cook as the cubes of meat (not raw carrots or potatoes).

Better yet, make separate skewers of meat cubes and vegetables/fruits since vegetables may take longer to cook than the meat.

Marinate meat before placing on the skewers; 20 minutes for flavor and up to 24 hours in a tenderizing marinade.

Recent changes by USDA regarding safe end temperatures for meat and poultry allow beef and pork to be cooked to the same internal temperature of 145° F, with a three minute resting period. All poultry should be cooked to 160° F.

STORIES EXTRA: www.stories.cals.iastate.edu

Find a recipe for Beef Kabobs with Grilled Pineapple Salsa by visiting www.stories.cals.iastate.edu.
He’s also proud of his global travels to build relationships to grow trade opportunities for Iowa producers. His annual trips to Japan (more than 30) have built partnerships with top global meat companies, expanded markets for Iowa producers and, in some cases, led to establishing a global presence in Iowa.

“Rich has made sure the resources and focus of programs in our college were meeting the needs of the Iowa swine industry. This was especially true in tough budget times,” says Hogberg. “Because of him our college is stronger and the Iowa swine industry is an international leader.”

“Rich and Nancy have helped us to recruit the best people. Iowa Pork has supported building projects, faculty start-up packages, research and extension funding allowing us to recruit and retain top faculty. Iowa Beef Industry Council has supported research programs important to the beef industry. And, their personal support of student scholarships let us target high-achieving students,” Hogberg says.

Nancy and Rich are both trained educators. Both worked in Iowa classrooms before taking their current positions. Nancy serves as a spokesperson for the beef industry, oversees beef check-off programs and works with educators and nutritionists.

“I’ve found that if you focus on teaching and informing rather than promoting – if you offer healthful, evidence-based information – you can maintain our important relationship with consumers,” Nancy says.

From frequent TV spots cooking Iowa beef, to educational efforts at the Iowa State Fair, to programs for nutritionists, she’s known as a trusted source for consumers and health professionals. It’s the part of her legacy at Iowa Beef of which she’s most proud.

They see Iowa State University as critical to the success of their associations and Iowa agriculture.

“Iowa State is extremely important to livestock producers,” says Rich. “Producers judge Iowa State University by the relevance of research and extension efforts, by the education and training of good future employees and services such as the Veterinary Diagnostic Laboratory. These are all successes I hope to see continue.”

Supportive Friends
The Degners are trusted friends and advocates of Iowa State. They have given generously of their time and talents on boards, committees and student activities.

Rich and Nancy were honored with the George Washington Carver Distinguished Service Award by the College of Agriculture and Life Sciences in 2008, they are Order of the Knoll members and lifetime members of the Iowa State University Alumni Association.

They have made long-term commitments to Iowa State in areas that include Iowa 4-H, the Iowa State University Alumni Association, the College of Agriculture and Life Sciences and the College of Human Sciences.

Erica Beirman, lecturer in food science and human nutrition, says Nancy is one of the culinary science program’s strongest supporters.

“Nancy has worked diligently to create internships for our students throughout the beef industry, including a unique, exclusive internship with the National Cattlemen’s Beef Association at their Culinary Innovation Center in Colorado,” says Beirman. “The Degners also offer a scholarship to ensure culinary science students have the financial support to accept an internship anywhere in the country.”

The Degners say it’s their way of giving back to an institution that helped give them their start – and that helped bring them together as a couple. The two met while part of an Iowa State contingent attending a national residence hall conference for student leaders.

“We felt it was important to give an added ‘carrot’ to get high-achieving animal science students to campus and become a part of this,” Nancy says.

Nancy finishes skewering her colorful kabobs – a bright assortment of like-sized vegetables and meat. On Rich’s side she arranges cubes of pork and beef.

“No vegetables on my kabobs,” Rich says, “give me my veggies in my salad.”


In retirement the two look forward to more good meals and good conversations. They plan to travel. And, Rich plans to return to Iowa State University in January – this time as a doctoral student – to work towards a life-long goal of earning his doctorate.
PIECE BY PIECE SUSTAINABILITY IN ART

The “interconnectivity” of Iowa agriculture is so important to Rich and Nancy Degner it was a key concept in a mural they helped support at the Jeff and Deb Hansen Agricultural Student Learning Center at Iowa State University. Rich also was integral in garnering support for another mural, funded by the Iowa Pork Producers, to be placed in the Hansen Center. Created with tens of thousands of pieces of stained glass by Clint Hansen, the mural depicts the role of livestock in agriculture’s sustainability cycle.

A Sustained Legacy: Advancing Science, Students, Farms, the World, 2014 by Clint Hansen (American, b. 1965)
Commissioned by University Museums and the Department of Animal Science, Iowa Art in State Buildings Project for the Jeff & Deb Hansen Agriculture Student Learning Center, College of Agriculture and Life Sciences. In the Art on Campus Collection, University Museums, Iowa State University. Located at the Jeff and Deb Hansen Agriculture Student Learning Center.

STORIES EXTRA: www.stories.cals.iastate.edu
Take a trip to Clint Hansen’s studio online to see more of the mural and learn more about this Iowa State alum and professional artist.
In 1998, Yosuf Asar, an Egyptian painter and art historian, came to Ames at the invitation of College of Agriculture and Life Sciences Dean David Topel. Iowa State was beginning a yearlong celebration of George Washington Carver, the African-American teacher and scientist and one of Iowa State’s most famous agricultural alums and faculty members.

“When I met Asar during a trip to Cairo several years prior, I was impressed by his interest and ability to tie agriculture and art together,” says Topel. Asar was quoted explaining the connection of agriculture and art.

“The history of art is closely linked to ancient people who settled down to farm. When you settle down, you begin to observe nature and to discover your faith. When I paint, I gratify nature and the creator in his creation. So, agriculture is the base for all the arts,” he said.

During his two-year residency he taught painting classes in the College of Design, presented lectures and assisted in other art and design courses. To commemorate Carver, Asar painted a major triptych mural Determination, Homage to Carver, and Eternal, which is permanently installed in the Food Sciences Building. He contributed 27 paintings to the Art on Campus collection of landscapes and portraits of alumni, faculty and administrators. The College of Agriculture and Life Sciences, the College of Design, Iowa State University Extension and Outreach and the Office of External Affairs sponsored his appointment.
SAVE THE DATE
SEPTEMBER 5TH, 2015

COLLEGE OF AGRICULTURE AND LIFE SCIENCES ANNUAL BBQ

Online registration available in August.
We look forward to seeing you at the annual BBQ!

*NEW THIS YEAR: CALS Kid's Corner will offer youth fun, educational activities.

Online registration available in August.
We look forward to seeing you at the annual BBQ!

In the next STORIES in Agriculture and Life Sciences we’ll share the college’s SCIENCE-BASED recommendations for managing nutrients in SOIL and WATER. We’ll celebrate the “YEAR OF SOIL,” examine the role of COVER CROPS in perennial rotations, explain how PRAIRIE STRIPS work and feature our National Academy of Sciences inductee ENVIRONMENTAL ECONOMIST Cathy Kling. We’ll update you on favorite faculty and introduce new faces including students in FORESTRY and GENETICS and alumni working hard to ensure the quality of soil and water on their HOME FARMS and that of their neighbors.

Prior to the ISU vs. UNI football game
Jeff and Deb Hansen Agriculture Student Learning Center
Celebrate growing leaders
Visit fellow alums, students, faculty and friends
Enjoy great food

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