Industry engagement

Industrial design and engineering students collaborate on industry-sponsored projects
Established in 2010, the industrial design program is emerging as a dynamic bridge between the College of Design and other colleges at Iowa State University as it combines creative, technical and commercial elements.

“It has long been the university’s goal, and mine, to get courses going that include design, engineering and eventually business,” said David Ringholz, chair of the industrial design department. Such collaboration is vital for preparing students to work with multidisciplinary teams in the global marketplace.

When two opportunities recently presented themselves, Ringholz was ready. He partnered with engineering colleagues last fall on industry-sponsored projects for Calphalon, a global kitchenware brand, and Paragon International, a Nevada, Iowa-based concession equipment manufacturer.

Engineering integration
In fall 2011, Calphalon introduced the industrial design junior studio to its internal concept-writing process, which students then used to generate new ideas to meet the company’s needs. Calphalon returned to Iowa State last fall, seeking concept development assistance to enhance and expand its line of small kitchen appliances.

“They asked us to benchmark their performance against competitors, generate ideas for product improvement and visualize what future products in the same category might look like,” Ringholz said.

The project involved a small class of second-year industrial design graduate students and teams from two undergraduate engineering courses: multidisciplinary engineering design, taught by Lecturer Jim Heise, mechanical engineering, and the engineering open lab and design studio, taught by Senior Lecturer Mani Mina, computer and electrical engineering.

Calphalon requested engineering integration because it “wanted the design students to realize that product development is not only about industrial design. It’s a cross-functional collaboration between design, marketing, engineering, sales, etc.,” said project liaison Joel Tetreault, Calphalon senior manager for research and development.

“It gives them a great chance to not only see what else has to be considered for the product in terms of engineering, but to interact with different-minded people—to see that there may be other ways to solve a problem,” he said.

The project also allowed engineering students to experience design studio culture and the collaborative nature of industrial design.

Concept development
The industrial design students conducted research, trend analysis and comparative product analysis as a group, then split into three teams to develop concepts for the same three appliances: a waffle maker, an electric skillet and a blender.

With course collaboration fees from Calphalon, faculty purchased competitors’ products for the classes to analyze. Engineering students dismantled the products, conducted performance tests and advised the industrial design teams on what was good or bad about current designs, suggesting ways to improve them.

“Engineering is really focused on performance, and that’s where we really needed their input,” said industrial design grad student Michael Tschampl, Sioux City. “We needed both mechanical and electrical engineering to talk about heating elements, for example, and what the options were to optimize heating. That informed our material choices quite a bit.”
For Tschampl, the greatest challenge was “learning what the engineers know and are used to doing and how to accommodate that in our design process. As the semester went on, we learned how to ask what things are possible from an engineering standpoint, and they started pitching design ideas. It was an incredible learning experience.”

Calphalon, too, was pleased with the outcome. “The quality of the deliverables was better than I expected,” Tetreault said. “We have a number of tangible solutions that we plan to implement on the products.”

**Design integration**

The Calphalon project originated with industrial design and engaged engineering up front. The Paragon project, conversely, began with engineering and later integrated industrial design.

Looking to expand into transportation for entertainment venues like amusement parks and convention centers, Paragon acquired a pair of electric vehicles from a Chinese manufacturer. The company sought help redesigning the car to compete with the small utility vehicles now used in those settings.

Heise ran the project for two semesters in his mechanical engineering capstone courses, which developed a new chassis but had trouble meeting Paragon’s goal of a playful, modern appearance.

“Heise agreed to have his seniors work on it if I would mentor them.”

Last fall, three teams of senior industrial design students worked on the car’s exterior, interior and controls. They focused on visual appearance and human fit and interface (driver controls, for example). Two teams each of mechanical and electrical engineering students—the latter from a class taught by Assistant Professor Tim Bigelow—worked on the structure and how to “motivate systems” like a power door, Heise said.

**Fun and functional**

“Paragon’s motto is ‘We manufacture fun.’ We were trying to encapsulate that in our design while also making the car more functional,” said industrial design senior Stephen Groenenboom, Rose Hill. “Our choices for headlights, tail lights, door shape and electrical plug all went toward creating a playful experience for the user.”

Groenenboom and Luke Swanson, Burnsville, Minn., both served as project leads for their respective teams. Swanson graduated in December with a double major in mechanical engineering and international studies and recently was hired as an engineer for SRG Global, a manufacturer of chrome-plated plastics for automotive and consumer products.

“There are many ways to approach a problem. There were times we were faced with an engineering issue, but the industrial designers would solve it. And times we would come up with concepts to make their vehicle marketable,” Swanson said. “You never know where an idea may come from.”

By the end of the semester, students produced a full-sized mockup as well as renderings and animations that showed fit, finish and materials. They presented the Paragon project at the Engineering Design Expo during dead week last fall.

“We made more progress this semester than the two previous combined,” Heise said. “Paragon was very pleased with the collaboration. I couldn’t be more thrilled.”

Seniors in mechanical engineering, multidisciplinary engineering design and electrical engineering are working with juniors in industrial design this spring to continue the project. The goal is to have a fully operational prototype completed by the end of the semester.

**The future of innovation**

“Industry engagement projects like those with Calphalon and Paragon help students demonstrate competency and professionalism, which is key in helping them bridge the gap to employment,” Ringholz said.

“Companies provide real problems, and students gain experience preparing their work and presenting it to a client. Course collaborations often lead to internship opportunities, which can translate to jobs after graduation.”

“Everyone involved had an amazing experience discovering what the other side can contribute and how to work together. The vocabulary we learned to share is of great value. The paths of collaboration and leadership each group found were probably the most important achievement,” Mina observed.

“Our hope is to make this collaboration of design and engineering very viable. Harnessing innovation is going to make us competitive; this is the platform that can seed it the best. Where these fields meet is where the future of innovation will be.”
Dan Winger's work is all about play.

Last January, the 2003 Iowa State architecture graduate moved from a long-term design strategy consulting job with Lego Group to a full-time concept designer position with Lego Future Lab, Los Angeles.

“What Future Lab typically does is look for new business opportunities beyond our current portfolio,” Winger explained. “Using the same physical pieces—Lego bricks—we create new play experiences, such as Lego Games, which came out two years ago.”

Winger, named one of Businessweek’s “Twenty-One People Who Will Change Business” in 2009, describes Future Lab as the “front-end group looking for new opportunities, but we’ve also assisted development for other project groups,” including Lego Play Themes—such as Star Wars and Ninjago—and action figure lines.

Winger’s first project involved research for the girls’ media category, which fed into the Lego Friends series, he said. He also did some early art and design work for the SuperHeroes line, including preliminary meetings with Marvel and DC Comics. He recently participated in formal concept testing with children for one of Future Lab’s current projects, still in development.

“We’re not looking for just another product but new concept directions, a whole new sustainable business category,” he said.

Until his fifth year in the ISU architecture program, Winger knew nothing about the industrial design profession. But for his final studio project, “rather than design a space, I focused on designing an appliance to put inside an open studio space. I designed an all-in-one kitchen appliance, and that set me on the path to industrial design,” he said.

“The professors for my final two semesters (Tom Leslie and Mitchell Squire) referred me to the field and helped shape my career path.”

Education and opportunity

After receiving his Bachelor of Architecture from Iowa State, Winger completed a master’s degree in industrial design at Art Center College of Design, Pasadena, Calif., in 2007.

“The program focus was design strategy—merging human factors, business factors and technology factors in a 360-degree approach to design,” Winger said. “So starting with consumer research all the way through to manufacturing, marketing and putting together business plans, it really embraced design thinking.”

One of his Art Center instructors, Patrick Hanenberger—who has been an art director and production designer for Dreamworks Animation—connected Winger with Martin Sanders, concept manager at Lego.
“What Future Lab does is look for new business opportunities beyond our current portfolio. We’re not looking for just another product but new concept directions, a whole new sustainable business category.”

“I was working on a product for preschoolers and Lego Future Lab at the time was looking into a preschool project, so he introduced us and we talked. After school I was brought on in a freelance arrangement, which continued until I was hired full time.”

As a consultant, Winger has provided design services on products for Bose, L’Oreal, JT Racing and others, but has cut back significantly on those efforts since accepting the Lego Future Lab position.

“It’s a great job and a great company to work for,” he said. “It’s still family owned and based essentially in the founder’s backyard.”

Lego Group headquarters, the primary Lego factory and the original Legoland theme park all are located in Billund, Denmark, “a tiny town in the middle of a rural farming area. The setting seems a lot like Iowa. Being in Denmark is like being home.”

**International traveler**

Winger travels to Denmark three or four times per year; he also has been to Spain several times and Japan once. His study-abroad experiences at Iowa State helped prepare him for these international business ventures, he said.

Prior to college, the Hiawatha native had never traveled outside the United States, and he’d ventured only as far as Canada (on an architecture field trip to Montreal) before spending a semester in Italy with the College of Design Rome Program.

“It made a big, life-changing impact on a boy from Iowa. I was immersed in a totally new culture, and in terms of architecture, it’s so inspiring. Walking to the studio every day, we passed dozens of historical landmarks.”

Before and after the semester, Winger and several classmates also visited areas of France, Holland, Monaco and Spain. Winger believes the same sense of curiosity and desire to learn new things that inspired this exploration are key qualities for success in his current position.

“In Future Lab we do so many tasks, from research to concept development to illustration and three-dimensional modeling. It comes down to a 360-degree, big-picture approach that considers the market for the product, the user’s needs, new play experiences, engaging stories, communication, SKU structure and various other factors,” he said.

“You have to be open to all ideas and experiences and try new techniques and methods.”

When he’s not working, Winger plays video games “far more than I should” and enjoys hiking with his wife, Shantel, in the mountains of the Angeles National Forest, just a five-minute drive from their Altadena, Calif., home. And he still likes to do side design projects.

“I want to keep my portfolio fresh and hone my skills,” he said. “I’d like to launch some of my own products eventually, but I’m very happy where I am right now.”

“An initial concept sketch of Lexbot and Superman for the DC Comics/Lego SuperHeros project.”

“Images provided by Lego®.”

“Winger created this Superman minifigure illustration for the DC Comics/Lego SuperHeros project.”

“An initial concept sketch of Lexbot and Superman for the DC Comics/Lego SuperHeros project.”

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Design firms increasingly find themselves engaged in projects with offices and clients around the globe, and learning to work across continents and cultures is crucial to their success. Preparing young designers for this new professional context is one of Lee Cagley’s top priorities.

To explore how this might be done in the College of Design, Cagley (BA 1975 Interior Design), chair of interior design, introduced a collaborative international project in the department’s junior retail design studio. Offered twice so far, the project and process continue to evolve.

In fall 2011, students in this studio, which typically has one section in Ames and one in Italy with the college’s Rome Program, all worked on the same hypothetical project to develop the first European outpost of the West Elm home décor company. While students on both sides of the Atlantic were to collaborate on their design proposals, class periods were asynchronous and real-time communication among students and faculty in the different studio sections—seven hours apart—was difficult.

“Essentially, they worked on the same project but weren’t really connected the way we had envisioned,” Cagley said.

Last fall, the studio was reconfigured to allow for truer collaboration among sections in Ames and in Rome. Class periods were scheduled so the campus group met first thing in the morning and the Rome group met in the afternoon, which meant everyone was actually in studio at the same time. Of the 16 student teams, half comprised two members in Ames and one in Rome, and the other half, two members in Ames and two in Rome.

Faculty members—Senior Lecturer Amy Mikovec and Lecturer Lisa Bates at Iowa State and instructors Alessandro Cece and Andrew Kranis in Rome—coordinated their instruction via Skype chats and emails. Mikovec and Cece co-taught a section while Bates and Kranis co-taught the other.

An American brand in Rome

Students in fall 2012 were tasked to develop the first international retail location for Restoration Hardware, using a site near the college’s studio facility in Rome. After doing individual precedent studies to learn more about retail design, they formed teams to develop concepts and hone their design proposals.

“Students in Rome examined the site and gathered information about the way Romans shop, their expectations of a furniture store and how those may differ from Americans’, as well as local codes involving historic buildings and public spaces,” Mikovec said.

“Students in Ames learned about Restoration Hardware’s image and branding strategy, and how to meet the store’s goals in the environment of Rome,” Bates said.

To inform their teams’ designs, the Ames students visited Restoration Hardware and other high-end retail stores in Kansas City.

“The field trip helped quite a bit with understanding the store lighting, setup, materials and window display,” said Adam Thilges, Bode.

“At first we were thinking we’d do this elaborate, eye-catching window display, but then we went there and there was no window display—it was like looking into a house with just the logo on the window. It helped a lot with learning what they want you to see as a customer,” he said.

Sinisha Daljevic, Urbandale, said, “Students and faculty in Rome didn’t fully understand the concept of looking into a house, or the lack of space inside, so one of our challenges was to describe what Restoration Hardware is going for so the Rome studio could translate that to their environment.”
Coordination and communication

The greatest challenges overall were the different time zones—which required a "higher level of coordination and preparation" so that team members on both continents could access materials a day in advance of desk critiques and formal reviews, Mikovec said—and communication, which was complicated not only by the time difference and physical distance but by inconsistent Internet service in Italy.

"The international collaboration is exciting but presents challenges because we must rely so heavily on technology," Kranis observed. "We have yet to perfect the systems for simultaneous video and audio."

The faculty overcame most connectivity issues with a combination of AdobeConnect and Skype for shared lectures, desk crits and reviews. Live-streamed lectures and other resources were archived on the university’s Blackboard Learn e-learning site, and students used Dropbox, a free online file-sharing service, to submit files.

During twice-weekly desk crits, each section’s instructors met with student teams using laptops and a Skype connection.

"We’d start with video so everyone could see each other and say hello," Mikovec said, "then pull up a PDF file of work the team had completed in the past few days and critique it together."

"Everything they showed in those desk crits had to be something the group had deliberated and agreed upon," Bates said. "Ames students couldn’t show work the Rome students hadn’t seen, and Rome students couldn’t show anything the Ames students hadn’t seen. It provided another level of accountability and reinforced the collaborative nature of the studio."

Students themselves communicated frequently via Skype chat, Facebook instant messaging, text messaging and email. The team of Thilges, Daljevic and Miranda Spears, Fort Madison, found that Skyping weekly and texting with Viber, a free international mobile phone app, helped them stay on track with their project.

"Every Sunday morning we met to Skype with Miranda, who was seven hours ahead of us," Thilges said. "The students in Rome took field trips and traveled on their own on weekends, so it was easiest to communicate with them when they got back in the evening."

"Traveling and trying to work on design was a challenge," Spears said. "This studio taught me to be more efficient with the design process. Because time was everything, our group would imagine, collaborate and execute ideas all over the course of a Skype chat, which helped us get ahead in the project."

Professional dynamics

The studio’s time and technology constraints offered other important benefits, too.

"Students develop better time management and communication skills. They learn to convey ideas concisely because they have only a 15- to 20-minute window to present what they’ve done and get feedback," Bates said.

"They spend less time describing little details and focus more on why they did these things, the goals for the design and how their proposed elements link to the overall concept. Later, they’ll be better able to relate to clients who are not designers the reasons behind their designs."

Similarly, "we have students package their design development into a single file of 30MG or less to share online," Mikovec said. "They learn quickly the most important things to show and how best to show them."

Still, it’s the international collaboration itself that students found most valuable.

"This kind of project helps us understand that communication will be a little harder and we need to be open to compromise," Daljevic said.

Such experience is important because "it simulates the real dynamics of a professional office," Cece said.

"The professional design process always requires collaborative decision making, and often these decisions are made from different locations, whether due to the remoteness of a building site or because of the interaction among the various parties involved—client, designer, consultant, builders," Kranis said.

"We try to simulate the challenges and advantages of a design realized by many, and the international collaboration offers that challenge in its most extreme, and potentially inspiring form."
Mitchell Squire’s office is cluttered with projects his former architecture students have left behind. The biggest souvenir is a ruffled paper lampshade that hovers like a palm tree above his desk. It’s the kind of thing you have to commit to in such a cramped space.

But the office may be the only place where Squire (BArch 1994/MArch 2001 Architecture) thinks inside the box.

The associate professor’s ability to do the opposite, in his private art career, has attracted attention from one of the most exclusive galleries in the world. He started 2012 with his New York solo debut, which led to a September show in the rarefied air of London’s White Cube.

Squire’s plans for 2013 are still shaping up, but he’s off to a flying start. In January he traveled to western Canada’s Banff Centre for a seven-week residency called—ready for this?—“Our Literal Speed: Stuff Near Art That Is Not Art, Treated As If It Were Art, Is Now The Substance Of Most Serious Art.” It focused, appropriately enough, on society’s current challenges with having too much information.

He’s brainstorming a multimedia project with a former student, the Chicago artist Theaster Gates (BS 1996 Community and Regional Planning/MA 2005 Interdisciplinary Graduate Studies). He might also do a summer residency, this time in Italy. Or he might switch gears entirely and do what thousands of other Iowans have done.

“I may buy a farm,” he said. “In 2013? I don’t know if it’ll happen that fast, but I’ve been thinking about it a lot lately.”

The storyteller

Squire is a storyteller. He creates videos, sometimes, but a lot of his work remains quiet and still. It’s old rusty stuff arranged in thoughtful ways. It often features Iowa, but that’s not the central theme. Instead he uses the artifacts to tackle broader issues of culture and race and history—both the collective one and his own.

“He has the ability to deliver questions around the American narrative and dig deeper into the things that have no name,” Gates wrote of Squire back in February 2012, when Art Review magazine listed him among its “Future Greats.”

Squire was born on a farm in Mississippi, but few of the lessons of farm life sank in before his family moved to Chicago. His bricklayer dad helped build the Willis (formerly Sears) Tower.

When Squire studied architecture at Iowa State in the ‘90s, he started collecting old odds and ends as a way to understand his new home. Most of us call that “antiquing,” but the Chicago writer Elly Fishman put it this way in an essay about the artist’s show at the Cue Art Foundation in New York: “He scoured the countryside, amassing a formidable stockpile of abraded materials with which to conjure the ghosts of former use.”

That stockpile—mostly old farm tools—ended up in an installation about agriculture and the human body. The artist arranged the objects in a velvet-lined display case, like a religious shrine, and embedded it inside a corn crib near Winterset in 2004. (It’s still there.)

In another work, called The Annunciation of Jack Trice, the artist placed a halo-like light on a pair of football pants he proped up in a gallery corner. He hired someone to stitch the words “FIGHT LO” inside the waistband, a reference to the letter Trice wrote the night before he died during a football game for Iowa State, back in 1923.
“The honor of my race, family and self is at stake. Everyone is expecting me to do big things,” the black athlete wrote. “Fight low, with your eyes open.”

The sculpture pokes at ideas about racism, competition and, as the artist once explained, “the moment in which one’s achievement feels threatened.” It’s open to interpretation.

“He’s a super cerebral guy,” said Cameron Campbell (BArch 1997/MArch 2003), an ISU colleague who photographed Squire’s work for the New York and London catalogs. “You look at his work at first and go, ‘Oh, that’s strange,’ but it comes back around to what’s being collected, where it comes from and how all the pieces relate to each other. You look at it in context and it starts to become more clear.”

People often ask Squire why he stays in Ames instead of moving to Chicago or one of the coasts, especially this past semester, when he hopped on a plane every week to teach a design course at the University of California at Berkeley. But it’s Ames that gives him both the inspiration and elbow room that he wants.

“One of the things that I like about the place is that you can be an everyday Joe here and still do the things you need to get done in your life and your career, with your family and your friends,” he said. “I don’t feel as though I’m in a rat race here.”

**Perspective and voice**

In his studio on Main Street, Squire reached down to unveil 10 stacks of paper artillery targets from the state police academy. They lay face down, but the shredded bullet holes in each stack suggested a human torso even without the printed silhouette.

He’d displayed a similar series in New York and London, where it was well received.

“We were thrilled to organize his first European solo presentation,” White Cube Associate Director Irene Bradbury wrote in an email, detailing Squire’s found-object sculptures. “Mitchell poignantly reinterpreted their cultural impact and potency for our contemporary audiences.”

In the catalog for his New York show, Fishman pointed out the artist’s perspective as a black man in Iowa, where the black-to-white incarceration rate is 14 to 1. The national average is 5 to 1.

Squire put it this way: “I have a voice from a place where you have the worst of the worst and the best of the best.”

Part of the “best” ties into his plans for a farm. He’d like to create a residency program and coach the participants—possibly “young black men who were caught up in the system,” he said—to fix old houses for those who can’t afford repairs. He calls it the RALPH Project, an acronym for Residency, Activism, Labor, Philanthropy and Hospitality. It’s also a reference to the state Supreme Court’s first opinion, which ruled in 1839 that a former Missouri slave named Ralph Montgomery was a free man here in Iowa.

Such a project would combine many of Squire’s ideas about history and a sense of place.

When his family moved to their current house in Ames, he found a dusty box the previous owners had left in the garage. It contained a letter written in 1936 to thank a Mrs. Henry Ness for helping with a public mural.

“If there is one person in Iowa who has the unbiased interest in promoting art and the competence to carry that interest out, that person is you,” the letter read. “With kindest regards, sincerely, Grant Wood.”

Squire studied a scanned image of the letter on his laptop.

“I think about how relatively short his career was, and maybe he’s known for only one painting,” Squire said. “But to me, I’d be happy to have painted one of the five most recognizable paintings in the world.”

He laughed. Who wouldn’t?

“I think that’d be great,” he said. “But I’ve been thinking about a long-term project that I could do, something that I could always be growing.”

This is an abbreviated version of a story that ran in the Dec. 23, 2012, edition of the Des Moines Register. Reprinted with permission.
MENTORING INITIATIVE

Graphic design sophomores learn from alumni professionals

Graphic designers are often asked to design innovative solutions that go beyond the boundaries of print and web-based media to meet clients’ complex business needs. To do this, designers must understand their clients’ goals, identify the communication challenges involved and develop novel approaches to solving them.

“To be successful in contemporary practice, students must develop broad thinking skills,” said Lisa Fontaine, associate professor of graphic design.

“We’ve been working in our department to increase the emphasis on strategic thinking and to start that process early,” she said. “The difficulty is that you must get through fundamentals first before you can do complex projects that integrate strategic thinking in studios.”

Fontaine teaches Introduction to Visual Communication and Branding, a required lecture course for sophomores in graphic design. Taught concurrently with studio coursework, the class introduces such topics as communication theory, design thinking and branding strategy.

“We thought this course would be the place to frame graphic design as a problem-solving discipline rather than a form-making discipline,” Fontaine said.

But early design students still find it hard to “weave together the theoretical and strategic issues from lecture class with the form-driven concerns of studio class,” she said. So last fall she developed an online alumni mentoring initiative to help students connect what they learn in class with current graphic design practice.

“Students have always regarded what professors say about the profession with some skepticism, as though instructors are too distant from the workplace to accurately portray it,” Fontaine observed.

“Conversely, they tend to accept the word of a practicing designer as ‘truth.’ If alumni professionals could help them understand the contemporary demands of the graphic design profession, it would add validity to the teaching strategies.”

Pairing students with mentors

Through the LinkedIn professional networking website, Fontaine contacted Iowa State graphic design alumni whose professional experience seemed most relevant to the course objectives and invited them to participate in the project.

Each of the alumni mentors was then matched with one of the 80 students in the lecture course.

With help from the ISU Center for Excellence in Learning and Teaching, Fontaine set up a discussion group for her students and their mentors in Blackboard Learn, the university’s web-based course support software.

Every student was required to post three questions at regular intervals over the semester. Questions had to relate to topics covered in course readings and lectures; they couldn’t ask what the mentor likes to see in a design portfolio or how to get a job, Fontaine said.

Parent Post

Author: Allison Clem
Date: Monday, September 24, 2012 8:44:49 PM CDT
Subject: The Importance of Sketching

My question is about the “ideas” stage of the design process. I was wondering about how many sketches and ideas you put on paper before pursuing an idea. Along with that, do you think that the quality or quantity of sketches is more important during the brainstorming stage?

One of my favorite topics: ideas and sketching!

The short answer to your question is: as many as it takes. There is no magic number for sketches. Depending on the project, it might take me 10, 50, or 100 before I feel like there is something there worth developing further.

Sketching is a form of thinking and visual note taking, so it really depends on how you think and how you work. For example, I work with a designer who originally trained as a product designer. [...] His sketches are gorgeous, and look almost like final hand-drawn comps! My sketches on the other hand are fast, messy and loose. But that is how my mind works, in short bursts. [...] Sketches are also really important in communicating your ideas to colleagues, teachers, coworkers, and in the workplace, the boss. It is very important to be able to talk about the ideas as well as show them. It’s all about getting people to see your point of view, and listening to theirs so you can incorporate them into your work.

The same holds true for your question about quality vs. quantity. Sketches are a tool. They are not an end in themselves. Or put another way, it is not about the sketches, it’s about the ideas. You are correct in calling it the “ideas” stage of the design process. However, ideas should be at the center of every step in the design process. It is our job to manifest those ideas into visually compelling solutions, but the solution is still about the idea.
The online conversations were available to all participants, “so an individual student could learn from 80 different mentors, not only the one assigned to answer his/her own question,” Fontaine said. “And some alumni responded to questions posted by other students as well as those by their assigned mentees.”

Providing perspective
In addition to direct responses to the students’ topics, other prominent themes in alumni postings included client relations, problem solving, working within constraints, listening as a design skill, and the significance of sketching.

“One thing I felt was important was to express how the design principles I learned at ISU are used in the real world and that the education students are getting is valuable,” said Scott Aucutt (BFA 1994 Graphic Design), owner of Aucutt Design in Salt Lake City.

Aucutt was paired with sophomore Sam Stanfield, Maple Grove, Minn., who appreciated his mentor’s thorough replies.

“Going into it, I asked a question and thought I’d get one or two sentences, but [Aucutt] wrote four or five paragraphs and included things I didn’t directly ask about but that were related,” Stanfield said. “It was great to get his personal perspective.”

In one exchange, Stanfield wondered how collaboration with other designers and clients affects the design process—“if you think it leads to more creative ideas and better solutions or if it ends up with you having to create a product you don’t personally believe in.”

In his response, Aucutt shared experiences of working collaboratively as well as alone and encouraged Stanfield to seek feedback whenever possible.

“You can explore so many more ideas as a group than you can by yourself. [...] My advice to you is to embrace the class critiques and treat them as the most important learning process you will have. Speak your mind as much as you can and when your work is being critiqued, listen and take to heart what people are saying,” Aucutt wrote.

“Defend your work when you are sure of it but don’t get defensive. Learn how to take suggestions from the group to improve on your design. [...] The only way you can truly expand your own creativity is to let other people influence it. Take the good and throw out the bad, but take whatever good you can get. You can’t do it all yourself.”

While Fontaine made no attempt to guide mentors’ responses, she observed that they supported the notion of graphic design as a creative-thinking and problem-solving profession.

“They frequently redirected students’ questions from a limited scope, such as a specific software program, to a broader focus on communication objectives. I didn’t ask them to do that, so it was really nice to see,” she said.

At the end of the semester, students had to comment on three other discussion threads, which encouraged them to read and learn from all of the responses.

Fontaine plans further research to assess the long-term impact of the alumni mentor program on early design students’ understanding of the graphic design profession. The alumni responses also will be assessed to determine how well the curriculum is aligned with contemporary practice, and the program’s effectiveness in preparing broad-thinking professionals, she said.

Mentors came from 23 different cities across the United States. They held a variety of positions in companies including graphic design firms, advertising agencies, corporate in-house design departments and web-development companies. One quarter were design firm owners.

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Alumni Updates
Have you married, moved, changed jobs or earned an award? Let us know at http://home.design.iastate.edu/CareerServices/alumninewstool.php.

On the Cover
Industrial design students Charlie Berg, Mendota Heights, Minn.; Stephen Groenenboom, Rose Hill; Jeff Husak, Montour; Paige Mitchell, Arnolds Park (seated); Libby Craig, Waterloo, and Jacob Martinson, Mason City, with Department Chair David Ringholz, show off their design for an electric vehicle for Paragon International at the Engineering Design Expo in Howe Hall in December.

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Architecture, landscape architecture rank in top 11 nationally

Iowa State University’s undergraduate programs in architecture and landscape architecture received high rankings in the latest survey of practitioners by DesignIntelligence. The undergraduate architecture program ranked ninth and landscape architecture program ranked 11th in the United States.

For the first time since the survey began, Iowa State’s graduate architecture program ranked in the top 20 in the U.S., tying for 18th with Virginia Polytechnic Institute and State University. In addition, Heidi Hohmann, associate professor of landscape architecture, was named one of the 30 most admired design educators in the nation for 2013.

DesignIntelligence is a bimonthly publication for leaders in design professions. The magazine’s annual report, “America’s Best Architecture and Design Schools,” is the only national college ranking survey that focuses exclusively on design. Rankings cover accredited programs in architecture, industrial design, interior design and landscape architecture.

Architecture program
There are 145 accredited professional architecture programs in the U.S. and Puerto Rico—50 undergraduate and 96 graduate. Iowa State’s undergraduate architecture program also ranked ninth last year, and has ranked in the top 20 nine out of the past 10 years.

Landscape architecture program
For 2013, Iowa State’s undergraduate landscape architecture program ranked 11th. Iowa State has ranked among the top 15 programs for eight of the past nine years. (DesignIntelligence began ranking landscape architecture programs in 2005.) There are 47 accredited undergraduate landscape architecture programs in the U.S. Read more at www.news.iastate.edu/news/2012/11/16/cod-rankings.