

DESIGNING

From creating a healing environment at a pediatric burn treatment center in Chile to designing a coat that transforms into a shelter for Syrian refugees, art, design, and architecture students are tackling global problems around the world such as sustainable development, technological access, and human rights. Plus, art and design schools are preparing their graduates to work in international and interdisciplinary environments through collaborative projects, field research, and a myriad of opportunities to engage with other countries and cultures.

ACCORDING TO MANY EDUCATORS, the design and architecture disciplines have always to a certain extent had an international focus, but the way they are taught has shifted in the last few decades.

“In my own design education, I was taught about famous buildings around the world. However, these buildings are often discussed as objects, divorced from their context and surroundings. I believe that we need to teach our design students to understand the context and places where these buildings and project sprang from,” says Jon Racek, professor in architecture at Indiana University (IU) and executive director of Play360, a nonprofit that helps build low-cost playgrounds in developing countries.

Alison Mears, faculty member at The New School’s Parsons School of Design and director of Parsons Healthy Materials Lab, agrees that design students need to understand how architecture is connected to its surrounding environment and culture. “Practicing art and design requires an understanding of the world as a place interconnected by technological, environmental, economic, and cultural networks,” she says.

A playground in Guatemala designed and built in collaboration with students who worked with Play360, a nonprofit organization that collaborates with local nongovernmental organizations and students to design and build playgrounds in developing countries.



JON RACEK

SOLUTIONS



BY CHARLOTTE WEST

EDITOR'S NOTE:

This article is the first in an occasional feature series on the arts and global learning.



Harriet Harriss, senior tutor in interior design and architecture at the Royal College of Art in London, says that in the last decade design education has shifted away from preparing students to work for companies after graduation to teaching them to work in a range of different countries, cultures, and even socioeconomic contexts. It is also increasingly interdisciplinary: “The rise of hyperconnectivity has helped facilitate more open source, inter- and transdisciplinary conversations and collaborations between students and emergent designers, facilitating a greater sense of shared responsibility toward a diverse and often troubled global community. For example, what were once problems faced by a region are now problems many of us feel that we share responsibility toward addressing.”

Preparing Graduates to Work in a Global Market

Many institutions are also providing opportunities for students to meet clients and work with real end-users to solve actual problems. “There is a growing focus on providing students in the design world with real-world projects,” Racek adds.

Not only is there an increased focus on real-world projects, but engaging with other cultures is essential for today’s design students, according to Hannah Huang, director of exchange and study away at Art Center College of Design in Pasadena, California: “Designers must be able to design for different cultures and communities. They must understand the needs by seeing how a community functions; how they live, work, play, and communicate...By providing an opportunity to engage directly with who they are designing for and allowing for immersive on-site research, they are more likely to create a successful and relevant design.”

The design and architecture fields have also been quick to adopt technology as a way to work with global teams. For many students, this is the extension of their natural affinity for technology. “Many of today’s students are using today’s technologies as a force for good—as a means to create global conversations and even creative networks around shared concerns,” Harriss says.

She says that the current generation of young people is often characterized as narcissistic, self-indulgent, and indifferent to the world’s problems: “As an educator with over a decade’s teaching experience, I’ve witnessed quite the opposite. Instead, I see a new kind of creative community—one that is committed to seeing how design can address a range of diverse concerns from the local as well as global—and who feel almost an overwhelming sense of responsibility toward the problems they’ve inherited, rather than created.”

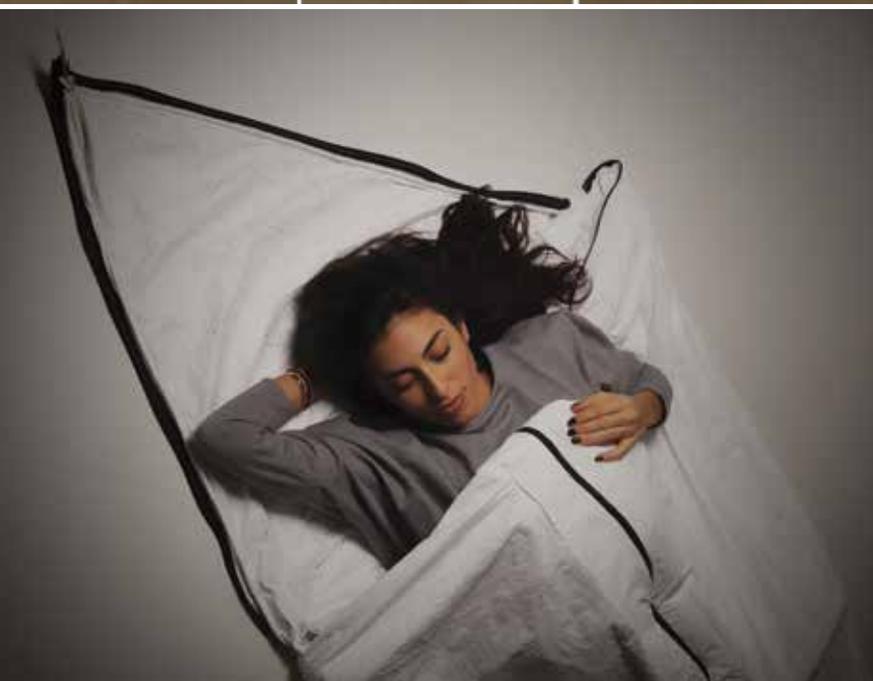
Harriss adds that students’ increased interest in global issues requires a response from educational programs: “This in turn places a significant amount of responsibility upon art and design educators to set programs and assignments that support students’ interest in addressing such challenges, and to facilitate and support their ability to do so sensitively, sustainably, and with the end user in mind.”

Designing Wearable Habitations for Refugees in Syria

Harriss has created opportunities for students in her own interior design courses at the Royal College of Art to find solutions to global problems. Last fall, she and fellow RCA faculty member Graeme Brooker challenged their interior design and textile master’s students to develop “wearable habitations” for refugees during a one-week intensive workshop. According to Harriss, the brief for the students was to create a garment that can reconfigure into a small dwelling. The garment needed to transform into a tent-like structure that would accommodate two to four people and should be constructed of cost-effective and sustainable materials.

“It was a one-week design intensive to develop a garment which could directly address some of the challenges millions of displaced people were facing during the spring and summer months of 2015,” says Hailey Darling, one of the students who has been working on the project. “For all of us it offered an interesting opportunity to step out from our comfort zone within interior design, and use our skills in a project which could potentially offer a huge amount of help and support for those suffering so near to us.”

The students were able to explore an international humanitarian crisis from their classroom in London by speaking with representatives of Médecins Sans Frontières in order to adapt their design to the experiences of refugees.



The final garment the students created is a three-in-one multipurpose design. When unzipped, the wearable habitation coat transforms into a sleeping bag. Rods can also be fed through seams to support the tent. The garment is made from paper-like synthetic material Tyvek, and insulated with Mylar.

Harriss says she asked the students to engage with the humanitarian crisis in Syria to broaden their perspectives on the ways in which they can use their knowledge of design to address problems beyond the studio: “In asking students to use their creative talents to address international issues such as the Syrian refugee crisis, our aim is to encourage them to see their own creativity as a compassionate and not just a commercial asset.”

Darling agrees that the project gave them the chance to use their skills for a meaningful project: “It has offered us the opportunity to broaden our horizons to design not only for the interior environment, but to use our knowledge of design for a very relevant, politically fueled, and incredibly human project, which will hopefully one day help those in our world who are in need.”

“Being able to design for such an important cause has been very eye opening; it has really helped us realize that being an interior designer does not mean we are limited to a certain type of design.”

The wearable habitation coats are currently being prototyped at a factory in China. According to Harriss, once they have received the prototypes, the design team will travel to engage with the refugees and conduct site visits, which will occur this July and September. “We feel some time testing the prototype in the field will prove essential before we finalize the design for distribution,” Harriss says.

Bringing Vocational Training to Artisans in Haiti

Other institutions have worked with their alumni to develop ongoing partnerships with community organizations that allow design and architecture students to engage with the artistic community in a foreign country. Since 2013, Parsons School of Design, part of the New School in New York City, has partnered with Parsons’ alumna and fashion designer Donna Karan to create a vocational training hub for the artisan community located in the Haitian capital, Port-au-Prince.

Through her Urban Zen Foundation, Karan collabo-

Royal College of Art interior design and textile master’s students in London were challenged their to develop “wearable habitations” for refugees during a one-week intensive workshop. The prototype (in these photos) is being taken to refugee camps this summer.



Parsons School of Design students work with Haitian artisans.

Top: Mochi Liu (Architecture '15), Amanda Evengard (Product Design '15) and Ekaterina Kulikova (Fashion Studies '15) work with Haitian artisans at the Design, Organization, and Training Center in Port-au-Prince, Haiti.



Lower left photo: Ekaterina Kulikova (Fashion Studies '15) leads a natural fabric dye workshop for Haitian artisans.

Lower right photo: Amanda Evengard (Product Design '15) leads a wood bending workshop for Haitian artisans at the Design, Organization, Training Center in Port-au-Prince, Haiti.

rated with Haitian designer and businesswoman Paula Coles to found the new training center. The project has created an opportunity for Parsons students and recent alumni to do research on building the physical space for the center as well as travel to Haiti for six weeks in the summer where they worked with local artisans and designers, planned and hosted workshops, and helped with local outreach and machine maintenance.

The center, known as DOT (Design, Organization, and Training), was named in honor of Karan's late husband, businessman and artist Stephan Weiss. According to Karan, her husband's art "was born of connecting the dots."
"Haiti is a country of artisans bursting with creativ-

ity, but without the vocational skills to bring that talent to the next level. Vocational education, I believe, is the answer. Why not connect the dots and bring educators and students from Parsons, my alma mater, to Haiti and work with the artisans?" says Karan.

The project thus connected the Parsons designers with a range of local community members. "They worked most closely with local artisans designing and helping develop product for export to Urban Zen in the United States. This relationship was based on an exchange of knowledge between the Parsons designers and local artisans in which the two groups shared their experiences in using materials, fabrication techniques, and developing prototypes,"

says Mears, who was the Parsons faculty member responsible for the project.

“The students also worked with young workers from the adjacent T-shirt factory who are part of a job training program to help them acquire new skills,” Mears adds.

Mochi Liu, who received a master of architecture degree from Parsons School in May 2015, was one of the five Parsons students who worked on the project with Urban Zen and DOT. Since he graduated, he has been the creative/production manager at DOT in Port-au-Prince.

“There are two things I want to do in my life: to create things with my hands and to help people in need,” he says.

He says that by connecting local craftsmanship to the global market, DOT brings jobs and income to the local economy. “Giving a little can mean a lot. In Haiti, where public education is lacking, many young adults, especially girls, receive very limited education, especially with regards to training in modern design. DOT provides education and opens up job opportunities that can change peoples’ lives,” Liu explains.

Liu, originally from China, immigrated to the United

States as a young adult. He says his own design work is heavily influenced by both Eastern and Western cultures. “Education with an international focus broadens my perspective and opens up great opportunities. I am now devoted to socially responsible and ethical design. I want to share my knowledge to help others explore their creativity,” he says.

Parsons’ engagement in Haiti through DOT is intended to be a long-term initiative. “I will organize a new call for designers for the summer to repeat last year’s engagement and work closely with (Haitian designer) Paula Coles and Urban Zen to ensure the long-term viability of the project,” Mears adds.

Parsons also has several other international initiatives. Next year they will be launching One Degree, Two Cities, a new degree program that will allow students to spend two years at the Parsons Paris campus and two years at their campus in New York City. “Students in the program will gain a truly in-depth and comprehensive international perspective on their design work,” says Katie Wolff, senior global opportunities specialist.



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Jon Racek, an architecture and design professor at Indiana University, is also executive director of Play360, a nonprofit organization that trains local nongovernmental organizations to design and build local playgrounds with university students on a playground site. Play360, with help from students, has built more than 62 playgrounds in 10 countries.

Building Playgrounds in Developing Countries

While Parsons has been able to create its own center in Haiti, other design and art programs work with third-party providers to create service learning and experiential learning opportunities abroad for their students. Indiana University faculty member John Racek leads service-learning trips and for-credit classes to countries such as Peru, the Philippines, Tanzania, Kenya, and Guatemala through his nonprofit Play360. According to Racek, the organization has run trips to 10 countries, trained 22 local nongovernmental organizations and helped build 64 playgrounds in the last three years.

“Play360’s mission is to train local NGOs to build low-cost learning resources, such as playgrounds and classroom resources, in order to increase student, parent, and teacher



engagement. We bring students with us to help build the playgrounds alongside the community,” Racek says.

Katie Harryman, a former Play360 participant who graduated from Indiana University in May 2013 with a degree in interior design, says that working with the local community was the highlight of her trip to Guatemala with Play360 in 2015.

“Design is all about understanding what people are asking for—no matter who they are, where they live, or their



socioeconomic class. It is quite humbling to see even the littlest of things make such a large impact on the local communities we work with in the developing world,” she says.

Rachel Dyer, another graduate of Indiana University, had a similarly transformative experience when she traveled to Guatemala with Play360 last year. She currently works at an architecture firm in Seattle.

“Being involved in projects that immerse you in a different culture gives you a new knowledge base that allows you to understand how design effects people on a more global level. You start to ask people questions, or work alongside someone who has grown up in a completely different environment, and you begin to understand how connected people are to their cultures and communities. This perspective can... give you a better understanding of what it takes to actually implement something successfully,” she says.

Dyer says the trip gave her a new perspective on the design profession and continues to influence her work in her current position: “This trip influences me personally every day, as I meet with all of the different hands that are involved in developing and building our projects. I think it will always help me to approach problem solving at a community scale, and will really push me to focus on the importance of designing with community members rather than for them.”



Children in Burma on a playground built with assistance from Play360, led by Indiana University architecture and design professor Jon Racek.



Students and faculty interact in Designmatters courses; Designmatters is a non-degree-granting department at ArtCenter College of Design in Pasadena, California, that engages all majors taught with an entrepreneurial and experiential approach to design education. The initiative boasts the tagline “where art and design education meets social change.”



Social Impact Design in Santiago

Some institutions have created umbrella programs that allow all students the opportunity to engage with international issues. Founded in 2001, Designmatters is a non-degree-granting department at ArtCenter College of Design in Pasadena, California, that engages all majors taught with an entrepreneurial and experiential approach to design education. The initiative boasts the tagline “where art and design education meets social change.”

“Designmatters is at the helm of a diverse set of educational initiatives, special projects, and publications that demonstrate the power of design for social impact: an emergent field of design inquiry and practice that is oriented toward new possibilities for action and human progress,” says Mariana Amatullo, vice president of the Designmatters department.

The department runs three transdisciplinary electives each academic term with a focus on real-world projects, many of which are international, and offers a concentration for undergraduate students who choose to specialize in social impact design.

“The Designmatters concentration is a highly customizable course of study for undergraduates who wish to connect their educational studies to design explorations centered on critical issues that are happening now, affecting people all over the world. Through a combination of humanities and sciences courses and studio courses, students learn to work under multiple constraints with focus, empathy, and integrity to generate innovation solutions to social challenges,” she says.

According to Amatullo, the projects students have done in their Designmatters classes have ranged from in-

ternational campaigns on maternal mortality awareness with the United Nations Population Fund to initiatives promoting safe drinking water in Peru.

Amatullo says many of the Designmatters courses demand a steep personal and academic learning curve from participants, but they are also deeply fulfilling because students make a real-world contribution. “The human connections of these projects with community members, faculty, peers in teams, partners, and the learning that ensues from those connections is also quite special. We discuss empathy, human-centered design, and cocreation as important modes of engagement in many of our pedagogical practices in design education,” she explains. One of the projects to come out of Designmatters courses is the SafeNinos project in collaboration with COANIQUEM, a pediatric burn treatment center based in Santiago, Chile. A group of environmental design, product design, and interaction design students had the opportunity travel to Chile and spend two weeks doing primary research at the clinic, where they designed a new wayfinding system using animal characters and storytelling.

“We lived and breathed in the same space as the patients, their families, and the doctors for two weeks. The deep immersion of culture allowed us to not only see how kind and sincere the COANIQUEM community was, but the nuances of how one small detail of an idea would affect their day-to-day activities,” says Lori Nishikawa, who is pursuing a bachelor’s in product design.

“Our main focus was to create a healing space for the child patients at COANIQUEM while also addressing secondary user needs,” adds Alvin Oei, an environmental design major.

Nishikawa says that COANIQUEM is more than just a hospital. “It’s a place filled with warmth and people who care about these kids. During our research we asked ourselves: ‘How can the warmth of COANIQUEM’s community and their story be expanded to also help the young patients heal and foster growth?’...”

“We believe that if you take whimsy, play, and wonder into a space like COANIQUEM, we can transform the entire experience of what it feels like to be in a hospital.”

She says that the experience of utilizing storytelling, research and strategy, and actively seeking to understand others provided her with the tools to cocreate solutions with end users.

“Designing for the real world requires designing with and for the people who will be impacted by your design,” Nishikawa says.



Students involved with Designmatters at ArtCenter College of Design participate in the SafeNinos project in collaboration with COANIQUEM, a pediatric burn treatment center based in Santiago, Chile.

A group of environmental design, product design, and interaction design students had the opportunity travel to Chile and spend two weeks doing primary research at the clinic, where they designed a new wayfinding system using animal characters and storytelling.





New York Institute of Technology (NYIT) students in a design meeting for the Appdoc for Africa project, which involves a cross-disciplinary course with the NYIT computer science department that engaged with computer developers in Africa to improve access to technology.

The project had a similar impact on Oei: “This project has helped me grow as a designer in that it has changed the way I approach a project. I have grown a deeper appreciation for human interaction and a newfound understanding that sometimes the best research entails the things that are unplanned.”

He adds that the experience gave him a “deeper and richer way of thinking and research.” “When you design abroad, there are many unknowns that force you to analyze in more depth not only your surroundings but why you are there,” he says.

ArtCenter has also recently launched a new scholarship program to help make study abroad and study away more accessible to all ArtCenter students. Up to five \$1,000 scholarships are available through the Diversity and Access Travel Stipend Award to make “study away opportunities more accessible to a broader group of students by easing the financial barrier, as well as to increase representation of diverse viewpoints in study away programs.”

Social Impact Design in Senegal

Just like at ArtCenter, other institutions are also embedding social impact design opportunities across their design and architecture curriculum. The New York Institute of Technology (NYIT), which won a 2016 NAFSA Senator Paul Simon Award for Campus Internationalization, offers a number of social impact design courses for students in the NYIT College of Design and Architecture.

“Social impact design is a subset of the design and architecture profession that is attempting to find socially and environmentally conscious solutions for problems such as mass migration, disaster relief, and climate change. These

problems can be at a very local level, but they are also problems that affect society on a much more international level,” says Farzana Gandhi, NYIT assistant professor of architecture.

She started to develop the social impact courses after many of students chose topics such as flooding and architecture that works with water and how the built environment affects violence and gang warfare. “Seeing what kinds of topics and issues and places that the students are interested in has inspired me to promote these courses in impact design,” says Gandhi, who also runs her own architecture practice.

Because architecture has a fairly rigid curriculum, it is sometimes challenging for students to find a way to do a traditional study abroad. Gandhi’s social impact design courses do not necessarily have a travel component, but are instead research based.

“Many students may not be able to do a summer course, but they can do a course like this. From day one, we do thorough research on the people we are targeting,” Gandhi says.

“We don’t start with what can we do, but ‘what is the problem?’ What’s great about these kinds of courses is that even though they have a beginning and an end related to the semester, students are so excited they will continue to work after the end of the semester,” she adds.

Last semester, Gandhi had 12 students enrolled in a cross-disciplinary course with the NYIT computer science department that engaged with computer developers in Africa. She says that at least 10 of the students are still working on the project, called Appdoc for Africa, and she is in the midst of planning a trip to take a few of the students to Senegal. “Through our research, we found that local developers in Africa are creating apps for mobile

smart phones that can provide a means of daily livelihoods for people in rural areas," she says.

However, even though many people have access to devices, there is a lack of infrastructure and technical education in Senegal. "We are working to help app developers in Senegal to promote their new products. Many people in Senegal have smartphones like we have here but they are not using them to their full capability," says Daniel Hoernes, one of the students who took the class and has continued to work on the project.

As part of the project, students are working with the local developers to create an outreach model and have designed an outdoor classroom that provides a public space for people to interact with an integrated digital interface. During the course, students video-conferenced with the local developers and developed community surveys asking very targeted questions about how the population will use the new space.

"Through my schooling most of my projects have been centered around either Brooklyn or Manhattan. Africa is not like either of these. The real struggle is designing for a climate and people that you started off knowing nothing about. We have worked for months to research different ideas and problems," says Hoernes, who will graduate from NYIT with a bachelor's in architecture in spring 2017.

"I have done research prior to the design phase in order to familiarize myself with local customs, materials available, jobs, etc. in order to understand what the people need from our design," says Sean D'Costa, another architecture major who also took the course last fall.

"This has taught me that as architects we serve the public. Every place and every community has different challenges it faces. It is up to us to be creative enough to solve these issues with the resources we have available."

Grants to Solve Real-World Social Needs

Another institution that creates opportunities to engage with social impact design is the San Francisco-based California College of the Arts. Every year, the CCA Center for Art + Public Life awards several IMPACT Award Grants to students for projects "aimed at solving real-world social needs within diverse communities."

"The annual IMPACT Grant Awards enables interdisciplinary teams of CCA students to develop and realize social innovations through their creative practice. Awards of up to \$10,000 are open to teams of undergraduate and graduate students from all academic programs," says Shalini Agrawal, director of the CCA Center for Art and Public Life, which works with community partners on a range of

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Three California College of the Arts alumni created a solar-powered phone charging station to help bring electricity to rural Tanzania. Pictured is a kiosk in action and a training session with a group of current and prospective kiosk operators.

community improvement projects, both domestically and abroad.

According to Agrawal, students are asked about their plans for engaging with the community when submitting their proposal. Additionally, winning teams are required to attend a boot camp that provides best practices for engaging with communities and creating sustainable projects. Projects are selected based on criteria such as social impact, innovation, interdisciplinarity, feasibility, and sustainability. The Center for Art + Public Life is currently offering its sixth round of funding and for 2016 will award seven grants.

Three CCA alumni, Sachi Ariel DeCou, Olivia Nava, and Rachel Gant, turned their IMPACT Award into a successful business venture, Juabar. The three women created a solar-powered phone charging station aimed at helping to bring electricity to rural Tanzania.

“In Tanzania mobile phone penetration far outpaces electricity access, so there was an unmet need for mobile phone charging and people were very willing to pay for that,” says DeCou, director of connectivity and Juabar cofounder.

Since they received seed funding from the IMPACT award four years ago, Juabar has been operating in Tanzania. “We have been building kiosks locally and we are now working to move production to Kenya. We have leased and sold about 25 kiosks to local entrepreneurs. We continue to build our network of entrepreneurs who are bringing charging and other electricity services to their communities,” she says.

“In East Africa my eyes are constantly opened to new ways of using technology and inspired by local problem solving. It is also one of the first parts of the world that will be electrified through decentralized generation... It is an exciting time and place in which to work,” DeCou adds.

Preparing Students to Tackle Global Problems with Creative Solutions

Within the design and architecture profession, there is such a focus on the role that designers and architects can play in solving global problems that some institutions are even establishing degree programs in areas such as humanitarian design. RMIT University in Melbourne, Australia, just launched its Master of Disaster, Design, and Development in July 2016, which will allow students to “explore how design can be used as a strategic tool to help resolve complex global challenges, including poverty, nat-



ural disaster, civil conflict, and climate change,” according to the program website.

Professor Esther Charlesworth, professor in the RMIT School of Architecture and Design, says that humanitarian design entails “design for vulnerable communities, design for poverty, social marginalization, climate change, and natural disaster.”

According to Charlesworth, the degree program has been developed in cooperation with the humanitarian sector. “UNHabitat and the International Federation of the Red Cross have been deeply involved in the formation of the Master of Disaster, Design, and Development and providing ongoing guidance as the degree commences,” she says.

Students are able to take most of their courses online as well as at the RMIT campuses in Melbourne and Barcelona. They will travel for two different four-day intensive workshops.

“Students will be working on pre- and postdisaster sites—from local bushfire areas to disaster mitigation in urban areas to working on large-scale global disaster and development scenarios,” Charlesworth explains.

In addition to the creation of specific programs such as RMIT’s master of disaster, other educators add that they are preparing students for jobs that don’t even exist yet. RCA’s Harriss outlines the future challenge for design and architecture educators: “Increasingly, creative educators are recognizing that students need to be prepared for diverse, transient, and responsive international design careers. Subsequently, no current curriculum could presuppose what these careers might actually look like, and would likely be outdated by the time students reach industrial practice. Rather than educating students to see risk and uncertainty as a problem, we encourage them to see it as a brief generator—a complex problem in need of a creative solution, with no embargo on the disciplinary methods or tools they might use to solve it.” **IE**

CHARLOTTE WEST is a freelance writer currently living in Lima, Peru. Her last article for *IE* was “Poland: An Emerging Hotspot for International Students” in the May/June 2016 issue.