Aiming for the sun
Director
Phil Gruen was named director of the School of Design and Construction (SDC) for a two-year term beginning in June 2015, following a year as interim director. Under his leadership, the SDC has initiated a new strategic plan, developed a hiring plan focused around signature research themes, established a student ambassador recruitment program, and hired five new tenure-track faculty. As director, he is advancing the school’s integrated mission between its four programs, including a new first-year curriculum that fosters an understanding of the collaborative world of contemporary industry and practice. Gruen has been a professor at Washington State University since 2003 and holds a Ph.D. from the University of California, Berkeley, in architecture.

Program Heads
The program heads are crucial to the School of Design and Construction leadership team. Their responsibilities are distributed over the areas of curriculum, recruitment, retention, personnel, accreditation, assessment, and development. In addition to teaching, they work with the director to foster school integration while ensuring the long-standing disciplinary strengths of their respective programs:

SDC Advisory Board
The advisory board includes professionals from the school’s four disciplines. Members communicate with other alumni and professionals; facilitate fundraising and development activities; participate in workshops, lectures, and presentations; and provide a sounding board for new programs, initiatives, and curriculum development.
Aiming for the sun: Solar Decathlon 2017

Washington State University students from a variety of disciplines will spend the next two years designing and building a solar home as part of the U.S. Department of Energy’s Solar Decathlon competition. WSU was chosen to participate in the 2017 competition, which requires students to plan and build a 600 to 1,000 square-foot home that receives all its energy needs from the sun. Darrin Griechen, a faculty member in the architecture program in the School of Design and Construction, is leading the effort.

As part of the competition, the home must have modern conveniences powered by solar energy, including heating and air conditioning, refrigeration, hot water, lighting, appliances, and any digital communications. The competition aims to increase public awareness of solar energy and inspire innovative solutions in ecological design.

“We’re so excited that our students will be working directly on our most critical challenges in smart and sustainable living while also gaining tremendous hands-on experience at designing and building for the future,” said Phil Gruen, director of the School of Design and Construction. “More than ever in the School of Design and Construction, in our colleges, and at WSU, we remain focused on our land-grant mission of training our students to solve these most important and real problems for the world.”

WSU students from a wide variety of disciplines, including architecture, interior design, landscape architecture, construction management, mechanical engineering, civil engineering, electrical engineering, computer science, communications, business, and English all may be participating in the two-year project.

The WSU team aims to develop a net-zero solar energy home that integrates and is ready for smart grid technology.

“Future homes will exist as demand and response nodes within a larger system of intelligent urban infrastructure,” said Griechen. “We want to illuminate the possibilities by testing our home within the developing context of the ‘smart city.’”

WSU has a long history and expertise in electric power, advanced materials, and smart systems, and the team has had preliminary discussions about locating the home permanently within Spokane’s University District following the competition—a test bed area for Spokane’s larger “smart city” initiative. Initial construction of the house is slated to be near WSU’s brand-new PACCAR Environmental Technology Building on the Pullman campus.

“We are perfectly positioned to design, engineer, and build a home within this smart paradigm,” said Griechen. Student teams will participate in 10 events in the competition. The home is judged on areas including architecture, affordability, market appeal, comfort, and energy use. The teams must also commute with an electric vehicle, using energy from their solar-powered home. For the first time, the 2017 competition will include $2 million in prize money.

This is the second time that WSU has participated in the event, which started in 2002. In 2005, a group of students traveled to Washington DC where their home was displayed on the National Mall.
Study abroad grows student experience

One of the most valuable experiences in college is the opportunity to learn about built environments and landscapes by getting out of the classroom.

The programs in the School of Design and Construction are highly regarded for providing such opportunities, whether they are semester abroad programs or the intensive, professionally oriented one- or two-week long study tours to cities in the United States and around the world.

“I was sitting there while Bob (Krikac) was sketching, and I took a photo of a few classmates in front of me with Bob standing there and the Eiffel Tower in the background. It just sunk in that I was in Paris having class underneath the Eiffel Tower,” said interior design student Abigail Metcalf, recalling her summertime Paris course, which has been co-taught by Krikac and Carrie Vielle, both interior design faculty, for the past several years.

The programs in architecture, interior design, and landscape architecture all require study tours for undergraduate and graduate students.

“Every year, the students talk about how valuable these trips are for their education,” said Jaime Rice, the school’s academic program manager. “It is so important for them to be able to experience the places, ideas, and cultures they are learning about in their courses.”

In the fall of 2015, six faculty and staff accompanied more than 70 upper-level design students for a study tour of Chicago. The students aren’t just tourists on these trips—they work on class projects and are graded. The students often work in small groups to give presentations at public sites around the city.

“Chicago, for architecture and design, is among the best cities in the world,” said Rice.

Meanwhile, study abroad offers a semester-long immersion for students looking for a lengthier experience. Every year, approximately one-third of the fourth-year interior design students spend their fall semester studying abroad in Florence, Italy. Rich in history and phenomenal design, Florence provides ample inspiration for their ideas. In 2015, ten fourth-year architecture students studied abroad in Spain, Ireland, and the Czech Republic.

“Paris: A Designer’s View” offered students a busy 12-day experience during the summer. Sketchbooks in hand at every stop, students documented their voyage with striking illustrations.

Faculty leaders Krikac and Vielle provided sketching opportunities at the Eiffel Tower, Arc de Triomphe, Musée d’Orsay, Château de Versailles, as well as many other French landmarks.

After their studies, the students departed for three days of independent exploration. “That is another really special experience of this specific study tour,” said Vielle. “It is a faculty-led tour but students still get to branch out and experience it on their own.”

Second-year students in interior design and landscape architecture typically visit Seattle, where they engage in sketching exercises, firm tours, and job shadowing.

The international study tour for graduate students takes place each spring; in 2015 the destination was Copenhagen, Denmark. This spring, as part of a new semester-long course, students are visiting the Netherlands.
Seventy years ago, devastating floods sent Mill Creek underground.

Once a meandering, branching stream, the creek today runs through the heart of Walla Walla in a concrete channel, fenced and paved over in a 1938 flood control project.

But times are changing for Mill Creek: WSU landscape architecture students are exploring new ways to return it to daylight.

Last fall, eight undergraduates—Marissa Easter, Will Keniston, Matt Mendenhall, Alfredo Rosas, Anna Staal, Riley Stewart, Ola Stuj and Reece Vissia—presented designs to help people and fish access the waterway while protecting the city from damaging floods.

Students worked with city officials, environmentalists, and concerned citizens on designs to revive a one-mile stretch in downtown Walla Walla.

“This is a visioning exercise—it builds momentum,” said Assistant Professor Michael Sánchez, who led the project. “The community gets to see what Mill Creek could be.”

Where paved lots cover today’s creek, students designed public parks and green spaces that double as surge storage.

“The idea is to slow stormwater down,” Sánchez said. “Using low-impact development (LID), you can capture it in small ways throughout the city.”

Other visions included walls and structures that let plants shade the water, making it cooler for fish.

Interacting with dozens of stakeholders, students experienced the political side of urban landscape design.

“They’re getting exposure to real-world situations,” Sánchez said.

Student designs also echo one of Walla Walla’s historic legacies. In 1865, Walla Walla landscape designer John Langdon worked off notes from John Olmsted, son of parks pioneer Frederick Law Olmsted, to propose a chain of green spaces that double as flood storage along Mill Creek.

“His ideas were about bringing people to the stream,” Sánchez said. “It’s just common sense design.”

Sánchez hopes to continue the project with a new group of undergraduates next fall.

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Rethinking a City: Integrated Design Research Studios

On one side of a knot of overpasses and railroads is Spokane’s thriving University District. On the other is the East Central neighborhood, where 63 percent of residents live at or below the poverty line and fewer than one in three own their homes.

Using smart design and technology, approximately 40 graduate and undergraduate students from architecture, landscape architecture, and interior design worked with the nonprofit University District Development Association and the Spokane Smart City Technology Accelerator Group to incorporate smart city ideas such as interactive environments and data-driven decision making.

Their ideas—emerging from fall 2015’s Integrated Design Research Studios collaboration to develop research and creative outcomes—could help East Central residents take advantage of education and health opportunities next door, said Steve Austin, a landscape architecture faculty member in the SDC.

“Right now, they might feel like it is miles away, but it is just half a mile away,” he said. “If we can improve those connections, residents benefit.”

Connecting the Ben Burr Trail to the district; introducing shared, driverless electric cars; decentralizing power grids; and identifying technologies to grow jobs are some of the ideas that were presented at open houses and final reviews held in Spokane.

Excavating layers with smart technology

“We’ve been exploring ‘ecotomes’—transitions between two different communities,” said Taylor Weik, a landscape architecture student. “We want to make the connection between the University District and East Central stronger: culturally, physically, and educationally.”

From above, highways seem like impassable barriers, “but we can get underneath all of this,” Austin said, using, for example, a columned railway underpass that has “some nice architecture—it could be an art experience.”

On a computer, Andrew Cristiani, a senior landscape architecture student, tabs through overlays of East Central’s streets, trails, railroads, water lines, and bus routes. One desk over, Weik has cataloged the neighborhood’s residential and business areas, restaurants, bars, and grocery stores.

“Before a landscape can be changed, its architects have to understand the many systems at play, from the pipes to the parks,” said Cristiani. “There’s so much packed into this small area that the only way to visualize it is to break it apart, layer by layer.”

Urban lab for opportunities

The University District, which brings together universities and businesses north of I-90 and east of Division Street, is being transformed by private, state, and federal investments, including WSU’s new Elson S. Floyd College of Medicine and a $15 million University District Gateway Bridge across the Spokane River.

“The aim of the University District is to make connections,” said Mark Mansfield, executive director of the Spokane University District Development Association. “This includes connecting neighborhoods: downtown and the East Sprague neighborhood, among others.”

The district also connects the strengths of educational institutions with regional economic drivers like the WSU medical school, he said.

“The students’ work is an example of how the district provides an urban laboratory for new knowledge and opportunities,” he said. “I am looking forward to seeing the final result.”
Architecture Summer Studios

Summer studios in Spokane, Seattle, and Vancouver connected architecture students with practitioners and community projects. Students received credit while participating in the immersive six-week experiences. They studied and designed projects including specialized schools focused on technology and science; social housing and new alternatives for urban Seattle; and a mixed-use retail and affordable housing project.

The studios build upon WSU’s long tradition of taking students out of the classroom and bringing them directly into the workplace. Professor Ayad Rahmani brought incoming third-year students to Bohlin Cywinski Jackson (BCJ) in Seattle. In addition, NAC (Spokane); James Steel and Robert Hutchison (Seattle); and LSW (Vancouver) hosted six-week graduate studios in their firms and/or rented studio spaces.

DBIA Conference and Expo

Construction management and architecture students attending the 2015 Design-Build (DBIA) Conference and Expo in Denver this past fall had the chance to see a project in action, thanks to support from Swinerton Builders and alumni Matt McGowan ('13 CM) and Ryan Garris ('14 CM). McGowan and Garris gave students a tour of the SkyHouse project, a 26-story residential mixed-use development project, allowing students to see almost every phase of construction. The group of 23 students was led by construction management faculty David Gunderson and Jason Peschel.

NeoCon People’s Choice Award

A group of WSU interior design students, led by faculty member Glenell Ebbini, participated in the International Interior Design Association Student Design Charette at NeoCon in June 2015. WSU was part of a team that received the People’s Choice Award, voted on by nearly 50,000 architecture and design professionals in attendance. NeoCon, held annually in Chicago, Illinois, is the commercial interior industry’s most important annual event.
Building legacies, designing the future

Blending of the natural and urban worlds was pioneered by landscape architect Tom Berger at schools and universities, offices, parks, and flagship stores across the Pacific Northwest.

The late Washington State University alumnus was the focus of "Building Legacies, Designing the Future," a public gallery opening and reception hosted by the School of Design and Construction this fall. The event was organized by Jason Henry, landscape architecture alumnus and a principal at Berger Partnership in Seattle; Jolie Kaytes, landscape architecture program head; and Melissa Bean, associate development director in the College of Agricultural, Human, and Natural Resource Sciences.

Berger shaped the landscape architecture industry with an artistic and innovative approach to design. His notable projects include an outdoor learning center on Bainbridge Island called IslandWood, which received one of the earliest LEED (Leadership in Energy & Environmental Design) Gold certifications in Washington. He also designed the landscape for the iconic REI flagship store in Seattle, where an emergent forest, complete with a biking trail and waterfall, forms a dense woodland in the center of the city.

School builds support for virtual laboratory

The School of Design and Construction is working to develop a virtual laboratory in Carpenter Hall.

The lab is intended to support the teaching and learning of emergent digital tools, distance collaboration through high-quality video conferencing, and the presentation of large-format digital media in multidisciplinary, interactive settings.

The lab also will provide a dedicated space for SDC students to engage leading-edge technologies and connect with external partners, enhancing the student experience and advancing the school’s commitment to excellence in outreach and education.

“We are eager to see the SDC Virtual Laboratory come to fruition,” said Phil Gruen, director of the SDC. “We envision this space as a showcase for the school that will benefit all disciplines—one that is befitting of its collaborative and professional educational model.”

For more information and to provide support for the SDC Virtual Laboratory, contact Devon Anderson, senior director of development, 509-335-2197 or danders@wsu.edu.
Initiative aims to bring modeling technologies to students

Contractors, architects, and engineers are increasingly collaborating over long distances using virtual technology, such as Building Information Modeling (BIM).

The School of Design and Construction is working to emulate a global working environment on campus through the BIM initiative. The project will give WSU students and faculty access to equipment, software, and updated classrooms that reflect current industry technology and will annually serve 200 construction management and 120 civil engineering students.

“Collaborating with BIM over distance requires a special set of technical and communication skills outside of the design, engineering, and project coordination skills WSU already provides,” said Jason Peschel, construction management program head. “Construction management students from WSU are already in high demand, and will be even more so if they enter the industry with hands-on experience with BIM technology.”

The initiative will add practical application to research that WSU already does with BIM, creating teaching and learning spaces to allow for industry presentations and collaboration. The BIM lab will educate students to create and navigate 3D, 4D, and 5D models and manipulate multiple models and documents in real time using collaborative technologies. Students will learn how to establish a BIM-based workflow and develop a BIM execution plan, becoming versed in global industry practices.

The initiative will provide equipment, software, and modern classroom spaces. In its first phase, the facility will be equipped with smart boards, cameras, and microphones and speakers. A second phase calls for semi-immersive stations in the classroom to allow students to collaborate with BIM in 3D virtual environments. Updates during this phase will tie all spaces together while bringing the rooms up to date with technology and an enriched learning environment.

“The impact of the BIM program will be far reaching across the school and college,” said Peschel.

For information and to support the initiative, contact Jennifer Dean, director of development, 509-335-8096 or jenn.dean@wsu.edu.

шей семестра. Что видят участники, проецируя на экран в актовом зале 220, — это докладчики и глобальные аудитории, изображенные в виртуальном мире как аватары. Виртуальные лекции включают докладчиков из нескольких университетов по всему миру. Темы включают лидерство, координацию и семиотику в глобальных виртуальных командах. Дополнительно, студенты SDC и их члены из университета Вирджиния Тех и университета Богоязычной университета представляют свои проекты курсов в виртуальном мире. Студенты сотрудничают, чтобы создать био-вдохновленное, энергоэффективное здание, и модели в виде виртуальных фигур строильщиков вписываются в виртуальный мир, чтобы участники могли их исследовать. Аннет Эндерсон, профессор по управлению, и Надия Фрай, архитектурный преподаватель, работают с студентами и виртуальными лекциями, как часть их совместного семинара “Глобальные виртуальные дизайн, строительство и анализ.”
Designing in the real world
By Scott Weybright, College of Agricultural, Human, and Natural Resource Sciences

College classes often have a tough time modeling everyday work situations. No matter how detailed, students still know only instructors or their peers will see their work.

This is far less the case in WSU’s School of Design and Construction, where faculty regularly schedule site visits, portfolio reviews, competitions, and critiques in professional offices and project sites for the students.

Earlier this year, two SDC interior design classes featured semester-long projects that involved mentors from internationally known firms headquartered in Seattle, as well as “real world” presentations at each company’s offices. Similar events are scheduled for this spring.

The companies, IA Interior Architects and CallisonRTKL, mentored students in two classes.

“A few were nervous, but they did a great job of channeling that nervous energy into solid presentations,” said Matthew Melcher, program head in interior design. Both classes divided into smaller groups, and each student presented his or her project to three or four people, who then offered critiques and advice.

“It’s a great experience for students to stand up and have to defend their choices to a group of people who work on these issues every day,” Melcher said.

Uris Giron, who graduated in May with a bachelor of arts in interior design, took the higher-level class as part of his senior capstone project. He said the mentors at Callison provided great support. “They helped show us a strong way of communicating ideas,” said Giron, who is now working on a master’s degree in interior design at WSU. “Their critiques helped hone our skills. The transition from student to professional is tough, and they helped polish us up for that.”

Giron and his classmates designed three retail spaces over the course of the semester, with the culmination being a flagship store for a retail company. Giron said the class was the tip of a pyramid, with every other class he’s taken in the program forming a foundation.

“All the classes I’ve taken built up to this,” he said. “And Callison helped develop that educational experience and understand the reality of how design can be implemented.”

For the lower-level class, the process also involved novice public speakers in a professional atmosphere. “It was awesome, but nerve-racking, too,” said student Candie Wilcken. She was part of ID 333, which worked with IA. The class divided into groups of five, with each group having to design a workspace for a company in a different country. Her project was to design an office space in London.

“It was a lot of work, but the research was the best part,” she said. “Our mentor didn’t give us all the answers if we had questions, but pointed us in the right direction. And he was so helpful, answering emails quickly and giving us great feedback.”

Melcher said the program is already looking for other professional partners, in addition to IA and Callison, to work with on future projects like these.

“When students know they’ll be working with people outside the University, they want to impress and learn from leaders in the field,” he said. “We know they’ll work hard to create the best solution they can. And you can’t simulate that in a normal classroom.”

Welcome new faculty

We are pleased to welcome the following new tenure-track faculty members:

Anne Anderson
Construction Management

Mona Ghandi
Architecture

Saleh Kalantari
Interior Design

George Okere
Construction Management

Michael Sanchez
Landscape Architecture
125 years of SDC history

As a single unit containing architecture, interior design, landscape architecture, and construction management, the School of Design and Construction is a new entity.

The programs consolidated in the fall of 2012 with the closure of the Interdisciplinary Design Institute at WSU Spokane, the transfer of landscape architecture and interior design programs to Carpenter and Daggy Halls, and the renaming of the school as the School of Design and Construction. All four programs have lengthy histories at WSU and retain their independent status as professional, accredited programs.

**Architecture** was the first program of its kind in Washington and is the oldest of the school’s four disciplines. It began in April of 1907, saw its first graduate in 1913, and has been housed in H.V. Carpenter Hall since the building’s completion in 1915. Rudolph Weaver became WSU’s first architecture professor and its first University architect. He designed Carpenter, Wilson, Community, McCroskey, and Stimson halls and the president’s residence. Later, architecture professor Stanley Smith served as architect and construction manager for many campus projects. In 2001, the program transitioned from a bachelor of architecture to a bachelor of science in architectural studies as the undergraduate degree, while introducing the master of architecture as the professionally-accredited degree. The program most recently received accreditation in 2014.

**Interior Design**, as with the other disciplines in the school, is tied to the land-grant mission of the University. Dating back to the early twentieth century, the program emerged from the Department of Domestic Economy and the College of Home Economics. Undergraduate student theses delved into issues of interior organization, decoration, and planning as early as 1918, but the first program in “Interior Decoration and Home Planning,” began in 1938. The interior design program was later part of the WSU Art Department until the late 1960s, when interior design, interior decoration, and home planning consolidated into one program. Interior design became part of the School of Design and Construction in 2012 and was most recently accredited in 2010.

**Landscape Architecture** established its roots on the Pullman campus in 1893 with course offerings in landscape gardening and floriculture within the Department of Horticulture, one of the first departments at Washington State College. The first faculty member was hired in 1949 and a four-year bachelor of landscape architecture (BLA) degree was accredited in 1973, housed within the Department of Horticulture and Landscape Architecture. The program was most recently accredited in 2013.

**Construction Management** began in 1945 as part of a “light construction management” curriculum within business administration. In the early 1960s, it became the building theory and practice program within the Architectural Engineering Department and the College of Engineering. It was renamed Construction Management in 1977 and underwent an accreditation visit in 2015.
In the 1960s, researchers from Washington State University helped develop I-joist floor supports and particleboard that are now used in millions of homes and businesses around the world.

Today, Seattle’s skyline recently welcomed the Bullitt Center, a unique six-story office building commonly regarded as the world’s greenest commercial building.

Designed by the Miller | Hull Partnership, which was founded by WSU architecture alumni David Miller (‘68) and the late Robert Hull (‘68), the Bullitt Center distinguishes itself with a net zero energy and water strategy, composting toilets, and the exclusion of common toxic building chemicals.

125 years, and counting.