

DESIGN THINKING

In the toolbox of the ENTREPRENEURIAL LEARNER

An Entrepreneurial University is fundamentally affiliated to a community of Entrepreneurial Learners, namely; students, faculty, staff, alumni, and administrators, including their leaders. An Entrepreneurial Learner is someone who is proactive in the process of taking control of his or her own learning process. In the College of Architecture and Planning, that someone is everyone.

Design Thinking allows the Entrepreneurial Learner to transform what many consider the problem of learning into an opportunity to learn, and the opportunity of learning into the project of becoming a perpetual learner. The Design Thinking mindset, skillset, and methodologies can maximize the ability of Entrepreneurial Learners to re-invent themselves on a constant basis.

The Design Thinking Mindset: Problem definition

The Entrepreneurial Learner is an empowered learner. We all learn, but not everyone learns to learn. Traditional teaching environments have guided their students into learning as a dead-end process where after learning something we do not come back to question what we have already learned. As a consequence our learning becomes a limitation in our ability to address change. Our accumulative experience gets in the way of our ability to question our interpretation of problems and in consequence their potential solution. Under that condition we tend to rely almost exclusively on the precedents we have been exposed to, and the repetition of solutions that turn a blind eye to the opportunity for innovation.

The traditional structure of academic silos contributes to a deep but narrow-minded learning enterprise that needs to be balanced with a proactive effort to articulate a multidisciplinary dimension. Students from different academic majors can bring different precedents to the table and that fact alone promotes the challenge of identifying what precedents are more relevant to the problem at hand. This kind of intellectual alchemy adds richness to the problem space and frequently results in the interpretation of the original problem as an opportunity.

In a similar way as academic silos limit our capacity to explore the true potential of a problem, our cultural silos tend to do the same and call for the need to open our cultural framework beyond the one we are familiar with. As in the case of bringing together learners from different majors, it is of great benefit to bring together learners of different cultural backgrounds. International and multicultural collaboration also enriches our problem space and promotes original interpretations of the problems we are trying to define.



Left: The CAP World Tour PolyArk group in a sketching session on the Greek Island of Hydra. Right: The CAP Asia group discussing the geography of Bhubaneswar, the capital of the Indian state of Odisha.



Multicultural collaboration: The 15th Edition of the Las Americas Virtual Design Studio. Five countries, eight studios, one project. Projects of Bryan Beerman and Nick Wissing, student of Ball State University (left) and project of Jessica Alcantara and Erandi Mejia, student of University of Las Americas in Puebla, Mexico (right). Virtual Reviewers: BSA LifeStructures <https://americasvirtualdesignstudio.wordpress.com/2015/07/20/imagen-2/>

At CAP we are proactive in the promotion of multidisciplinary and multicultural collaboration as a means of enriching our understanding of the problem space, transform problems into opportunities, and opportunities into projects.

The Design Thinking Skillset: Communication, simulation, and prototyping

In the Design Thinking framework we make use of all forms of thinking in order to move from understanding the problem to solving the problem. Some of us have a natural tendency towards divergent thinking, while others feel the same about convergent thinking. Some of us are system thinkers and need to be fully aware of the big picture, while others feel the need to know everything about something rather than something about everything. Whatever the case, we will need to constantly communicate as a means of prototyping our ideas.

The Entrepreneurial Learner knows how to manage risk. Design thinkers prototype ideas as a way of testing their feasibility and manage risk. In a design process we do that all the time, and we use all forms of media depending on the nature of the idea and its level of development. A design thinker must cultivate all forms of communication. Sometimes textual and verbal communication can serve as conceptual prototyping environments. In other instances graphics may provide the necessary vehicle for establishing “proof of concept”. Yet in other cases, physical or digital modeling may deliver the multi-parametric depth of information necessary for the simulation of a project solution.



Left: An example of the traditional pin-up review with graduate student Paul Desmond. Right: An example of a review utilizing the latest in virtual reality technology.

At CAP we take pride in our long-term commitment to master all forms of communication. We have dismissed the now old rivalry between textual and graphic media, or traditional and digital media.

The Design Thinking Methods: The Studio and the Charrette

The Entrepreneurial Learner is connected to the broader world. That means that as the workplace moves away from rigid and top-down structures in favor of more flexible and collaborative organizations, our learning environments must emulate that pattern and make the transition between school and a paid job as easy as possible.

The natural habitat of the design thinker is the design studio. In a design studio learning is subscribed within project teams that are largely self-assembled and respond to circumstances in strategic as well as opportunistic ways. Within the studio dynamic it is possible to identify many operational patterns but perhaps the best known are the desk critique and charrette.



Desk critiques and reviews are an important part of the learning process whether it is in a studio environment with a guest reviewer such as Thom Mayne of Morphosis (left) or during a charrette session as part of Design Week (right).

A charrette is a very intense and fundamentally unscripted design session. In such a session, participants will constantly infer ideas that are quickly prototyped through the use of a wide variety of media. A common objective for a charrette is to put on the table a vast range of problem definitions and their potential solutions as a means of defining the universe of opportunities that may become available. In other instances, the objective of a charrette may be to produce a “parachute idea” that is used as a reset button in the process of negotiating conflicting positions in the definition of a problem or preset solutions.

At CAP we have great experience in the implementation of studios that engage real-life problems and charrettes in which students, faculty, and a wide variety of stakeholders participate.

Through this short review of some of the things that CAP has been doing for many years, it may become clear that CAP students are indeed Entrepreneurial Learners, and that the mindset, skillset, and methods associated to Design Thinking hold remarkable alignment with the characteristics of an Entrepreneurial Learner. We look forward to seeing Design Thinking serve our institution as a significant core element of distinctiveness.

Alumnus champions multidisciplinary collaborations



Larry Roan, ’77, weaves through clusters of landscape architecture students, reviewing cover letters as he stresses the importance of flawless, compelling written correspondence. The soft-spoken guest lecturer regularly returns to his alma mater to connect with and offer guidance to future generations of design thinkers.

“I draw great satisfaction from working with students and helping them identify their passion and realize how to achieve those professional goals. It’s an honor to be invited back to connect with the college in such personal ways,” says Roan, vice president for business development for Browning Day Mullins Dierdorf. The leading architecture and landscape architecture firm is based in Indianapolis.

Through his work with students, the president of CAP’s Alumni Council identified an opportunity for increased collaboration between the landscape architecture department and the construction management program within the College of Applied Sciences and Technology. In 2015, Roan—also treasurer of the Ball State University Alumni Council—endowed distinguished professorships in construction management and in landscape architecture. He also directed funds toward enriching and diversifying the college’s curricula.

“My varied roles in the construction industry, paired with work as a developer and designer, provided me with priceless perspective and knowledge. Working on a project, I fully understand the constraints and roles of others around the table,” says Roan, who is the past president of Ball State’s construction management program’s industry advisory board. “My gift aims to inspire collaborations among the programs, providing students in both colleges with the opportunity to grasp concepts and roles beyond their singular focus.”

“Larry’s generosity is perfectly aligned with our institutional commitment to provide our students with a learning experience that is consistent with their future professional lives. Our students are highly productive their first day in the office or the construction site because they know how to collaborate, and thanks to Larry’s vision and support our design and construction students will certainly acquire that valuable skill,” says Guillermo Vasquez de Velasco, dean of the College of Architecture and Planning.

Roan earned a bachelor of landscape architecture and a bachelor of science in environmental design. He received a CAP Alumni Award of Outstanding Achievement in 2010 and is a member of Sigma Lambda Chi, the construction honorary fraternity.

Article by Kate H. Elliott; photo by Chris Helms

For information on how your donation can impact the students of CAP, contact Louise Jackson, Director of Development at (260) 705-3783 or lejackson@bsu.edu.

Charles M. Sappenfield Lecture



The CAP welcomes Jeanne Gang, award-winning architect and MacArthur Fellow, as the featured speaker for the 2015-2016 Charles M. Sappenfield Guest Lecture Series. Gang is Founder and Principal of Studio Gang

Architects, an award-winning architecture and urban design practice based in Chicago and New York. Internationally recognized for her innovative use of materials and environmentally sensitive approach, Jeanne explores the role of design in revitalizing cities. Through projects ranging in scale from community anchors and cultural institutions to tall mixed-use buildings and urban planning, she engages pressing contemporary issues and their impact on human experience. Employing this approach, she has produced some of today’s most compelling architecture, including the Arcus Center for Social Justice Leadership, the WMS Boathouse at Clark Park, the Nature Boardwalk at Lincoln Park Zoo, and Aqua Tower. Join us at 4:30 on April 11, 2016 for an engaging conversation at Pruis Hall. The event is free and open to the public. Reception to follow in the CAP building.

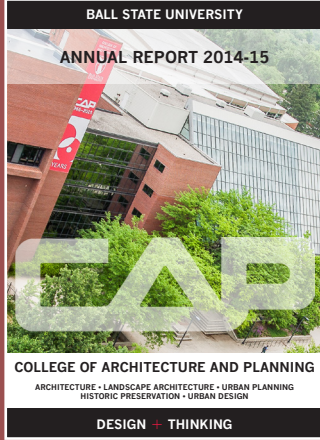


Images of the Aqua building: Steve Hall © Hedrich Blessing. Portrait of Jeanne Gang: © Kevin Miyazaki.

CAP Lecture Series

The CAP is proud to present our fall guest lecture series. Lectures occur at 4 pm in the Architecture Building, room 100, unless otherwise noted. Additional lecturers will be added; check the web at bsu.edu/cap for updates. All lectures are free and open to the public.

September 14 – Peter Walker. FASLA
September 28 – Craig Wilkins, PhD, RA
November 9 – Marla Nelson, PhD





To view these publications and those from previous years please visit:

bsu.edu/cap


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Faculty / Staff Updates


 Vera Adams has joined the faculty at the University of Houston where she is an assistant professor.


 Meg Calkins has been promoted to full professor in the department of landscape architecture. In May, she was elevated to fellowship status by the American Society of Landscape Architects.


 Mahesh Daas, professor and department chair for architecture, was appointed as the dean of the School of Architecture, Design and Planning at Kansas University. He began his Jayhawk duties in June.


 James Kerestes has been promoted to assistant professor of architecture. Prior to his promotion James was the Design Innovation Fellow here at CAP. He has taught digital media and emergent technologies at Pratt Institute, Princeton University, University of Pennsylvania, and CAP. James is a registered architect in the state of Pennsylvania and has been working professionally in the Philadelphia area since 2003.


 Bruce Race was appointed as the director of the Center for Sustainability and Resiliency at the University of Houston.

 Janice Shimizu was appointed the graduate program director for the department of architecture. She has been a member of the CAP faculty since 2010 and teaches undergraduate and graduate studios, and design communications media. She is a licensed architect in California and Indiana.


 Jonathon Spodek has been promoted to full professor in the department of architecture. During the spring he was elevated to fellowship status by the American Institute of Architects.


 Andrea Swartz was appointed as the Interim Chair for the department of architecture. Swartz is an Associate Professor in the department. She has taught both undergraduate and graduate architectural design studios; electives/independent studies in photography, furniture making and materials; and the required introductory structures course for all architecture students. Most recently, she has been the lead in renovating and re-establishing the Muncie Urban Design Studio located on Walnut Street in Muncie. Now called Muncie Makes, the lab allows for active application of skills for community members, students, staff and faculty.


 Cindy Turner, visual resources curator at CAP will retire on October 1, 2015. Cindy has been at Ball State for 35 years and been apart of the CAP family for 25 of those. She is looking forward to having time to create watercolor paintings, as well as, teach beginning and intermediate watercolor painting classes, and being on her own schedule. A reception for Cindy will be held on Tuesday, September 29 from 3:30 to 5:00 p.m. in the Visual Resources Collection (AB117).

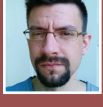
 Andrew John Wit was appointed as an assistant professor of digital practice at Temple University. At CAP, Wit was the International Practitioner in Residence and since 2013 he has taught graduate/undergraduate courses and workshops in architecture, urbanism and robotics at Ball State University.


Appointments


 Kristin Barry has been appointed assistant professor of architecture. Barry received her PhD in philosophy, history of art and architecture from Pennsylvania State University. For the past 8 years, she has worked as a professional archaeological architect while also serving as an instructor and career advisor at Penn State’s Stuckeman School of Architecture and Landscape Architecture. She will instruct classes in architecture history.


 Tom Collins, has been appointed assistant professor of architecture and will teach environment systems and design at CAP. He is a Registered Architect, a LEED Accredited Professional, and a member of the American Institute of Architects. He received his PhD in sustainable architecture from the University of Oregon. He holds bachelor of architecture and bachelor of science in building science degrees from Rensselaer Polytechnic Institute and a master of architecture degree from the University of Oregon. His interests lie at the nexus of energy, building performance, and human behavior with a particular focus on campuses facilities.

 Rachel Dickey has been appointed as the Design Innovation Fellow. She holds a master of design studies in technology from Harvard University and a master of architecture from Georgia Institute of Technology. Her focus involves architectural research in digital fabrication technologies and a critical investigation of the role of art and design in the public domain. Her research seeks to illuminate the way technology in design can address larger social, cultural, and political issues, while also informing designers of their larger options to address such issues.

 Daniel Eisinger has joined CAP as an instructor of architecture. Eisinger is a recent graduate of the masters of architecture program here at CAP and a recipient of the ARCC King Student Medal for Excellence in Architectural and Environmental Design Research. He has over eight years of experience in software development which has proved invaluable in leveraging the digital tools that are transforming the industry and has led to a computational design emphasis in his work. His current research involves robotics in architecture and architectural education.

 Justin Ferguson, AIA, has joined the College as Director of the CAP: Indianapolis Center. He had been teaching at Lawrence Technological University in Michigan where he also had his architecture practice. At CAP:IC, Justin will lead efforts to engage the city of Indianapolis, teach urban design courses, advise MUD students, and cultivate relationships with non-profits as well as community and professional groups. He will serve as a resource for all CAP faculty and students seeking outreach opportunities in Indianapolis. Justin is currently completing his doctoral dissertation, “Participative Architecture: exploring recent processes and outcomes of public participation through the planning and design of public libraries,” at the University of Michigan. He holds a master of science from the University of Michigan and a bachelor of architecture from the University of Cincinnati. If you find yourself in downtown Indy, be sure to stop in and welcome him to Indiana while checking out the work of our MUD students.

 Hema Pandya joins the department of urban planning as a contract faculty member teaching primarily first-year CAP courses. Her specialties include planning and development, architectural design, and historic preservation. She comes to us from Chicago where she taught at The School of the Art Institute of Chicago and at Westwood College. She has done preservation work in both Chicago and Las Cruces, New Mexico; was a plan reviewer in Biloxi, and served as preservation project specialist on the Mississippi Gulf Coast after Hurricane Katrina.


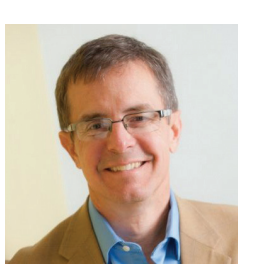


 Enrique Ramirez describes himself as, “an architectural historian and writer with a rich personal, educational and professional background.” We’d agree! He holds a PhD in architectural history and theory from Princeton University and a master in environmental design from Yale School of Architecture. Before writing about buildings and cities, Enrique worked on Capitol Hill and in Hollywood in various capacities. He joins us from the University of Pennsylvania where he teaches writing-based courses in the history of architecture, urbanism, and landscape. He will teach history in the department of architecture beginning in August.

John West, PhD, has joined the department of urban planning as a tenure track faculty member. He most recently taught at New York University and will teach introductory planning courses as well as planning history at Ball State. His doctoral degree, conferred this year, is from Columbia University, New York, where his dissertation was “Rule of Choice: Economic Theory, Technology and Politics in Three Policy Innovations in New York City – Restaurant Grading, School Choice, and Congestion Pricing.” He holds a masters of philosophy from Columbia and a masters of urban planning and policy from University of Illinois at Chicago.

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Change Service Requested

2015 Alumni Award Recipients

	Brandon Welling (B.Arch/B.S. '96) Distinguished Alumnus Award		Dodd Kattman (B.Arch/B.S. '86) Award of Outstanding Achievement
	Michel Mounayar Charles M. Sappenfield Award of Excellence		Eric McNevin (B.Arch/B.S. '99) Award of Outstanding Achievement



DESIGN THINKING

A source of distinctiveness at Ball State

Since its inception 50 years ago, our College of Architecture and Planning has provided Ball State University with valuable sources of distinctiveness. For many years, CAP has delivered significant leadership in our institutional commitment to serve Indiana communities. Guided by our understanding that “design is a social act,” our faculty and students have worked on more than 300 community projects and impacted thousands of lives.



More recently, CAP’s design studio culture, and its embedded project-based learning approach, has inspired our institutional commitment to Immersive Learning as a differentiating factor in the branding of our university. For many years, CAP has largely exceeded the aspiration of making an Immersive Learning experience available to every student. Our faculty and students are constantly engaged in experiential learning processes, and provide leadership in the further propagation of service learning opportunities.

Today, as we embrace the vision of an ENTREPRENEURIAL UNIVERSITY, and its aspiration to transform entrepreneurial learners into impactful leaders, CAP can once again contribute in a significant way by making DESIGN THINKING a strategic source of distinctiveness.

DESIGN THINKING is a mindset, skillset, and constellation of methodologies that empower us to address problems from a highly creative perspective. In DESIGN THINKING, problems are redefined. Problems are transformed into opportunities, and opportunities are further transformed into projects. A DESIGN THINKING project seeks to identify the intersection of what is desirable, feasible, and viable at the same time that it seeks to do so in a creative framework. The outcome of a DESIGN THINKING project embodies great value because of its originality and potential replicability.

DESIGN THINKING, like swimming, is a pervasive ability that exists beyond the ranks of professional designers and competitive swimmers. Professional designers are certainly design thinkers, but the truth is that everyone performs design thinking processes on a daily basis. Every morning as we get dressed we are designing; as we prepare breakfast we are designing; as we plan our drive to the office we are designing. In every situation we have the opportunity to step away from predetermined decisions and explore a new intersection of what is desirable, feasible, and viable. When we do so, it is true that we run certain risks, but we also proactively seek a higher degree of enjoyment, performance, and cost effectiveness.

DESIGN THINKING brings together many ways of thinking into a creative framework that is instrumented by all forms of communication. Critical thinking, systems thinking, convergent thinking, divergent thinking, etc., all find a place in a creative environment where literature, mathematics, graphics, physical modeling, and an ever-expanding universe of emerging media allows us to prototype our ideas. No one person is evenly endowed in all forms of thinking or all forms of communication, and that is why DESIGN THINKING is a collaborative enterprise that calls for active engagement, proactive learning, and the pervasive emergence of leaders.

In this issue of [reCAP], in addition to our traditional sections, we will further elaborate on the characteristics of our ENTREPRENEURIAL UNIVERSITY and how CAP is already working to fulfill that vision.

As I always say, this is a great time to be at The CAP.
Guillermo Vasquez de Velasco
Dean