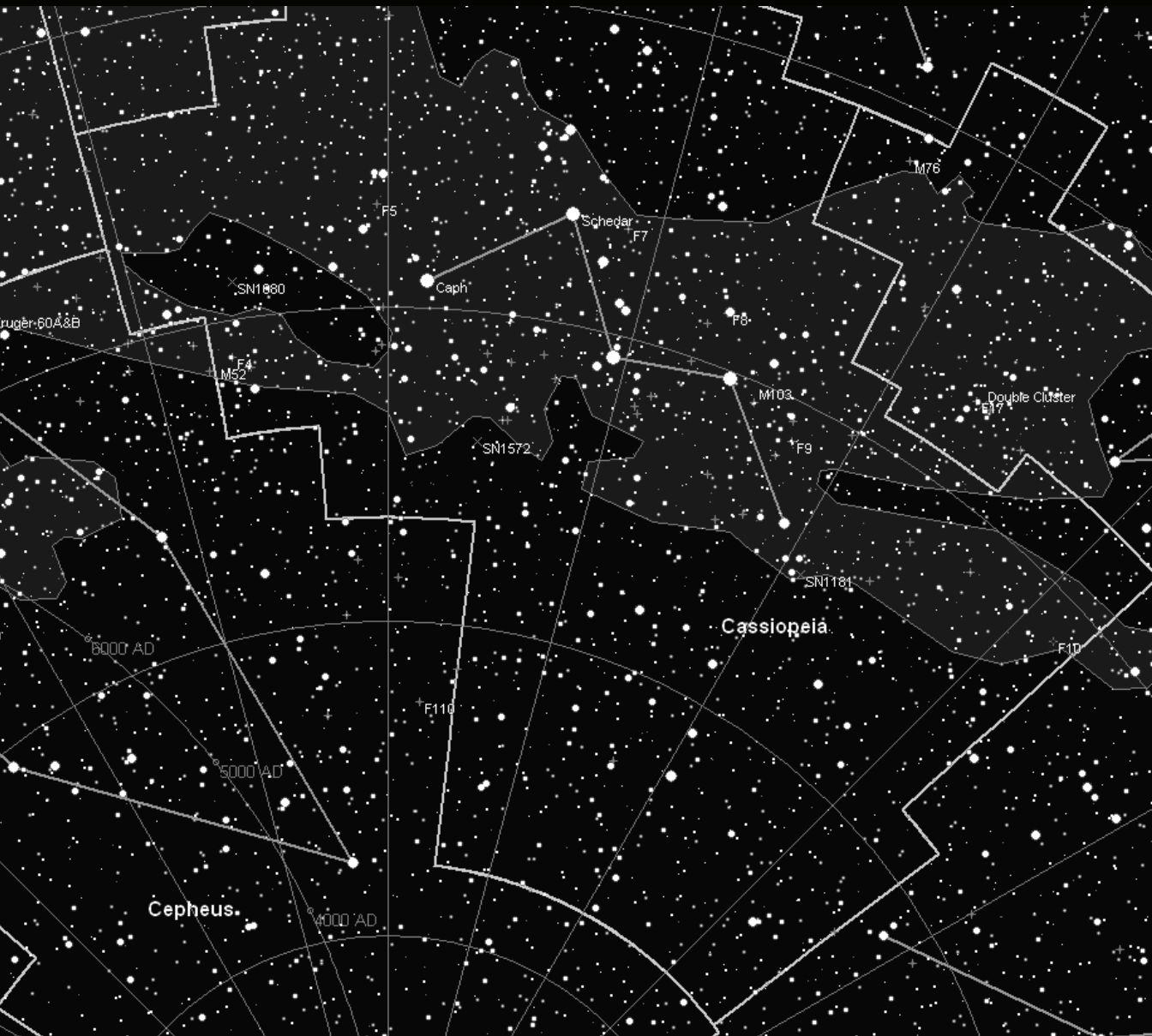
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MONTANA STATE UNIVERSITY
College of ARTS & ARCHITECTURE

Vision Statement

Recognizing that architecture is a basic human need, we strive to play an essential and innovative role in enhancing the human condition.

Mission Statement

The School of Architecture empowers students to critically engage the complexities of society and the natural environment by instilling the fundamental principles of design and inspiring a spirit of exploration and creative experimentation in shaping the built environment.

Values

As a School Community we have identified the following Values that guide us in achieving our vision and mission:

Civitas Passion Design Agility Experimentation

NAAB Accreditation

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established educational standards.

Doctor of Architecture and Master of Architecture degree programs may require a preprofessional undergraduate degree in architecture for admission. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

Montana State University, School of Architecture, offers the following NAAB-accredited degree program:

Master of Architecture (preprofessional degree + 42 graduate credits)

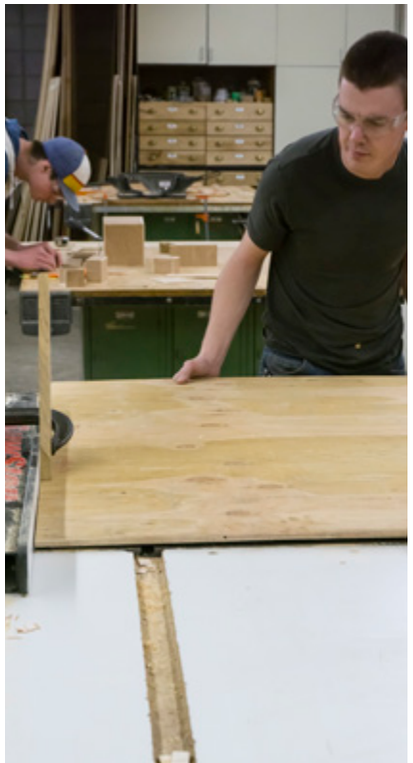
The next accreditation visit for all NAAB-accredited programs in the Montana State University School of Architecture will take place in 2022.

DIRECTOR'S WELCOME

Reputedly one of the most difficult curriculum at any university—but also one of the most rewarding—Architecture demands personal commitment to expanding one's technical acumen and establishing a related, but fecund, dedication to exploring aesthetic intuition and community culture. Architecture education is personal—working one on one with some of the best designers in the country; Architecture education is engaged—working in teams with community groups and other disciplines; and Architecture is "metacognitive"—exploring and developing personal thought structures with your studio master to solve highly contingent problems related to the intersection of the built and the natural environments.

The Architecture curriculum offers an excellent portal into the University because it initiates, encourages and trains lateral and intuitive logic—the logos of problem response—within the context of ethical responsibilities, which include renewable energy, sustainability, and environment awareness. The School of Architecture at MSU has a nationally regarded commitment to professional education that includes new materials—the stretched skin envelope technologies that take advantage of state of the art geometries generated through parametric modeling—new systems—environmentally innovative solutions to energy generation and consumption—and new tools, which can model design alternatives in three and four dimensions.

Now is not only a great time to begin a career in Architecture but also a great time to be an Architect as it evolves to define, embrace and resolve the social, economic and environmental challenges of the Twenty-First



Century. On the following pages are examples of the learning, discovery and engagement that take place within the MSU School of Architecture. We invite you to come to the School and see for yourself the innovation taking place.

"Be a Builder."

See you at the School!
Ralph Johnson
Director, School of Architecture

Dedication, Creativity with Technical Depth, and Accountability. Just words. Perhaps overused in today's multi-platform messaging. To me, however, these words have deep meaning and describe the MSU School of Architecture core values. Core values that drive continuing excellence year after year.

From my first days at the School over five decades ago and continuing over the past two decades as a member of the Advisory Council, I have experienced dedication by faculty, staff and students that is unsurpassed in any during my professional career. Long hours, mentoring, tutoring, sharing, always being available, hard, persistent work, are just a few characteristics that come to mind. What is amazing to me is this culture has remained consistent for so long. No egos, no prima donnas, no personal positioning, just good old "roll up the sleeves" and get about the work in a collegial manner, mixed with plenty of good humor. As a professional, the lessons in dedication I learned at the School served me well throughout my professional and personal life.

Several years ago I had the privilege of participating, as a non-voting member, in NAAB's accreditation review of the School. The weeklong process required the School to exhibit in-depth, multiple examples of student work for every class. Even after having been part of the Advisory Council, thinking I had a good knowledge of the School's work. It was revealing to see the extent of student work in planning and design quality, and technical sophistication. I have worked throughout my career with world class projects,

many with "name" designers." I can say the ingenuity, resourcefulness and creative insight in our design studios is exceptional. Importantly, the student's planning and design concepts showed solid development married with thorough technical articulation. Time and again throughout my career the design and technical preparation received at the School served me well. And the quality has only gotten better. A graduate of the School is well suited to immediately contribute design and technical excellence at the beginning and throughout their professional career, laying the foundation to be future design and construction industry leaders.

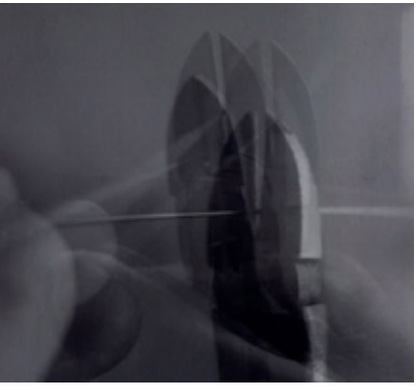
Accountability is one those words we hear a lot these days, yet no one seems to ever be accountable. We are! Perhaps the most important lesson I learned at the School was being accountable for your work. Further, you needed to be your own worst critic, continually challenging yourself to develop and apply increasing skills, to not accept getting by, to continue the pursuit of excellence in every aspect. The demands of learning, the ongoing juries, the daily "crits" and peer reviews all form the foundation of a career achieving built environments, completed with the highest professional skill and integrity the Architect possesses. And so we are all so fortunate to be part of an institution and a culture at MSU unparalleled in developing Architects ready for today and tomorrow's challenges.

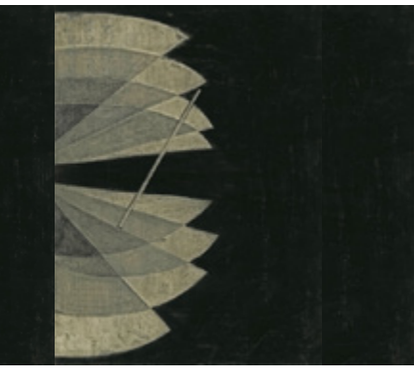
Montana is known as the Treasure State. Certainly a crown jewel of the State is the School of Architecture. We the generations who have benefited so much from the dedication of so many, need to be sure our legacy burnishes this crown jewel for all the generations to come.

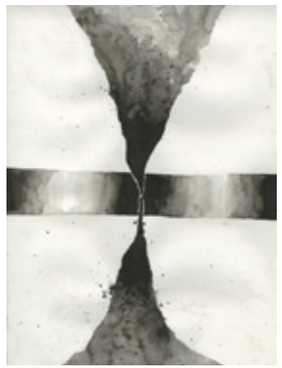
Warren Dean AIA
Class of 1969
Group Vice President, Global Buildings NA (Retired)
Jacobs Engineering Group Inc.

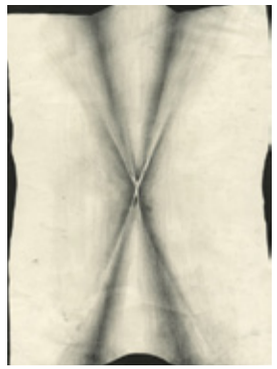
1st

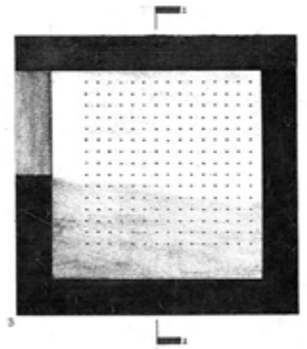
During the first year design fundamental studios, students undertake a series of projects focused on exploration and analysis of existing conditions and the relationships that one finds within the world around us. Through the use of drawings, models, photography, site observations, and site interventions, students consider what constitutes an architectural intervention within the systems they discover.

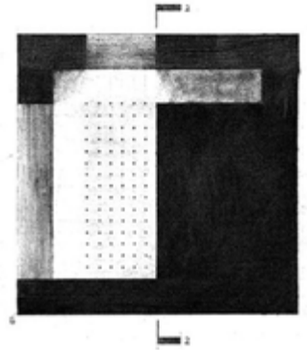


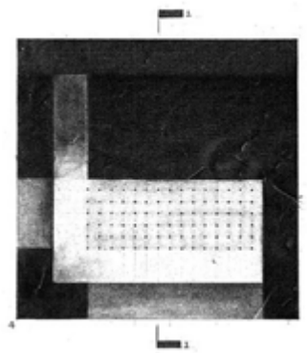


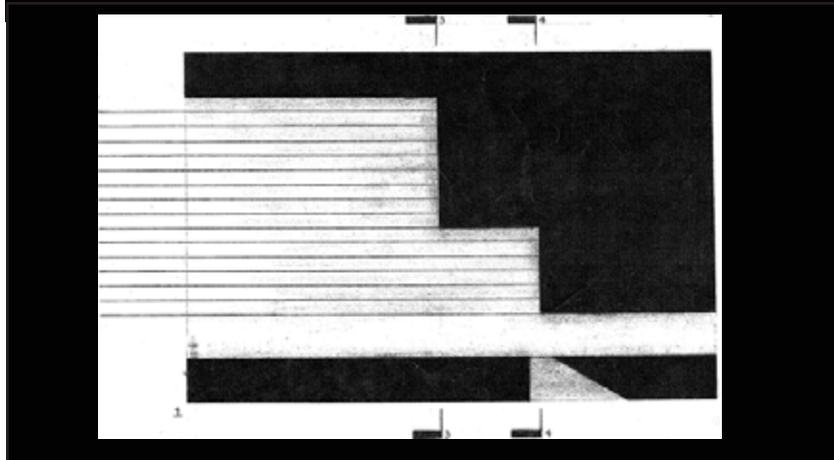


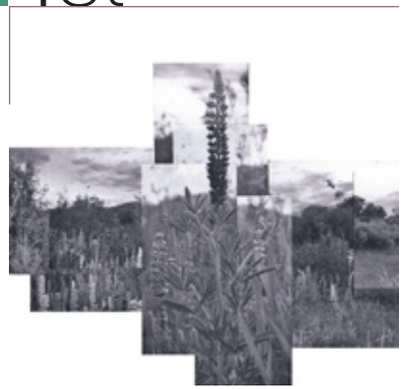


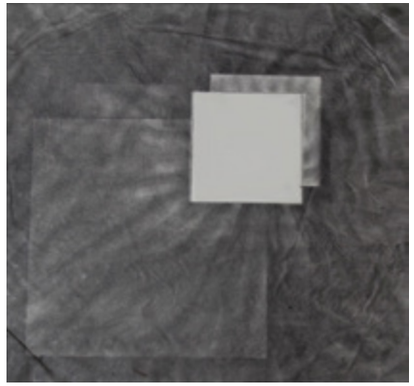


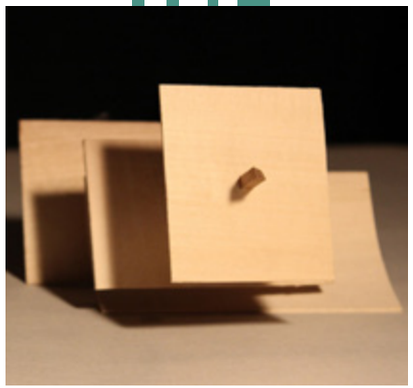


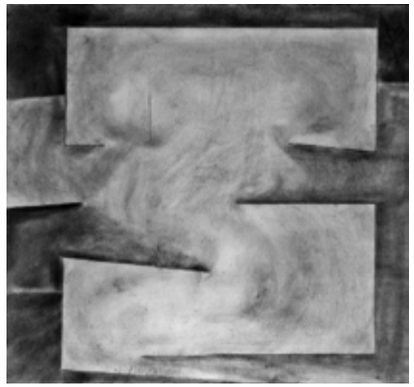


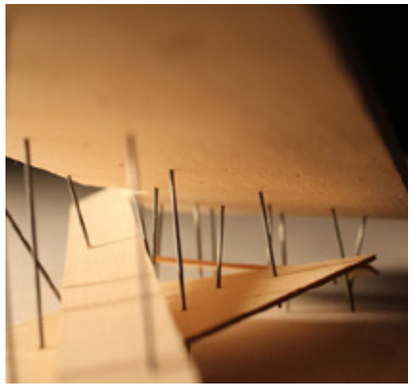


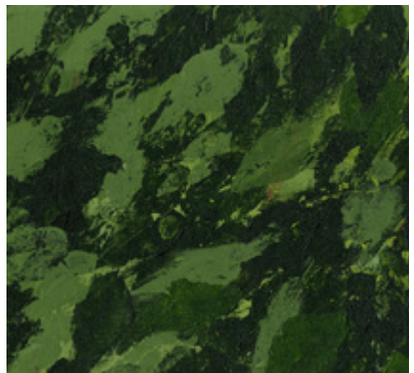


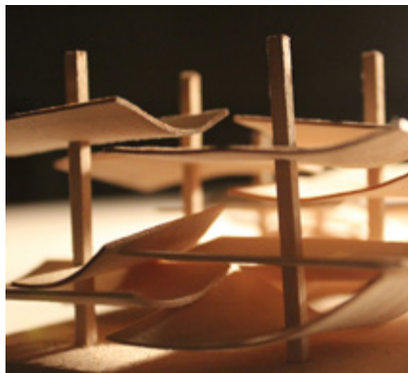






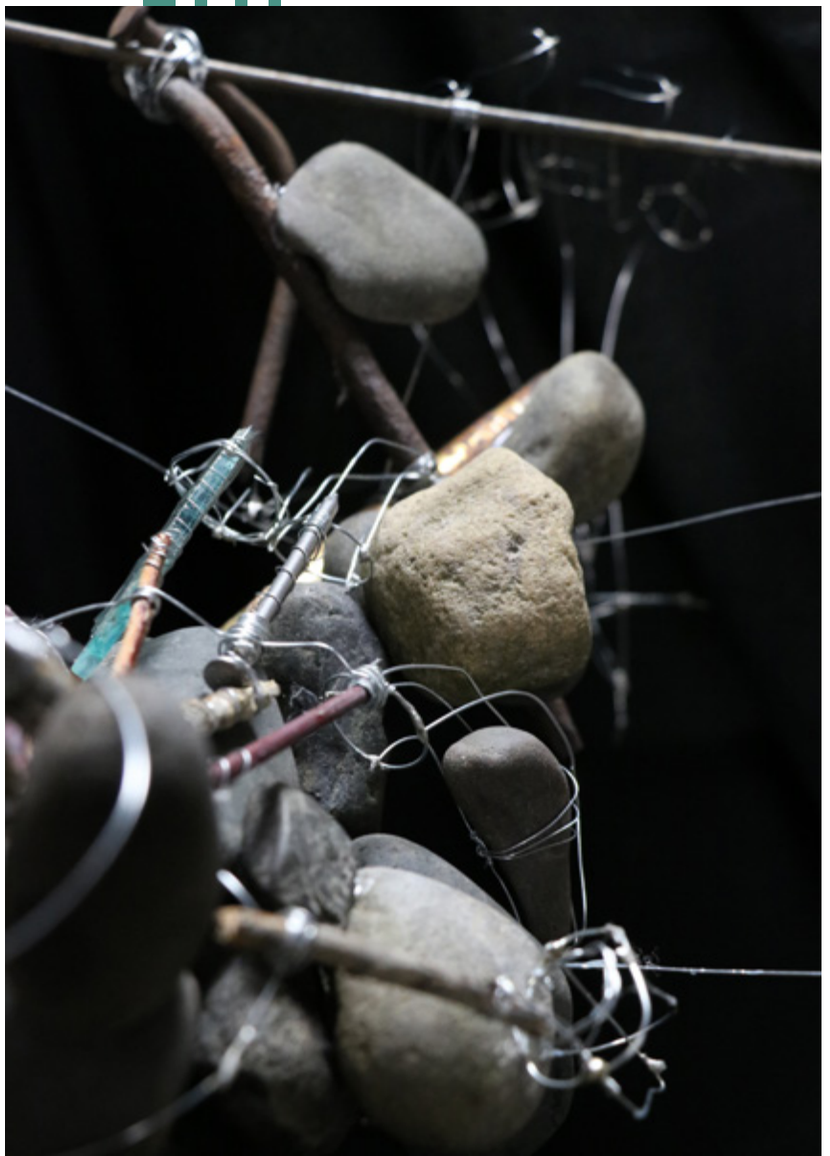


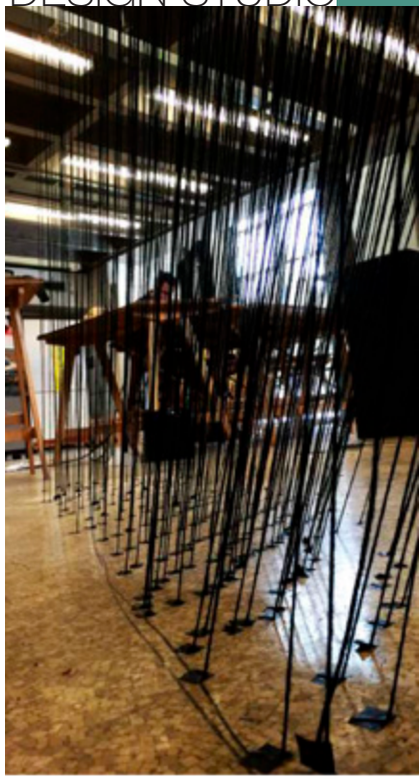




DESIGN STUDIO

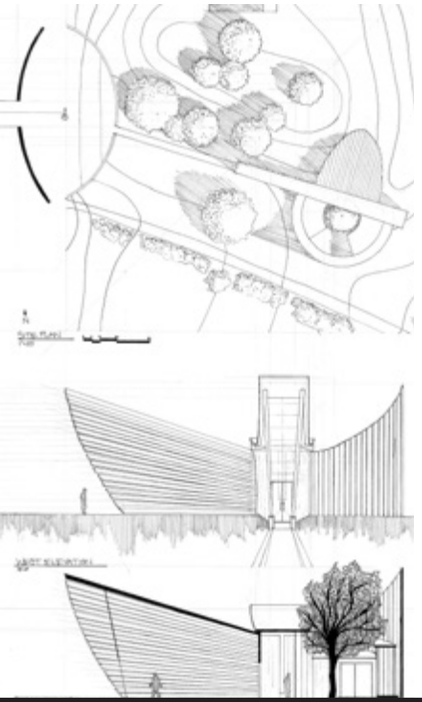
The physical environment we inhabit results from interconnected systems that constantly evolve in a rhizomic manner. An architect's imagination and creativity comes from their capacity to see and perceive these systems in the world. Students gain a deep awareness of the world, allowing them to understand the complex beauty that comes from the relationships amongst elements and forces, which guide their design.

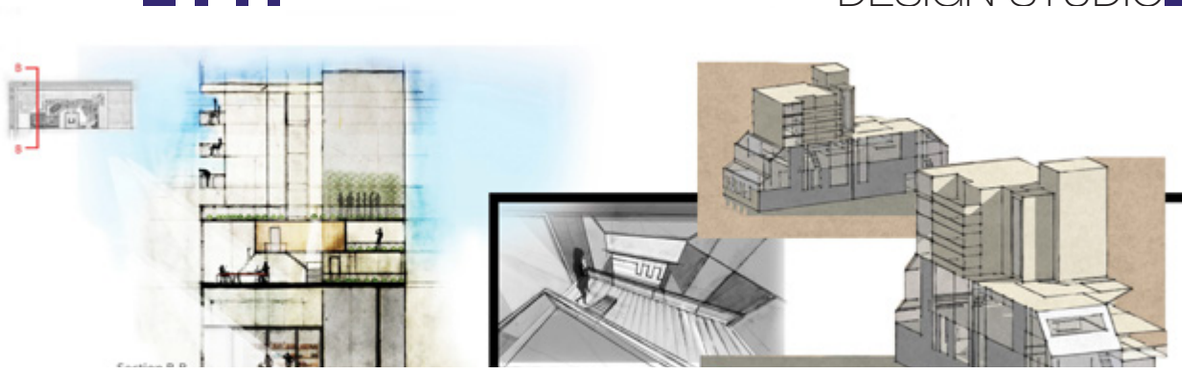


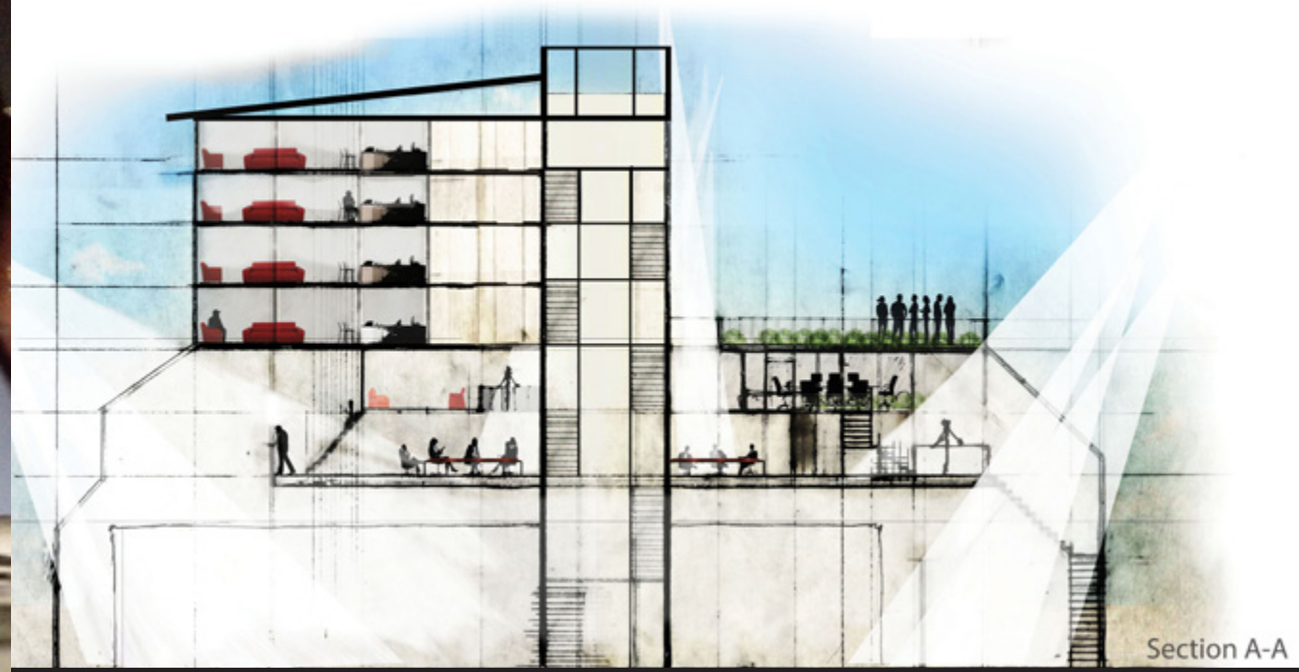


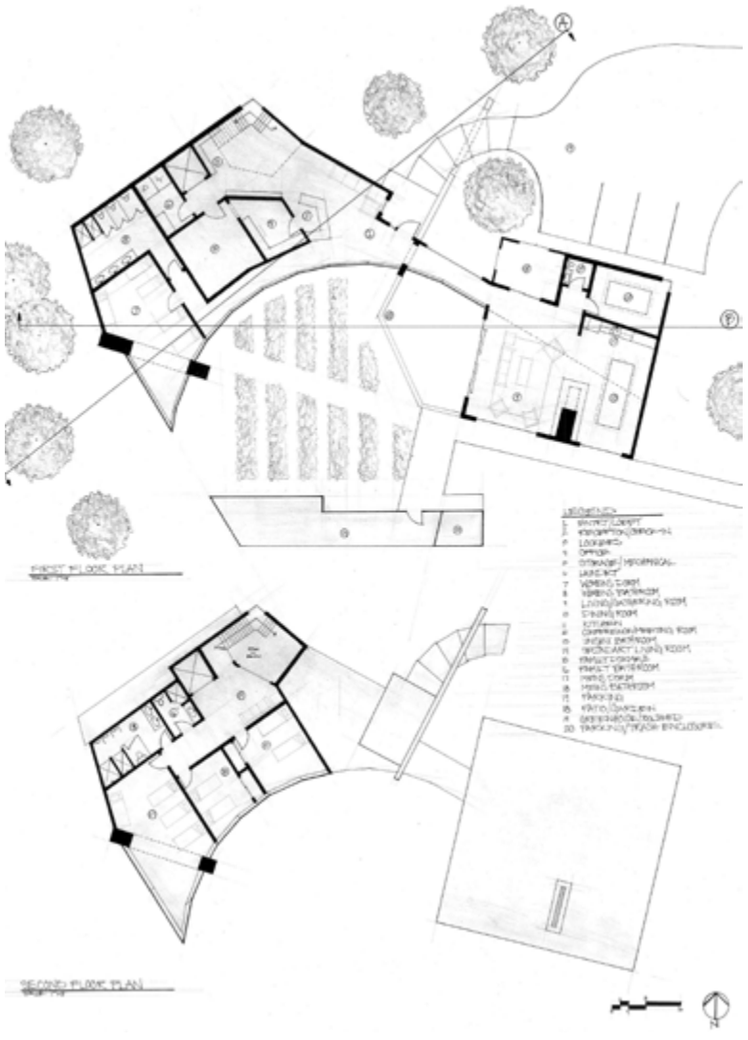
2nd

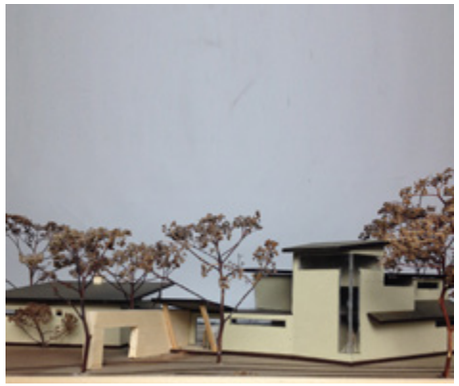
Second year design studios focus on small-scale projects that emphasize the relationship of architecture to its context through the use of both spatial and visual concepts. Students are introduced to the use of orthographic projections and design drawing conventions in addition to an emphasis on principles of order, form, light, structure, materials and coherency



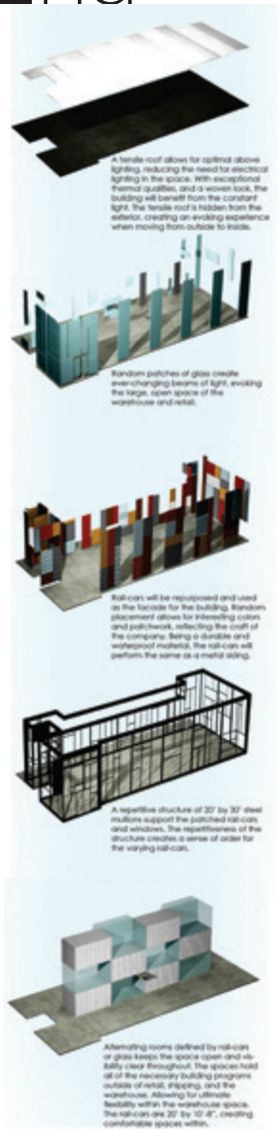









RED
OXX



DESIGN STUDIO

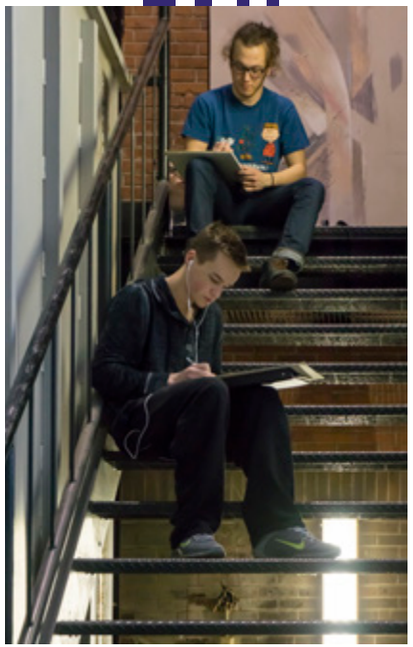
Students travel to historic and urban centers in Montana to undertake projects focusing on infill conditions. Students combine analog and digital methods of design and presentation including digital fabrication, energy/daylighting analysis, site analysis and material/systems integration.

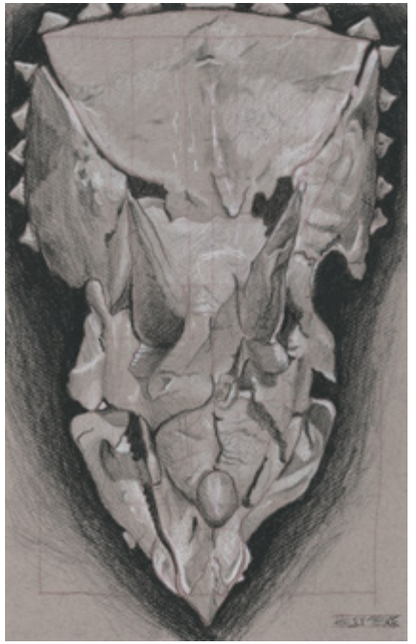
Partnerships with the Butte-Silver Bow Planning Department and the Billings Architectural Association provide students with the opportunity to explore historical, social, contextual, and economic issues as a part of the design process. Recent projects include a mixed-use infill program that tests a form-based building and planning code within the East Billings Industrial Revitalization District.

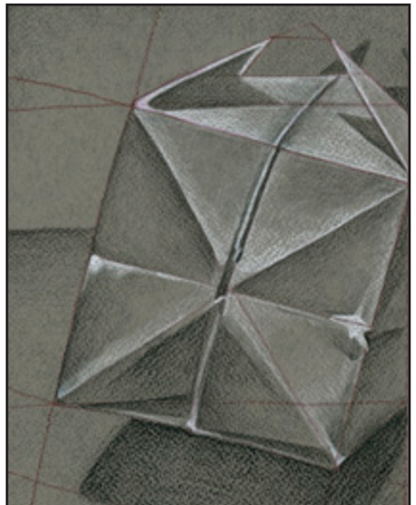
2nd

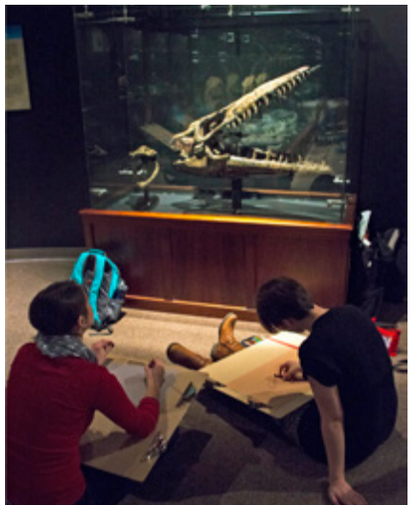
Students take three semesters of graphics courses over their second and third years in the undergraduate program. The courses introduce students to a variety of design and graphic tools and techniques.

Students learn traditional hand-graphic techniques including orthographic drawing, perspective drawing, and observation drawing using a range of media including graphite, ink, charcoal, colored pencil and watercolor. Similarly, students explore a variety of software applications for 3D modeling, energy/daylighting analysis, diagramming and digital rendering as well as tools used for digital fabrication—including laser cutting, 3D printing, and computer numerically controlled (CNC) milling.

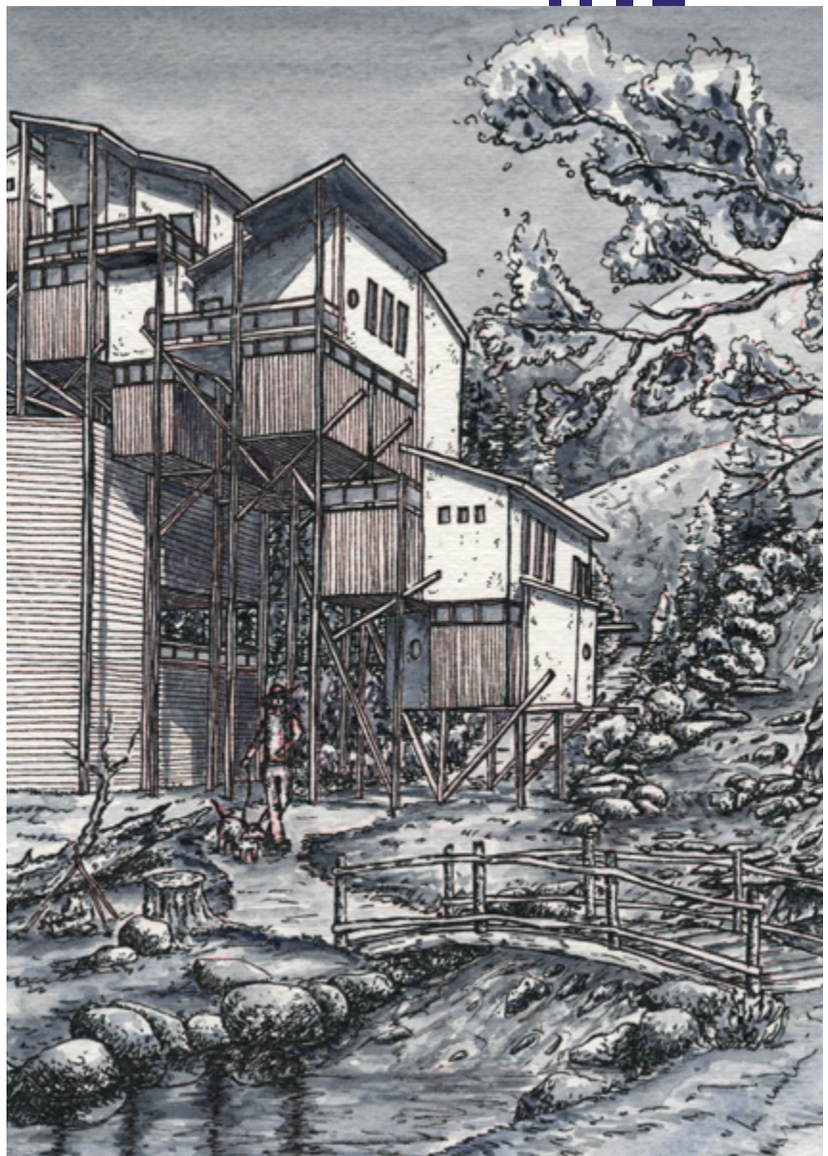


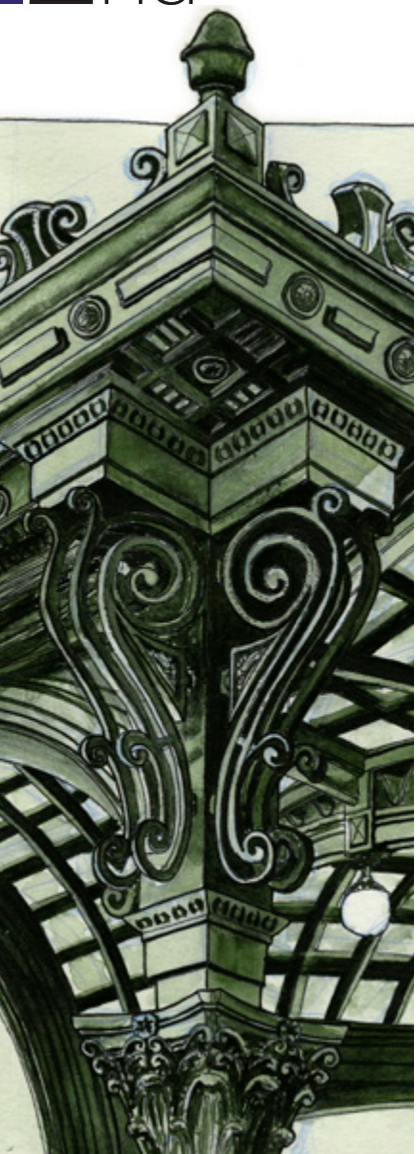







STATION
EIGHTY21



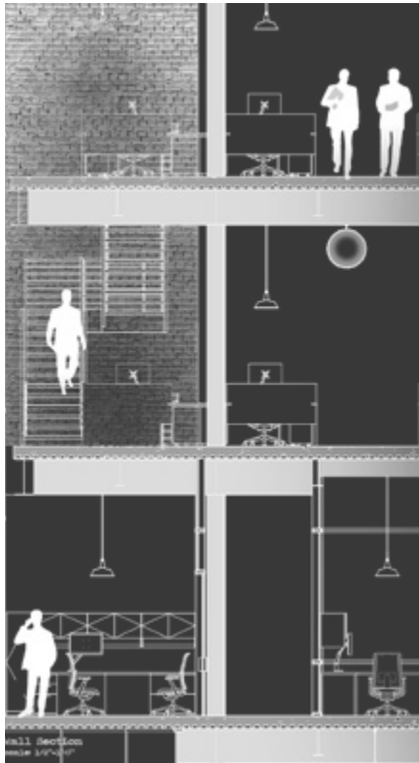


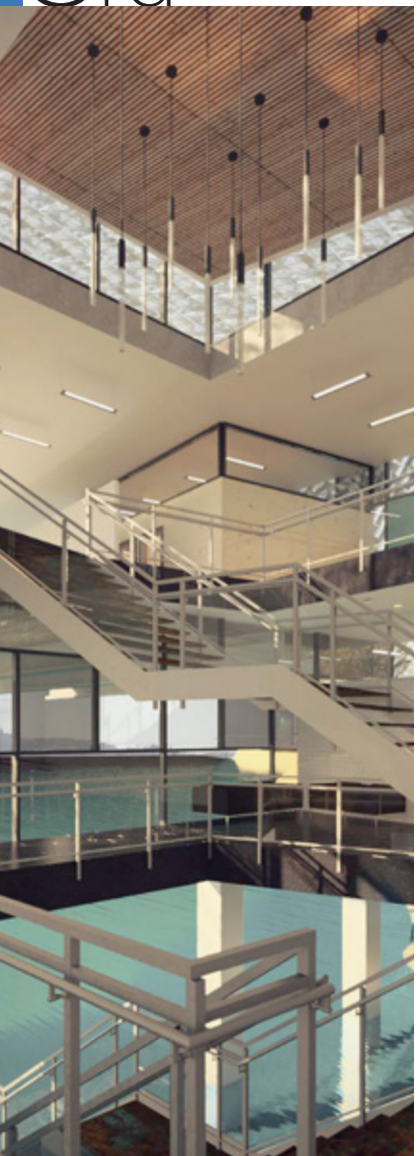

BIG
GRAIN

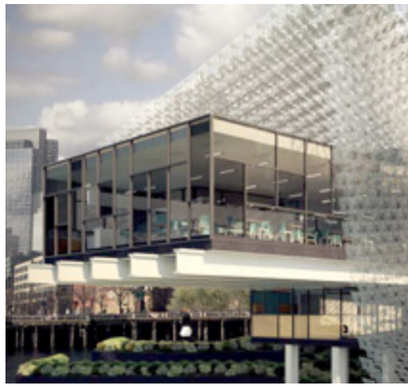

MARKER

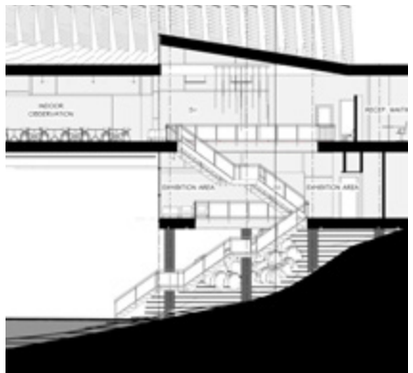
3rd

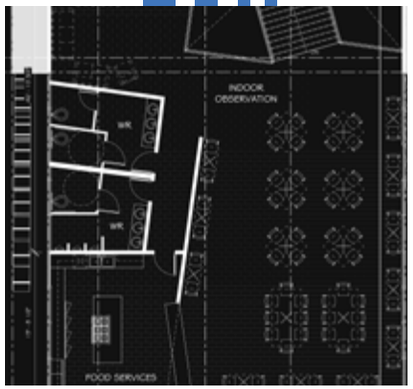
The third-year design studio sequence provides students with a firsthand experience designing in an urban-rich environment. At the beginning of the fall semester, students undertake a week-long field trip to the Pacific Northwest, typically Seattle, to immerse themselves in an urban landscape in preparation for a design project located in the downtown district.

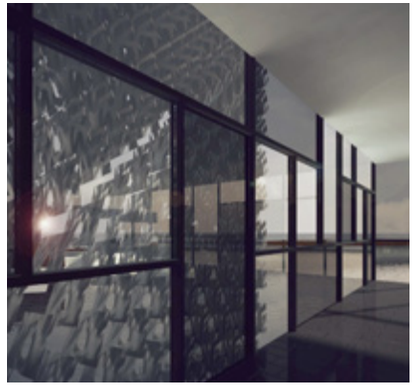






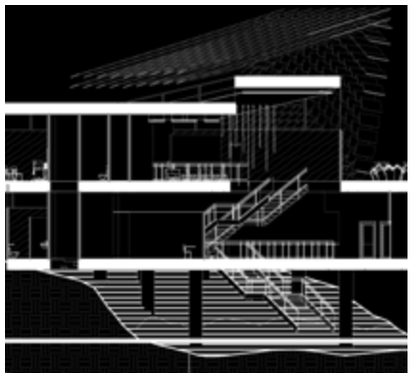


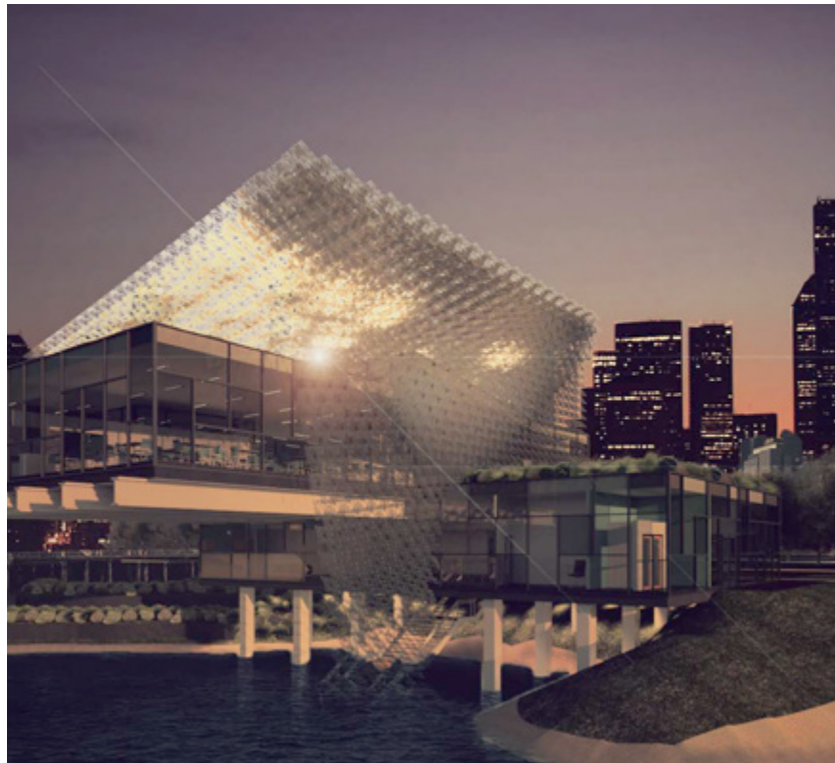


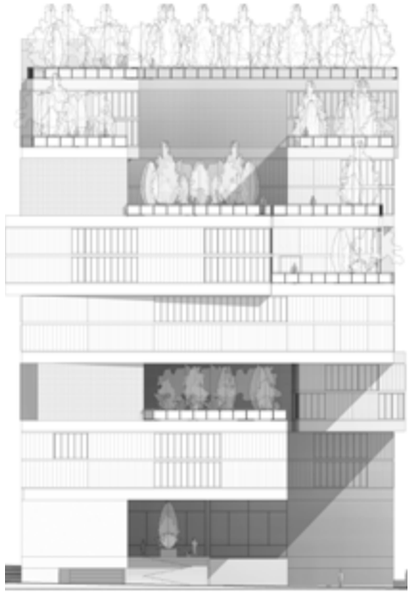


DESIGN STUDIO

The third-year design studios embark on multiple projects that utilize water as the foundation of inhabitation. Students examine this topic for its poetic and political agency. By engaging both the waterfront and the urban landscape, students design a water-access facility and public office building that incorporates public education opportunities.

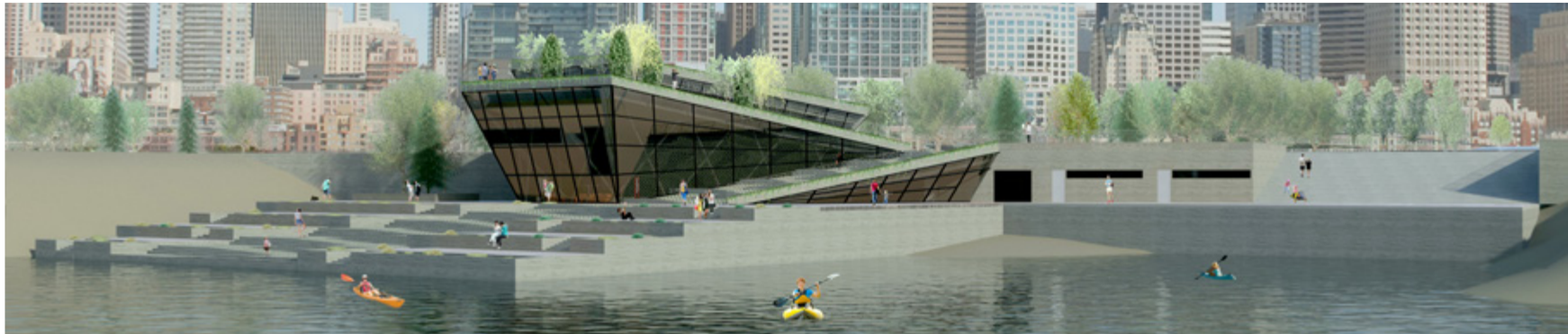






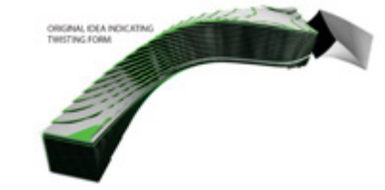
DESIGN STUDIO

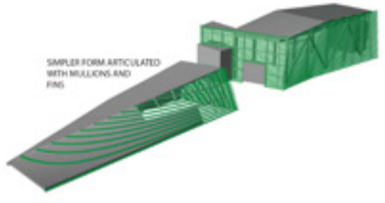
Through the study of precedents, exploration of the urban landscape, and the integration of building tectonics, students explore the multitude of competing uses of water in the West. By having multiple sites both adjacent to the waterfront and inland, students utilize architecture as a means to integrate and respond to the many challenges faced by governmental and non-profit organizations in these areas.

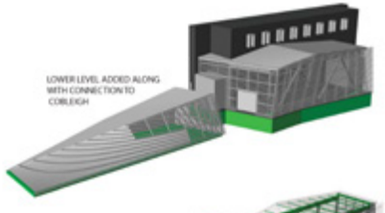


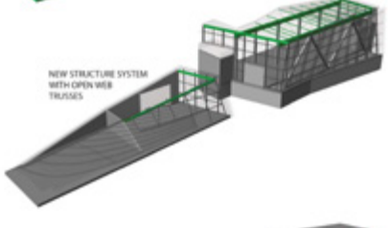
3rd

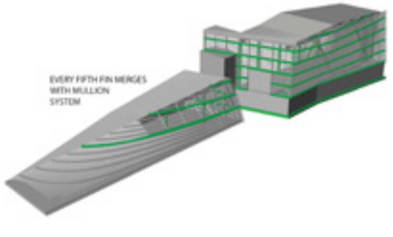
BUILDING CONSTRUCTION

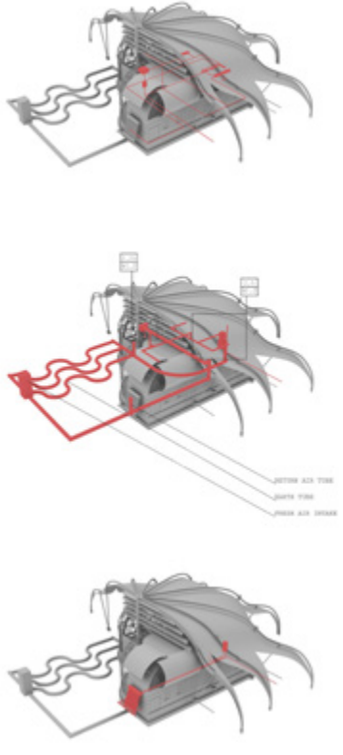


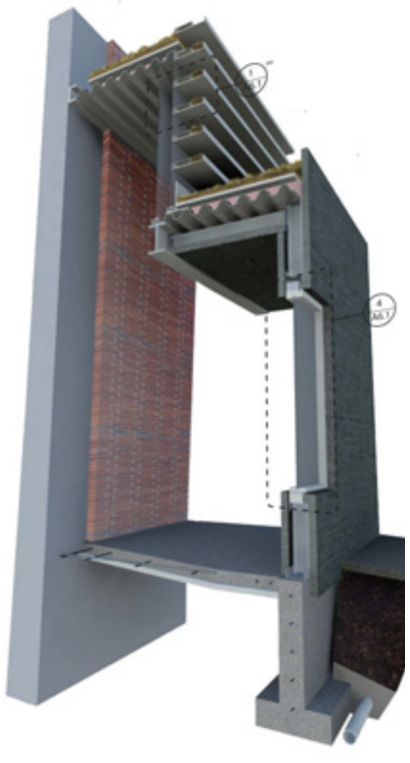


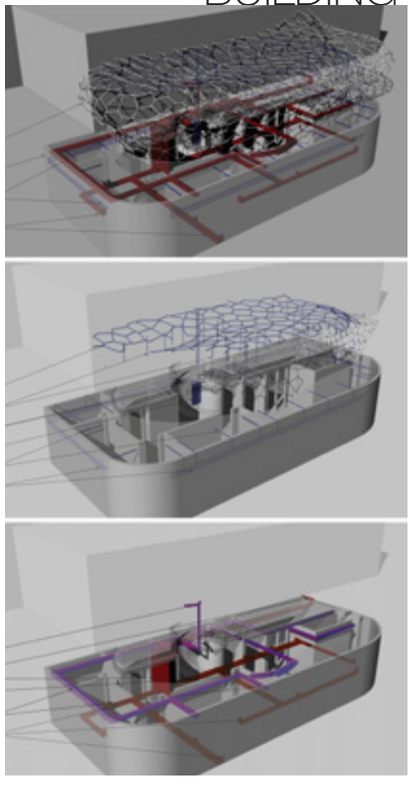








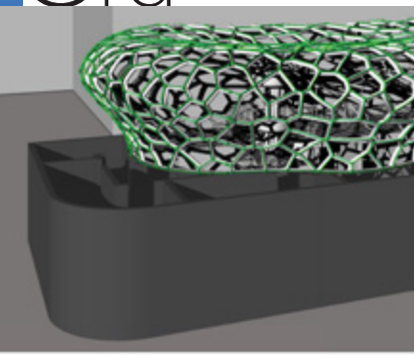


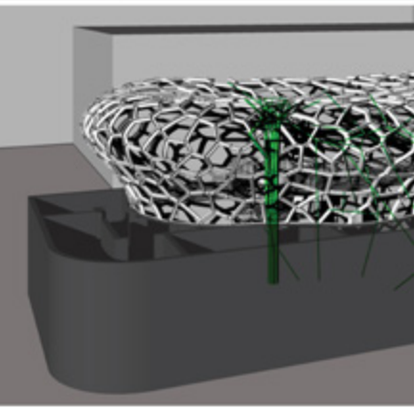


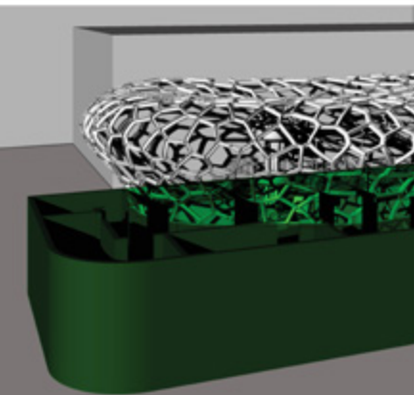
Over the course of the two-semester building construction course sequence, students progress from documenting existing building structures through drawings and physical models to utilizing building information modeling (BIM) programs to develop and communicate their design solutions. Technical drawing, specification writing, and digital modeling allow for a comprehensive integration of the various building assemblies and systems in the context of a small studio-type project. Students work in teams bringing the knowledge and skills acquired from previous courses into building assemblies and systems to develop a coherent, integrated and conceptually buildable architectural design proposal.

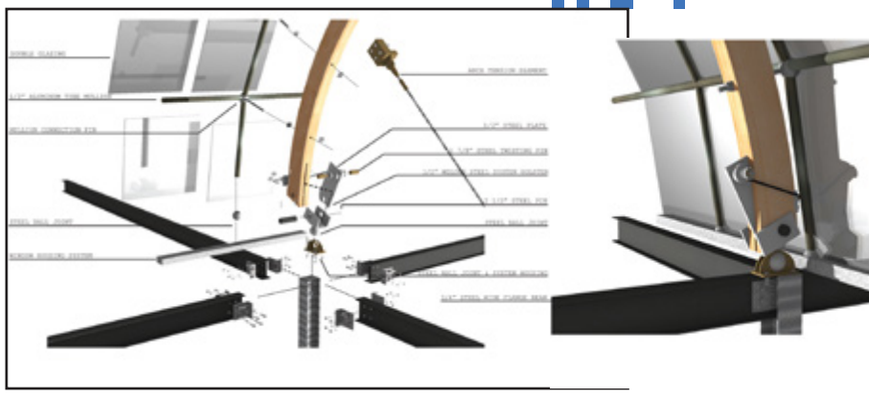
3rd

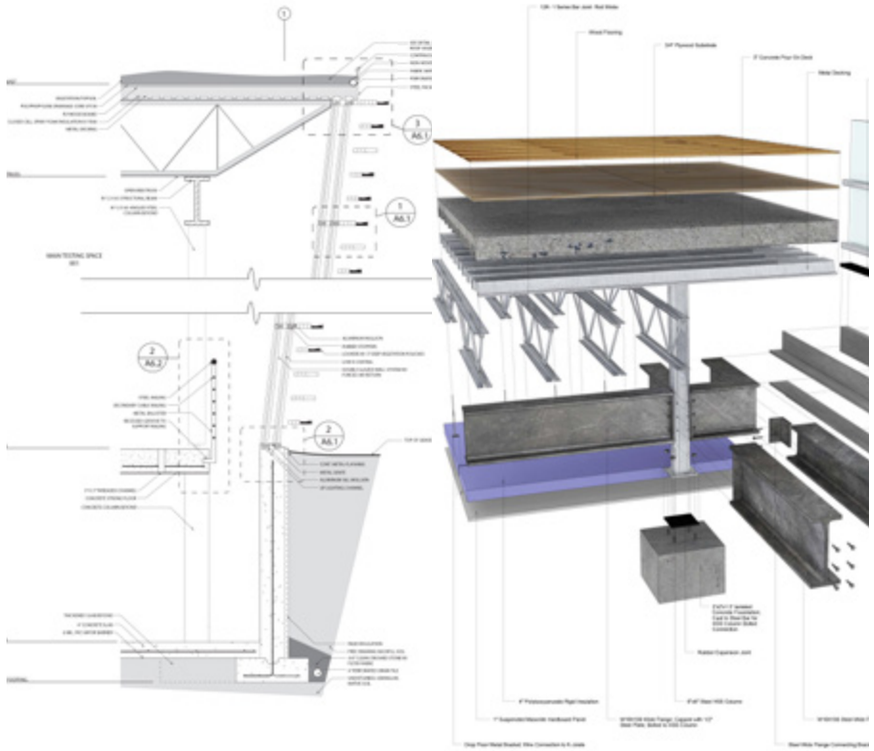
BUILDING CONSTRUCTION

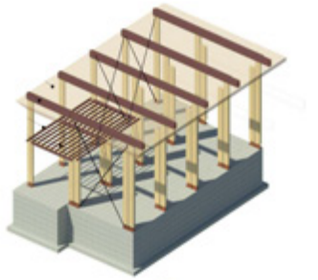


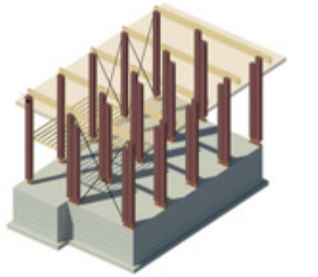


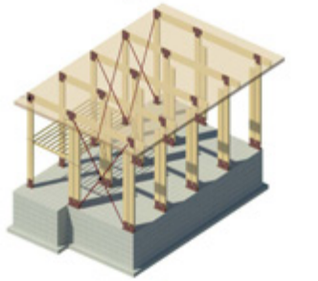


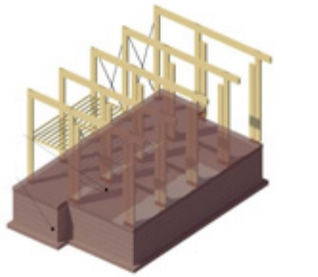


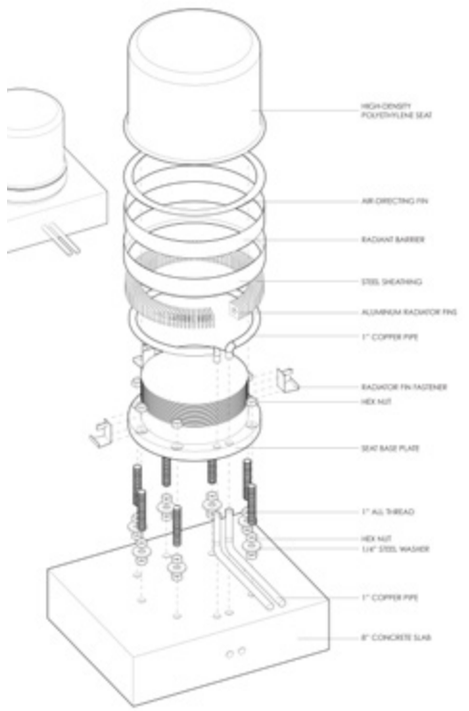


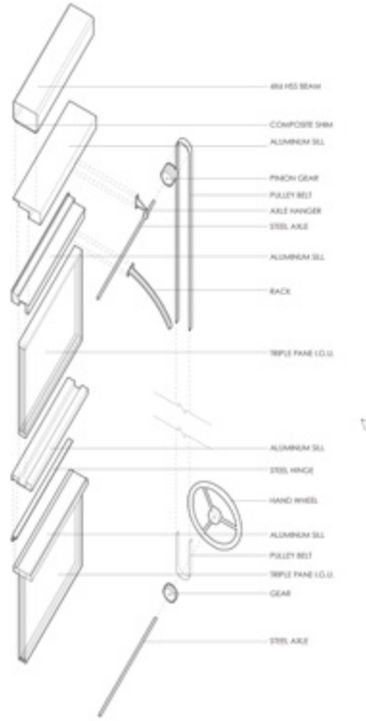


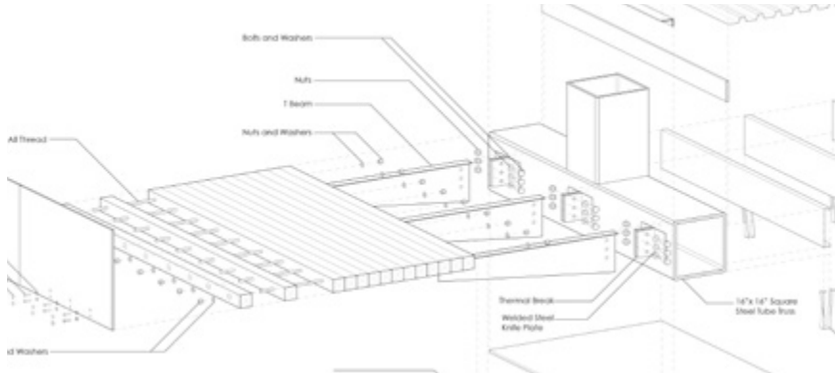












OPTION STUDIO

Option Studio

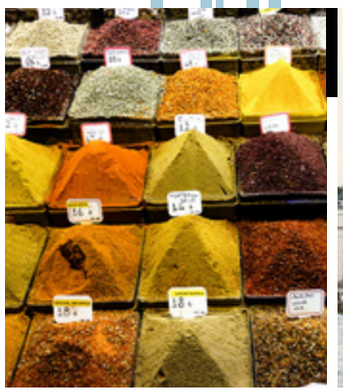
Students chose from a multitude of studio options during the fourth year of the program—one option being to study abroad.

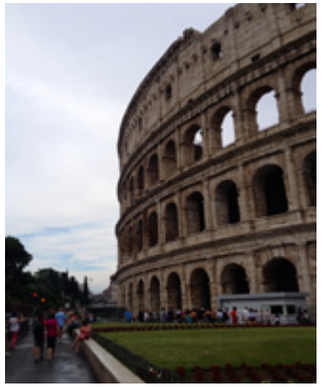
Generally, two study-abroad studios are offered in the summer semester. One option, the Rome Studio, utilizes a fixed-studio setting with students based in Rome while the other study-abroad option—the Asia, Oceania or South America Studio— focuses on more frequent travel and a mobile studio-based approach.

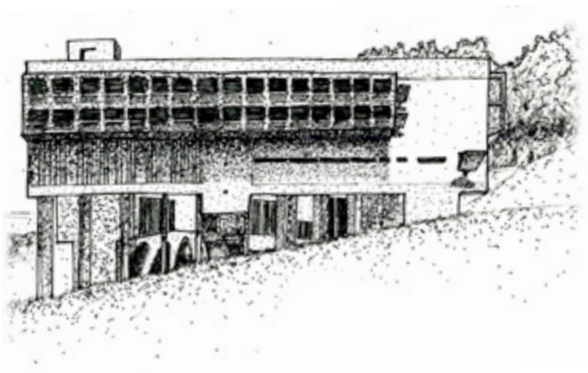
During the Rome Studio, students are based in Rome for 7–8 weeks participating in a design studio class with week-long excursions through other parts of Europe on either end of the course.

Option Studio

As an option studio, students spend 7 weeks living in the heart of Rome, working in a studio class designing a project for a site in the city and studying architectural history in the area. In addition to this immersion in the city, students have the opportunity to explore the culture and landscape of other parts of the country—including Florence Sienna, Venice, Verona, Pisa, Como, Turin, Milan, Tivoli, Naples, Pompeii and the Cinque Terre region.

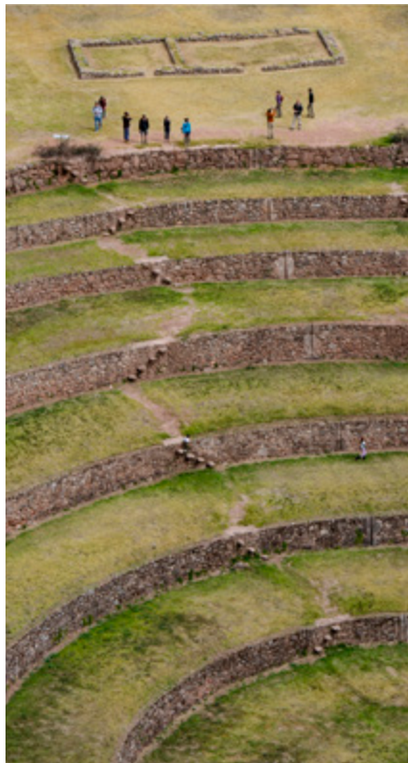


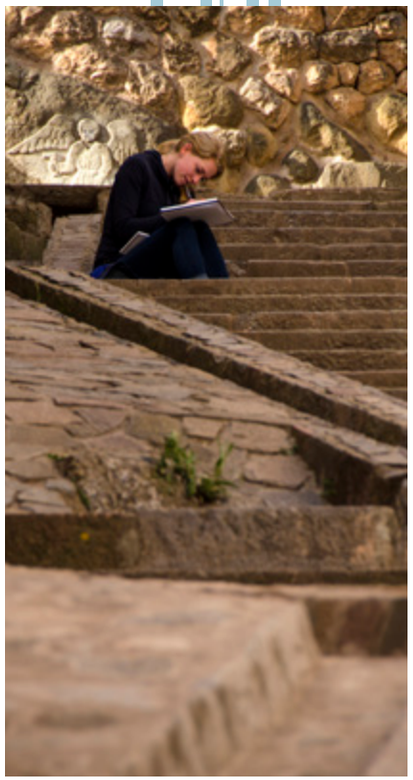




Option Studio

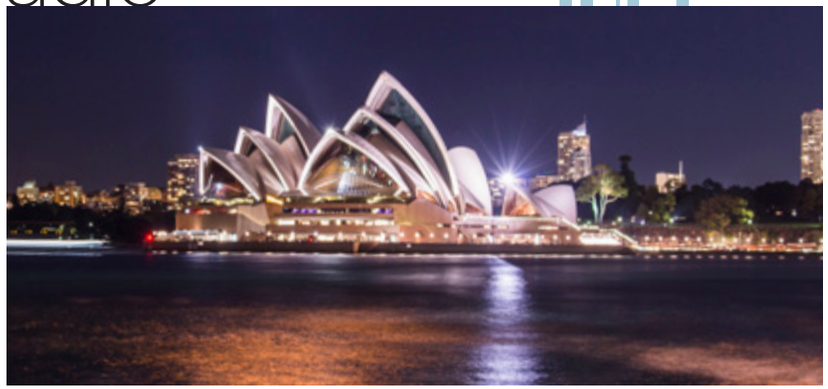
A second study-abroad option studio is offered during the summer semester for students during the summer prior to their fourth year in the program. This option studio takes students throughout Peru, Chile, Argentina, and Brazil. Students study the impact and history of existing ancient and modern architecture, city planning and local culture, while undertaking small-scale design exercises set within the context of those urban settings and local cultures.

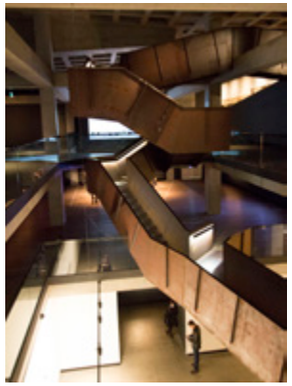


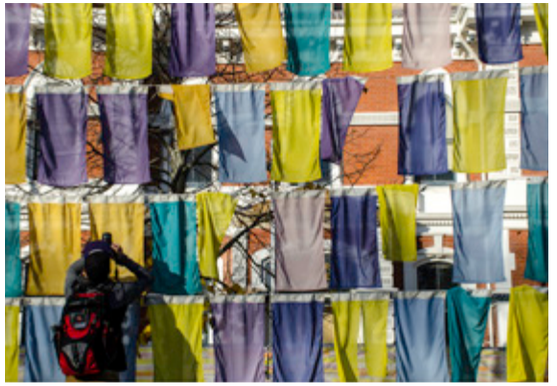


Option Studio

In the Oceania studio, students do not spend the summer semester in one or two cities, but have the extraordinary opportunity to experience many cities throughout Australia and New Zealand. During this time, students study contemporary and colonial architecture, city planning and local culture. In some years, the Oceania studio includes travel to Asia—including India, China, South Korea and Southeast Asia.





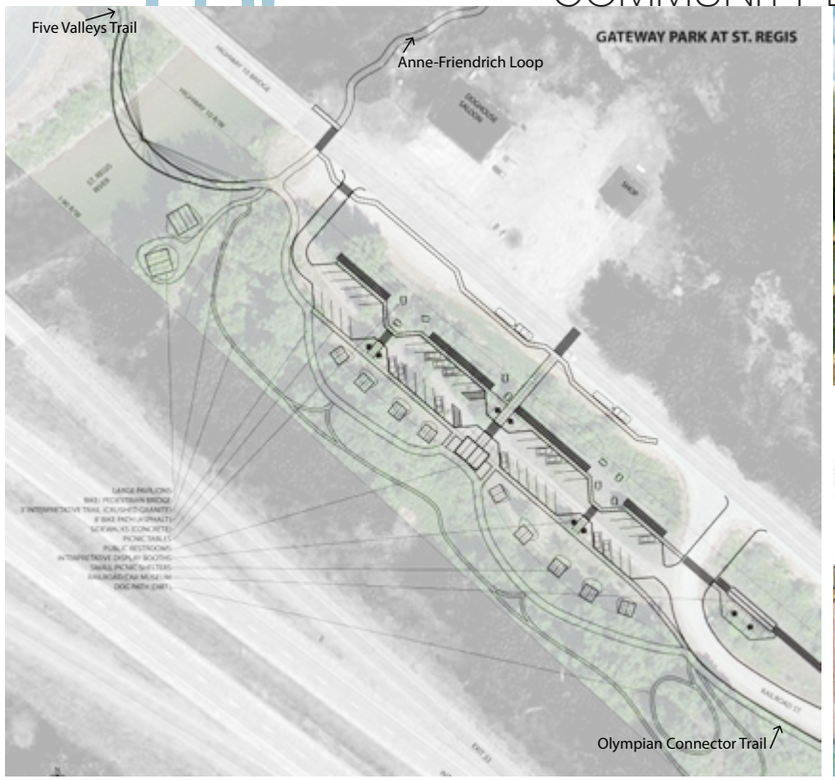


Option Studio

Community Design Center

Mission: Serve the people of Montana by providing the research, planning, and conceptual design services and tools needed to empower government agencies and non-profit organizations in pursuing their projects and at the same time provide students with a practical learning experience based in the building design disciplines.

Opportunity: Since 1976, students have had the opportunity to learn firsthand, the complete design process, cutting across a range of social, environmental, and physical issues. Clients receive research, analysis, and design ideas that allow them to explore concepts prior to investing in a professional design team, which provides students with the perspective to make decisions on the viability of their project and provides the basic information needed to move the project forward.



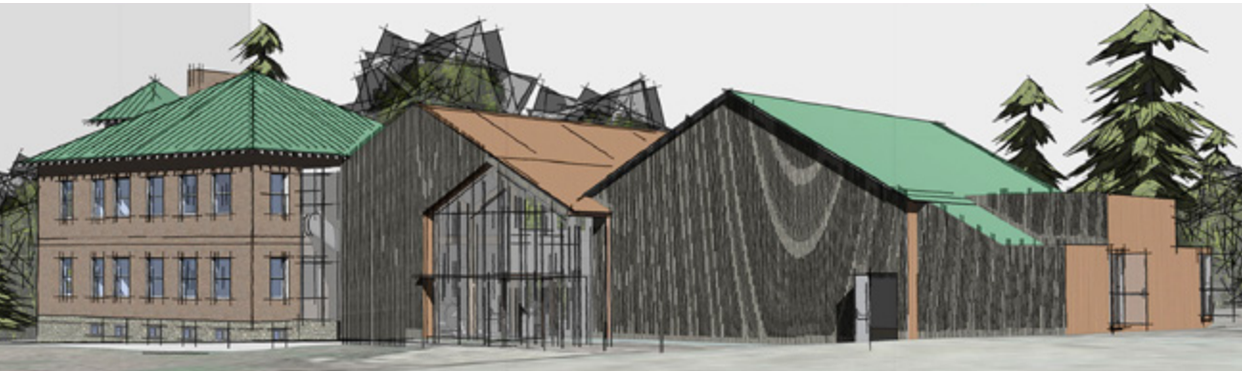
Highway 135 Corridor Study

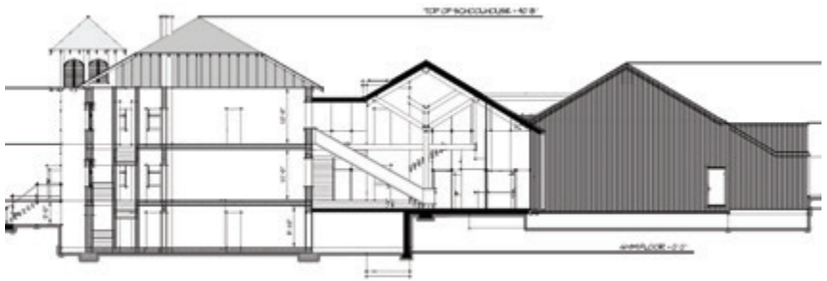
The town of St. Regis has been influenced by industry, travel, and recreation. When the freeway was constructed, the St. Regis River was realigned, which opened a large tract of land to development. The Resort Board engaged the Community Design Center (CDC) to look at the mile-long segment of Highway 135 running through the large land tract left intact by the river's relocation. The St. Regis Resort Board utilized grant funding and the district's financial resources as well as funding from the Montana Department of Transportation to build the solutions presented by the CDC. Estimated project cost: $3.2 million.

Option Studio

Paradise Valley School Repurposing

The old school, built in 1910, has always been a source of pride for the community. A multi-purpose building constructed in 1966 added modern amenities. However, both buildings were closed in the spring of 2013 due to a lack of students. The Paradise Elementary School Preservation Committee approached the CDC to develop a design strategy to adapt the buildings and develop an Art, Visitor, and Community Activity Center. A process of iterative design studies yielded a single proposal that connects the two buildings with a lobby, defines the entry to the complex, and provides vertical circulation. The lobby creates space for a visitor center and provides gallery and art spaces in addition to those in the original school.



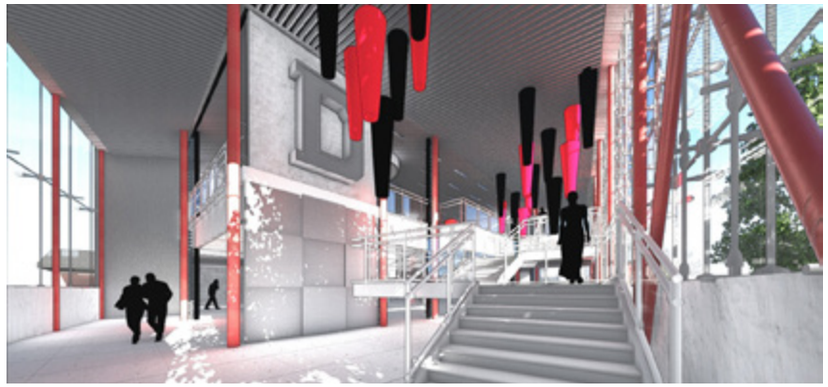


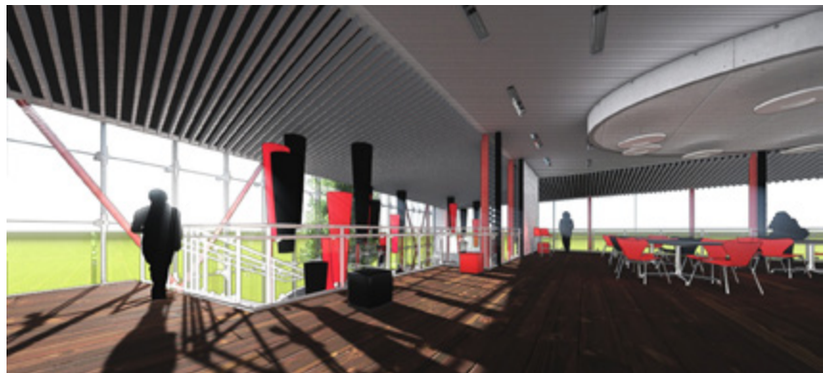
Option Studio

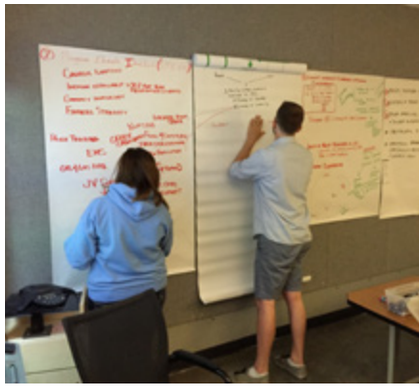
Dawson Community College

Located in eastern Montana near the Bakken oil and gas fields, Dawson Community College was established in 1940 with the goal of “creating and continuously improving accessible and effective learning environments for the lifelong education needs of the diverse community it serves.” During times of growing demand for workers in the Bakken fields, the college can experience high fluctuations in student enrollment and retention.

The CDC worked with the administrators and staff of the college to analyze their current strategic plan, to research current trends for student enrollment/ retention, and to understand infrastructure planning strategies at peer institutions. As part of this process, the CDC students undertook a series of listening sessions, meetings, workshops, and design charrettes with the various constituencies in the college and the community to identify key components that would address these issues. In particular, strategies for renovated and/or new student residence facilities became a significant component of the recommended strategies.





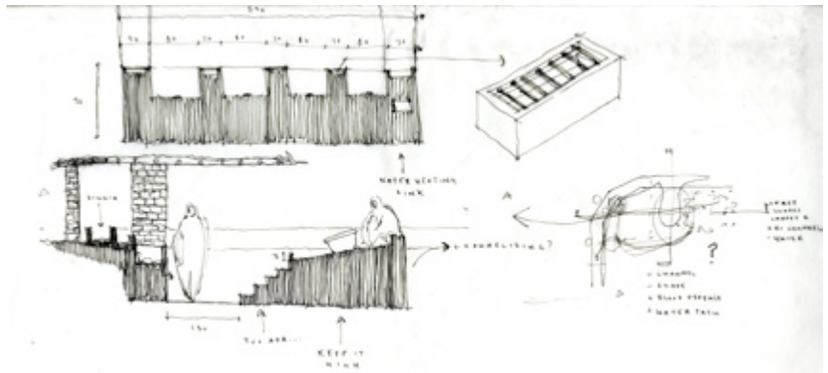


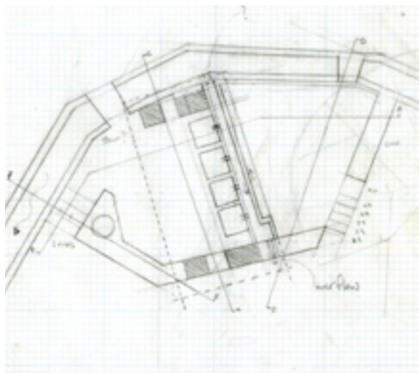
Option Studio

The Morocco Sustainable Communities Program

The Morocco Sustainable Communities program is an international service-learning program that offers university students the opportunity to assist in ongoing community development projects in the rural communities of the Zawiya Ahansal region in the Central High Atlas Mountains of Morocco. During this studio, students and faculty work with the Atlas Cultural Foundation, a non-profit organization founded by a MSU School of Architecture Alumna.

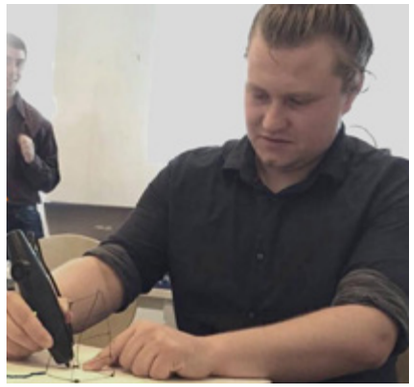
The foundation of this program and studio is a real-world experience of living, working, and learning in a rural Moroccan village. Students engage in meaningful, community-identified work; are immersed in an intercultural living environment in which they observe, study, and participate in the host culture; work with faculty and professional mentors; and generally engage in a variety of formal and informal intercultural exchanges. Past projects have included restoration of rammed-earth ingrams, waste incinerators and community washing stations

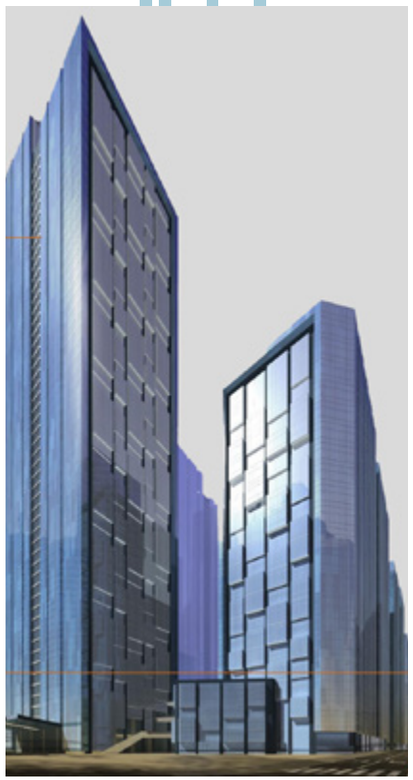


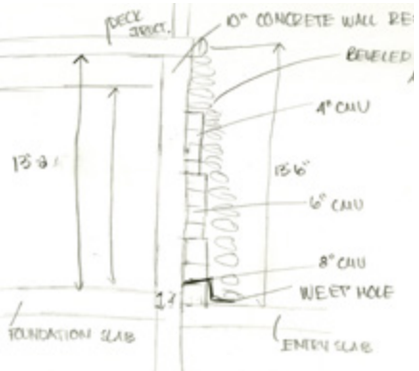


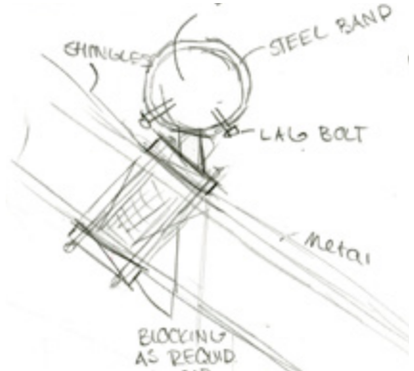
Option Studio

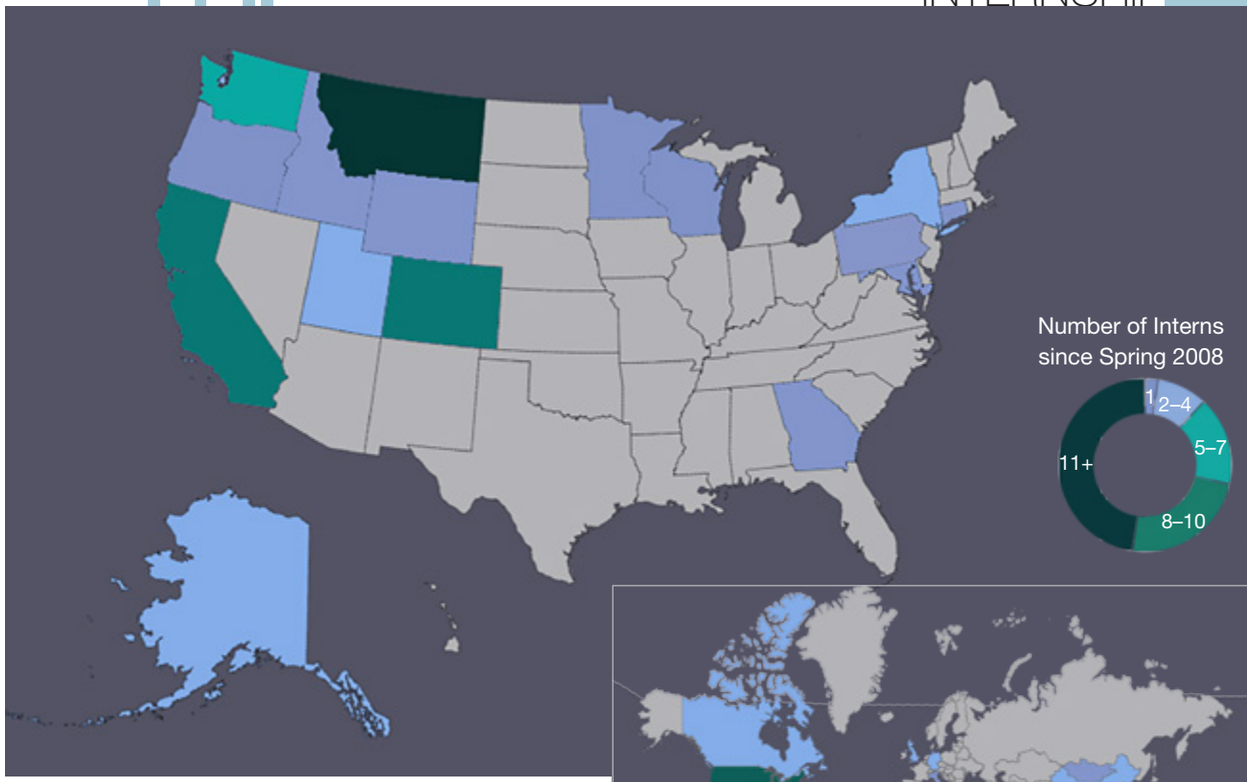
Since the early 1970's, the School of Architecture's Internship Program is one of the studio options available to students during their fourth year of the program. Students undertake a paid internship for 12–16 weeks under the direct supervision of a registered architect. Utilizing the skills and knowledge developed in portfolio and interview workshops, the students seek out intern positions at firms throughout the United States and, in many cases, abroad. Through the internship program, students are exposed to the entire spectrum of the architectural profession. Internships offer a variety of experiences varying from designing the facade of a high-rise in China, to designing a snow fence for a mountain residence in a small mining town in Colorado.











"...internship has shown me how architecture is run in the real world. It has given me hands on experience with client/architect relations, studio teamwork, office culture, site construction, and much more."
—Aaron Ladd, interned in Billings, MT

"My time in SWI has been enlightening. I view the scale and place of design in a completely new way. I have also found a little comfort in being almost perpetually uncomfortable—never really knowing if I am on the right track."
—Andy Springer, interned in Chendgu Sichuan Province, China

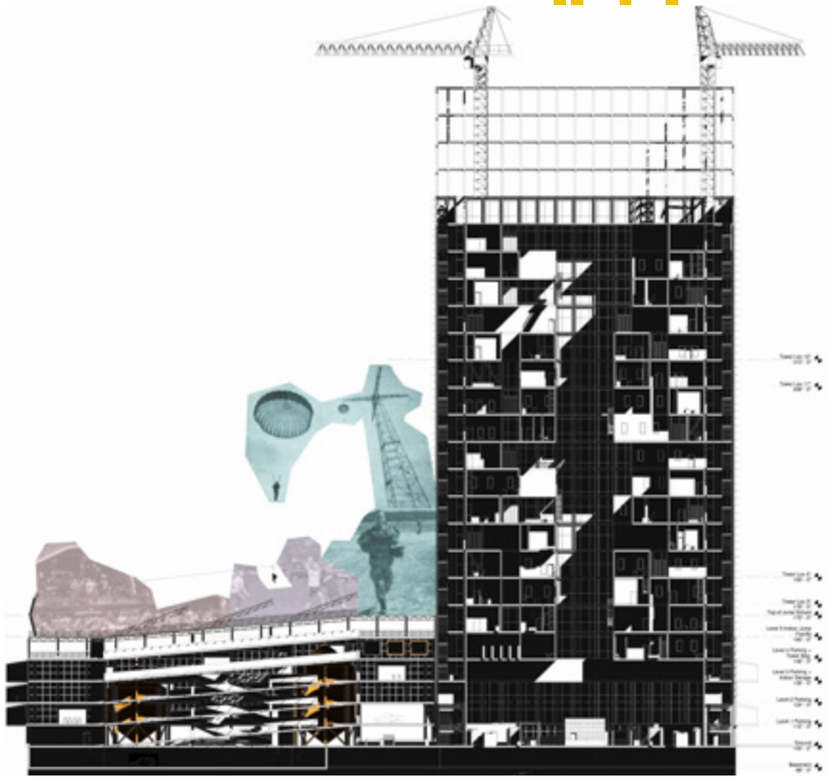

TO THE HARDEST WORKING
GIRL I KNOW!
ZOË'S
COFFEE HOUSE
BASE

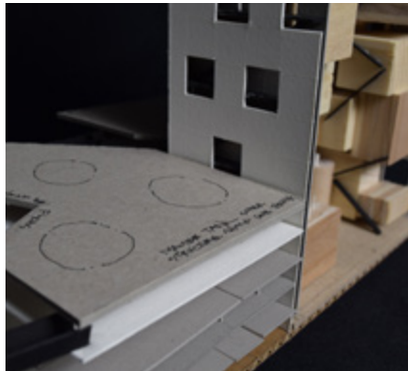
4th

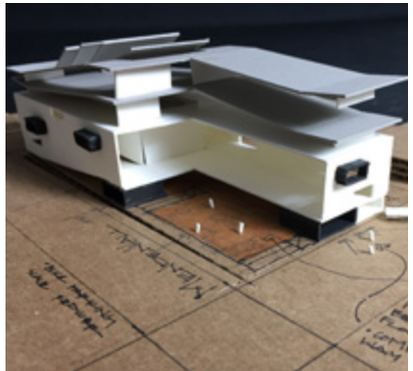
Operation HYBRID

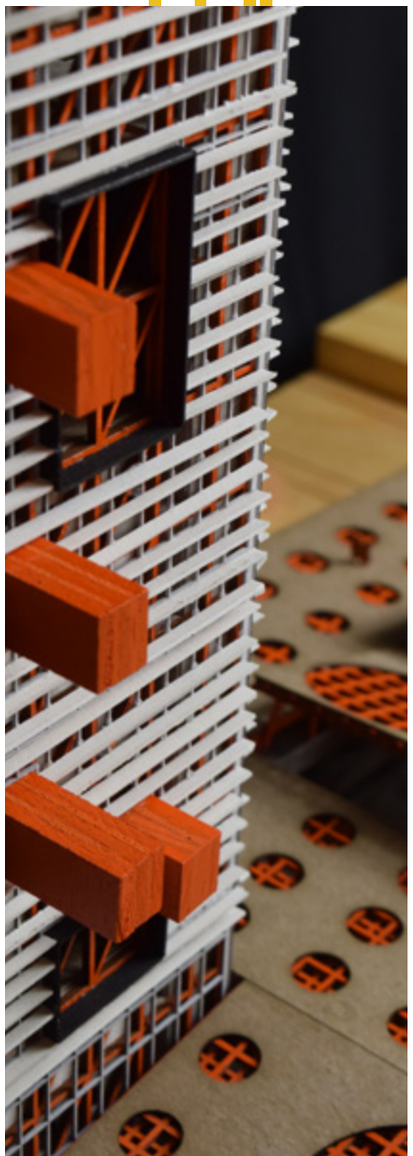
Successfully hybridizing a program requires a designer to become a conductor of a complicated symphony of different functions allowing them to harmonize and actually benefit each other. How does an Army Airborne Jump School, skate park, university housing, anaerobic biodigester, self storage facility, data center, and congressional office benefit each other in the same design?

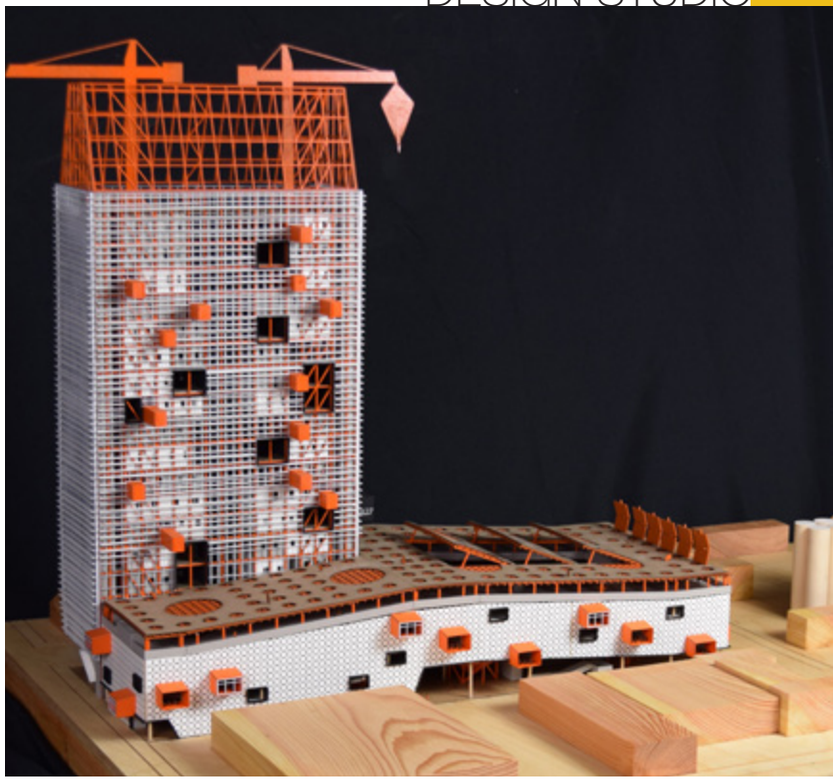
The 250 foot jump school tower cranes become the operators of the data center constructed in ISO shipping containers. These shipping containers, producing an excess amount of exhaust heat, are lifted and plugged into position to heat the adjacent housing units. The housing units are mixed among the congressional offices allowing a connection between government officials and the people they serve. The skate park forms a bond between skaters and other users of the building by sharing a covered exercise, civic and community space. These relationships begin to uncover how the true hybridization of program serves the users of the building.







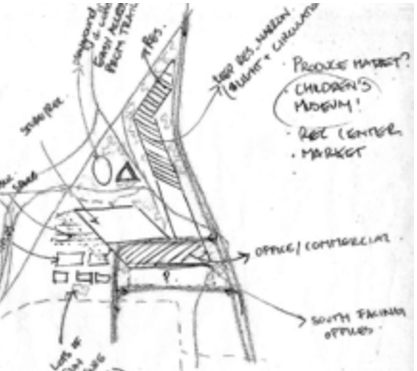


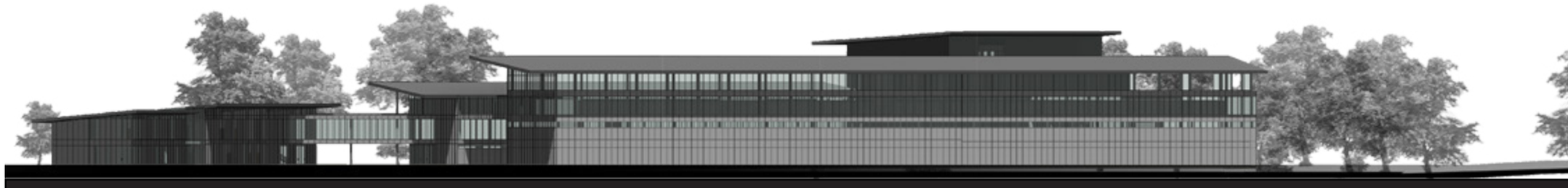


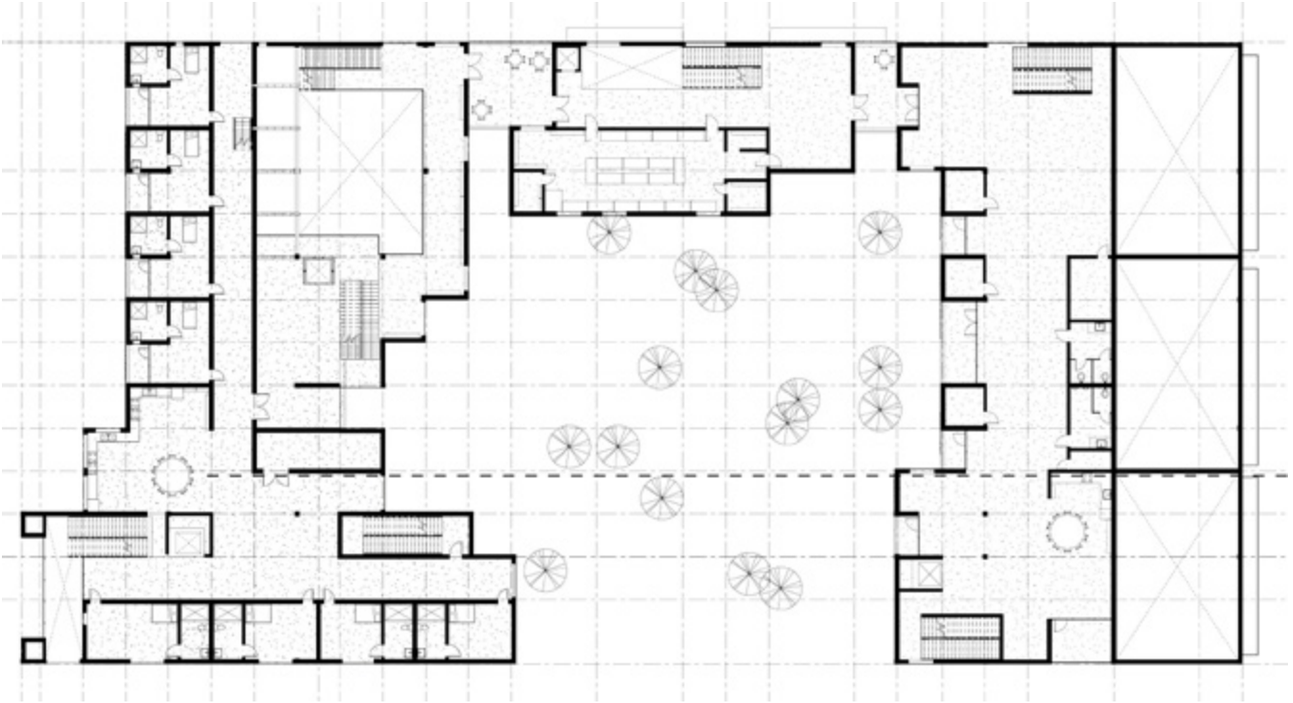
4th

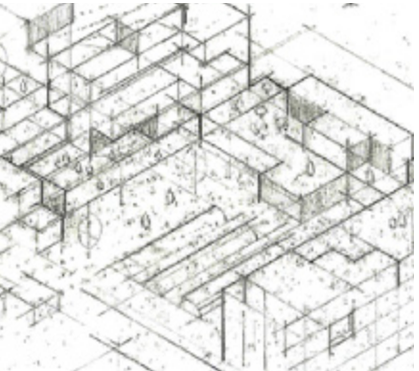
Plants, People, Coexistence

In this project, the hybrid building type has become an educational building where people learn to coexist with green spaces, varying from exterior gardens and interior greenhouses to sustainable agricultural practices. The green spaces become social connectors throughout the building promoting community interaction between different demographics and programs.



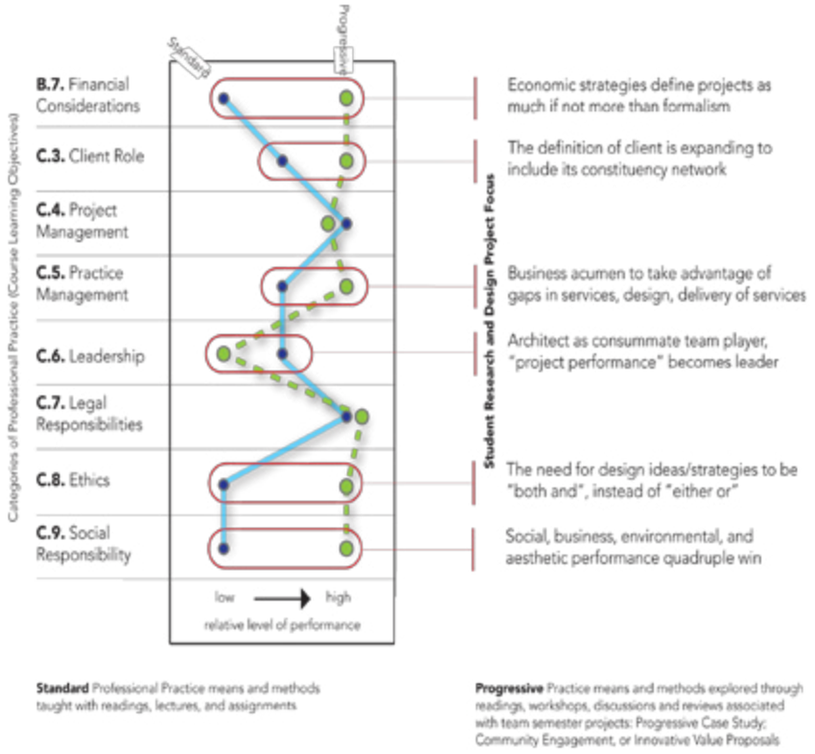






As a large civic intervention claiming nearly an entire city block in downtown Bozeman, how this building behaves over time was the critical force driving the design. The design is supported by a three-dimensional orthogonal framework responding to environmental, social, and ontological contexts to encourage occupant integration towards health and education.

The programmatic activities happen within a structural system that provides an extension or reduction of space over time. This, program, form, and building is only an iteration, occurring within greater design parameters, that allow for the malleability of its form within modular parameters.



Standard Professional Practice means and methods taught with readings, lectures, and assignments

Progressive Practice means and methods explored through readings, workshops, discussions and reviews associated with team semester projects: Progressive Case Study; Community Engagement, or Innovative Value Proposals

REDEFINE YOUR FAIRGROUNDS

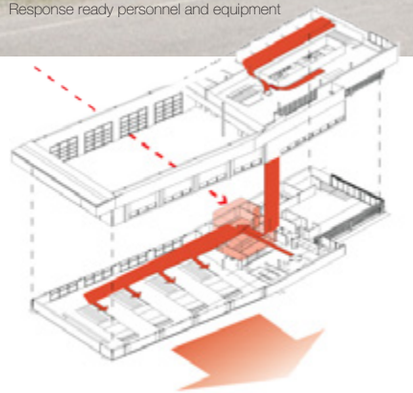
Your Thoughts on Its Potential

Open Community Meetings to review the current master plan and introduce potential changes and projects:

October 16: 5:30 at Gallatin County Fairgrounds Building #4
November 7: 5:30 at Gallatin County Fairgrounds Building #4
December 12: 5:30 at Gallatin County Courthouse Community Room

Sourdough Volunteer Fire Department

The Sourdough Volunteer Fire Department (SVFD) had solicited public support for two prior municipal bond issues, both of which were defeated. The SVFD approached the School of Architecture to develop a new strategy. Professional practice students developed a fiscally-conservative multi-functional proposal that would include firefighter dorms—that leverage the existing number of MSU student firefighters—community rooms, shelter for disaster and prototypical heating/cooling strategies. Multiple uses appeal to more constituencies and broaden the support for the new fire station. The subsequent $3 million dollar bond election was successfully passed!



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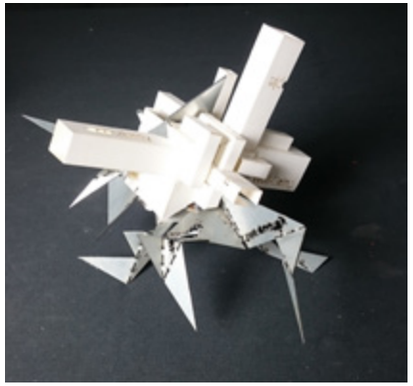
Graduate

DESIGN STUDIO

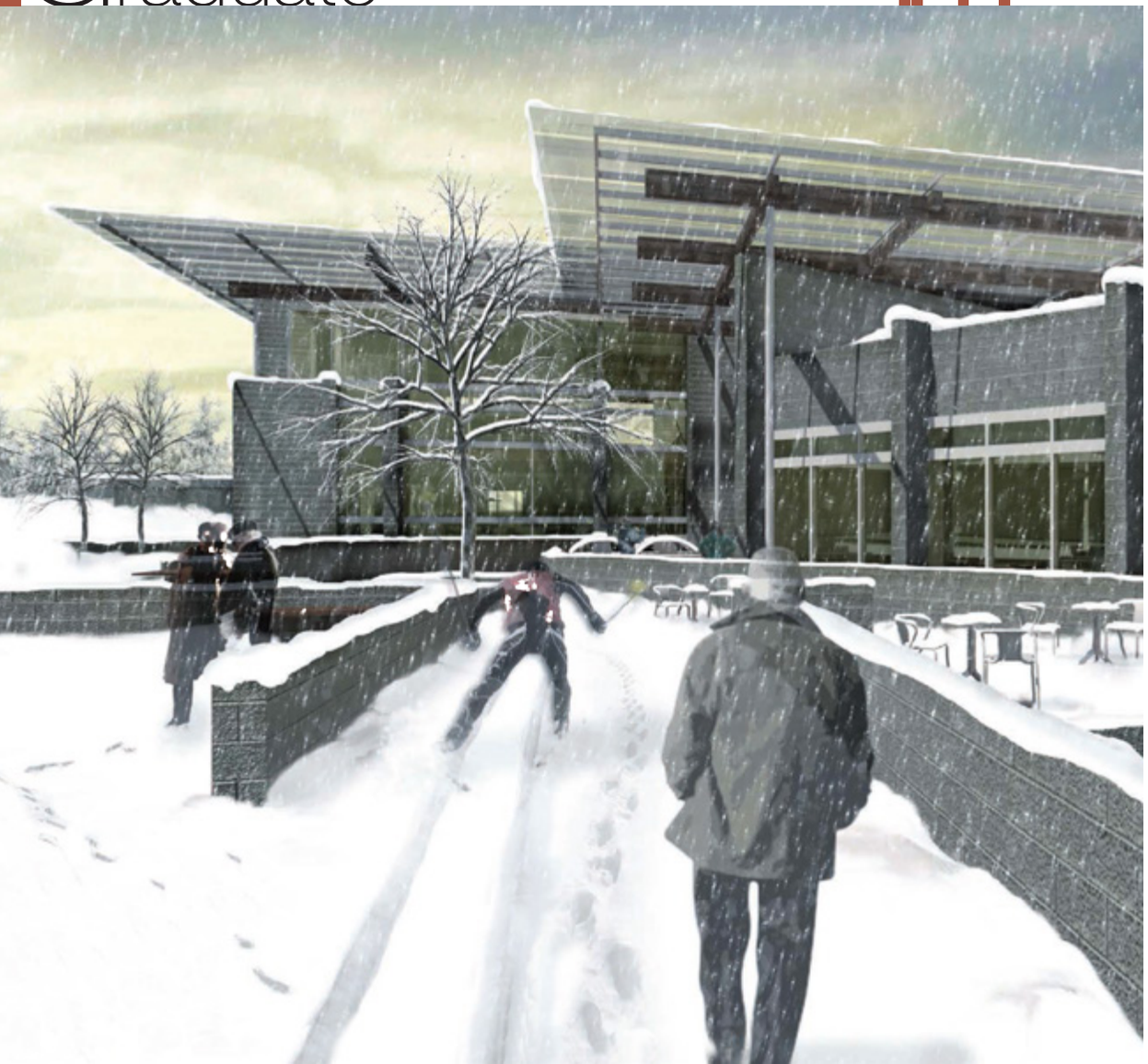
Visiting Professor Studio

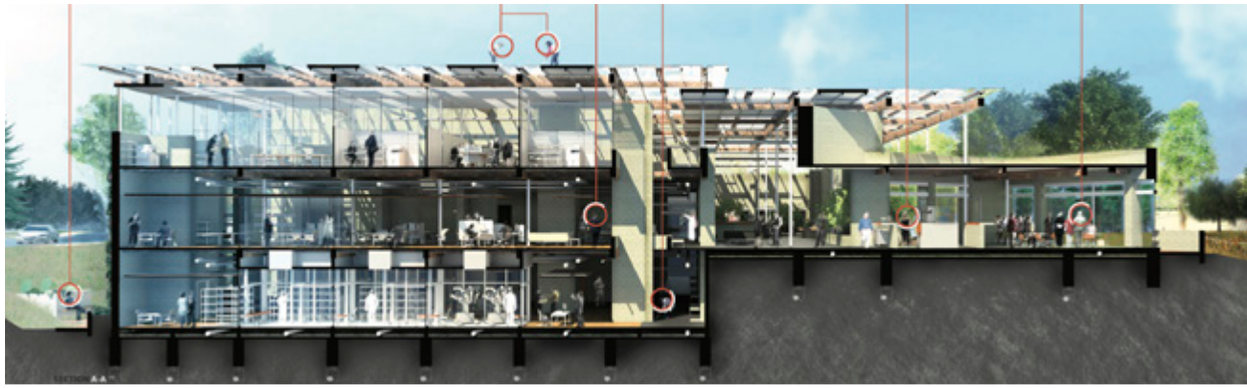
Inaugural Visiting Professor Luis Longhi & MSU faculty Chere LeClair



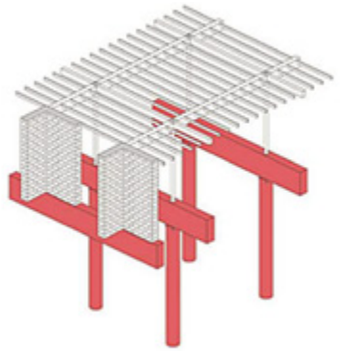
The grotesque. It can provoke ideas such as physical abnormalities, personality disorders, or dissociation from your environment, but it is about point of view. Normal vs. abnormal. Us, the regular, vs. them, the outlier. What's the norm, what's acceptable, and what isn't? Abandonment, both societal and architectural, can be seen as grotesque, abnormal in the eyes of our society. We consider it "the homeless problem" or "urban blight" and it can provoke discomfort, uncertainty, and fear. We want to fix them, make them like us, but why? Abandoned spaces are still useful, and the people are still human. What if this forgotten architecture and these forgotten people were the basis of a new society?

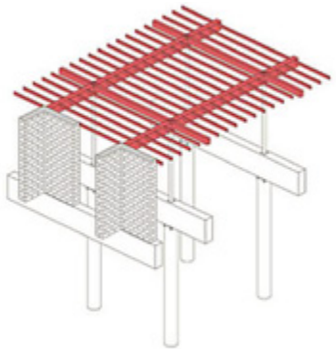
Graduate





This project began as an investigation into the evolving nature of the modern office, the deterritorialization of it by the internet, and the effects of it on the worker. The design discovers the grounding elements that connect the human-centered world to the world around us. The project became a means of understanding human occupation of space through time on a multitude of scales.

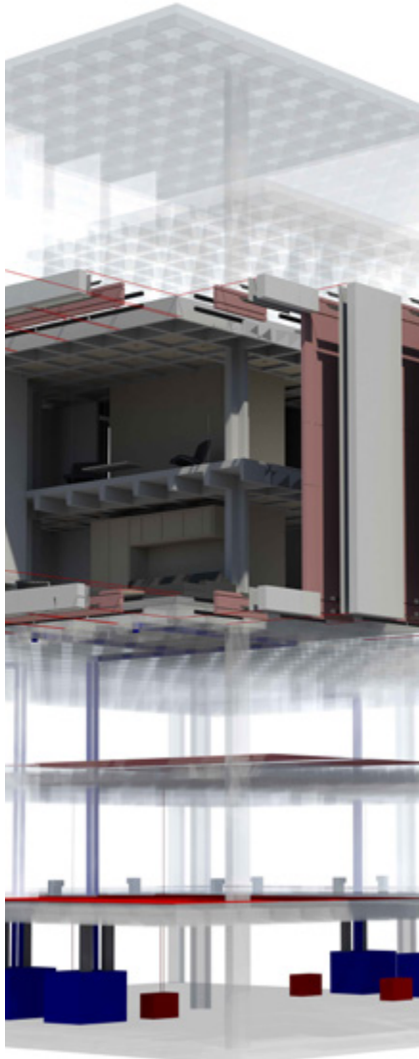


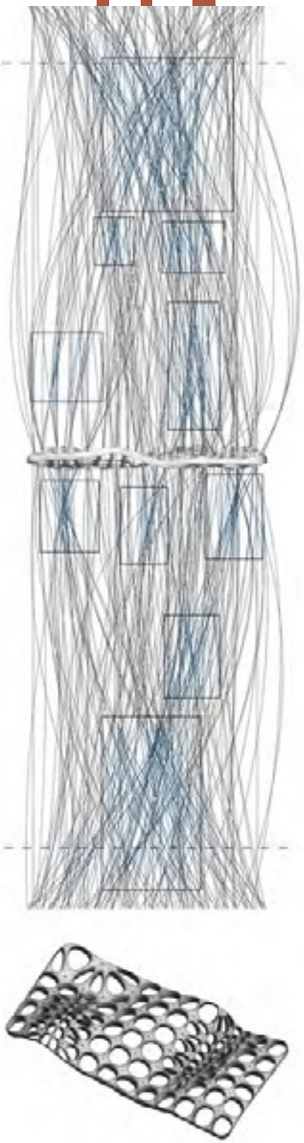


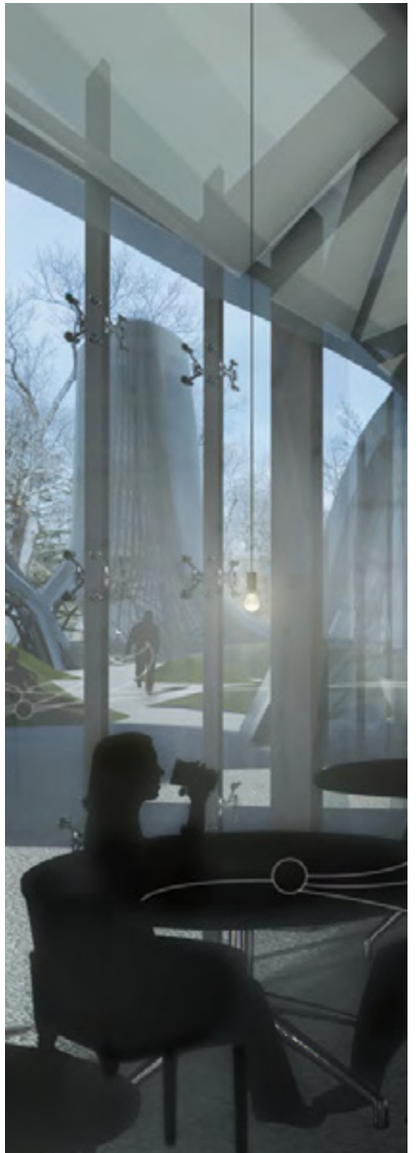
Graduate

DESIGN STUDIO

By researching the successes and failures of many ski resorts around the world, this studio undertook the issues and challenges of transforming a small local ski hill into a world-class resort. The ski lodge was originally conceived as a single mega-structure that would house dining, après-ski, shopping, lodging, and parking. Similarly, all of the ski lifts and traverses would begin at the ski lodge, allowing for minimal site impact and reinforcing the density and vibrancy of the skiing community.





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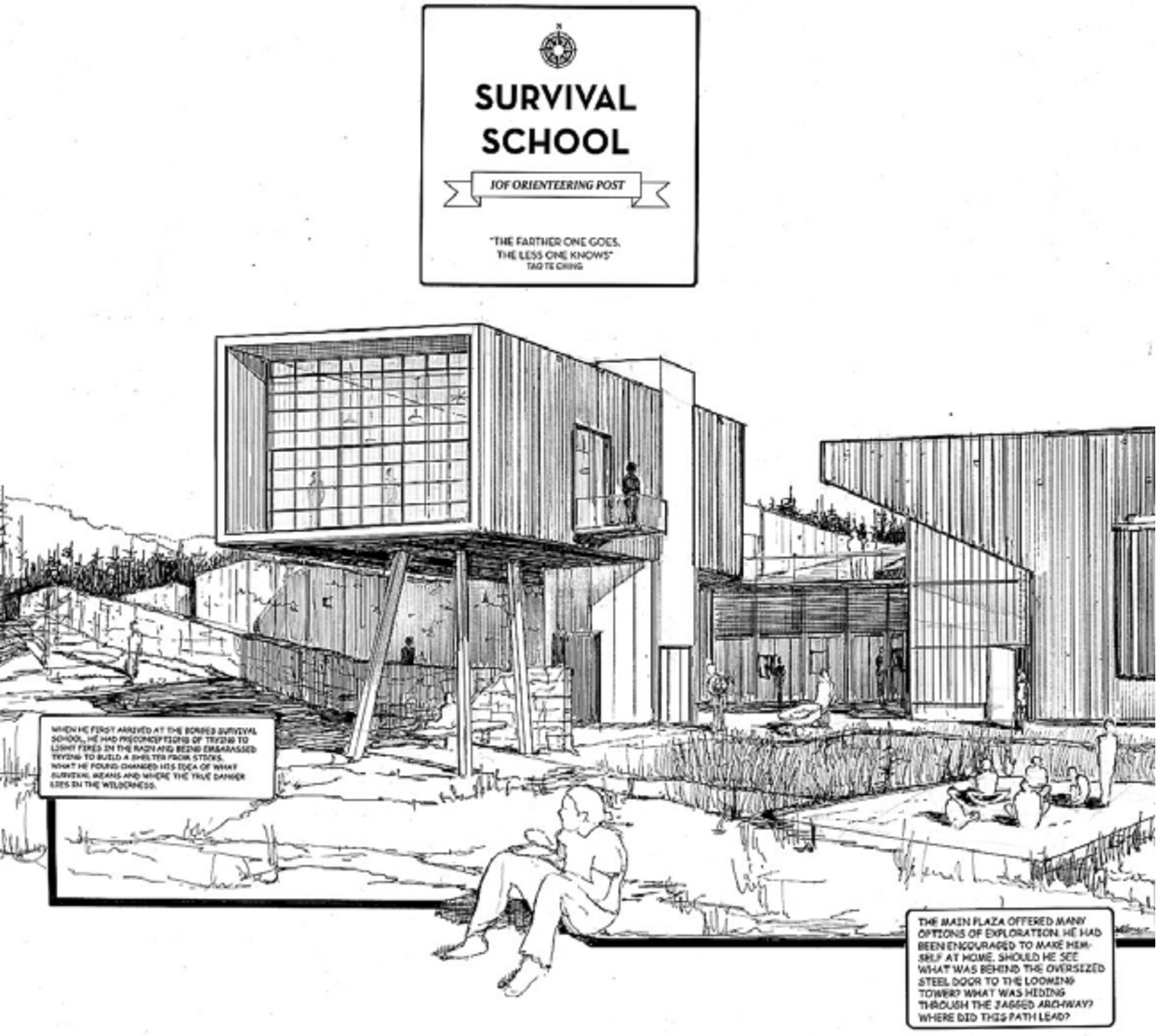
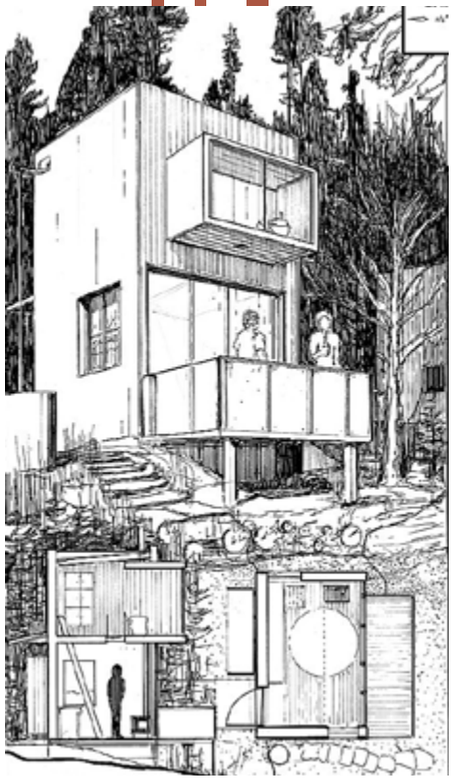
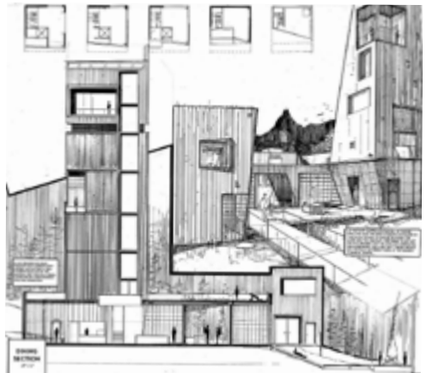
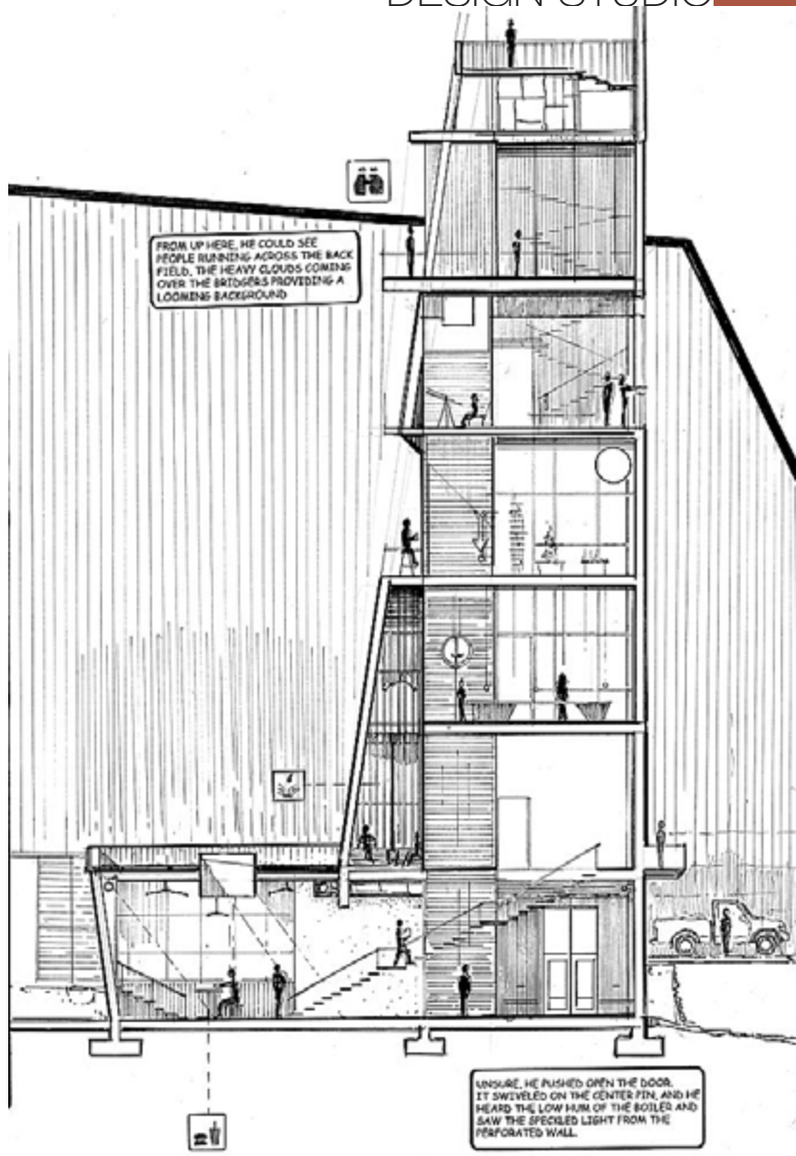
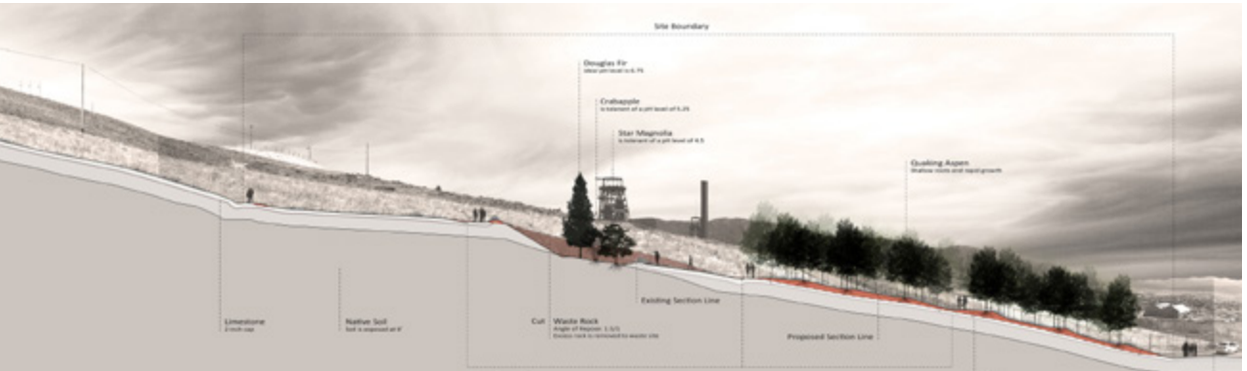
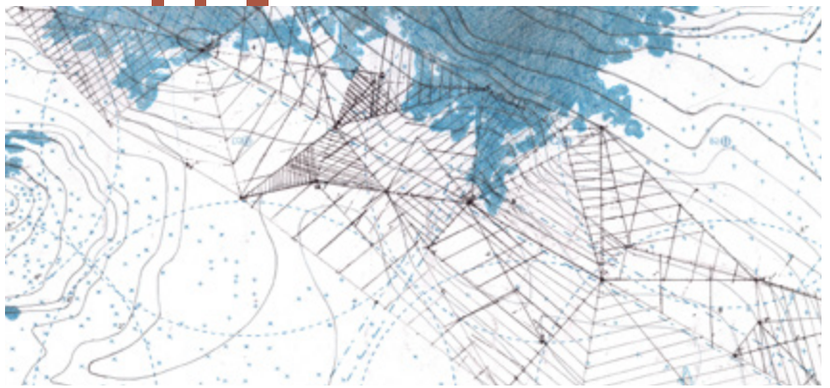

SURVIVAL SCHOOL
JOF ORIENTEERING POST
"THE FARTHER ONE GOES, THE LESS ONE KNOWS"
TAO TE CHING
WHEN HE FIRST ARRIVED AT THE BORDED SURVIVAL SCHOOL, HE HAD PRECONCEPTIONS OF TRYING TO LIGHT FIRES IN THE RAIN AND BEING EMBARRASSED TRYING TO BUILD A SHELTER FROM STORKS. WHAT HE FOUND CHANGED HIS IDEA OF WHAT SURVIVAL MEANS AND WHERE THE TRUE DANGER LIES IN THE WILDERNESS.
THE MAIN PLAZA OFFERED MANY OPTIONS OF EXPLORATION. HE HAD BEEN ENCOURAGED TO MAKE HIMSELF AT HOME. SHOULD HE SEE WHAT WAS BEHIND THE OVERSIZED STEEL DOOR TO THE LOOMING TOWER? WHAT WAS HIDING THROUGH THE JAGGED ARCHWAY? WHERE DID THIS PATH LEAD?





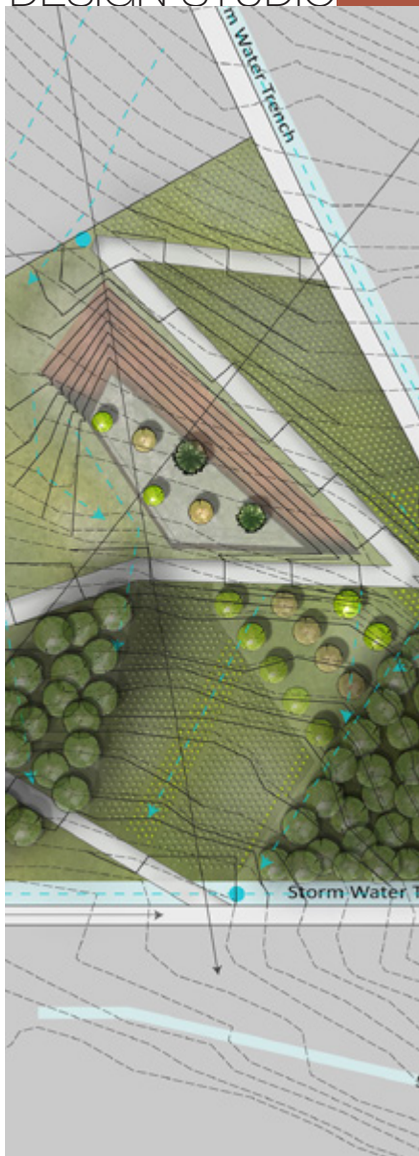

FROM UP HERE, HE COULD SEE PEOPLE RUNNING ACROSS THE BACK FIELD, THE HEAVY CLOUDS COMING OVER THE RIDGES PROVIDING A LOOMING BACKGROUND
UNSURE, HE PUSHED OPEN THE DOOR. IT SWIVELED ON THE CENTER PIN, AND HE HEARD THE LOW HUM OF THE BOILER AND SAW THE SPECKLED LIGHT FROM THE PERFORATED WALL.

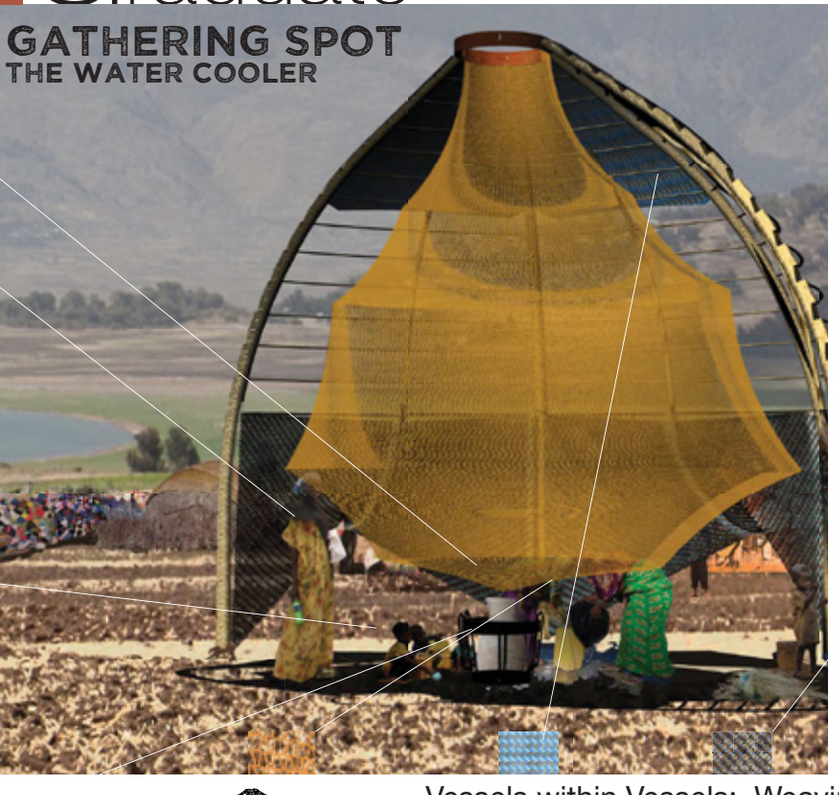


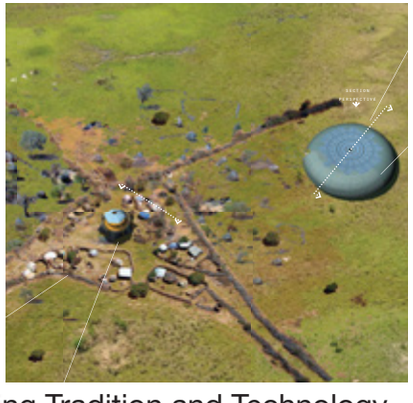


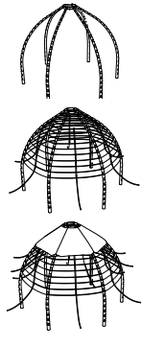
Soil and Surface—A Place of Inhabitation through Process

Over the course of multiple semesters, in both design studios and graduate electives, students and faculty examined the extraction and reclamation efforts in Butte, Montana. Working with the community and government agencies in Butte-Silver Bow county, the projects explored ways in which new reclamation strategies can be applied to existing sites that are themselves a displaced terrain from the past mining operations. In the process of design and reclamation, a new topography and landscape is created and the sites become occupied with recreational, community gathering and public trail uses.



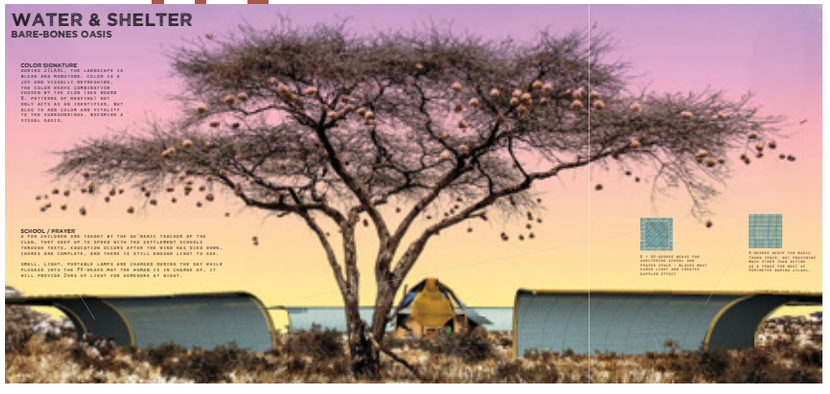


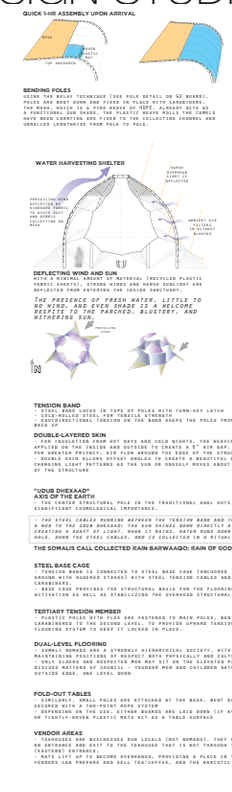


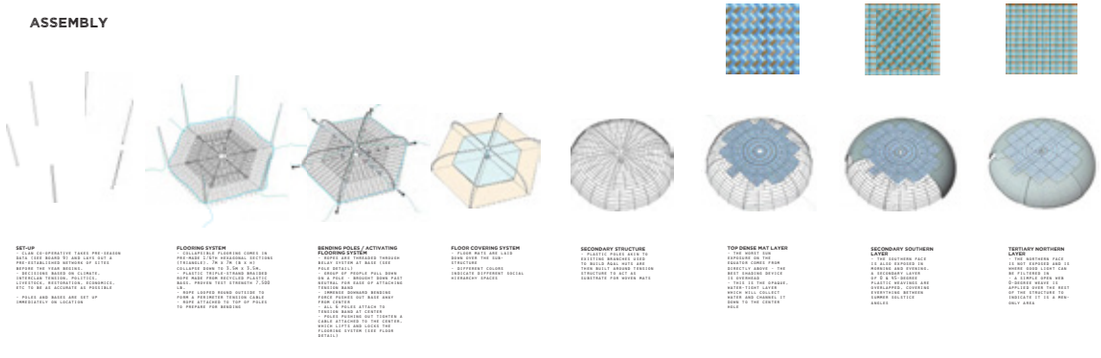


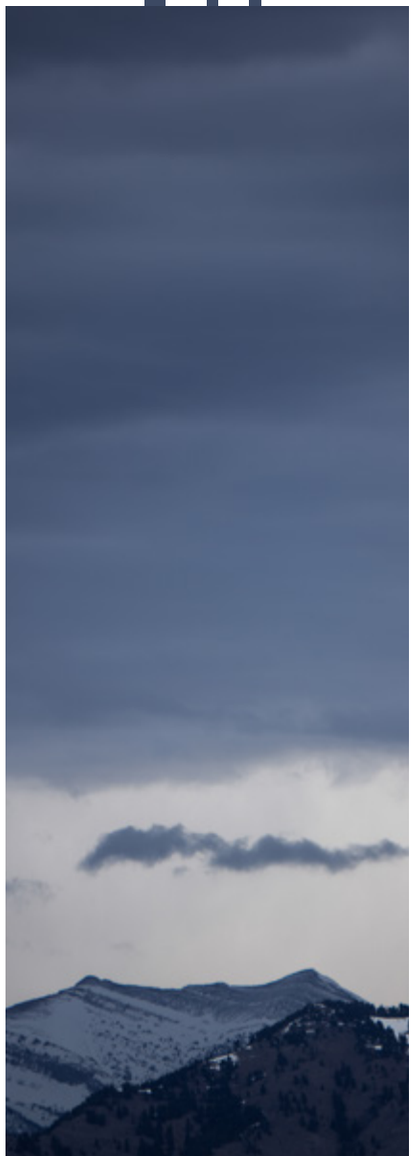
Vessels within Vessels: Weaving Tradition and Technology in the Future of the Somali Nomad

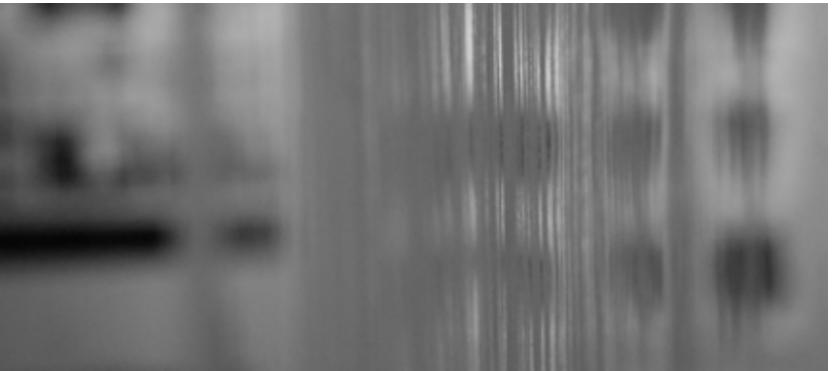
The life of the Somali pastoral nomad is a constant cycle of seasons. The movement of the nomad follows the rains—so cultural patterns, economics, politics, and work flow are all integrally linked to ecological patterns. This project utilized the premise that the nomads themselves are the builders, owners and users of these facilities. By incorporating the existing patterns of culture, including religious rituals and requirements, and making, such as their tradition of weaving, the design addresses issues of water harvesting and digital access to virtual health, education and market information.

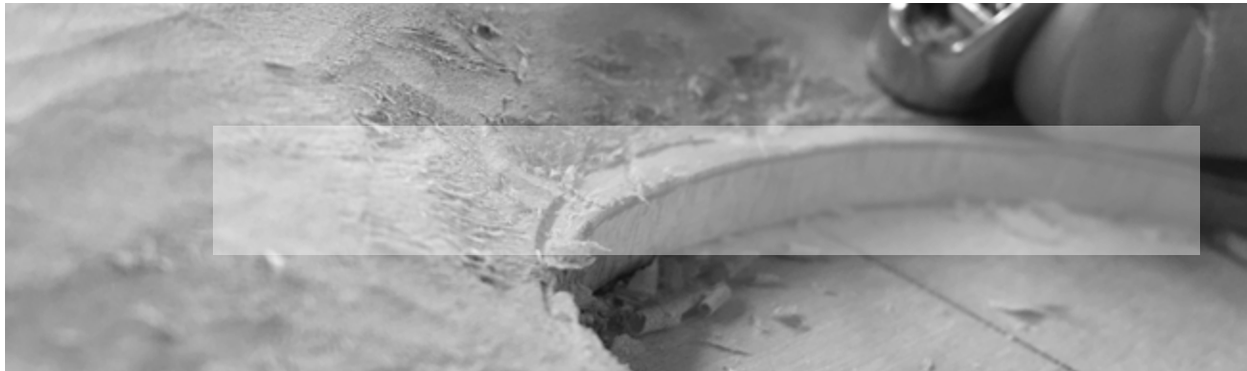












FURNITURE & MATERIALS

The exploration of various building materials—that are then utilized in the hands-on fabrication of musical instruments, furniture, and other various constructs—forms the basis for this series of electives. Small-scale projects, industrial products, furniture, buildings, and exhibits are designed and built by students as an exploration of the opportunities and limitations of materials, technology, economics, and construction methods. Students become familiar with a variety of fabrication methods ranging from stationary machinery, welding and CNC milling machines to hand held-machines and hand tools.

Electives

ADVANCED ARCHITECTURAL GRAPHICS

The initial part of this elective is devoted to architectural field drawing, which typically includes remote drawing events with extended time in the presence of significant historic Montana architectural stuctures and settings. These drawings often become part of an archive or public exhibit with the intention that student images produced in these field trips can serve a public cause.

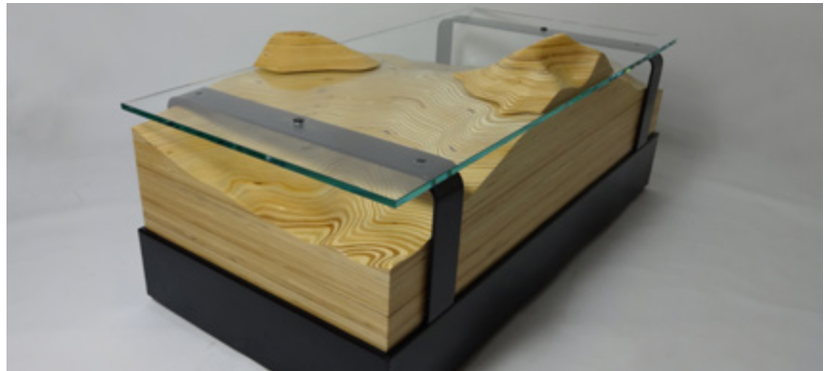
The second part of this course is devoted to architectural design development through freehand perspective paired with digital imaging and digital drawing. Freehand, analog drawing and painting is explored via the use of a Wacom tablet and Corel Painter software to develop formal design drawing perspectives.

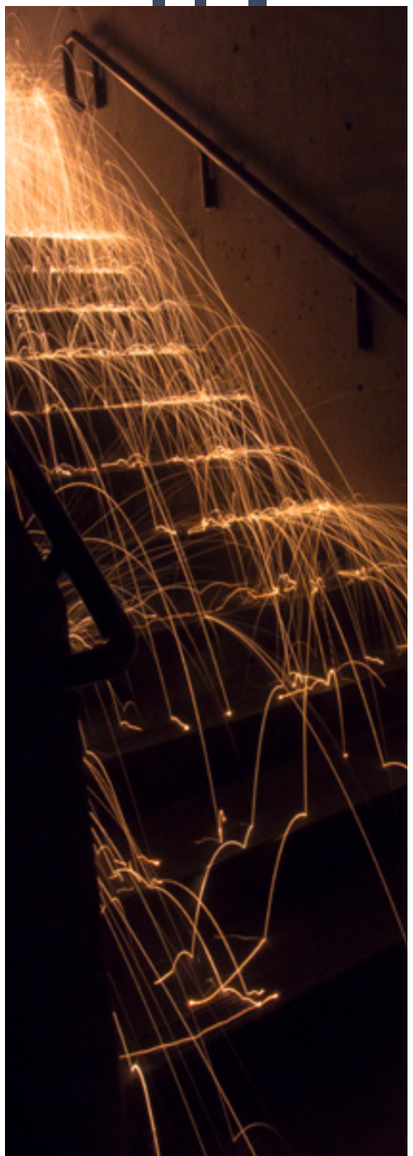
Electives

Cheever Hall Design-Build

Students and faculty undertake a variety of design-build projects to test design ideas and fabrication methods in real-life situations.

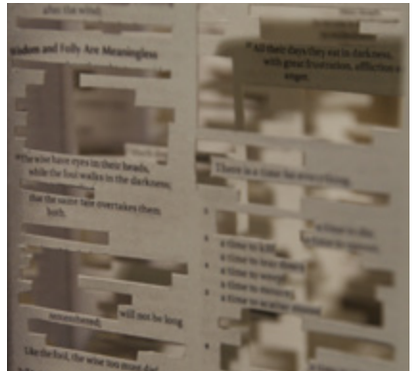
In this particular instance, the course took on the challenge of altering a high-traffic area within Cheever Hall that not only lacked collaborative student work areas but also experienced congested circulation during breaks between courses. Over the course of the semester, students studied and observed various seating arrangements in the space—resulting in the design and construction of new seating, work surfaces, and lounge furniture. Students undertook a similar process in the design and construction of a new conference table in the JLF conference room.





Architectural Theory

Architectural theory electives focus on the framework for thinking about architecture and for understanding its meaning and its agency in the world that we inhabit. In this particular class, students explored the relationships between theory and representation. Understood as a verb, drawing is a pursuit of re-presentation. It makes present something that is, or will be absent. In the act of drawing, one engages with, contemplates and reflects on the nature of the thing being drawn. The leading themes become drawing and speculative thinking, speculative thinking in drawing, architecture without building, processes of discovery and reflection. Students in this course study theory through drawing as a way of dwelling in and finding meaning in the world.

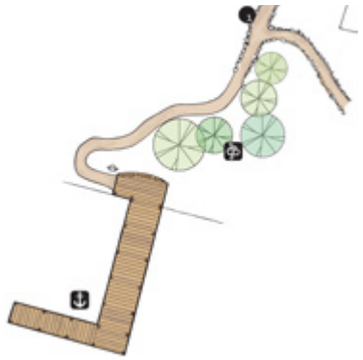


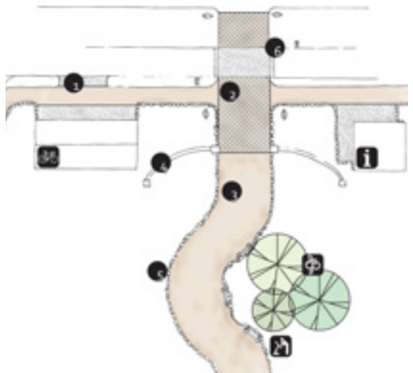
In Photography for Architects, students become technically proficient with digital or 35mm film camera, while simultaneously developing a greater awareness and understanding of photography as a “visual language.” Students apply this new understanding of a different visual language to their own images while learning to make effective visual statements about how they view the world around them. Through photography, students focus not only on why they make the images they do but also on what intentions lie behind those images and, ultimately, how they are interpreted by the viewer.

Electives

Discovery of Yellowstone

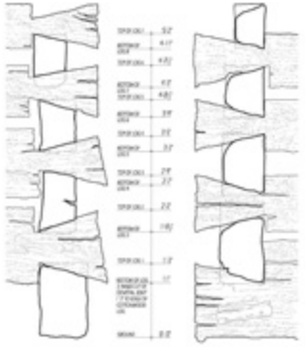
Part of a decade-long design, preservation and planning collaboration between Yellowstone National Park and the MSU School of Architecture, this particular course focused on the history, morphology, and design augmentation of four museums constructed in the 1930's within Yellowstone National Park. Issues of orientation, access, approach, accessibility, re-purposing, and rehabilitation were investigated, with particular emphasis on telling the story of the location. Students spent time in the park's archives working directly with park staff in addition to traveling by snow coach to visit the various sites. The outcomes from this course were submitted to the Yellowstone Park Foundation for the purpose of fundraising in order to realize the improvements to the museums.





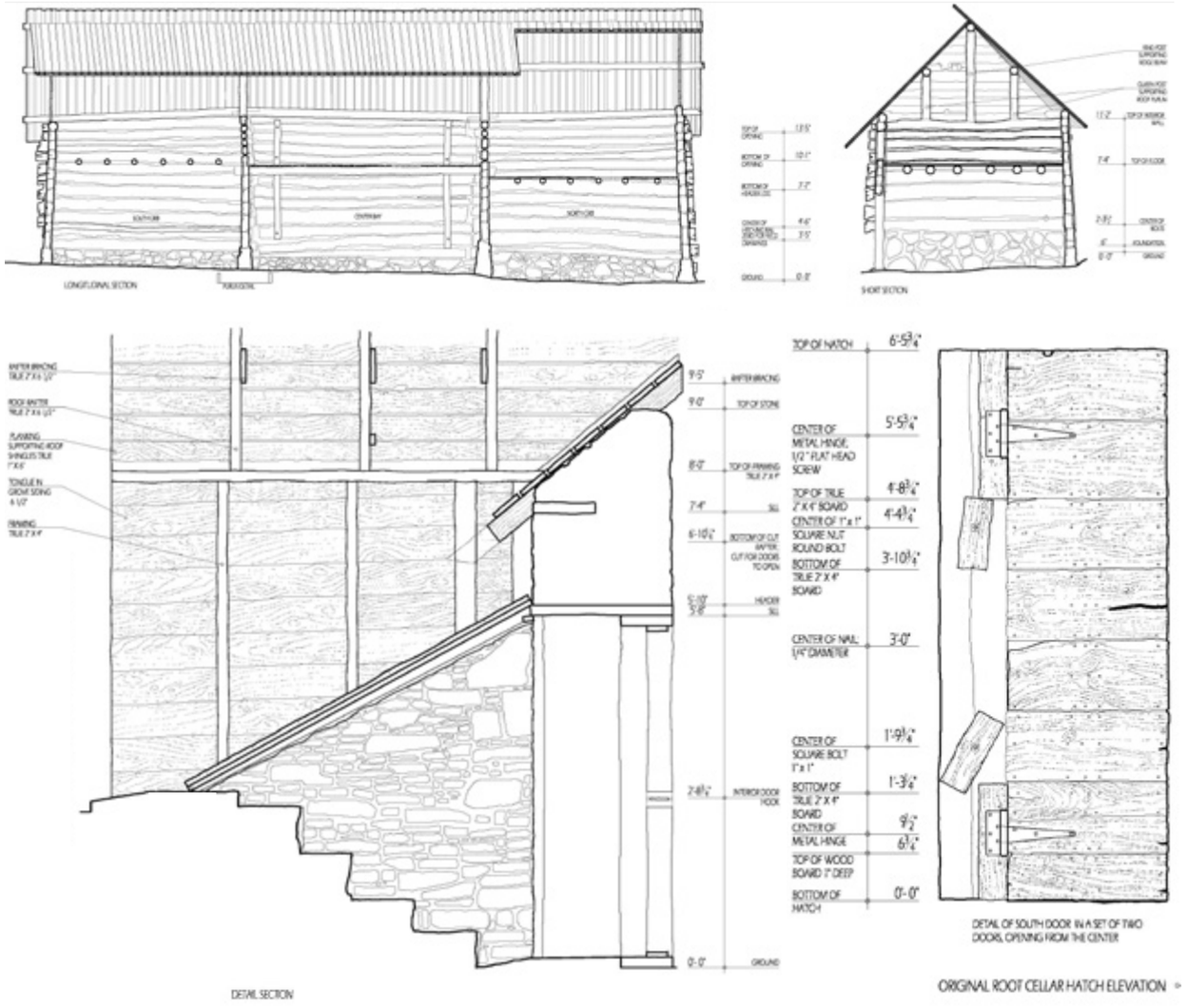
Advanced Interior Design

The Advanced Interior Design elective explores the dynamics of interior space planning and design. Covering specific interior design topics by designing a commercial and residential project, the course addresses the complete design process—from programming to design development—and includes the study of color, finishes, materials, furnishings, fixtures and equipment. Students submit their work to an Interior Design Educators Competition each year, which has resulted in MSU School of Architecture student receiving awards in this international competition.



Traces: Drawing on the Cultural Landscape

This interdisciplinary lab focuses on field research methods for recording and interpreting the cultural landscape—involving hands-on fieldwork, production of measured-line drawings, documentation photography, primary historical research methods using archives and public records, and building typology theory. Drawings are prepared for submission to the Historic American Buildings Survey (HABS) National Archives. In 2012, 2014 and 2015, submissions from the course received Honorable Mention, Third Place, and Second Place awards, respectively, in the Charles E. Peterson Prize for HABS documentation, and are now part of the National Archives.



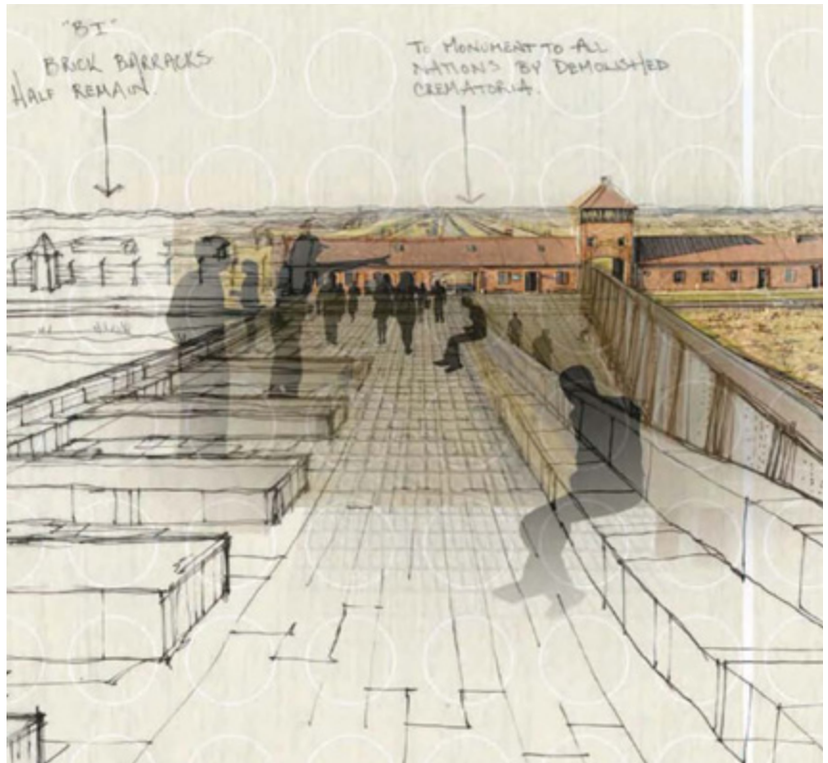
Electives

Berkeley Undergraduate Prize for Architectural Design Excellence

A number of undergraduate design studios submit proposals to address the issues identified by the Berkeley Undergraduate Prize committee each year. These initial essays serve as a framework for the students design studio explorations and, on a number of occasions, students were selected as semi-finalists and invited to apply to the next round of proposals for both the Berkeley Prize and Travel Fellowship Competition.

Milenka “Kali” Jirasko was one of three international winners of the Berkeley Prize Travel Fellowship Competition in 2011, allowing Kali to research sacred spaces at the former Auschwitz concentration camp in Poland. Jennisse Schule, 2015 Berkeley Prize Travel Fellowship winner, traveled to Alaska to be a part of a design-build project focusing on housing for women.

Other MSU awardees: Semi-finalists Devin MacCracken (2016), Kelli Littleton (2015), Carson Booth, Rachael Haugen, Britni Jeziorski, Chris Taleff, (2011); Frinalists Jennisse Schule (2015), Milenka Jirasko (2011).



COMPETITIONS

Race to Net Zero

An interdisciplinary team of architecture and engineering students compete in the Department of Energy’s international Race to Net Zero competition—asking students to design innovative residential buildings that are net zero energy, producing as least as much energy as the building consumes. The students of Team KI designed Tamarack Zero, an eighteen-unit apartment building focused on using passive systems to reduce building energy loads and employing PV panels for a plus-energy building, producing more energy than it consumes. Other teams of students have entered the ASHRAE Integrated Sustainable Building Design competition—receiving first and second place awards during the inaugural two years of the competition.

Community

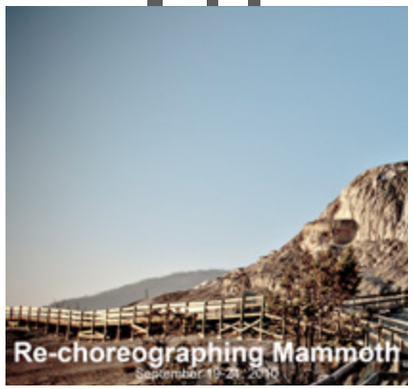
John C Brittingham, AIA, NCARB **Professor**
John C Brittingham has worked in collaboration with Yellowstone National Park (YNP) developing a new paradigm for approaching design work in YNP that includes design charrettes with internationally recognized architects, landscape architects, architectural illustrators and students. He has also worked with Grand Canyon National Park and the Kohala Center in Hawaii.

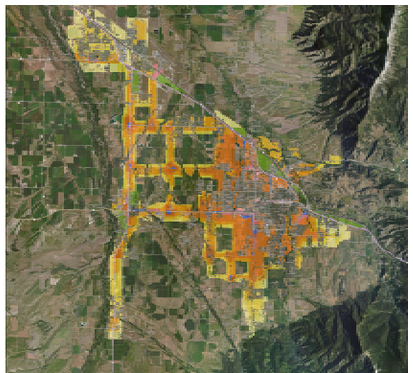
Bill Clinton **Instructor**
Bill Clinton is part of an interdisciplinary art installation—The Cave Project—to create a series of virtual "caves" with light and sound based upon analysis and interpretation of the Chauvet cave in France. Additional research includes the construction and playing of ancient Roman musical instruments as part of the interdisciplinary exhibit, *The Villas of Oplontis near Pompeii.*

Susanne Cowan, PhD **Assistant Professor**
Susanne Cowan has been tracing the ways that planning policies in de-industrializing cities shaped the process of urban decay and/or gentrification, and what positive or negative impacts urban design interventions had on social and economic conditions of residents. She recently completed an oral history documentary, "Design as a Social Act."

Michael Everts, AIA, NCARB **Associate Professor**
Michael Everts advocates—through competitions, design research and student-involved design-build projects—a process of architectural thinking and building that questions assumptions, seeks untraditional partner alliances, and provokes reinterpretation of social and physical structures. His research has been recognized with the NCARB Grand Prize and an NCARB Honorable Mention award.

Ralph Johnson, AIA, APA **Professor**
Ralph Johnson's book, *Building from the Best of the Northern Rockies*, articulates sustainable planning principles and illustrates successes achieved in the Northern Rockies. Current research involves development of a visioning program enabling users to propose land use scenarios based on building typologies with data outputs revealing factors of housing costs, energy/water consumption, property tax income, and potential jobs.





Steve Juroszek, AIA, NCARB **Professor**
Steve Juroszek's research focuses on the area of design communication—both digital and analog. He collaborated on a number of book publications including *Design Drawing* and *Residential Building Codes Illustrated*.

Zuzanna Karczewska **Associate Professor**
Zuzanna Karczewska explores issues related to theory of representation and bodily perception. Her research on issues of representation and phenomenology have been presented at the 34th Annual Conference of the International Merleau-Ponty Circle conference and the European Architectural Envisioning Association International Conference in Delft, Netherlands.

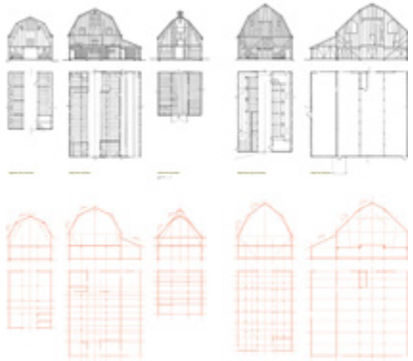
Chere LeClair, AIA, NCARB, LEED AP **Associate Teaching Professor**
Chere LeClair's teaching focus lies in the exploration of making and process-driven design as a mechanism for students to contemplate their unique voices, in particular, as it relates to themes of place and landscape. She is Regional Director of the AIA Northwest and Pacific Region and past-president of AIA Montana.

Christopher Livingston, AIA **Associate Professor**
Christopher Livingston has undertaken design-build projects in Montana, England, and Morocco that utilize design to create social change in communities. Project typologies range from additions to women's shelters and community food banks to pavilions, waste incinerators and community washing stations. His work in this area has been featured in Cameron Sinclair's *Design Like You Give a Damn*.

Thomas McNab, AIA, CSI, LEED AP, NCARB
Associate Teaching Professor
Tom McNab is the Director of the School of Architecture's Community Design Center and a recipient of MSU President's Excellence in Outreach and Excellence in Service Learning awards and the Provost's award for Undergraduate Research. His interests include collaborative/integrated project delivery process, resilient design and construction techniques, interdisciplinary project management, and public/private partnering projects.

Community

Jaya Mukhopadhyay, Ph.D., LEED AP **Assistant Professor**
Jaya Mukhopadhyay, co-Director of the Bozeman-based Integrated Design Lab, has focused on research to reduce energy consumption in residential buildings and the development of code-compliant residential simulation programs. She teaches Environmental Controls Systems and Advanced Building Systems Integration.



Barry Newton, DIPL. ARCH, ARB **Teaching Professor**
Barry Newton has won numerous national and regional awards for Historic Building Documentation/Renovation/Design through the Charles E. Peterson Prize, the Kansas Preservation Alliance and the Kansas AIA Award of Excellence. He is a recipient of the Kemper Foundation teaching award and is an Emeritus Professor at the University of Kansas.

Máire O'Neill, NCARB **Professor**
Máire O'Neill has studied the form and tectonics of historic agricultural buildings in Gallatin Valley, Montana for 18 years. With the help of her students, she documents them in measured drawings—producing several exhibits. Her students' documentation and historic research have received numerous awards in the HABS Charles E. Peterson Prize.

Fatih Rifki, PhD **Professor**
Fatih Rifki's recent research focuses on the history and theory of urbanism and the theory of urbanism in general as well as the influence of Utopian thinking in the 20th century—particularly the work of Archigram. His recent book, *Architecture Anthology I: Sustainable Design* brings together the work of international scholars from the Athens Institute for Education and Research (ATINER).

John R. "Jack" Smith, ArchD, FAIA, NCARB
Teaching Professor
Jack Smith was founding partner of ENTELEKI, Architecture, Planning, Research, where he was one of the original architects and planners of the Snowbird Recreation Area in Utah--recognized by the Society of Architectural Historians as one of the top 100 most significant projects in Utah history. He was in partnership with the celebrated landscape architect Dan Kiley. His work has received numerous design awards and has been published internationally.

Henry Sorenson, Jr., Assoc. AIA, ASAI, DCA
Professor
Henry Sorenson hones his powers of perception and visual interpretation through practice and experimentation in the arts of photography, drawing, painting, and architectural and graphic design. He has received multiple Awards of Excellence from the American Society of Architectural Illustrators and the Design Communication Association's Dennis Allain and Thomas Schaller's Jurors Awards. He is past president of both organizations.

Andrew Vernooy, FAIA **Professor and Director**
Andrew Vernooy has developed urban and community design programs, interdisciplinary centers and expanded programs of design and architecture. He has received dozens of design awards for excellence in architectural design and urban design. His work has been grounded in the belief that architecture is a discipline with distinct community-based responsibilities.

Bradford Watson, RA, NCARB **Assistant Professor**
Bradford Watson has undertaken extensive research on the displaced terrain of Butte, Montana, resulting from its history of extraction—resulting in a new landscape that can be reconsidered as a topography of possible occupation and intervention through new reclamation strategies. His research has been presented at the ACSA International Conference and published in *MONU*, *Scenario*, and *On Site Review*.

Visiting and part-time faculty
Thom Allen, Jillian Bertelli, Kristin Blackler, Heath "Tad" Bradley, Erin Chamberlain, Nick Fulton, Sherrill Halbe, Jessica Jellison, Luis Longhi, John McCreery, Gretchen Miller, Elisa Renouard, Jimmy Talarico, Dan Wise, and Brad Wright.

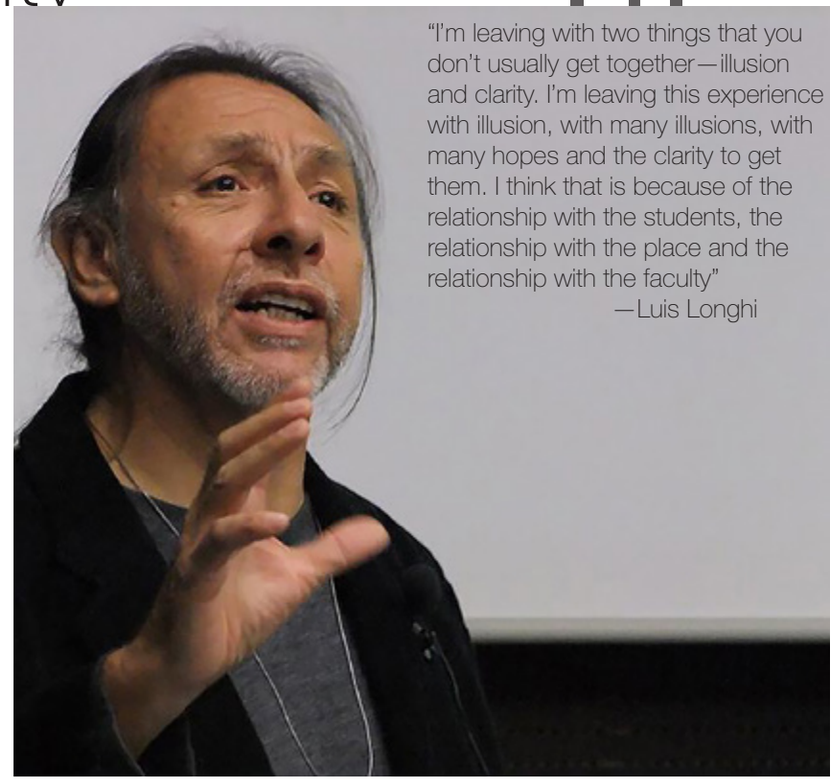
Visiting Professor Endowed Chair

Luis Longhi, Inaugural Visiting Professor

As a result of the generosity of our alumni, advisory council and friends, the School of Architecture created its first visiting professor endowed chair. We were pleased to invite Luis Longhi, Principal of Longhi Architects in Lima, Peru, as the inaugural Visiting Professor. Luis taught a graduate design studio and a second-year design studio, delivered a public lecture and created an exhibition of his work. His impact on the students' excitement for design could be seen in every conversation and gathering.

"Luis taught me so much about architecture, more than I could ever have imagined. He told us that anything was possible...I don't have to limit myself...while having Luis as my studio professor, I fell in love with architecture again."
—Alyssa Parsons

"...he has changed the way I look at things and how I design...he pushes me out of my comfort zone....helped me in more conceptual [ways]....the importance of the experiences you want your clients to [have] in that space..." —Dian Dela Santa



"I'm leaving with two things that you don't usually get together—illusion and clarity. I'm leaving this experience with illusion, with many illusions, with many hopes and the clarity to get them. I think that is because of the relationship with the students, the relationship with the place and the relationship with the faculty"
—Luis Longhi

Community

Elizabeth A. Day
Elizabeth A. Day Architectural Illustration
Stanley Saitowitz
Natoma Architects Inc.
Joseph Biondo
Spillman Farmer Architects
Don MacArthur
MMW Architects
Byoung Soo Cho
BCHO Architects Associates
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Univ. of Texas-San Antonio Dept. of Architecture
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Rick Joy Architects
Henry Sorenson
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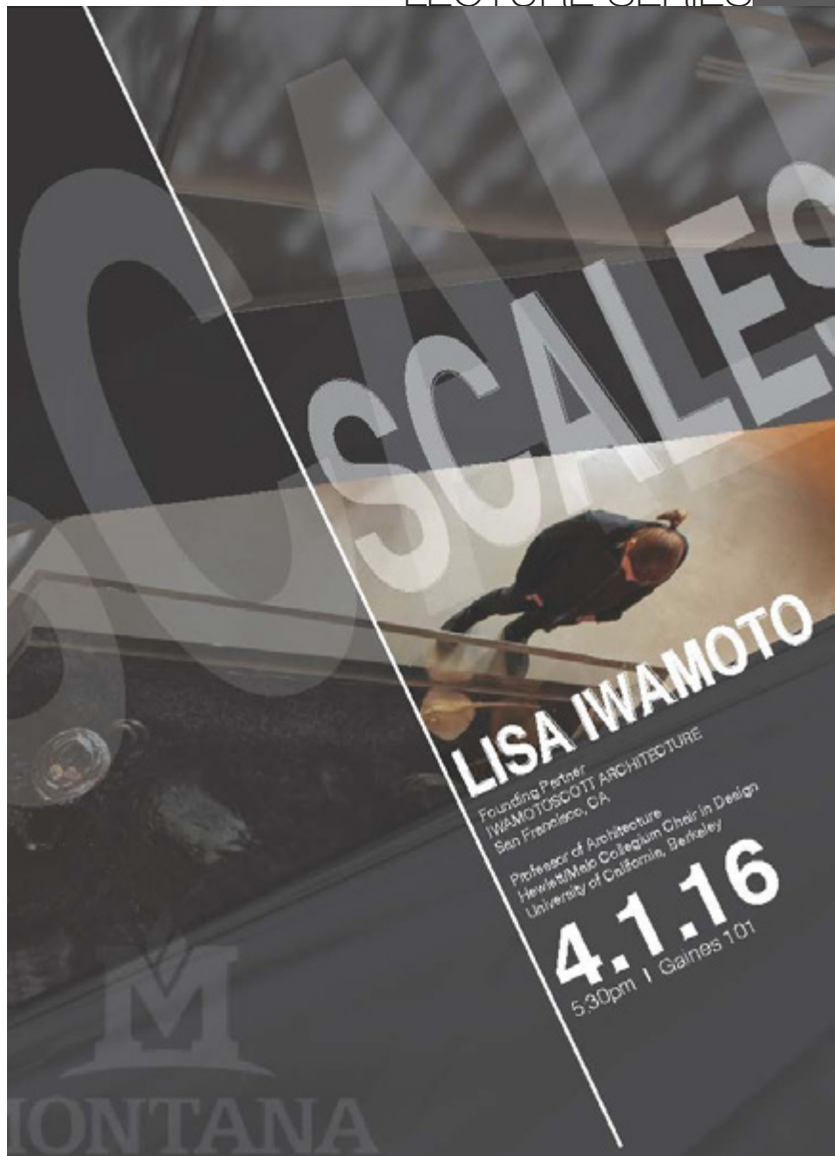
The Miller Hull Partnership
Andrew Moddrell and Christopher Marcinkoski
PORT Urbanism
L. William Zahner
A. Zahner Company
Frank Barkow
Barkow Leibinger
Arne Emerson
Morphosis Architects

LECTURE SERIES



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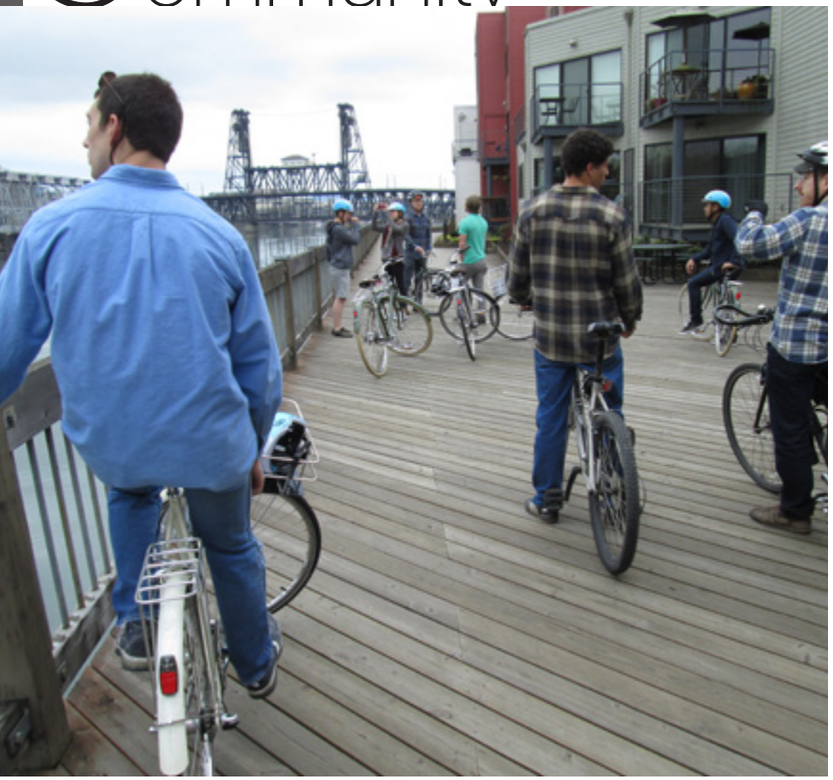
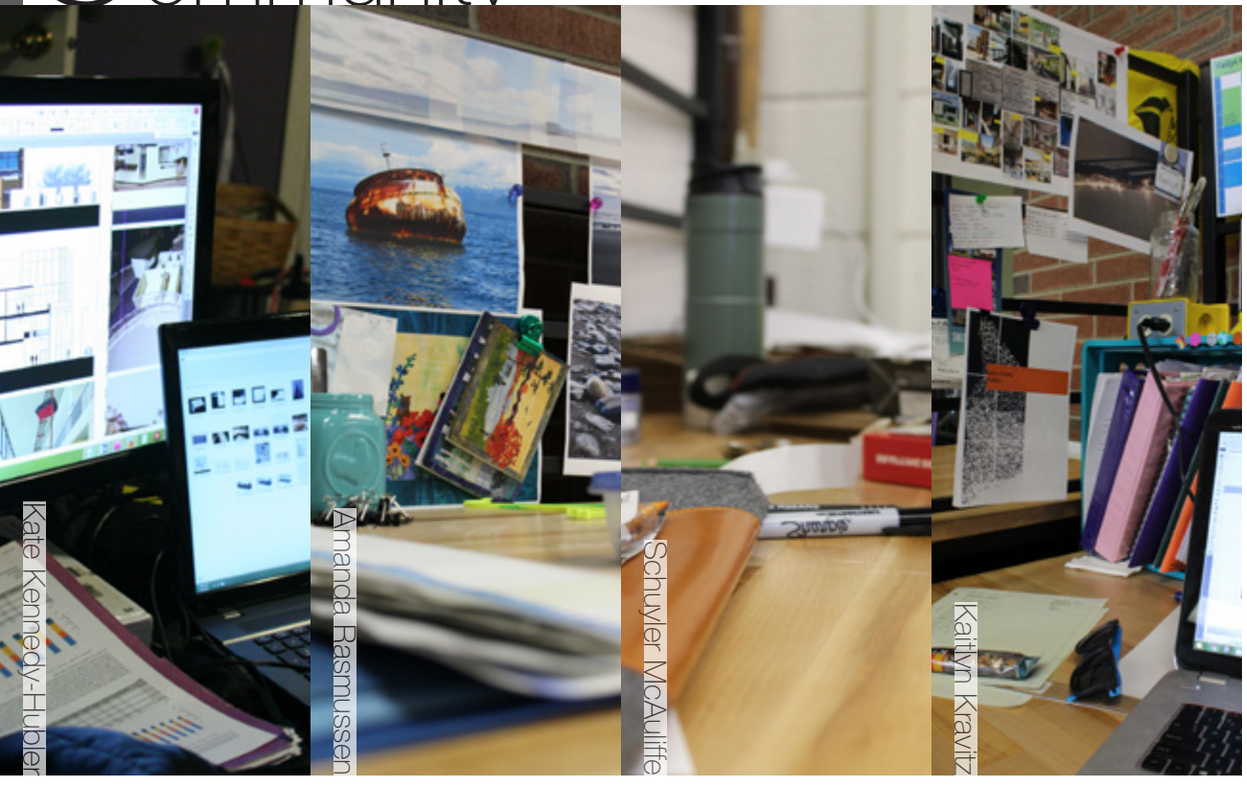


In combination with the MSU chapter of the American Institute of Architects Students (AIAS), the School of Architecture hosts and supports many events throughout the year including: Backyard Design Charette. Welcome Back BBQ. Dunk Tank. Freakers Ball. Science Fun Night. Dodgeball Tournaments. Firm Tours. Workshops. Spring Banquet. Celebration of Architecture. Faculty Roast. and Milk & Cookies night.

Students also travelled to regional and national AIA and AIAS conferences in Helena. Denver. Seattle. Portland. Hawaii. Nashville. San Francisco. Las Vegas. and Washington D.C.



Acknowledgments

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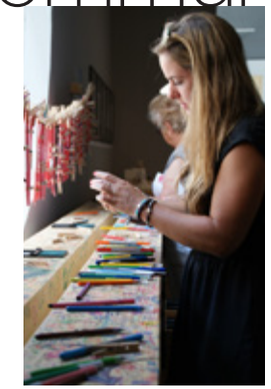
The V17 design team also wishes to thank the faculty and students for the work they provided for inclusion in this publication and for the community they have established in Cheever Hall.

Community



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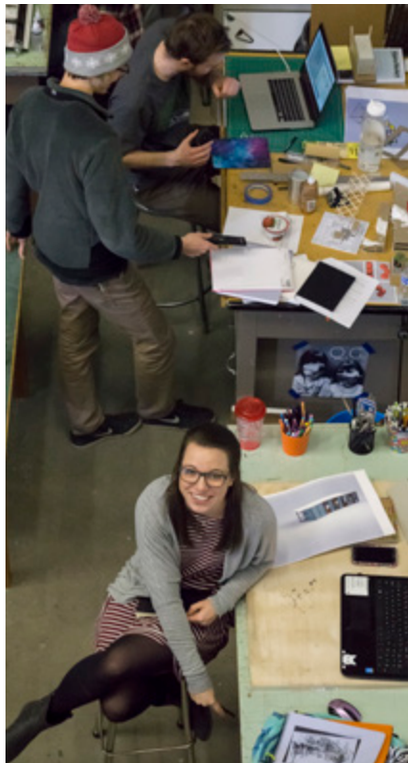

Front Cover: Image of a portion of the sky above Bozeman, Montana throughout the year.

Back Cover: Contour lines depicting a portion of Hyalite Canyon in the Gallatin Mountain Range.

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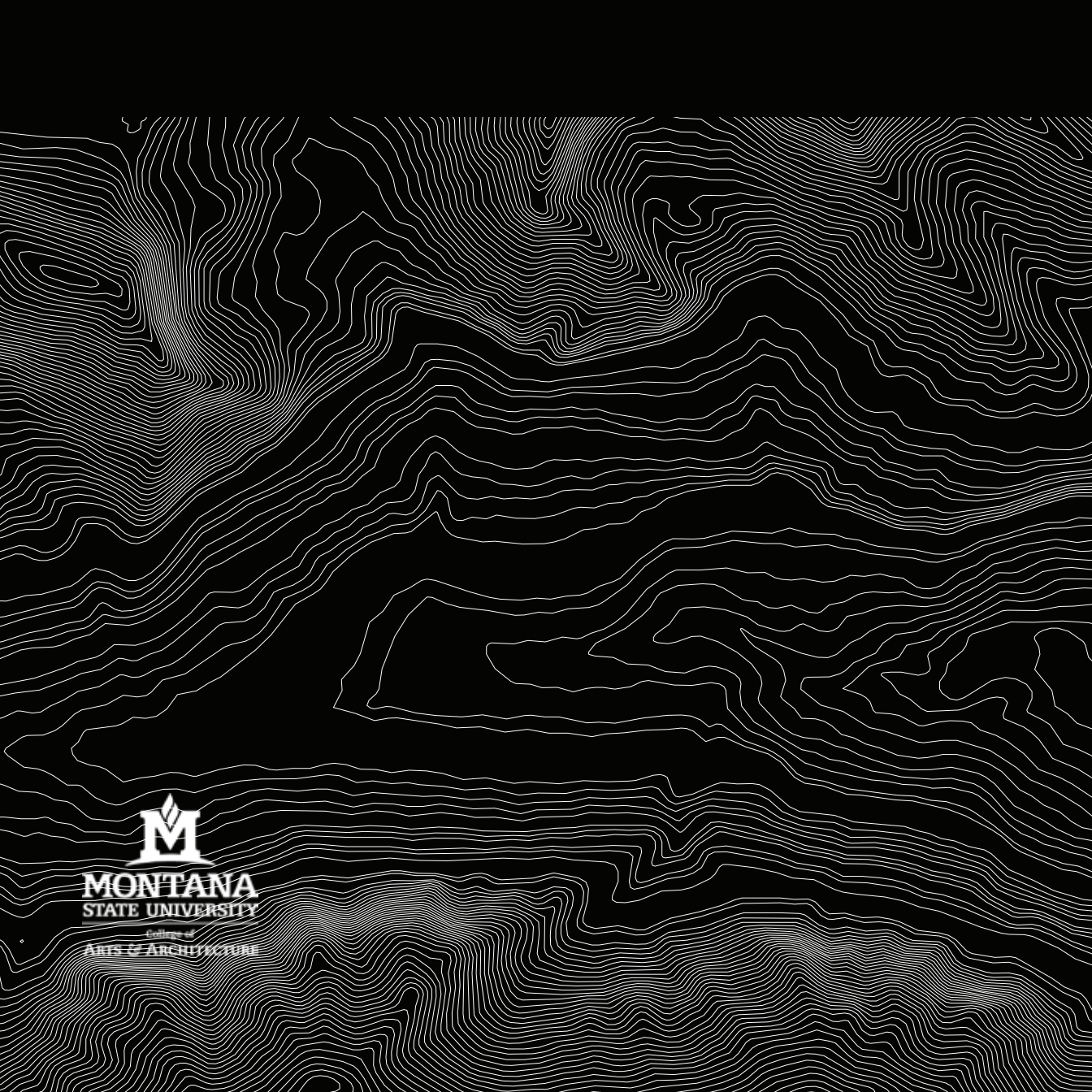
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