

## **I.1.3 Response to the Five Perspectives**

### **I.1.3 A Architecture Education and the Academic Context**

Although the faculty is predominantly tenure-track (TT), as a result of the 2006 expansion the School of Architecture's faculty has a much larger share of full-time non-tenure track (NTT) faculty members—formerly called adjunct faculty—than in the pre-expansion years. All tenure-track faculty are required to meet the standards of hire, promotion, and tenure of the University, College and School. In general for TT faculty, the School requires a post-professional degree and professional licensure or PhD. to be considered for employment. The post-professional degree is considered by the School to be equivalent to a terminal degree and provides our faculty with the basis for engaging in research and creative activities in their various areas of focus. Full-time non-tenure faculty have varying qualifications that place them in three distinct categories. Some full-time adjuncts meet all of the standards for tenure but have chosen to remain in an NTT role. These faculty have post-professional degrees and are licensed architects—most have had architectural practices. Other full-time non-tenure track faculty have only a professional degree but have had significant experience in architectural practice or in an allied field. Still other NTT faculty have a first professional degree and are typically working toward licensure. These faculty, emerging professionals in practice and education, bring vitality and new ideas to the school that is invigorating to the program. This builds upon the experience of the tenure track and senior NTT faculty. The balance of senior non-tenure track faculty and junior non-tenure track faculty is seen as both an important benefit to the program.

All full-time faculty whether TT or NTT are required to maintain a full service load which contributes to the overall academic mission of the school, college and university. Architecture faculty have played a prominent role on a number of important university committees and councils. Architecture faculty have served on the University Planning Council, University Facilities and Planning Board (UFPB), Facilities Advisory Committee, University Space Management Committee, Faculty Affairs Committee, Faculty Senate, University Grievance Committee, Graduate Council, Student Advising Taskforce, and Inquiry Core Curriculum Review Committee to name just a few. The School's involvement with all of these university level service activities has maintained a high profile for the school within the university and has continued to strengthen the program's reputation as a high quality program within the academic context. This is evidenced by the University's request to include the School of Architecture in their annual high school counselors' tour program each year in the hopes of attracting top students from around the country. Architecture faculty are also asked to give sample classes during MSU Friday—a daylong event in which talks and sample classes are given to prospective high school students from around the region.

The School maintains a high level of involvement at the college level. In addition to serving on all College committees, the School has maintained an active presence in the President's Fine Arts Series (PFAS)—an annual series of events that showcases the unique creative and research accomplishments of our disciplines. In 2012, the PFAS focused on Women in the Arts and featured a panel discussion by faculty, practitioners, and alumni on the challenges and opportunities for women in the profession of architecture. In 2013, the PFAS theme became "The Science of Art/The Art of Science" and was held in conjunction with the Celebrating Einstein Conference. During this event, two architecture faculty were invited to join a theoretical physicist, Lawrence Kraus, for a presentation and discussion on "The Science of Space: Envisioning the Future." This presentation was attended by members from both the architecture and science communities. An outcome of the PFAS was a joint class offered by the School of Architecture and the School of Film and Photography called "Camera Obscura" which resulted in the construction and exhibition of camera obscura by architecture, art, photo and film students. The camera obscura has been exhibited throughout campus and the community of Bozeman. The School initiated a Faculty/Student Research Day that while focusing on architecture students and faculty included a faculty member from the School of Art. After the success of this initial research day event, we are expanding the Research Day to include all four of the units in our College. Similarly, the School has been working on the development of a symposium that will explore our western landscape. While initially conceived as a means of assisting the school in better formulating our focus on stewardship, the symposium has expanded to a college level focus and is being developed in conjunction with the College of Letters and Science. This symposium, scheduled for October 11-12, will feature Dr. Vincent Canizaro from the University of Texas-San Antonio as the keynote speaker and will have an all-day series of presentations. The call for papers was targeted to include submissions from artists, photographers, historians, geographers, philosophers, and writers as well as architects, landscape architects, planners and designers.

The Undergraduate Scholars Program (USP) is a long-standing MSU initiative that promotes undergraduate research and creative activities. Students submit proposals to an internal grant application process—requiring peer review of all proposals—and if successful students receive funding to work on research projects under the supervision of our faculty. We have seen a steady increase in the number of students who have participated in the USP program. Proposals have included studying smart growth policies, sustainable building system research and documentation of historic structures among other topics.

In an effort to broaden our students' exposure to outside points of view, the faculty regularly invite faculty from other disciplines to participate in studio reviews. In addition, the School invites practitioners from around the country to participate in studio reviews. The School has invited visiting faculty to teach or co-teach some of our graduate studios. Some of these visiting faculty have included Tom Porter, Oxford Brookes University, Mark McInturff, Holly Porter, and Coleman Coker as well as emerging professionals and educators—such as Brian Brush, Monika Witting, Shane Salisbury, Yong Ju Lee, Carson Smuts, Lance Walters and Ron Shvartsman—who have focused on parametric design as a methodology in their studios. These visiting faculty are brought to the school as part of our Visiting Scholar's Studio and also form a key part of our annual lecture series. Similarly, our students are able to attend lectures, musical performances, film showings and theatrical performances throughout the university—exposing students to a broader range of topics on the arts and sciences.

The school also offers four university core courses—two in the first year of the program and two in the third year of the program. These courses provide other students with the chance to explore the study of architecture and in the case of both ARCH 121IA and ARCH 151RA provide non-architecture students with an opportunity to experience the creative process in architecture. Similarly our students are able to take a broad range of courses outside of our department. Our students regularly take courses in business, photography, art and the humanities, benefiting their overall education experience. Approximately one-quarter of our students are working on minors with Business Administration, Business Entrepreneurship, Photography and Spanish being among the most common minors that our students pursue. In addition, a number of our students are pursuing Associate's degrees at Gallatin College—the two year college associated with MSU. The most common associate's degrees our students pursue are Interior Design and Design Drafting Technology. Many of our students, approximately 10-15% on average, are enrolled in the Honors Program and our faculty have taught or co-taught courses in the Honors Program.

Many non-core courses are offered which have provided our students and faculty with the opportunity to interact with other disciplines and institutions providing a broader academic community for our program. Our community design center often works on community projects that involve students and faculty from engineering, landscape design or business. The School is currently in conversation with the School of Art to be involved in projects with the City of Bozeman Parks and Recreation Department, the School of Art and community members. We have held a number of graduate design studio courses that resulted in design-build projects involving students and faculty from the College of Engineering and the College of Agriculture. The School has been invited to participate in the Northlands Glass Workshop in Lybster, Scotland for the past two years. Similarly, students and faculty participated in the Morocco: Developing Sustainable Communities course along with the Department of Education and in collaboration with students from Oxford Brookes University.

To support a strong academic community and expose our faculty and students to expertise from around the world, the School has hosted a number of national and international conferences including the American Society of Architectural Illustrators (2009), the Design Communication Association (2010) and the Vernacular Architecture Forum (2009). In 2013 the Symposium: Critical Rediscovery of the Northern Rockies will take place in the School. The 2015 Design Communication Association (DCA) conference is tentatively scheduled to be held at the School. As the headquarters of the DCA, Montana State University typically hosts this conference on a regular basis. These events bring world class educators and practitioners to MSU and allow our faculty and students to attend these conference events.

Faculty, students and staff have consistently chosen to stay involved with other departments on campus and as mentioned earlier we have a high profile on campus and the program is well respected by the administration and other units on campus. Our students and faculty benefit from the varied events and courses that are offered at MSU.

### **I.1.3 B Architecture Education and Students**

The School has worked to create a wide range of activities and educational opportunities to prepare students to live and work in a global world and profession in a positive and respected manner.

The School believes that student involvement is an essential part of architectural education. The School encourages students to participate in and join student organizations. To assist in this effort, the School, in conjunction with our Advisory Council, friends, alumni, and AIA Montana, have provided support to AIAS so that they have funding to undertake many of their activities each year. This has included support for student participation at Grassroots, AIAS Forum and the West Quad AIAS conference. In addition, the Celebration of Architecture event is utilized as a fundraising activity for AIAS. The Celebration of Architecture event raised over \$10,000 in funds each year for AIAS of which 50% has been utilized by AIAS to provide scholarships to our students. The School also provides opportunities for students to attend the annual Meeting in the Mountains hosted by the Billings Architectural Association—featuring nationally prominent speakers and events. AIA Montana provides an option on registration forms for attending architects to donate the cost of student registration as part of their registration options. The School and Advisory Council also supported Katie Cheetham (AIAS MSU Chapter President in 2010-2011) when she ran for National AIAS Vice-President. The students host three events, the AIAS Spring Banquet (formal dinner and faculty “roast”), the Freakers' Ball—their annual Halloween Costume Ball—as well as the Celebration of Architecture which is open to all third, fourth and graduate year students allowing students the opportunity to connect with firms and alumni from around the country.

Based upon the most recent studio culture survey, 39% of our students participate in either university sponsored organizations or non-university organizations. Our students have been involved in Habitat for Humanity, Marching Band, Engineers without Borders, Search and Rescue and a wide range of intramural sports. The School has provided a number of opportunities for students to participate in projects and courses that engage students with the broader community and world. Examples of these opportunities include the Morocco: Developing Sustainable Communities course which was originally developed by an architecture faculty member, Bill Rea, and architecture alumni, Cloe Erickson. For five years students from architecture, and more recently education and nursing students, have traveled to Morocco to assist a rural community in renovating significant cultural buildings for use as clinics and classrooms. A second faculty member, Chris Livingston, led the Morocco course this past year. For three years, students and faculty member, David Fortin, have participated in a course in Kenya in which students undertaken design-build projects that explore the use of strawbale construction as a means for addressing housing and crop storage issues in Kenya. The School has offered a summer course allowing students to participate in the Northlands Glass Workshop in Lybster, Scotland. Our students and faculty, Tad Bradley, joined two other institutions at this workshop—the Rochester Institute of Technology and the Alberta College of Art and Design. Similarly, the School developed a partnership with Oxford Brookes University to create a design-build program between the two institutions. Last year five of our students traveled with Chris Livingston to Oxford, England, to conduct a two-week design-build course resulting in the construction of the Playful Ping Pong Pavilion. This past summer, it was decided to combine the MSU-Oxford Brookes partnership with the Morocco sustainable community design project. This led to the design and construction of a waste incinerator for a rural community in Morocco.

In addition to these study abroad opportunities, the School has maintained a robust study abroad program as part of our design studio sequence. The School offers a summer design studio in Rome each year, ARCH 414 Architectural Study Abroad, which allows up to 12 students to live and study in Rome. Each spring semester, we offer ARCH 414 in either South America or Asia. A number of students have also opted to study at an institution overseas—typically in Copenhagen with the DIS program or in Spain. Students also have the option to participate in our internship program. A number of students have taken advantage of the internship program to work abroad—a number of recent student internships have taken place in China, Brazil, England and Germany. Besides the traditional architectural office, students have interned in design/build firms, large corporations, and other organizations where they are under the supervision of registered architects. Lindsay Schack, the internship coordinator, provides a series of workshops for students on creating portfolios, cover letters and resumes as well as working with students to connect them with firms that are looking for internships. Within the United States, students are provided an exposure to a broader world and practice through a number of activities. Required field trips to Portland and Seattle in the third year serve as an introduction to urban issues. This is further reinforced by a required field trip to a large urban center—New York, Chicago, Los Angeles, Dallas, San Francisco, or Philadelphia—in one of their graduate design studios. Visits to firms are a part of these field trips, which has allowed students to interact with professionals in these cities and gain a better understanding of the breadth of professional opportunities.

For the last five years, the MSU School of Architecture has been one of the charter schools that formed the AIA Northwest & Pacific Region Student Leadership Institute (LI). The Leadership Institute was formed to provide students with the opportunity to develop leadership skills and to undertake a project related to leadership within the university or Bozeman community. Some of the outcomes of the leadership institute have been projects to enhance the studio environment, planning and development of student collaboration spaces, and a research paper investigating design-build curriculums that was presented at an international conference in England on Live Projects.

Students are informed of recent developments, news, et cetera, at the “All-School” meetings held at the beginning of each semester. The gatherings provide a forum to introduce all faculty, studio projects, special programs, field trips, curriculum issues, and to answer student questions. The AIAS officers are introduced at this meeting. The officers encourage students to participate in numerous activities and provide instructions on how to join. We also utilize our plasma screens and information boards to inform students of the many opportunities within the school. Students are represented on most School committees including Faculty Search, Curriculum, Lecture, Computers/Equipment, Learning Culture, Strategic Planning and Exhibits. Student representatives are also invited to attend faculty meetings. Student members of the Lecture Committee are invited to dinner and other activities with visiting lecturers, which provides students with a wonderful connection to these visiting professionals. Students were involved with the development of the new curriculum—both through presentations at all-school meetings and at mid-semester meetings dedicated specifically to the development of the new curriculum. Similarly students’ perceptions are gained through the studio culture survey and forum within the school—providing a means for students to take an active role in shaping and determining the direction of their education and our program.

While the early years of the curriculum are structured, in order to provide the necessary foundation of knowledge, students are responsible for shaping the final two years of the program through their selection of option design studios, travel opportunities, internship opportunities and selection of electives—both architectural and non-architectural—in the graduate program. Students are advised on a regular basis and the various options and curricular scenarios are explained to them so that they can select the path that is best suited to their academic interests and needs. In addition, the university has adopted a new advising tool, DegreeWorks, an interactive website through which students can track their progress through the program. One of the great benefits of DegreeWorks and something that is stressed in all of our advising sessions is the “What If” option in DegreeWorks. The “What If” option provides students with an easy tool to explore the requirements for any major, minor or certificate program at MSU—providing alternative paths based upon the students current courses completed.

The School works with students to assist in developing self-worth and dignity. “Juries” have been replaced by “reviews”. Review week is considered an academic period open to all students and faculty within the School. While some students find the final reviews stressful there is also a large portion of the student body, as evidenced in the responses to the studio culture survey, that find them engaging and productive. In general, mid-semester reviews and individual desk reviews are also found to be engaging and productive. We have expanded the review week process so that more time can be devoted to talking with students about their work without having to endure overly long review periods or having to shorten the amount of time allocated to each student. The School is committed to providing ample review time to the students given the amount of time and effort they have devoted to their project(s) during the course of the semester. In addition, the Director of the program talks about the studio culture policy in the all-school meeting at the beginning of each academic year. The studio culture policy is available on the School’s website.

### **I.1.3 C Architecture Education and the Regulatory Environment**

The School recognizes its requirement to provide a professional education leading to possible architectural registration. The School encourages the faculty to serve on boards and as officers in the various registration governing bodies. Thomas Wood, Professor of Architecture was a Regional Director for NCARB until 2011 when his final term ended. He ran for national office as a candidate for Secretary in NCARB, but, unfortunately, was not elected to this position. However, Tom Wood continues to serve on a number of NCARB committees providing a link between the School of Architecture and NCARB. In addition, Associate Professor Maire O’Neill continues to serve on the Montana Board of Architects and Landscape Architects (MBALA) which oversees the licensing of architects and landscape architects in the state of Montana. The MBALA holds a meeting once a year at the School of Architecture and students and faculty are invited to attend so students can meet and ask questions of the board.

The School has provided students—and prospective students—with information on the Internship Development Program starting with their initial visit to the School. The Director of Student Services for the School of

Architecture, Rachael Ortego, meets with over 300 prospective students and families each year. In the course of these meetings, Ms. Ortego provides each prospective student with a handout explaining the three steps involved in the process for licensure. This handout can be found on our website under the Students category at <http://www.arch.montana.edu/pages/downloads/downloads.php>. The handout link is titled “Why Study Architecture at MSU” and the information on licensing can be found on page 2 of that handout. The main intent of this handout is to provide a simplified explanation of the process and to encourage students to visit NCARB’s website. There is a second link on that same webpage labeled “NCARB” which will take students directly to NCARB’s website.

As the IDP Educational Coordinator for Montana State University, Associate Professor Christopher Livingston provides several resources for students and faculty related to NCARB and IDP. These resources consist of a one hour seminar for both the first year and fourth year students each year and a series of informational handouts and other resources located on the School of Architecture server. The first year seminar is part of the ARCH 121 Introduction to Design course and the fourth year seminar is part of the Professional Practice course. These seminars provide students with the necessary information to take advantage of internship and summer employment opportunities while documenting hours as part of their IDP. The seminars consist of a discussion about the role of NCARB in the profession as well as the various aspects of the IDP program. Students are given information regarding the most pertinent pages of the NCARB website and a questionnaire to fill out related to the information covered including available resources, timelines, training areas, requirements and settings, as well as supervision and mentorship. Additionally a series of handouts have been created to aid students in the IDP process. These handouts are related to getting started with NCARB and the IDP process, the various opportunities to gain IDP hours during the semester as well as the IDP Guidelines have been placed on the School of Architecture server as a resource for students and faculty. As part of his IDP Educational Coordinator role, Chris Livingston coordinated with NCARB’s IDP Manager Martin Smith to hold an all-school meeting for our students and faculty in 2011. This session was very well attended by our students and faculty and led to an increase in the number of NCARB Records initiated by students.

Our Advisory Council holds a seminar twice a year—open to all students—in which practicing architects meet with students and talk with them about issues of professional practice. Typically 5-7 architects from the advisory council have conducted these meetings. The Advisory Council has also begun to hold mini-conferences at each Advisory Council meeting and in a number of cases the conference has focused on issues of professional practice. The upcoming mini-conference is titled “A Funny Thing Happened on the Way to My Career” which will allow professionals, faculty and students to share the experiences that have contributed to their career path. Contributing to the value of our Advisory Council, is the fact that Shannon Peterson—a member of our Graduate Council and Advisory Council—is the Montana IDP State Coordinator. As such, Shannon visits the School at least twice a year in her role on the Advisory Council. Along with the other Graduate Council members, Shannon has provided special workshops and sessions with our students to talk with them about the profession of architecture and the registration process. Over the last year, the Graduate Council has made a special effort to reach out to our first year students in the hopes of connecting with them during the early part of their education.

Students have the opportunity to undertake a 3-4 month internship as one of their fourth year option studios. ARCH 498 Internship. Information on this internship class can be found at [http://www.arch.montana.edu/pages/students/students\\_internship.php](http://www.arch.montana.edu/pages/students/students_internship.php). Since the last accreditation visit, this internship course is now offered year-round allowing students to undertake an internship in either spring, summer or fall semester. Over the last few years, approximately 10% of our students participate in this internship program. This percentage has been higher in the past but the recession limited the number of internship opportunities available to our students. We require that the internships are paid positions. At least once a semester, Lindsay Schack, the School’s internship coordinator for ARCH 498 Internship, conducts a series of workshops on the process of obtaining an internship during a student’s education. For students who apply for the NCARB Record while enrolled in ARCH 498 the School will provide funding to offset the initial cost for students to establish their NCARB Record.

Students gain an understanding of their responsibility and conduct by being part of a “professional school”. Because the majority of our design faculty are registered architects, they actively instruct students on their responsibility to themselves, their profession, the environment and the larger community. In general—as of this writing—MSU graduates taking the Architectural Registration Exam have exceeded the national passing rate in the majority, if not all, of the divisions of the ARE (additional information on this is provided later in the APR). This information is posted on our website on the Downloads page under the Student listing – Architectural Registration Exam Passing Rates. <http://www.arch.montana.edu/pdf/AREPassRates.pdf>

### **I.1.3 D Architecture Education and the Profession**

The School of Architecture encourages all faculty to be active, licensed practitioners. One of the requirements for tenure is that faculty have an architectural license or have a PhD in an area of specialty—such as Architectural History or Structural Engineering. It is hoped that from this students observe a strong connection between academia and our profession. It is essential that a large percentage of our tenure-track faculty be licensed architects to communicate the complexities and understanding needed for today's practitioner. In addition practitioners are brought into the School as public lectures, guest critics, guest lecturers in the classroom, and as adjunct faculty.

As the only accredited architecture program in the state of Montana, the School of Architecture has a strong connection with the professionals in our state and with AIA Montana. AIA Montana holds its annual state conference on the campus of MSU every other year. This provides students and faculty with the opportunity to participate in this conference and take advantage of the lectures, workshops, discussions and social gatherings. Each spring, faculty and students are encouraged to attend the Billings Architectural Association's annual Meeting in the Mountains—another event which exposes our students and faculty to the broader issues faced by the profession. However, the last two years, Meeting in the Mountains changed its venue to Billings and its date to the end of April which conflicted with our final design studio reviews. This significantly decreased student participation. The School has lobbied the Billings Architectural Association (BAA) to change the date of Meeting in the Mountains to an earlier date in April so that our students and faculty are able to more fully participate in this annual event. We are hopeful that the BAA will make this change. The school has historically provided funding for faculty to attend both the AIA Montana and BAA conference events. The school has also provided transportation assistance/funding for students to attend. AIA Montana offers sponsorships for our students' registration and two-day internship positions so that students can work at the conference in return for funding to attend the conference.

Up through 2012, the School had one of its faculty members, Associate Teaching Professor Chere LeClair, serve on the AIA Montana State Board of Directors. Her 7-year appointment to the board included her role as AIA Montana State President during 2011. In addition, the Director of the School attends a majority of AIA Montana State Board meetings in order to provide school updates to the board members and to answer questions or address concerns from the professional members of AIA Montana. Given her role as AIA Montana State President, Chere LeClair has been assigned as the co-faculty advisor to our AIAS chapter. Associate Teaching Professor Tom McNab, who also served as AIA Montana State President in the previous decade, is assigned as the other co-faculty advisor to AIAS. The School believes that the experience of both Chere and Tom on the state board is of benefit to the students involved in AIAS and allows them to remain active in communicating with students on the issues related to the profession. In addition, this past year the School was fortunate to have one of its past part-time faculty, Thomas Bitnar, serve as President of AIA Europe. Thomas Bitnar has lived in Bozeman for over 15 years and has maintained a practice in Bozeman, New York City and Prague in the Republic of Czech. At the conclusion of his term as AIA Europe President, he returned to the School and gave a lecture on the differences in professional practice between our two continents.

Our professional practice course, ARCH 313 (to be renumbered as ARCH 413 in Fall 2014), has undergone a tremendous transformation with the hiring of Associate Mick Everts ten years ago. In 2006, he received the NCARB Grand Prize for his work in developing this course. Although this award was received prior to the last accreditation visit, Mike Everts received an Honorable Mention in the 2011 NCARB Prize competition for a project that was undertaken in the ARCH 313 Professional Practice course. The 2011 Honorable Mention builds upon Mike Evert's ongoing work in connecting the profession and our students through our professional practice course. We have include the following information on the 2006 NCARB Grand Prize winner and the 2011 Honorable Mention as evidence of the School's continued work in this area. The following information was taken from

<http://www.ncarb.org/en/News-and-Events/News/2006/04-Montana-State-University-Wins-25000-Grand-Prize.aspx>

#### **2006 NCARB Grand Prize**

“In the **Montana State entry, “Engaging the Advancing Edge of the Architectural Profession,”** students who are enrolled in a professional practice class investigate trends and focus on business research and strategy in architectural practice by working with firms and other entities such as MSU's School of Business. Coursework is iterative as student investigations flow from one semester to the next—that is, a topic explored during the fall semester will be revisited during the spring semester with another group of firms as its focus. Because practitioners often are the object of such investigations, students are constantly working with primary sources.

“The 2006 NCARB Prize jury noted that the MSU submission “was innovative in looking at how a practice evolves in relationship to trends and a firm's response to them.” The jury also recognized that “students are

developing theory” by way of their participation in this course. Jurors explained, “Students are on the cutting edge of how practice is changing.”

The following information was taken from <http://www.ncarb.org/Studying-Architecture/NCARB-Award/Prize-Grant/NCARB-Prize/2011-Prize-Winner/HonorableMention2.aspx>

#### **2011 NCARB Prize Honorable Mention**

Montana State University

**“The Next Generation of Mountain Architects**—The jury recognized this project for teaching students leadership skills, communications skills, and how to participate in the community decision-making process. With guidance from non-faculty architect practitioners and professors, students researched and designed a culturally and environmentally sensitive community center in Phortse, Nepal near Mt. Everest. Students then traveled to Nepal to work with local officials, contractors, and villagers to dig the foundation and construct critical building component prototypes.”

*Faculty:* Michael Everts, AIA, NCARB, Associate Professor of Architecture; *Non-Faculty:* Bob Mechels, AIA, LEED AP, Dowling Sandholm Architects, Bozeman, MT

The professional practice course provides workshops in which practitioners are brought in for formal presentations. Students are exposed to firm interviews, firm research projects and cross-disciplinary field trips involving interior design, steel fabricators, etc. The design projects are typically linked with professional practice assignments related to programming, business research, marketing research and economic understanding. In addition to the professional practice project which received the 2011 NCARB Prize Honorable Mention, this course has been involved with projects such as the Bozeman Ice Climbing Tower and the Sourdough-Rae Volunteer Fire District Station. The Sourdough-Rae project allowed the students to work with the clients and develop programming, costs, site analysis and schematic concept. All of this was part of the mill levy election held in 2012. Two previous mill levy proposals were defeated at previous elections but with the work that the students and the community invested into the proposal, the mill levy was passed by a 60% to 40% margin. With the funding in place, the board members of the Sourdough-Rae Fire District contracted with an architectural firm to carry the project through to its eventual completion.

- More information on the Sourdough-Rae project can be found at:
  - <http://www.montana.edu/news/11514/msu-architecture-students-design-a-fire-station-for-rural-bozeman-district>
- More information on the Bozeman Ice Climbing Tower can be found at:
  - <http://www.montana.edu/news/10063/msu-student-team-wins-competition-to-design-proposed-bozeman-ice-climbing-tower>

Similarly, Arch 340 Building Construction II course immerses students into the complex nature of design, construction documents and construction. Arch 340 continually references specifications and drawing sets for standards, composition, materials, systems and detail information. Students, working in teams as part of the course, are required to produce a series of 3-D exploded details depicting the integration of various systems occurring in their respective design projects. Critical to the integration and relationship of materials depicted in these details is an ongoing discussion of trades, build-ability and sequencing of construction. Stressed in these discussions is the collaborative role the architect must play in the process with clients, consultants, material suppliers and the construction trades. In addition, understanding the diversity of our profession is presented to students through visits to a variety of offices, planning agencies, historic preservation departments environmental groups and other associated disciplines while on field trips in the second, third and graduate year of our program.

The Advisory Council and Graduate Council have played a strong role in providing an external professional presence within the school. Through seminars, lectures, design reviews, internships and sponsorships, the Advisory Council has provided an ever expanding range of activities that are available to our students and faculty. They have initiated a portfolio review and ‘speed interview’ session to provide professional feedback to our students. Because these members practice throughout the U.S. and abroad, they provide our students with a current and realistic understanding of the profession and expose our students to a wide range of professional options.

As mentioned previously, the School has been involved with the AIA Northwest & Pacific Region (NWPR) Student Leadership Institute since 2008. Along with the other schools from the NWPR, the School has provided the opportunity for students to travel to the AIA regional conference and undertake projects and courses related to the

development of leadership skills. The Director of MSU's School of Architecture has coordinated the annual leadership institute event with Corey Griffin at Portland State University and Gregory Kessler at Washington State University. While not all students participate in the leadership institute event, the long-term goal is to develop a series of best practices that can be adopted and utilized by schools from around the country. In support of this the 2012 NWPR Student Leadership Institute involved the NWPR and Western Mountain Region (WMR) conference—leading to 6 of 7 schools participating from the WMR. This year the Leadership Institute takes place at the joint conference between the NWPR and the Architectural Institute of British Columbia (AIBC). Two AIBC schools will be participating.

The School fully supports the requirement and role for continuing education. We encourage and advise students to consider minors outside of their major as a means to expand their education. We offer multiple study-abroad courses that range from 2 weeks to 12 weeks in duration as a means of providing as many varied opportunities as possible for our students to engage in a global understanding of our profession and society. The School recognizes that the education of an architect cannot be completed in 5½ years. Lifelong learning is essential. This is reinforced through continuing education events offered by the School. The School is an approved AIA continuing education provider allowing us to offer continuing education lectures, workshops and conferences. In addition to benefiting alumni and practicing professionals in the region, it provides numerous opportunities where our students can join our community of professionals for educational events and activities. Over the last year, the school has started to offer continuing education sessions in conjunction with our Advisory Council meetings. The previously mentioned mini-conferences have drawn between 70-90 students, faculty and practitioners to these presentations. The School consistently provides continuing education credits for its lecture series and digital fabrication workshops.

Similarly, the School has held a Celebration of Architecture event each spring semester in conjunction with the Spring Advisory Council meeting. This event functions as both a fund-raising event and a professional networking activity. Firms sponsor tables allowing students to attend this dinner for free and it provides students with an opportunity to talk with professionals from around our region. Depending upon the economy and firm workloads, a number of firms take advantage of the Celebration of Architecture/Advisory Council week to schedule interviews with some of our students—providing a formal and informal venue for our students to connect with members of our profession.

Related to this, the School recently developed its first graduate certificate program for “The Professional Practice of Architecture (PPA).” This 15-credit graduate certificate program is designed to provide young professionals with the necessary business and practice knowledge and skills to transform their current practice or to establish the foundation for them to create a new kind of professional practice. This certificate program was developed in collaboration with the College of Business' Professional Masters of Science and Engineering Management (PMSEM) degree. The initial course in the Professional Practice of Architecture graduate certificate program is a part of the PMSEM core program. This collaboration with the College of Business allows the School to provide high quality business, management and design instruction to the profession. The certificate program is offered online with the final presentation made at MSU either in person or through video-conferencing. More information on the PPA certificate program can be found at: <http://eu.montana.edu/online/pdf/certificates/architecture.pdf> and at: <http://eu.montana.edu/online/degrees/architecture/>

Now in its 38<sup>th</sup> year, the School's Community Design Center (CDC) provides students in their fourth year with the opportunity to work with a wide range of clients and projects. The CDC undertakes projects with non-profit agencies or governmental agencies to provide planning, pre-design, or conceptual design services for projects that can vary a great deal in scope and duration. The CDC has worked on master planning for the Rocky Boy Reservation, worker housing in Yellowstone National Park, visioning plans for Choteau, Montana, exhibit design for the Big Horn County Historical Museum, planning for a new bio-mass facility in the Swan Valley, and conceptual design and illustrations used for fundraising to remodel the Bozeman Help Center to name just a few of the many projects that the CDC takes on each year. As one of the four option studios that fourth year students are able to choose from, 25-30% of our students will take the CDC as their option studio. Additional information on the CDC can be found on our website at: [http://www.arch.montana.edu/pages/students/students\\_undergraduate\\_cdc.php](http://www.arch.montana.edu/pages/students/students_undergraduate_cdc.php)

All of these activities, events and courses are intended to bring students into contact with practitioners and associated disciplines as well as our own faculty and staff. All of these events provide numerous connections and opportunities for the School to engage with the larger profession and guide their development to influence and lead the profession.



### **I.1.3 E Architecture Education and the Public Good**

Montana State University was recently awarded the Community Engagement classification by the Carnegie Foundation for the Advancement of Teaching. (<http://www.montana.edu/news/9336/carnegie-recognizes-msu-excellence>) MSU's School of Architecture and the College of Agriculture's Towne Harvest Garden were two of the 15 university-community partnerships submitted as part of the Carnegie Foundation application. The School's contribution to this classification is discussed later in this section. In addition, MSU's strategic plan identified 6 core areas that would provide the foundation and focus for the university's strategic plan. Engagement is one of those six areas. More information on this can be found at <http://www.montana.edu/strategicplan/engagement.html>. With the strong commitment and record of outreach and engagement that the university has established, the School of Architecture at Montana State University addresses architecture education and the public good in a number of ways. We believe that the School is a major contributor to the university's success in this area as evidenced by the Carnegie Foundation's classification for Community Engagement.

The awareness and application of social, environmental and cultural issues are often simultaneous activities within our program. Where possible, the School is committed to integrate service-learning activities. This includes developing an informed understanding of social and environmental problems while developing a capacity to help address those problems with sound architectural, community, suburban, and urban design. Because of the strength of our physical landscape, particular care is taken to understand the natural environment and the people who inhabit it. This awareness and application is broadened to include the regional "landscape" and expanded social responsibility. This process begins in the first year of the program as students explore less conventional methodologies for perceiving the natural environment in which they build. In the second year of our program, students undertake a field trip to Butte, Montana—approximately 90 miles west of Bozeman—in preparation for a design studio project. Butte is an excellent city for students to investigate as it has a rich and varied history as a result of the extensive copper mining that took place throughout the early 20<sup>th</sup> century. It was one of the most densely populated cities in the west at its peak of operation and had a very diverse population. As the switch from underground mining to open pit mining was made, severe environmental and urban planning issues began to emerge. These issues provide students with the opportunity to research, understand and address a wide range of social, cultural, economic and environmental issues that are layered across Butte in the 20<sup>th</sup> and early 21<sup>st</sup> centuries.

When students select their option studio they have a range of options to choose from that provide varying experiences that engage diverse cultures and the public good. Students who select the study abroad option have traveled throughout South America and Asia in opposite years immersed in different cultures and economic conditions. The summer studio option in Rome includes a component of the course providing students with options to travel to other countries and many students have elected to travel to Turkey, northern Africa, and southern Spain. Traveling in Europe, South America and Asia provide our students with a better understanding of the differences and similarities of other cultures. For many students it is their first opportunity to travel outside of the region and these experiences transform the students and result in a rich and more engaged approach to their subsequent work.

Students on internship are also encouraged to engage the community in which they are employed and to develop and understand the complexities of multiple stakeholders and the ethics of built environmental decisions. Students can also enroll in the Remote Studio which focuses on environmental and philosophical issues related to the environment. Students live in a wilderness area in the Remote Studio and undertake the design and construction of a project that reflects this approach to the environment. If students do not participate in the Foreign Study Program, Internship or Remote Studio, they will enroll in our Community Design Center (CDC). The CDC has been active for over 38 years and continues to focus on professional and public service for communities in Montana and this region. Work from the CDC includes working on projects that are based upon community needs and have included working with Native American communities, domestic violence/counseling centers, environmental agencies, historic preservation projects, living building strategies, and community visioning to list a few of the many projects the CDC has worked on since the last accreditation visit. The School's efforts at creating a robust service-learning component was recognized in 2011 when Tom McNab—Associate Teaching Professor and Director of the CDC—received the MSU President's Excellence in Service Learning Award. More information on this can be found at: <http://www.montana.edu/engagement/academic-service-learning/award.php#Tom3>

In addition to these studios, the school has offered a number of courses that are open to both undergraduate and graduate students providing a strong outreach engagement opportunity for our students. These courses include the Morocco: Developing Sustainable Committees course, the Kenya: Straw Bale Design-Build project, Towne Harvest

Vegetable Washing Station, the Sourdough-Rae Volunteer Fire District Design, and the Khumbu Climbing School and community center in Phortse, Nepal.

- Morocco: Developing Sustainable Community information at:
  - [http://www.montana.edu/international/studyabroad/summer\\_programs/morocco.htm](http://www.montana.edu/international/studyabroad/summer_programs/morocco.htm)
- Kenya Design-Build information at:
  - <http://www.montana.edu/news/10551/information-session-set-nov-22-for-students-interested-in-kenya-design-build-project>
  - <http://www.montana.edu/news/10652/msu-project-to-help-spin-straw-into-sustainable-housing-in-kenya>
- Towne Harvest Vegetable Washing Station information at:
  - <http://www.montana.edu/news/11364/towne-s-harvest-wash-house-displays-fruits-of-collaboration>
- Sourdough-Rae Fire District Design information at:
  - <http://www.montana.edu/news/11514/msu-architecture-students-design-a-fire-station-for-rural-bozeman-district>
- Khumbu Climbing School information at:
  - <http://www.montana.edu/mountainsandminds/article.php?article=7805>

Other design-build and community outreach projects have included the Hyalite Pavilion, and the Innovators Lounge at HATCHfest. The Hyalite Pavilion was a joint partnership between the School of Architecture, the US Forrest Service and community partners. The intent of the design was to design a shelter pavilion at a highly recreational site that would be ADA accessible—a feature that did not exist at Hyalite Reservoir. The project was intended to be a contemporary interpretation of the USFS Built Environment Image Guide for building within the US Forest Service boundaries. The Innovators Lounge at HATCHfest was designed as part of a summer course taught by Assistant Professor Bruce Wrightsman and John Montoya of CTA Architects and Engineers. HATCHfest is a year-round non-profit organization designed to develop creative innovators and industries through mentorship, exposure and networking and includes filmmakers, photographers, artists, writers, musicians, and architects. In addition to this design-build project, students and faculty have participated in the annual HATCHFestival—a celebration and showcase of the creative arts. Hatch draws filmmakers, designers, musicians and artists from across the country and is committed to mentoring of young professionals by those who have achieved a level of success in their profession.

- Hyalite Pavilion information at:
  - <http://www.montana.edu/news/6961/msu-architecture-students-to-build-picnic-pavilion-at-popular-hyalite-location>
  - <http://www.montana.edu/news/8673/new-hyalite-picnic-pavilion-proves-there-is-grace-in-collaboration>
- HATCHfest information at:
  - <http://www.montana.edu/news/10369/photo-feature-msu-architecture-students-design-hatch-festival-lounge>

All of these projects were undertaken to expose students not only to the design-build process but also to the broader social and community context in which it occurs.

It should be noted that our faculty and staff are actively involved in service. Faculty and staff worked with the university to salvage and re-use the wood from 100 year old trees that were removed from the campus. This wood was reused in the Hyalite Pavilion project, the Towne's Harvest Garden Washing Station and in the construction of a conference room table on campus. AIAS students participated in Saturday workshops for the Museum of the Rockies "Raise the Roof" exhibition on building and design—having a focus on introducing architecture to elementary school children. Faculty have served on the Design Review Board in Bozeman and the Historic Preservation Board. Our faculty are active at a national level with organizations that support the mission of the school and university. Henry Sorenson, Zuzanna Karczewska and Steve Juroszek have all served, and in some cases still serve, as officers in the Design Communication Association. Henry Sorenson also served as President for the American Society of Architectural Illustrators. Maire O'Neill was the conference co-chair for the Vernacular Architecture Forum Conference held in Butte, Montana. In addition, Ralph Johnson was the Director of the Burton K. Wheeler Center for Public Policy.

We are proud of our faculty, staff and students' dedication in this area. While we are located in what might seem to be an isolated area, one of our strengths is that we strive to remain connected with the regional, national and international issues that our profession faces.