

## **2012 Corporate Architects and Facility Management Scholarship**

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Prompt: What trends are you seeing and/or being in taught in your architecture program that you believe will come to fruition in your professional career?

The current trends in architecture are pushing the profession to more demanding and creative heights. These trends include sustainable building design, interdisciplinary collaboration, and the use of new technologies and methods. Cal Poly's commitment to the pedagogy of learn by doing emphasizes on educating their students with the most current trends, advancing the design and technical skills that will ultimately prepare students for entry into the professional world. I find myself in the midst of this teaching practice, constantly pushed to learn and think creatively, directly exposed to the other disciplines in the planning, design and construction industry. Across all of the departments, sustainable design is being taught to integrate concerns for ecology, social equity and economics within the built environment as well. These teachings coupled with the new technological tools and methods that are more readily available, are transforming the profession. As a designer starting my career, I am eager to integrate these new practices in my own design opportunities to redefine the future of architecture as built space and as a profession.

### **Interdisciplinary Collaboration**

There is a major trend within and among professional firms toward team-based, integrated practice. The future of good design not only stresses on a strong design, but

also bringing design into an organized management. Any group of people can do work together, but it takes the right approach and team philosophy to produce exceptional work. In school, this occurs in the interdisciplinary design studios through interaction in joint projects among the College of Architecture and Environmental Design (CAED)'s five departments. Architecture is one of five departments in the CAED, along with Architectural Engineering, City and Regional Planning, Construction Management, and Landscape Architecture. This unique combination of disciplines, all responsible for the conception and production of the built environment, makes possible an integrative, realistic approach to the production of architecture.

To further immerse myself in the industry, I am currently participating in the fourth year off-campus study programs in San Francisco and Los Angeles, that fosters student and professional collaboration. During my Fall quarter, I was a part of the San Francisco Urban Design Internship Program, where I lived, studied and worked in a rich cultural and professional environment. I had the opportunity to work as an intern alongside accomplished architects, Lisa Iwamoto and Craig Scott from IwamotoScott Architecture. I designed and fabricated a hanging matrix installation and a customized lobby desk. Though still at a small scale, I was able to take these projects from schematic design through construction, collaborating with vendors and fabricators along the way. For my group Case Study, we worked with David Baker and Mark Hogan from David Baker + Partners Architects focusing on the process of design-build and

working with various consultants of their Tassafaronga Village project in Oakland, California.

## Sustainable Design

A big trend seen in the firms I have worked for and in school is the need to interact with colleagues in sister professions involved with renewable energy, innovative materials and energy resources to design more sustainable communities. In our lecture series, we are learning about the theory of climate, energy use and human comfort as applied to the design of large scale buildings. There is an emphasis on energy conservation, methods of ventilating, passive cooling and heating, efficient lighting and acoustics, and water and waste systems. The call for greater sustainability adds an element of resource and social accountability that will continuously be integrated into my work.

My interest in sustainable design has led me to pursue a minor in sustainable environments. This minor focuses on the principles of sustainable environmental design with global, regional and local perspectives and concepts. I want to develop my understanding of the systems needed to integrate the concerns for ecology, social equity and economics within the built environment. I aim to design efficiently, use renewable energy to conserve natural resources and increase the longevity and durability of the future buildings.

## New Tools and Methods

While sustainability is greatly shaping the field of architecture, we are also experiencing a rapid change in the types of technologies used to plan, design, communicate, organize, construct, and operate buildings. Not only are the BIM programs being further developed, but also emerging new trends in three-dimensional digital modeling tools, such as Rhino, Maya, Grasshopper, and Firefly, are advancing the design capabilities. These programs work hand in hand with digital fabrication and material technologies for architecture, and includes development of the CAD/CAM labs. This allows for more intuitive possibilities for sophisticated and complex projects to be done with better cost and quality control, and with superior client and community understanding.

The new modeling technology provides a platform for more accurate analysis to forecasting building performance, model the use of resources, construction process, and monitor project phases. Through these innovative tools we can enhance our ability to envision planning and design proposals for amazing visual representations of projects. Computer technologies have shifted the way we design buildings and they aid in communicating visual medium from the hand to the computer. Students and professionals have digital technology, fabrication to allow for environmentally responsible design.

The field of architecture is very multidimensional. It encompasses everything from design, cultural theory and philosophy, project and client management, to the

specific detail of how a building comes together and is actually constructed. It is a wonderful synergy between the technical structure and creativity. The architect has the opportunity to become an expert on a variety of subjects more rapidly. Being able to learn how the building's future users are utilizing space and how the function, allows one to be constantly designing for changing environments and groups of people. I am excited and prepared to design sustainable communities, through collaborations within my field and other disciplines, utilizing innovative technologies.