

ARCHITECTURAL ENGINEERING DEPARTMENT | COLLEGE OF ARCHITECTURE AND ENVIRONMENTAL DESIGN | CAL POLY | SPRING 2008

Master's Program

An African adventure

Student tackles project and enjoys exotic photo op

hen master's program student David Lambert selected his undergraduate project, he had no idea that it would return in an expanded form in graduate school. Graduate Program Coordinator Kevin Dong is delighted. "Cal Poly values a practical, real-world, hands-

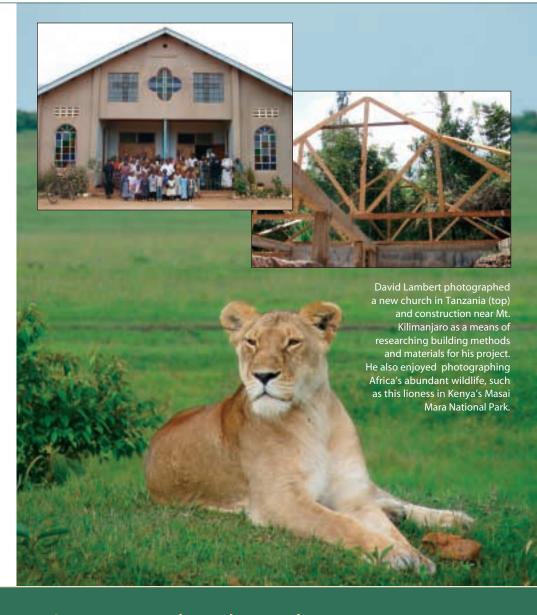
David Lambert

on and industry-focused approach. David's project shows the full range of what that can mean."

David's project mixes a study of structural design using local building materials with

project management. This might sound commonplace until you learn the location: the United Republic of Tanzania in East Africa.

While an undergraduate at Cal Poly, David decided he wanted his senior project linked to a developing country and its problems. After a See Africa, page 6



Department Head's Message

Welcome to a special edition of the Department newsletter. We are delighted to share images of our 60th Anniversary Banquet held Feb. 1. It was a wonderful evening, and I hope those who couldn't attend will visit our Web site link and watch the video history of the Department. Just go to www.arce.calpoly.edu and click on "Current Events."

This newsletter also marks another step in our quest to improve outreach to industry and alumni. The quality of the

We're 60 ... and we know how to party



graphics and presentation is a leap forward and provides a format that we will use for future editions.

This is also the inauguration of our featured industry

partner profiles, intended to showcase one of our partners annually. It is appropriate that our first profile is of John A. Martin & Associates, as they provide two members

of our Advisory Board, hire many of our graduates, and consistently participate in both Structural Forum and SEAOC student presentations.

Thank you, John A. Martin & Associates, and all of our alumni and industry supporters. You are each critical to our continued success.





Saluting ARCE's visionaries



First department head George Hasslein

First faculty (from left): R.L. Graves, George Hasslein, Ken Schwartz, Hans Mager and Rudy Polley



An architectural engineering lab, circa-1950s

newly formed four-year degree in Architectural Engineering. Those students probably still remember the rocky start: Larry Ellis was the only instructor, and students under the leadership of Lew Litzie protested to President McPhee. As a consequence, Ralph Priestly arrived from Chicago in winter quarter 1947. His goal was simple: national recognition.

In rapid succession, others arrived -William Ricker, Hans Mager and, notably for the future of the department and the college, George Hasslein. In 1950, the first class of 14 graduated, and the very next year, Priestly became dean of Engineering and Hasslein was appointed department head of Architectural Engineering. The 1950s were crucial to the development of what would become a leading architectural and engineering department.

In 1963, the Architectural Engineering Department moved into its new facility (Engineering West). Courses in soil mechanics were expanded and new testing laboratories for soil samples and building materials found a place. In 1964, Poly Canyon became available to students for projects. Also during the '60s, digital computers arrived, and the department expanded accordingly.

In 1964, the department was renamed the Department of Architecture and Architectural Engineering and offered a Bachelor of Architecture degree along with the Bachelor of Science. Through the continued efforts of George Hasslein and the faculty to create a more meaningful institution, the Architectural Engineering Department, created in the Division of Engineering in 1947, became the new School of Architecture in 1967. The new school would have three programs of study: Architecture, Architectural Engineering, and City and Regional Planning.

Today, the department graduates an average of 50 to 60 students annually, has a total enrollment of 340, offers undergraduate and graduate degrees, and has 13 full-time faculty members. Throughout this evolution, it has been committed to learn by doing and has seen that commitment repaid time and again by the performance of its graduates.

Special thanks to John W. Edmisten and Ray Ladd for contributing materials for this article.

Early educators laid a solid foundation for program today

Architectural Engineering is deeply rooted in Cal Poly's history. The original polytechnic school opened in 1902 as a specialized high school; however, it included coursework related to the building trades, including reinforced concrete and engineering mechanics. By 1930, architectural drawing had expanded to multiple courses, advanced design was introduced and strength of materials was expanded.

The depression years were difficult, but in 1933, President Julian McPhee set a tone that would have a profound impact when he established an education philosophy still known today as learn by doing. Collegiate status was granted to the Polytechnic School in 1940, and an Architectural Drafting Department was established the next year.

The end of World War II saw the next upturn. In 1946, 55 students - mostly veterans and all men - embarked upon the



Anniversary ALUMNI AND FRIENDS JOIN ARCE IN CELEBRATING ITS 60TH YEAR

On Feb. 1, more than 130 people gathered in Pismo Beach to watch a beautiful sunset and officially celebrate the 60th anniversary of the ARCE Department. Department Head Al Estes and CAED Dean Tom Jones spoke to the future of the Department and the College; however, the focus of the evening was the past and the successes which have paved the way for the future.

A 20-minute video brought the past to life through the words and images of faculty and students. Clearly, clothing and hairstyles have changed over six decades, but enthusiasm is a constant, evident in structures built in Poly Canyon and on campus. Change over time is also evident as jackets and ties disappear, black and white photos fade to color, women emerge in classrooms and hard hats appear on job sites.

Ken Schwartz, Bill Brown, Paul Neal, George Ikenoyama, John Edmisten, Sat Rihal, Mike Botwin, Nick Watry, Jake Feldman,

Pamalee Brady and others share their thoughts on the video, each providing a small window into the past: the old Neutra building; field trips to far places; San Luis Obispo with only two traffic stops, and many more snippets of history. Together, they provide a compelling picture of six decades of success.

The video and more photos of the event are available at www.arce.calpoly.edu when you click on "Current Events."





Above: ARCE alumni, faculty and friends celebrate the department's 60th year at a banquet in Pismo Beach.

Far left: Guests included retired professor Ken Schwartz (left) and Wesley Webb. Left: Melissa and Bill Warren also attended.

Right: Tables of alumni, friends and faculty "catch up." Below: Alan Hanson (left) and Professor Emeritus Jake Feldman



ARCE student Anne Dwyer









From left: Master's student David Lambert, SEAOC Student President Hayley Soderlund, retired Professor Ken Schwartz, and George Hasslein's daughter, Tracey Hasslein









Left: Josef Kasparovich (left) and Professor Ed Saliklis sang entertaining parodies. Above: Event coordinators Christine Cobb (left) and Carrie South

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Far left (from left): Stella Watry, Nick Watry and Arnold Volny Left (from left): Jennie Rodriguz and students Anito Ho and Elizabeth Kenyon



Professor Kevin Dong

From left: Student Leigh Guggemos, Ana C. Arevalo, student Carissa **Auleb and Professor** James Mwangi





Above (from left): ARCE Advisory Board Co-Chair Ken O'Dell, CAED Dean Tom Jones and student Kyle Glen admire centerpiece designs. Left: ARCE Department Head AI Estes (left) and retired Professor Ken Schwartz collaborate on the cake cutting.



Al Estes (center) with Pam Zweifel and Associate Dean Richard Zweifel

their generous support in 2007-08, in recognition of ARCE's 60th Anniversary.

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Africa

from page 1

good dose of tenacity and coincidence, he was able to participate in the construction of Nyumbani Village in the Eastern Province of Kenya. The brainchild of the late and highly esteemed Rev. Dr. Angelo D'Agostino, S.J., the village was conceived as a self-sustaining community to serve the orphans and elderly left behind by the "lost generation" of the AIDS pandemic.

At the invitation of D'Agostino, David traveled to Africa where he spent six months working on Nyumbani Village, a time he remembers as "filled with triumphs and defeats, emotional highs and lows." Most importantly, he learned firsthand the obstacles confronting construction in the developing regions of Africa: the expense or unavailability of materials; corruption; inexperienced construction workers; and the harsh climate, to name a few. Before returning to the United States, David learned that Cal Poly Architectural Engineering was adding a graduate program. He applied and started classes in fall 2007.

It was natural that David looked to Africa for his master's project. This time, based on earlier connections, he was able to join a project from its beginning. Father Mansuetus Kimbwe Setonga was planning a Technical College in Same, East Tanzania. David traveled to Africa to meet with Setonga and was able to bring his ideas to the table. Beyond structural concerns, he wanted to tackle issues of sustainability in terms of water, thermal comfort, and operating and maintenance costs.

Today, show just a hint of interest, and David will launch into a description of regional building materials, pozzolanic ash deposits in and around Mt. Kilimanjaro and Mt. Meru, and building practices of the ancient Romans. Bamboo gets its fair share of mention, along with its most common use in East Africa: in the fermentation of an alcoholic beverage. At the Same site, they plan to change this perception and utilize a unique location on the border of a forest preserve to plant giant bamboo on part of the 100 acres and harvest it for processing as a building material.



Lambert's camera lens captures a grazing zebra in Kenya's Lake Nakuru National Park.

The grad student photographed a Tanzanian church's interior to document the finishes, windows and ventilation used (below).



Master's program completes first year

As the first class of ARCE graduate students prepare to graduate, Program Coordinator Kevin Dong reflects: "The program is off to a tremendous start. Faculty are excited about teaching courses related to their expertise and working with eager, energetic and imaginative students actively engaged in shaping their building design skills."

He concedes that the work of developing the program continues as new opportunities present themselves daily.

Department Head Al Estes credits the caliber of the students as well as the decision to keep to Cal Poly's strengths. "We wanted to take what we're good at and expand this to the master's program. The result is a mix of advanced theory and practical applications. And, of course, the master's project lets students work with design industry partners to examine real-world problems. We hope to expand this with pre-master's internships and industry involvement in these projects."

To accomplish these goals, David has pulled together a team of assistants from across the CAED, and together they are developing a comprehensive design as well as a set of recommendations for future projects in the region. Was this what faculty

at Cal Poly imagined when they hoped students would look for real world connections for their graduate projects? Probably not, but it certainly has demonstrated how far these ambitious students are willing to push the boundaries.

John A. Martin & Associates

World-renowned projects keep firm bustling and hiring Cal Poly grads

IM, diverse project portfolio, proactive interdisciplinary involvement, client focused ... all are catch phrases heard whenever the future of architectural engineering is discussed among professionals, and all apply to John A. Martin & Associates, Inc. (JAMA). Founded in Los Angeles in 1953, the firm has expanded to 10 affiliate offices, with registration in all 50 states, Great Britain, Spain and Guam. In 2002, JAMA added an office in Beijing, China.

Throughout its history, JAMA has maintained a Cal Poly connection. Steve Schiller (ARCE '83) joined the firm in 1995 and is a principal in the Las Vegas office. When speaking of his Cal Poly experience, he reflects that it was a solid foundation for his success: "At my first job, there was nothing that was a surprise. The reputation of the school allows its graduates access to some of the most respected firms in the country." This is particularly important, as Steve is now with one of those firms and certainly wants to see Cal Poly grads continue in his footsteps.

Closer to Cal Poly, Joshua Moody (ARCE '94) is principal of JAMA in San Luis Obispo. He says of the office, opened in January 2007, "We are almost exclusively Cal Poly grads, and this was a golden opportunity to live in SLO and work on world-class engineering projects." Joshua is excited about more than the Central Coast weather. He is committed to his firm's connection with Cal Poly ARCE, hoping to strengthen ties already established with JAMA. "A benefit of our firm is that we can introduce students to the work force through internships that allow them to gain valuable experience before graduation."

Currently, JAMA is represented on the ARCE advisory board by Joshua as well as Kurt Clandening (ARCE '87) a principal in







JAMA projects include the Green Valley Ranch Resort, Spa & Casino in Henderson, Nev. (top); the Paris Hotel & Casino (left); and the Los Angeles Convention Center (above).

the Los Angeles office. ARCE Department Head Al Estes says of these men and their firm: "This is a perfect example of the partnership with industry that makes the Cal Poly ARCE program so special. The kind of commitment and support that JAMA demonstrates is critical to this program's success. They help us prepare our students for life after graduation."

Cal Poly ARCE is fortunate to get support from industry and alumni, and JAMA is an

example of this tradition. A quick glance at a list of the firm's projects elicits a "wow," with the Walt Disney Concert Hall in Los Angeles at the top, followed by a list of world-famous casinos, conference centers and other exciting projects, all of which should inspire ARCE students to the level of excellence they can aspire to in their professional future.

Visit JAMA at http://www.johnmartin.com and www.jamanv.com.

CALIFORNIA I ARIZONA I COLORADO I HAWAII I WYOMING I NEVADA I BEIJING, CHINA

ARCE facility renovation and expansion continues

Visitors to ARCE this year will see that the continuing effort to upgrade the Department's infrastructure is taking two major leaps forward.

With the completion of a critical phase of Engineering West, ARCE has returned home after a year spent displaced and secluded in the Graphic Arts building. The administration area has been expanded – literally into the courtyard – and faculty offices were remodeled. The allocation of \$142,000 to purchase new furniture provided an added bonus.

This summer, when the Construction Management building is completed, the ARCE Department will gain two design laboratories, a classroom and a computer lab. The new rooms will offer the opportunity to spread out, relieve laboratory congestion, support a graduate



Students (from left) Whitney Woods, Erica Jacobson and Erika Severin collaborate in a lab.

program lab and offer new educational opportunities for the students.

Department Head Al Estes says this is not a stopping point, and the Department and College have plans for further improvements until the facilities match the caliber of work accomplished there.

Dean's Message

Celebrating a milestone

Sixty years young! As we mark the anniversary year of our College and your Department, we are fortunate to have so many of our graduates still engaged in practice and their community.

In six decades, the ARCE Department at Cal Poly has proven time and again to be a leader in the education of young professionals. Firms across the country seek out our students because they have seen in you – our graduates – the level of excellence they expect.

Moving forward to the next 60 years, we are committed to providing the resources to continue this tradition of excellence. We hope to see many of you on campus throughout this celebration year, and we invite you to see firsthand how we continue to improve.

R. THOMAS JONES | AIA





Chris Tollefson and his winning logo design

Poly hills, buildings reflected in Department's new logo

Since his arrival, Department Head Al Estes has been on a quest to develop an ARCE logo.

Al first turned to ARCE students and faculty. They submitted their ideas, then the problem was turned over to students of Art 332 Symbology, taught by Katie McCormick.

The winner, and recipient of a \$100 gift certificate, was symbology student Chris Tollefson.

Professor McCormick says Chris' research led him to a design that depicts building structures, the work of architectural engineers, and rolling hills, which situate the program in San Luis Obispo.



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