

FRIEDMAN FAMILY VISITING PROFESIONALS PROGRAM

Visit to Purdue University: April 16, 2015



This report summarizes the visit of David Cocke from Structural Focus that took place at Purdue University on April 16th, 2015.

ITINERARY OR AGENDA

TIME:	ACTIVITY:
12:00 PM – 1:30 PM	Lunch with faculty and EERI chapter president
1:30 PM – 3:00 PM	Tour of Bowen Laboratory
3:00 PM – 4:00 PM	Private time to call the office
4:00 PM – 5:15 PM	Guest lecture by Visiting Professional with Q & A
5:15 PM – 6:00 PM	Reception
6:00 PM – 7:30 PM	Dinner with EERI chapter officers

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZER(S): Ben Taylor, Purdue EERI chapter president, taylo113@purdue.edu

- Rachel Chicchi, Purdue EERI chapter secretary, rchicchi@purdue.edu
- Ayhan Irfanoglu, Purdue EERI chapter advisor, ayhan@purdue.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

David Cocke presented on his engineering experiences first working at Degenkolb and then eventually forming his own company (Structural Focus). His presentation highlighted some key projects that he had been involved with at Structural Focus. One of his key messages was the importance of communication skills in engineering. He also stressed the importance of finding a unique aspect of structural engineering to emphasize and use as motivation (e.g. environmental, historic, etc.). The lecture was attended by between 15-20 students as well as two faculty. The students were primarily graduate students, and also included some visiting potential students from Colombia.

Lecture Abstract

Engineering students learn a lot about analyzing structures, designing systems and connections and other tools to be successful as a practicing engineer in the real world. In real life, engineers have a tremendous impact on our society. The profession plays a major role affecting important issues such as sustainability, public safety, the aesthetics of our built environment, community resilience and recovery from disasters, preservation of historic structures and our client's needs for a viable facility. Structural Focus is a smallish Structural Engineering consulting firm located in the metropolitan area of Los Angeles. David founded S. F. in 2001 after 20 years at Degenkolb with the goal to work on the most interesting and meaningful projects in Southern California. With 18 million people within an hour's driving distance, he theorized that his firm could focus on finding the most

challenging and interesting architectural projects out there, say the top 5%, and be successful. The firm's mission is "to do projects we can be proud of, and be proud of how we do them." Now, 14 years later, the Structural Focus portfolio includes film studios, performing arts venues, historic landmark buildings, university and labs, and other projects like Red Bull Headquarters, Google and YouTube. In his presentation, David will explain some of their philosophy and strategies, as well as review several case studies including Red Bull, Annenberg Center for Performing Arts in Beverly Hills, 3Labs, Agency's and the historic Wilshire Boulevard Temple restoration. David will also introduce you to their latest work with community resiliency involving post-disaster inspection programs. Finally, David hopes to show you how a wide diversity of projects can provide engineers with the opportunities to contribute to a better future.

Professional Bio

David Cocke worked at Degenkolb for 20 years. Now, he is the founder and president of the L.A.-based firm, Structural Focus.

SUPPLEMENTAL ACTIVITIES

Lunch with faculty and EERI chapter president

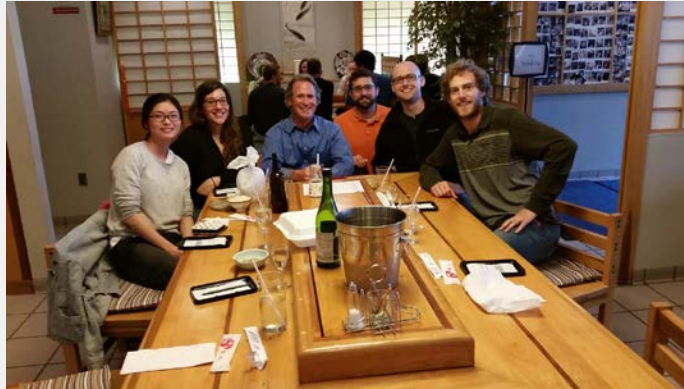
David arrived at Purdue University around 11:45. He went to lunch at Sagamore with the chapter president, Ben Taylor, and two faculty members, Dr. Mete Sozen and Dr. Judy Liu. It was a delicious meal with enjoyable conversation. David gave everyone a preview of his presentation topics. Dr. Liu discussed her graduate work at Cal-Berkeley, and Dr. Sozen discussed his thoughts on performance-based design.

Tour of Bowen Laboratory

Following the lunch, David went to the Bowen Laboratory for Large-Scale Civil Engineering Research and was given a tour of the facility by a graduate student. The lab was very busy that day with a prestressed class conducting experiments, tours of the facility by alumni achievement award winners, and experiments being conducted by graduate students. Some of the projects on the lab floor that Mr. Cocke got to see include: member-level redundancy of built-up steel bridge girders subjected to fracture, fatigue testing of bridge expansion joints, studies on the design of slender concrete columns, shake table tests of concrete frames with high-strength longitudinal steel, and anchorage systems for steel-concrete walls. David seemed to enjoy the tour and commented that all of the projects seemed very practical, and he could foresee these studies being implemented in industry in the near future.

Dinner with EERI chapter officers

After David's presentation and reception, he joined the chapter officers for dinner at Heisei. The officers in attendance were Ben Taylor (president), Lucas Laughery (vice president), Rachel Chicchi (secretary), Chase Perry (treasurer), and Yunlan Zhang (outreach chair). The group discussed some of the projects that David mentioned in his presentation. David gave the group some tips to gain a better attendance, and the group gave feedback to David. It was a relaxed, fun environment, and everyone had a great meal.



RESULTS, FEEDBACK AND LESSONS LEARNED

Brief description of challenges during the process, general reception of the program and Visiting Professional. Also a description of other topics or disciplines the Student Chapter would like to cover in future visits, and related goals.

- The main challenge was coordinating with the UIUC chapter while still ensuring maximum attendance at Purdue. Our chapter was unable to find a date that would coincide with the Structures Seminar, a class required of all first-year structural graduate students, where high attendance would be guaranteed. In the future, we will insist on a date that coincides with this seminar so that the speaker's message can reach the maximum number of students possible.
- Purdue was very pleased to host such a prestigious speaker. In particular, students seemed interested to hear about how David went about starting his own firm.
- The Purdue EERI chapter would like to continue to bring industry professionals from earthquake engineering in for seminars. Because Purdue is located in the Midwest where seismic activity is less hazardous, few of the industry professionals that come to speak typically talk about earthquake engineering.

ACKNOWLEDGEMENTS

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