

FRIEDMAN FAMILY VISITING PROFESSIONALS PROGRAM

NC STATE
UNIVERSITY



Visit to North Carolina State University: March 19th, 2024

This report summarizes the visit of **David Friedman** that took place at North Carolina State University on March 19th, 2024.

AGENDA

TIME:	ACTIVITY:
8:00 AM – 8:30 AM	Breakfast with some of the student chapter leadership at a local restaurant
9:15 AM – 10:00 AM	Mock presentation of the EERI Seismic Design Competition team
10:45 AM – 11:30 AM	Tour of Fitts-Woolard Hall and Hunt Library with undergraduate students
12:00 PM – 1:15 PM	Lunch with some of the student chapter leadership at a local restaurant
1:30 PM – 2:45 PM	Special Session with students for career guidance
4:00 PM – 5:30 PM	Guest lecture

STUDENT CHAPTER VISIT PLANNING COMMITTEE

LEAD ORGANIZERS:

- Ana Paula Bona (President), abonaba@ncsu.edu
- Julio Samayoa (Vice President), jsamayo@ncsu.edu
- Maria Luisa Duran (Secretary), mcurvel@ncsu.edu
- Ariadne Palma (Outreach chair), alpalm@ncsu.edu
- Dr. Mervyn Kowalsky (Faculty Advisor), kowalsky@ncsu.edu

VISITING PROFESSIONAL LECTURE OVERVIEW

Mr. Friedman hosted a in person lecture with a total of 20 attendees, including undergraduate research students, graduate students from structural and geotechnical backgrounds, as well as faculty members. It was an interactive presentation where the attendees were able to make questions about the projects that Mr. Friedman presented! We had a lot of students engaged. The attendees left the presentation with a heightened interest and motivation to pursue paths in earthquake engineering, reflecting the impactful nature of the event.



Figure 1: Guest lecture given by David Friedman

Lecture Abstract

In this seminar, David Friedman talked about how it is expected for the practicing structural engineering nowadays to have not only a broad understanding of structural engineering, but also must be knowledgeable about architecture, M/E/P systems, construction delivery methodologies, and construction process. Mr. Friedman expended more about the notion of today's structural engineering as a "Master Builder", one who can articulate their way through a complex labyrinth of form finding, criteria setting, risk evaluation, design and documentation, and construction. Mr. Friedman expected more about 3 unique structural engineering projects that he was involved with during his amazing and inspiring career: **San Francisco City Hall** (repair and base isolation), **UCSF Parnassus Ray & Dagmar Dolby Regeneration Medicine Building** (construction), and **UC Berkeley California Memorial Stadium** (partial retrofit).

Professional Bio

David was a Senior Principal, Emeritus Chair of the Board of Directors President and CEO of Forell/Elsesser Engineers with over 48 years of professional practice (40 years at F/E!) in structural and earthquake engineering. His strength, gained over the breadth and depth of his career, is a holistic perspective of a projects' planning, design and construction and the collaborative integration of creative structural solutions with architects, engineers and builders.

With a specialty in seismic engineering and retrofitting of existing structures, particularly those with historic designation, David has solved numerous structural and earthquake engineering challenges during his career with Forell/Elsesser Engineers. Principal examples of his projects include the base isolation retrofits of San Francisco City Hall and the Asian Art Museum, the adaptive reuse and retrofit for the San Francisco Conservatory of Music, and the seismic safety corrections and remodeling of UC Berkeley's California Memorial Stadium.

David is devoted to world-wide seismic risk reduction and is the current President of the Earthquake Engineering Research Institute, dedicated to learning and disseminating the lessons learned from earthquakes around the world. He is also deeply involved in many civic, philanthropic and not-for-profit Boards including The San Francisco Foundation, SPUR, UC Berkeley Foundation and the Jewish Home of San Francisco.

SUPPLEMENTAL ACTIVITIES

Breakfast and Lunch with the Board Members of the Student Chapter

Mr. Friedman day on campus began with an information breakfast with members of the student chapter where they discuss about career goals, earthquake engineering field, and so on. Later that day, the other half of the board had lunch with Mr. Friedman and the conversation ranged from many topics. It was interesting to know more about such an amazing and inspiring professional and person. We all left our meeting with him really impressed and motivated to continue representing EERI.

Mock presentation of the EERI SDC team

During the afternoon, we organized a mock presentation of the EERI SDC team that is participating in the competition in the following weeks. The undergraduate students had 10 minutes to present in front of three faculty members ("judges") and some graduate students. Then, each judge had free time to make comments and feedback regarding the topic, presentation skills, slides, etc. They also asked potential questions the real judges would make during the actual presentation. Since she was a judge in previous years of the competition, this insight was incredibly useful.

Two undergraduate students presented, two faculty members participated in the committee, and four other graduate students watched the presentation. The undergraduate students concluded by reaching out to the organizers to thank them for organizing the mock presentation. They were confident they were more prepared after all of David's feedback.



Figure 2: Undergraduates from the SDC Team during the mock presentation

Tour of Fitts-Woolard Hall and Hunt Library with students

An undergraduate and a graduate student gave a tour of the Fitts-Woolard Hall and Hunt Library in Centennial Campus to Mr. Friedman. They showed the innovative buildings around and gave a lot of fun facts about the university and the campus. They had a great time!

Special Session with students for career guidance

We also had the privilege of hosting an event titled “Special Session with Students” with David Friedman. The event took place at Centennial Campus and was attended by both graduate and undergraduate students that wanted to gain career guidance and professional development advice from an expert in the field. The session created a unique space for open discussion, allowing students to engage directly with Mr. Friedman. During this setting, students had the opportunity to ask questions, seek personalized advice, and learn more about the intricacies of the profession.

RESULTS, FEEDBACK, AND LESSONS LEARNED

Our student chapter had a successful visit by David Friedman. We were able to work with Mr. Friedman to coordinate the visit easily. He was open with us about career advice and inspired the undergraduate members of the SDC team with interesting questions and suggestions for the presentation. The feedback from students that attended the lecture, the mock presentation, and the informal meetings was highly positive, and the main comment was that all the students were inspired by him.

- We announced to undergraduates and graduate students through the department about his lecture; however, we believe that for the future FFVP visit, we will also aim to contact the EERI Regional Chapter

and other practitioners in the field in the area that would be willing to attend these meaningful and inspiring lectures.

- Other topics that the Student Chapter would like to cover in future visits would be learning from earthquakes; reconnaissance activities after earthquakes; how is real life as a practicing structural engineer; the next steps of earthquake engineering, and more.

ACKNOWLEDGMENTS

The North Carolina State University EERI Student Chapter gratefully acknowledges the support of the Friedman Family for sponsoring the travel of David Friedman through their Friedman Family Visiting Professional Program endowment.

LIST OF ATTACHMENTS

Included at the end of this report is the Flier for David Friedman's Lecture to supplement the information included above.

Appendix A: Fliers for FFVP lecture.

APPENDIX A: LECTURE FLIER



Friedman Family Visiting
Professionals Program

with

David Friedman



The Practice of Structural & Earthquake Engineering Today

& 3 Unique Structural
Engineering Projects



San Francisco City Hall

UCSF Parnassus Ray &
Dagmar Dolby Regeneration
Medicine Building



UC Berkeley California
Memorial Stadium



RSVP



Tue, March 19



4:00pm



EB I Room 2015



Snacks & Drinks

David A. Friedman, SE

**Retired, Emeritus CEO & Chair of the Board of Directors,
Forell/Elsesser Engineers Inc.**

David was a Senior Principal, Emeritus Chair of the Board of Directors President and CEO of Forell/Elsesser Engineers with over 48 years of professional practice (40 years at F/EI) in structural and earthquake engineering. His strength, gained over the breadth and depth of his career, is a holistic perspective of a projects' planning, design and construction and the collaborative integration of creative structural solutions with architects, engineers and builders.

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Tue, March 19



4:00pm



EB I Room 2015



Snacks & Drinks

The Practice of Structural & Earthquake Engineering Today & 3 Unique Structural Engineering Projects

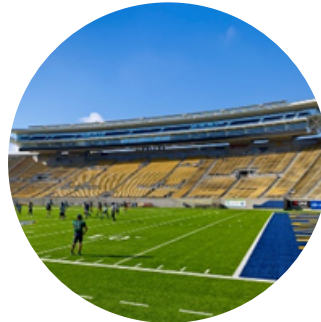
The practicing structural engineer today must not only have a broad understanding of not just structural engineering, but must be knowledgeable about architecture, M/E/P systems, construction delivery methodologies, and the construction process. All projects come with their own litany of challenges and constraints, and **the structural engineer is one of the key players in achieving the optimal solution.** The project's budget, the selected performance and design criteria, the architectural form, and the operating systems all affect the selection of the appropriate structural materials and lateral force resisting system. Then the analysis must get translated into a design, and the design must clearly and carefully be delineated into construction documents including plans, details, sections and technical specifications, with appropriate attention to sequencing, phasing and constructability. **This all gives rise to the notion of today's structural engineer as a "Master Builder,"** one who can articulate their way through a complex labyrinth of form finding, criteria setting, risk evaluation, design and documentation, and construction (and hopefully not litigation).



San Francisco
City Hall



UCSF Parnassus Ray &
Dagmar Dolby
Regeneration Medicine
Building



UC Berkeley
California Memorial
Stadium

RSVP



Friedman Family Visiting
Professionals Program

with

**David
Friedman**

**The Practice of
Structural &
Earthquake
Engineering
Today**

**SAVE
THE
DATE**



Meeting with Students

1:30 pm

FWH Room 3301



Main Lecture

4:00 pm

EB I Room 2015



**EE
RI** Earthquake Engineering
Research Institute
Dedicated to reducing earthquake risk



food and
beverages
will be
provided!