



**EARTHQUAKE ENGINEERING
RESEARCH INSTITUTE
NEWSLETTER**

Editor Thalia Anagnos
Associate Editors Sarah Nathe
Gerald Brady
Editorial Assistant Eloise Gilland

Earthquake Engineering
Research Institute
499 14th Street, Suite 320
Oakland, California 94612-1934
Phone: 510/451-0905
Fax: 510/451-5411
E-mail: eeri@eeri.org
Web site: <http://www.eeri.org>

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**EARTHQUAKE ENGINEERING
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News of the Institute

Daniel Shapiro Receives Housner Medal



Dan and Lois Shapiro at EERI Annual Meeting Awards Luncheon.

San Francisco structural engineer Daniel Shapiro is this year's recipient of EERI's highest honor, the George W. Housner Medal. The medal was awarded for his many professional contributions in earthquake engineering during a career that has spanned more than 50 years, and for his significant volunteer service in causes to advance earthquake safety. As a result of his leadership in California and at the national level, Shapiro has contributed significantly

to the cause of earthquake loss reduction and improving the understanding of earthquake impacts. His efforts helped bring about life-saving regulations such as mandatory parapet strengthening and retrofit of unreinforced masonry buildings.

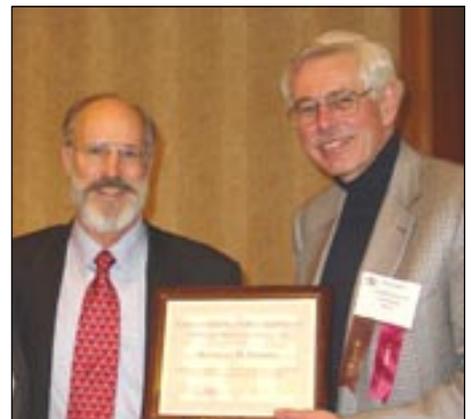
Shapiro graduated with a degree in civil engineering from the University of California, Berkeley, in 1949. In 1965, he founded the firm now known as SOHA Engineers, which under his leadership gained an international reputation for expertise in seismic-resistant design of buildings and bridges, and for the design of deep excavation shoring and underpinning systems. The firm was a pioneer in seismic design for the rehabilitation of existing structures, including schools and hospitals; commercial, residential, and historic buildings; and structural monuments. Advanced techniques such as seismic isolation and energy dissipation have been used in many of SOHA Engineers'

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Stokoe Presents the 2004 Distinguished Lecture on Stress Wave Measurements

Kenneth Stokoe, professor in the Civil Engineering Department at the University of Texas at Austin, presented the 2004 Distinguished Lecture in February at the EERI Annual Meeting in Los Angeles. His lecture was entitled "The Increasing Role of Stress Wave Measurements in Geotechnical Earthquake Engineering." An EERI member since 1979 and selected as this year's lecturer, Stokoe is at the forefront of research in this field.

Stokoe discussed the past, present, and future of stress wave measurements and their applications. Over the past 50 years, the role of stress wave measurements has steadily



Ken Stokoe receives Distinguished Lecturer award from Tom O'Rourke.

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News of the Institute

Robert Olson and Carl Stepp Named EERI Honorary Members

The EERI Board of Directors voted to name Robert Olson and J. Carl Stepp as honorary members of the Institute. Honorary membership recognizes members who have made sustained and outstanding contributions either to the field of earthquake engineering or to EERI and the pursuit of its objectives.



Robert Olson

Robert Olson, president and founder of Robert Olson Associates, has been a major force for nearly 40 years in California and the nation in efforts to improve seismic safety. He has experience in consulting, research, management, and as a practitioner in earthquake hazard mitigation, emergency management, disaster operations, recovery assistance, and public policy development. At all levels of government, he has guided decision-making bodies in a wide variety of endeavors aimed at reducing seismic risk. In 1975, he became the first executive director of the California Seismic Safety Commission. Upon joining EERI in 1973, he became the first social scientist member, and in 1987 was elected vice president of the Institute. Throughout the years he has served EERI with distinction in numerous capacities. He was a project manager of the NSF-funded Learning from Earthquakes Program and manager of several technical projects. He also served a brief but highly successful stint as acting executive

director. Olson has published numerous articles on hazard mitigation and related topics and co-authored a book in the field of applied behavioral sciences, *Some Buildings Just Can't Dance: Politics, Life Safety, and Disaster* (1999). In 2001, Olson was awarded the Alfred E. Alquist Medal for Outstanding Achievement in Earthquake Mitigation by the California Earthquake Safety Foundation.

J. Carl Stepp, principal and founder of Earthquake Hazards Solutions, has made outstanding contributions to EERI and to the fields of seismology and earthquake engineering. A member of EERI since 1973, he served as the Institute's president (1991-92) and on the Editorial Board of *Earthquake Spectra* (1985 to 1992). Among his many publications, he co-authored the *Spectra* paper that won the Outstanding Paper award for 2001 (see page 2 of the April 2003 *Newsletter*).

Stepp obtained his Ph.D. in geophysics from Penn State University. He was manager of the Geotechnical Branch of the U.S. Nuclear Regulatory Commission (1972-79), where he was instrumental in the development of seismic regulations for nuclear power generating plants both in the United States and internationally. He was a member of the oversight committee that established the FEMA HAZUS program. As the manager of a multidisciplinary project, he was influential in the development of the probabilistic seismic hazard methodology incorporating epistemic uncertainty. He took part in managing an international consortium for large-scale model experiments to assess soil structure interaction and validate computational codes. In 1999, Stepp cofounded the Consortium of Organizations for Strong Motion Observation Systems (COSMOS)



J. Carl Stepp

and is currently its executive director. He has been active on committees and boards of many organizations dedicated to earthquake studies and risk reduction, including the Multidisciplinary Center for Earthquake Engineering Research, the Mid-America Earthquake Center, and the NEES Consortium.

Announcements

NEES Annual Meeting

The second annual meeting of the George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES) will be held May 20-22, 2004, at the Catamaran Hotel in San Diego. The agenda includes a May 22 visit to the San Diego equipment site (the largest shake table in the United States), cyber visits to other NEES equipment sites, updates on early research usage at NEES facilities, demonstrations of NEES IT capabilities, presentations by NSF program directors, consortium committee meetings, and opportunities to discuss research ideas with equipment site and system integration PIs. The deadline for a discounted registration rate is May 1. For more information, visit www.nees.org/membership/annual_meeting04.html

News of the Institute

Tom Tobin Receives Alquist Award at EERI Annual Meeting

At EERI's Annual Meeting in February, the California Earthquake Safety Foundation awarded EERI member L. Thomas Tobin the 2004 Alfred E. Alquist Medal for Outstanding Achievement in Earthquake Safety. Tom Tobin has worked on natural hazards risk reduction, risk management, and public policy issues for 40 years. Through his personal integrity and leadership skills, Tobin has helped to improve understanding of earthquake impacts and the steps required to enhance life safety.

During his ten years as executive director of the California Seismic Safety Commission, he was instrumental in passing legislation establishing several new seismic protection programs. Under Tobin's leadership, the commission sponsored passage of the California Earthquake Hazard Reduction Act of 1986 and wrote the state's earthquake risk mitigation program known by the name of the publication, *California at Risk*. In addition, the commission successfully opposed attacks on the Field Act and the Hospital Seismic Safety Act.

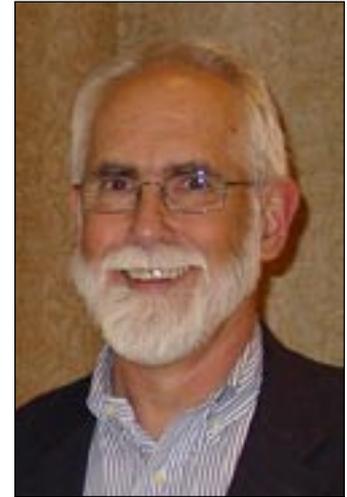
He has lobbied tirelessly for legislation, having testified to congression-

al committees on six occasions and state legislative committees more than 100 times. He has served on the National Earthquake Hazards Reduction Program (NEHRP) Advisory Committee and the California State Historical Building Safety Board.

He has been a continuously active member of EERI, including a stint as vice president during his term on the Board of Directors. He was EERI's 1996 Distinguished Lecturer, served as the founding secretary-treasurer of the Northern California Chapter of EERI, and is currently on the advisory board of EERI's Mitigation Center.

As a consultant, Tobin helped the Federal Emergency Management Agency shape both Project Impact and the Disaster-Resistant University Initiative. Currently, he is the chief operating officer for GeoHazards International, bringing resources and technical knowledge to developing countries.

A graduate of the University of California at Berkeley in civil engineering, Tobin has previously been employed by the Pacific Gas and Elec-



L. Thomas Tobin

tric Company, the San Francisco Bay Conservation and Development Commission, and the California Coastal Commission.

Named in honor of State Senator Alfred Alquist, who had a long and distinguished career supporting earthquake safety in the California legislature, the Alquist Medal is given annually by the nonprofit California Earthquake Safety Foundation. Its mission is to raise the level of public awareness and commitment to earthquake safety in California.

Housner Award

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seismic rehabilitation projects.

A member of EERI since 1978, Shapiro has given scores of technical presentations around the world and has given generously of his time to professional, technical, and public service organizations throughout his career. He has served as president of the Structural Engineers Association of Northern California, president of the Applied Technology Council, chair (and current member) of the California Seismic Safety Com-

mission, chair of San Francisco's Seismic Investigation and Hazard Survey Advisory Committee, and a member of the Task Force for Unreinforced Masonry Building Hazard Abatement in the City of San Francisco. He currently chairs the Project Advisory Committee for the San Francisco Community Action Plan for Seismic Safety. He is a fellow of the American Society of Civil Engineers.

During most of the 1990s, Shapiro was the ATC project director for the FEMA-sponsored program to develop the *Guidelines for the*

Seismic Rehabilitation of Buildings, which will serve as the basis of codes for years to come. Shapiro is still active in ongoing follow-up programs.

Other honors he has received include the 2003 Alfred E. Alquist Award for Outstanding Achievement in Earthquake Safety from the California Earthquake Safety Foundation, the 1999 Building Seismic Safety Council Honor Award, the FEMA Outstanding Public Service Award, and SEAONC's H. J. Brunner Lifetime Achievement Award.

News of the Profession

Code Development Hearings at ICC Meeting

The International Code Council's (ICC) May 16-20, 2004, Spring Meeting in Overland Park, Kansas, will feature the final public hearings on the proposed changes to the International Codes; training for code enforcement officials, architects, engineers, and other construction professionals; and an expo. The ICC, a 50,000-member association dedicated to building safety, develops the codes used to construct residential and commercial buildings, including homes and schools. The majority of U.S. cities, counties, and states that adopt codes choose building safety and fire prevention codes developed by the ICC.

The hearings will mark the end of the first 18-month cycle in a 36-month code development period leading up to the publication of the 2006 editions of the I-Codes. The ICC will webcast the hearings live on the Internet. The approved code changes will be published by ICC in the 2004 supplement to the 2003 I-Codes.

The full report of the notable code change proposals acted on at the September 2003 Code Development Committee hearings is available on the ICC web site at www.iccsafe.org. Comments have been published in the Final Action Agenda for the hearings, which is also posted on the web site.

The public hearings begin on May 17. They will be preceded on May 16 by an expo and a full day of education sessions. The education program will feature sessions at various skill levels presented by industry experts addressing specific needs, opportunities, and issues relevant to those who apply or enforce building safety codes. The program will also help meet continuing education re-

quirements for maintaining licensure in some areas.

For more information and online registration for the education sessions and hearings, visit www.iccsafe.org/springmeeting.

Call for Papers

ISEC-03

The 3rd International Structural Engineering and Construction Conference (ISEC-03) will be held September 20-23, 2005, at the Tokuyama College of Technology in Shunan, Japan. The mission of ISEC-03 is to encourage collaboration of structural, system, and construction engineering using information technology in an environmentally friendly manner. Topics include earthquake engineering, damage assessment, hazard and risk management, smart structures, and lifeline and infrastructure networks. Abstracts of 300-400 words outlining the content and conclusions of the paper are due by June 1, 2004, to Professor Takashi Hara (t-hara@tokuyama.ac.jp). For more information on conference themes and logistics, visit www.tokuyama.ac.jp/tcss1/ISEC_03/.

News of the Membership

Dobry Elected to NAE

EERI member Ricardo Dobry, director of the Geotechnical Centrifuge Research Center and professor of civil engineering at Rensselaer Polytechnic Institute, has been elected to the National Academy of Engineering (NAE). Dobry was elected for his fundamental contributions to multiple aspects of geotechnical earthquake engineering, according to NAE's announcement of 76 new members and 11 foreign associates.

Election to the National Academy of Engineering is among the highest professional distinctions accorded to an engineer. Academy membership honors those who have made important contributions to engineering theory and practice, including significant contributions to the literature of engineering theory and practice. The NAE operates under the same congressional act of incorporation that established the National Academy of Sciences, signed in 1863 by President Lincoln. In addition to its role as adviser to the federal government, the NAE also conducts independent studies to examine important topics in engineering and technology.

News of the Institute

Endowment Fund Donors

EERI would like to thank the donors to the Endowment Fund listed below and acknowledge their recent contributions. EERI's Endowment supports those innovative projects that ensure the Institute's continuing leadership in the earthquake engineering professions.

\$2,400

Farzad Naeim

\$500-\$1,000

Lloyd S. Cluff
Daniel Shapiro

\$200-\$499

Theodore V. Galambos
Marjorie Greene
William U. (Woody)
& Lyn Savage

\$100-\$199

David J. Leeds
George Mylonakis
Robert J. Swain

Other Amounts

Gilles J. Bureau
Robert Y. Chew
James F. Davis
Ricardo Dobry
C. Terry Dooley

Melvyn Green
Abraham C. Lynn
Josephine (Jaz) Torres
Bradley P. Youngman
Fred Ziaripour



Distinquished Lecturer

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increased to the point where they are now a critical tool for characterizing geotechnical sites and determining deformational parameters. Stokoe outlined some of the problems that these measurements are designed to solve, such as predicting ground motions during earthquake shaking, evaluating the degree of cementation in alluvial soils, and evaluating liquefaction resistance.

Regarding the evolution of both field and laboratory test methods, Stokoe explained that field methods, which are usually called "seismic" measurements, have evolved from geophysical exploration and seismology. Laboratory methods originally evolved from soil dynamics; however, newer methods are patterned after field methods. He emphasized that all methods have a strong theoretical foundation, and that the same basic test is performed in both the field and the lab.

Stokoe described specialized field methods that have been developed over the past thirty years, such as crosshole and downhole testing. More recent methods include seismic cone penetration testing (SCPT) and surface wave (SASW) testing. Three field methods were recently performed at the Yucca Mountain building site for handling nuclear wastes.

Over the past 40 years, stress wave measurements of "undisturbed" (intact) specimens, such as torsional resonant columns, have been taken in laboratories. They included linear and nonlinear measurements evaluating stiffness and damping. The past ten years have seen embedded instrumentation in centrifuge experiments that take linear and nonlinear measurements as well as measurements of liquefaction and lateral spreading.

Stokoe predicted an expanding role of stress wave (or seismic) measurements in the future because they have a strong theoretical basis, can be performed in the field and laboratory, and may be noninvasive. The George E. Brown, Jr., Network for Earthquake Engineering Simulation (NEES) will have a major impact. NEES will feature dynamic loading systems and dynamic field sources. Stokoe mentioned the T-Rex and Liquidator facilities at the University of Texas, UCLA's rotating-mass and linear oscillators, the centrifuges at both the University of California-Davis and Rensselaer Polytechnic Institute, and the tsunami wave basin at Oregon State University.

Page 1 of the January 2004 *Newsletter* provides additional biographical information about Professor Stokoe. Groups interested in having him present his lecture may e-mail him at k.stokoe@mail.utexas.edu. His lecture will appear in a future issue of *Earthquake Spectra*.

Learning from Earthquakes

Dead Sea Earthquake

The following report was sent by EERI member Jalal Al-Dabbeek, director of the Earth Science and Seismic Engineering Center (ESSEC) in Nablus West Bank, Palestinian Authority, Israel.

The Dead Sea earthquake of February 11, 2004 (Mb 5.1), occurred at 08:15 UTC. The epicenter was about 16 km south of Jericho city (31.679 N, 35.585 E) at a focal depth of 21 km. The earthquake was felt in Jericho, Hebron, Nablus, Ramallah, Bethlehem, and Jerusalem, but no loss of life was reported.

Studies of historical earthquakes for the past few thousand years demonstrate that damaging earthquakes have occurred along the Dead Sea transform fault. The most recent destructive earthquakes of the area ruptured the boundary between the Arabian and the Sinai plates in 1927 and 1995.

Reinforced concrete buildings in Palestine suffered slight nonstructural damage (damage grade 1, according to European Macroseismic Scale 1998 "EMS-98"), such as hairline cracks in a few walls, especially over frame members or in walls at the base.

Three old schools suffered moderate to substantial damage: slight to moderate structural damage and moderate nonstructural damage (EMS-98 grade 2 for one school and grades 2-3 for the other schools).

The earthquake affected many old masonry buildings in Palestinian cities. In Nablus city, a few historical buildings were affected with damage between grades 1 and 4. Six old masonry buildings suffered grade 2 damage, two old masonry buildings suffered grade 3 damage, and two buildings (masonry and old masonry buildings) suffered very heavy (grade 4) damage.

News of the Profession

13WCEE Registration Deadline Soon

The deadline to obtain a discounted registration fee for the 13th World Conference on Earthquake Engineering in Vancouver, British Columbia, Canada, August 1-6, is fast approaching. On or before May 4, the fee for regular attendees is US\$750 (\$1,000 Canadian). After May 4, it will be US\$900 (\$1,200 Canadian). The full registration package includes all technical sessions, one copy of the final program, proceedings on CD-ROM, opening ceremony and reception, the international fair, the enchanted rainforest banquet, lunches, and refreshment breaks. For more information, visit www.13wcee.com.

News of the Institute

Summary Minutes of the December 12, 2003, Board of Directors Meeting

Call to Order: President Thomas O'Rourke called the meeting to order at 8:50 a.m. Present were Past President Chris Poland, Secretary/Treasurer Ron Mayes, Vice President Svetlana Brzev, Directors Sergio Alcocer, Donald Ballantyne, Bruce Clark, Mary Comerio, and Sarah Nathe. Also present were Board candidates John Aho and Farzad Naeim, as well as Executive Director Susan Tubbesing and Administrative Assistant Valarie Austin.

NEHRP reauthorization update: O'Rourke reported that the Senate has taken no action since the House adopted HR 2608 in October, but that as a result of the strong leadership of Poland and Brian Pallasch (ASCE), the NEHRP Coalition has crafted a superb bill that is progressing through the legislative process. O'Rourke stressed that continuing effort and cooperation with the NEHRP Coalition will be needed to win passage of this bill in the Senate and funding by the Appropriations Committees. Poland will continue to represent EERI and serve as co-chair of the NEHRP Coalition through the reauthorization process.

Publications Policy Committee Report: *Spectra*: Nathe informed the Board that there has been a substantial increase in the number of papers being accepted for publication in *Spectra*, resulting in a dramatic increase in both publishing costs and demands on staff time. Because of the page limits for each issue, this has resulted in an extension of time from when a paper is accepted to when it is published. The Board directed Naeim and the Publications Policy Committee to develop specific recommendations

on the use of color, font size, format, and possible page charges for *Spectra* articles. These modified guidelines will be published in the *Newsletter* to inform members of the changes. Naeim indicated his intention to widen the scope of disciplines that are served by the journal, and over the next year to conduct concerted outreach to the professional community to encourage them to contribute articles relating to their respective fields. He stated that the needs of practicing professionals can best be addressed in special theme issues. His first priority, however, will be to put measures in place to expedite the review process and to ensure smoother operations.

Monographs: The Board reviewed proposed revisions to the policy concerning the intent and content of monographs. The Board's consensus was that monographs are not intended to be design guides or detailed and highly technical documents. The Board inserted the following language into its policy on monographs: "They should be written by recognized authorities in the discipline and address fundamentals that are relevant for both the state of the art and the state of practice. The contents will therefore tend to be basic and conceptual and make a long-lasting contribution."

Revenue and Expense Report: Mayes reviewed the Report of Revenue and Expenses as of October 31, 2003. The combined balance sheet showed an opening fund balance of \$141,958, which was augmented by \$135,926 in excess revenues over expenses.

EERI's total liabilities of \$144,628 combined with the total fund balance of \$277,884 equaled \$422,512. The Endowment Program's opening balance of \$552,753 was augmented by \$92,003 in excess revenues over expenses, for a total fund balance of \$644,756. Total liabilities in the amount of \$308,470 combined with the total fund balance of \$644,756

equaled \$953,226. The balance of the combined association, endowment, and technical programs equaled \$1,375,738.

The Investment Funds Report showed a balance of \$158,416 in the General Administrative Short-Term Investment Fund and \$34,542 in the Long-Term Investment Fund. The Endowment Fund balance totaled \$644,756; the Friedman Family Investment Fund totaled \$135,433; and the Shah Family Innovation Prize totaled \$173,037. The balance of the interest-bearing checking account was \$63,575. The combined funds in both the General Administrative checking and investment accounts totaled \$258,540.

The Grants Status Summary showed that of \$3,370,365 in active grants, \$2,070,510 has been expended, leaving a balance of \$1,299,855.

Loss Data Workshop — Next steps: Comerio informed the Board that an oversight committee is being formed that will coordinate five task forces, each drawn from a different discipline, that will produce a more detailed action plan for damage data collection, secondary data collection, inventory data, and repository development.

Reconnaissance report review procedure: O'Rourke reviewed several suggestions that the Publications Policy Committee has formulated to help improve the review process. These include the following:

- When the team returns after a field investigation, the team leader, the LFE Committee chair, the Publications Policy Committee chair, the executive director, and the LFE program manager will discuss whether the earthquake warrants a *Spectra* special issue. It is anticipated that many reconnaissance trips will not result in special stand-alone issues.
- Authors should be given clear guidelines about expectations for

Board Minutes

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the content of reconnaissance issues, which are for observations, some initial lessons or conclusions, photos, and descriptions, but not for in-depth analysis.

- Consideration will be given to using the PeerX-Press online review system in preparing reconnaissance reports, to facilitate their publication as soon as possible.
- The team members will serve as the reviewers for their reconnaissance report.
- A means should be found to simplify the review process while maintaining anonymity.

Membership Report: Tubbesing stated that a comprehensive membership strategy needed to be developed in light of the fact that there has been a 10% decline in the number of regular members. It is important to keep student members as their status changes from student to professional. Hollenbeck will work on obtaining contact information about student members so they can be encouraged to join as Young Professionals. Efforts will be made to

enable younger members to make a presentation about EERI to students at the visiting professional lectures.

2006 National Conference: Poland reviewed the memorandum of understanding to be signed between EERI, the Seismological Society of America, and the California Governor's Office of Emergency Services, in which the organizations agree to serve as co-conveners of the Anniversary Conference at the Moscone Convention Center in San Francisco from April 17-22, 2006. The Board unanimously endorsed the MOU and the outline of services each organization will provide in organizing the conference.

Poland stated that EERI's Annual Meeting and the 8NCEE will be combined into the 100th Anniversary observance of the 1906 San Francisco earthquake. EERI will hold joint activities with SSA, which will be conducting its 100th Anniversary Annual Meeting, and with OES, which will be holding its Disaster-Resistant California conference. EERI's Northern California Chapter will establish a steering committee to organize the meeting. Poland will serve as chair and report to the EERI Board.

In addition to the jointly held technical program, EERI will schedule time to conduct its regular Annual Meeting activities, such as the awards luncheon, committee meetings, business meeting, and receptions. Efforts will be made not to hold competing activities in the evenings. Joint activities will be held on the first day. The technical program will be open to registrants of any of the meetings.

Subscribing Members meeting outcome: The Board reviewed the results of a meeting with Subscribing Members on December 11, 2003. Many companies are benefiting from EERI's advocacy efforts, and it is vitally important to develop strategies for enlarging the membership base and the number of Subscribing Members.

An announcement will be placed in the *Newsletter* and on the web site describing a new benefit to Subscribing Members offering early access to student resumes posted every spring and fall on EERI's web site. The chair of the Student Activities Committee and faculty chapter representatives will be notified of this opportunity for students.

News of the Institute

2005 EERI Annual Meeting in Ixtapa, Mexico, February 2-6



Las Brisas Hotel in Ixtapa, Mexico (formerly the Westin Ixtapa).

As part of EERI's effort to establish closer ties with the Sociedad Mexicana de Ingenieria Sismica (SMIS), the EERI Board of Directors selected the Las Brisas Hotel in Ixtapa, Mexico, for the 2005 Annual Meeting scheduled for February 2-6 — the first-ever Annual Meeting outside the United States! The dramatically designed hotel is carved into the coastline overlooking a picturesque bay. Because the Board would like the attendees to have free time in the afternoons to enjoy the resort, the weather, and the environment instead of spending all day, every day in sessions, it has planned for each day of technical programs to end earlier than usual. Therefore the meeting will last one day longer, with sessions extending into Sunday, February 6. Rich Klingner and Jim Jirsa, co-chairs of the organizing committee, will be putting together a planning committee that combines experience and new ideas. Mark your calendar and watch future *Newsletters* for more information about this exciting event!

News of the Institute

Endowment Fund Reorganization

At their December 12, 2003, meeting, the EERI Board of Directors took action to reorganize the EERI Endowment Fund into four separate parts in order to provide more options for donors.

The first part is the **EERI Endowment Fund**, which will cover both unrestricted and restricted funds, such as the restricted funds underwriting the Shah Prize and the Friedman Family Visiting Professional Program. General donations to EERI are considered unrestricted and may be made to this fund. Subscribing Members at the new bronze, silver and gold levels (see page 12 of the March *Newsletter*) may designate their support to the Endowment's unrestricted funds.

The second is the **Program Fund** and includes ongoing programs such as the World Housing Encyclopedia, Quake '06, the Mitigation Center, and the 1906 Anniversary Conference. Donors and Subscribing Members at the new levels will be able to designate their support to any of these specific programs.

The third fund (previously known as the Endowment Fund) supports **Special Projects and Initiatives**. The EERI Board will continue to exercise final funding approval over proposed projects on an annual basis. This change will make these special projects eligible for outside funding from individuals, organizations, and foundations. Examples of these short-term programs include the development of the Seattle scenario and scenario guidelines, and a project to provide small grants for developing countries to build their capacity and leadership and to support local risk reduction programs. The Special Projects and Initiatives Committee is also exploring ways to develop a documentary film that

highlights contributions of earthquake engineering. Subscribing Members may choose to support the special projects and initiatives of their choosing.

The fourth fund, focusing on **Advocacy**, will be used to support activities such as the current efforts to renew NEHRP and research or implementation projects identified in the EERI Plan, *Securing Society Against Catastrophic Earthquake Losses*. Once again, Subscribing Members at the new levels will have a direct opportunity to support EERI's advocacy efforts on behalf of earthquake engineering research and implementation.

The Endowment Fund's purpose will continue to be perpetual growth to underwrite the activities of the Institute and to serve as its vehicle for achieving financial independence.

Job Opportunity

UC Irvine

The Department of Civil and Environmental Engineering at the University of California at Irvine seeks applicants for a tenure-track faculty position at the assistant professor level in structural engineering, beginning September 2004. The successful candidate will teach undergraduate and graduate courses and develop an extramurally funded research program in advanced technologies in civil engineering structures and systems.

The department is focusing its teaching and research programs on civil applications in integrated intelligent systems engineering. The department's Structural Engineering Test Hall (SETH) houses state-of-the-art structural and dynamic testing equipment and is undergoing an expansion. For application information, visit www.eeri.org/news/career_opportunities.html. The deadline is May 31, 2004.

Announcement

PEER Summer REUs and Internships

The Pacific Earthquake Engineering Research Center (PEER) has announced the availability of up to seven "research experience for undergraduates" (REU) positions and 15 PEER Summer Internship Program positions for the summer of 2004.

Both programs target upper-division students who have completed junior-level courses in engineering or a related field. Both programs provide research opportunities for undergraduates who have shown an interest in earthquake engineering, demonstrated a high level of academic performance, and whose presence would enhance the diversity of PEER. Interns will receive a \$5,000 stipend.

Funding for the REU Program comes directly from the National Science Foundation, and certain eligibility requirements apply. REU students are required to attend a one-day Communication Skills Workshop in June and give a PowerPoint presentation at the REU Earthquake Engineering Symposium for Young Researchers, to be held in Charleston, South Carolina, in August 2004.

For the PEER Summer Internship Program, interns are required to work 400 hours (10 weeks) with a faculty mentor on a PEER research project between May 15 and September 15. PEER summer interns are required to present a poster describing their summer research at a professional gathering, such as the EERI Annual Meeting.

To read more about program requirements and to download an application, visit peer.ucsd.edu/internshipmenu.htm. Applications will be accepted and selections made on a rolling basis. Applicants will be notified of acceptance by e-mail.

News of the Institute

Membership Survey Results

Late in 2003, EERI members were invited by e-mail to take an online survey regarding the Institute's activities and programs so that decisions made by the Board of Directors could be informed by member preferences.

Approximately 10% of the membership (261) responded to the survey. In contrast, when EERI conducted a survey in 1998 by regular mail, more than twice as many (620) responses were received, which seems to indicate a strong membership preference for pen and paper. Eighty percent of the respondents had some kind of engineering background, a similar proportion to the previous survey. Most of the respondents were between the ages of 31 and 55 (55%); 18%, between 20 and 30; 20%, between 56 and 70; and 7%, over 71.

Eighty-three percent of respondents indicated that receiving publications was the most important reason for belonging to EERI, compared to 85% in 1998. Information exchange was also very important (67%), followed by professional contacts, exposure to current policy issues, and access to cutting edge research (57%, 52%, and 51%, respectively). Advocacy for seismic policies and interaction with different disciplines were important reasons for substantial minorities (41% and 39%). For open-ended questions, respondents' answers were remarkably similar on both surveys.

Reconnaissance reports and the World Housing Encyclopedia web site tied for being considered the most valuable services, with more than half (54%) of respondents ranking them very or somewhat valuable. Technical briefings after earthquakes ranked as the third most valuable service (50%). (In the 1998 survey, briefings had been ranked as the

most valuable service with 68%.) The fourth most valuable service was the annual meeting (48% compared to 59% in 1998) followed by committee service and technical seminars at 44% each. Videos were again seen as the least valuable.

In response to the question concerning support for new or expanded activities, regional chapter expansion was ranked highest by far with 65% of respondents being very supportive, followed by earthquake damage tours (43%), outreach beyond the earthquake community (34%), "how to" policy guides (32%), services to young professionals (31%), services to international members (30%), and development of earthquake scenarios (30%).

Many of EERI's international activities received strong endorsement, including the establishment of collaborative agreements with other countries (77%), translation of materials into English (66%), inclusion of international members on committees (65%), reserving one seat on the Board for an international member (51%), significant participation of international members at Annual Meetings (50%), and translation of selected EERI publications into other languages (41%).

Only 10% said they had not used EERI's web site, compared to 40% in 1998. Thirty percent use it to provide address updates, followed by meeting registration (27%), reading

the *Newsletter* (22%), getting earthquake policy updates (19%), exploring the World Housing Encyclopedia (15%), and getting Quake '06 updates (10%).

One new resource is *Spectra* online. Forty percent of EERI members have registered for online access to *Spectra* through AIP. A majority of respondents had read or downloaded *Spectra* articles (53%). Other aspects of online *Spectra* usage surveyed were searching *Spectra* abstracts (31%), reading of reconnaissance report supplements (25%), searching other journals (23%), and downloading of manuscript submission guidelines (18%).

A decided majority of members do not want to replace hard copies of these publications with online versions, with the possible exception of the Design Series, where slightly more than half (51%) of the respondents would be willing to read it online only. Forty-nine percent of members would be willing to receive monographs online only, followed by proceedings (45%), reconnaissance reports (34%), oral histories (30%), the *Newsletter* (27%), and *Spectra* (17%). The EERI Board of Directors reviewed these responses at their February meeting and determined that, for as long as possible, EERI will continue to provide hard copies of these publications as benefits of EERI membership, along with electronic access to the *Newsletter* and *Spectra*.

Call for Student Papers

ASPEP Student Paper Contest

The American Society of Professional Emergency Planners (ASPEP) has announced its second annual contest for students enrolled in college level emergency management programs either as students or interns. Papers will be judged based on the uniqueness of their approach to topics, on new research, or on practical use for emergency management professionals. The top three papers will be published in the 2004 *ASPEP Journal* scheduled for October 2004, and each published author will receive a cash prize. The deadline is May 10. For more information, visit www.eeri.org/news/career_opportunities.html.

Announcements

“Earthquake” Wines

People who attended the banquet at EERI’s Annual Meeting in February will recall that dinner included bottles of “vintage” wines with labels commemorating the 1994 Northridge and 1906 San Francisco earthquakes and featuring EERI’s name. Additional bottles were available for sale on the last day of the meeting and were a big hit with attendees.

EERI is pleased to announce that these commemorative bottles of wine are for sale online at the Apan Wine Company’s web site (www.apanwine.com) and click on “store”). For \$29.95 plus shipping and sales tax, the minimum order is two bottles available in a sampler pack that can include a bottle of Chardonnay and a bottle of Cabernet, or two bottles of either Chardonnay or Cabernet. Customers can specify which label they want on either bottle.

Case quantities of either Chardonnay or Cabernet can also be purchased for \$144.00 (\$120.00 for American Business Institute members) plus shipping and sales tax, but customers would have to choose either the 1906 label or the Northridge label for the whole case.

EERI extends thanks to the American Business Institute and its managing director and CFO George W. Reitter for generously donating wine to EERI’s banquet.

2004 U.S. National EQ Conference

With the theme of “Strengthening America: Preparing for Earthquakes and More,” the 2004 U.S. National Earthquake Conference is scheduled for September 26-30, 2004, at the Adam’s Mark Hotel in St. Louis, Missouri. It is sponsored by the Boeing Company, the U.S. Department of Homeland Security, the Federal Emergency Management Agency,

and the U.S. Geological Survey. Its purpose is to provide a national forum for dialogue among earthquake professionals, government, and businesses that builds common ground leading to actions that reduce social and economic losses from earthquakes.

Its objectives are (1) to develop a shared understanding of the social and economic impact of earthquakes in the United States; (2) exchange key information on the state of the art and practice in science, engineering, policy, and business; (3) showcase successful earthquake risk management programs in the public and private sectors; (4) identify and build on the commonalities of the national earthquake program and homeland security; and (5) discover and build on new approaches and solutions.

For more information, visit www.earthquakeconference.org/.

PERI Dissertation Fellowships

The Natural Hazards Center at the University of Colorado in partnership with the Public Entity Risk Institute (PERI), with funding from the National Science Foundation (NSF), will award dissertation fellowships to support work in all aspects of natural and human-made hazards, risk, and disasters in all disciplines. The goal of the program is to foster the development of the next generation of interdisciplinary hazards scholars through wide-ranging contributions to the body of knowledge in hazards research.

As many as 10 grants of up to \$10,000 each will be awarded in 2004 to doctoral students to support dissertation work in relevant fields of the natural and physical sciences, social and behavioral sciences, specialties in engineering, or interdisciplinary programs such as environmental studies. Applications are due July 1, 2004. Complete program

information, including deadlines, eligibility, and application information, is available at www.cudenver.edu/periship. Specific questions can be directed to Audre Hoffman, 703/352-1846 (periship@riskinstitute.org).

Call for Papers

Nuclear Installations Safety Workshop

The Nuclear Energy Agency (NEA) is a specialized agency within the Organization for Economic Co-operation and Development (OECD), an intergovernmental organization of industrialized countries. The NEA’s Committee on the Safety of Nuclear Installations (CSNI) is sponsoring a Workshop on Seismic Input Motions Incorporating Recent Geological Studies, November 15-19, 2004, hosted by the National Research Institute for Earth Science and Disaster Prevention (NIED) in Tsukuba, Japan, about 60 km northeast of downtown Tokyo.

The workshop’s objective is to review the state of the art in defining realistic seismic input for the design and reevaluation of nuclear facilities. Sessions will address the following topics: deep boreholes and asperities, hidden faults, simulation of source paths and site effects, seismic measurements, seismic variables in relation to damage, uncertainties and methodologies for their reduction, and regulatory implications. A final session will summarize the discussions and develop conclusions and recommendations for possible further actions by the CSNI.

The NEA has announced a call for papers. The deadline for submittal of one-page abstracts (~200 words) is May 15, 2004. Additional information and registration are available at www.nea.fr/html/nsd/workshops/SEIS2004/index.html. Papers are due by October 1, 2004.

CALENDAR

Items that have appeared previously are severely abbreviated. The issue containing the first, or most informative, appearance is indicated at the entry's end. Items listed for the first time are shown in **bold**.

APRIL

1-3. Shlemon Specialty Conf. in Eng. Geology, El Paso, TX. Info: www.haneberg.com/fissure/ (2/04)

13-17. 5th Int'l Conf. on Case Histories in Geotech. Eng., New York, NY. Info: www.umn.edu/~eqconf/ **5thCHConf** (1/03, 3/03)

MAY

3-5. 4th Annual Disaster-Resistant California Conf., Sacramento, CA. Info: www.drc.ca.gov (12/03)

7. 2004 L.A. Tall Buildings Conf., Los Angeles, CA. Info: www.TallBuildings.org (12/03)

16-19. Basin and Range Province Seismic Hazard Summit II, Reno, NV. Info: www.nbmjg.unr.edu (12/03)

16-19. Third UCLA Conf. on Public Health and Disasters, Torrance, CA. Info: www.ph.ucla.edu/cphd/conference.html (12/03)

16-20. Int'l Code Council Spring Meeting, Overland Park, MD. See page 4. (4/04)

17. SMIP04 Seminar on Utilization of Strong-Motion Data, Sacramento, CA. Info: www.conservation.ca.gov/cgs/smip/seminar.htm (3/04)

20-21. NEES Annual Meeting, San Diego, CA. Info: www.nees.org. See page 2. (4/04)

22-26. Structures 2004, Nashville, TN. Info: www.asce.org/conferences/structures2004/ (8/02)

JUNE

7-10. SEM X Int'l Cong. on Experimental and Applied Mechanics, Costa Mesa, CA. Info: www.sem.org (10/03)

10-11. 4th Int'l Workshop on Struc-

tural Control, Columbia Univ., NY. Info: www.civil.columbia.edu/4IWSC (11/03)

20-23. 14th World Conf. on Disaster Management, Toronto, Canada. Info: www.wcdm.org/ (11/03)

JULY

6-9. Int'l Symp. Network & Center-Based Research for Smart Structures Tech. & EQ Eng., Osaka, Japan. Info: mahua@rch.eng.osaka-u.ac.jp (12/03)

12-15. 3rd European Conf. on Structural Control, Vienna, Austria. Info: www.samco.org/3ecsc (10/03)

18-23. Composite Construction in Steel and Concrete V, Kruger National Park, South Africa. Info: www.engconfintl.org/4ab.html (12/02)

26-28. ASCE Specialty Conf. on Probabilistic Mechanics and Structural Reliability, Albuquerque, NM. Info: www.esc.sandia.gov/PMCconferenceinfo.html (12/03)

AUGUST

1-6. 13th World Conference on EQ Eng. (13WCEE), Vancouver, British Columbia, Canada. Info: www.13wcee.com. See page 7. (7/02, 3/03, 4/04)

8-11. MOVIC 04 Motion and Vibration Control Conf., St. Louis, MO. (11/02)

SEPTEMBER

14-17. NDE/NDT for Highways and Bridges 2004, Buffalo, NY. Info: www.asnt.org/events/events.htm (12/03)

26-30. 2004 U.S. National EQ Conf., St. Louis, MO. Info: www.earthquakeconference.org/ See page 10. (4/04)

29-Oct. 1. Annual Conf. on Deep Foundations, Vancouver, B.C., Canada. Info: www.dfi.org (12/03)

OCTOBER

18-20. 3rd Int'l Conf. on EQ Eng., Nanjing, China. Info: 3icee.njut.edu.cn/ (4/04)

25-Nov. 5. 7th Workshop on 3-D Modelling of Seismic Waves, Trieste,

Italy. Info: agenda.ictp.trieste.it/smr.php?1586 (2/04)

NOVEMBER

15-19. Committee on the Safety of Nuclear Installations Workshop on Seismic Input Motions, Tsukuba, Japan. See page 10. (4/04)

DECEMBER

8-20. 4th Int'l Conf. on Dam Engr., Nanjing, China. Info: www.dam04.com (1/04)

2005

JANUARY

13-16. Int'l Symp. on EQ Eng., Japan. (2/04)

FEBRUARY

2-6. EERI Annual Meeting, Ixtapa, Mexico. See page 7. (4/04)

19-22. Int'l Assoc. for Bridge Struct. Eng. Conf., New Delhi, India. Info: www.iabse.org (11/03)

SEPTEMBER

20-23. 3rd Int'l Structural Eng. & Const. Conf., Shunan, Japan. See page 4. (4/04)

2006

APRIL

17-22. 8th U.S. Nat'l Conf. on EQ Eng. (8NCEE) and EERI Annual Meeting, San Francisco, CA. (8/03)

News of the Institute

EERI Student Member Resumés Online

EERI is pleased to announce a new membership benefit. EERI student members who will be graduating and entering the job market in an earthquake field may submit their resumes to EERI. Resumes are posted each spring and fall at www.eeri.org/news/career_resumes.php.

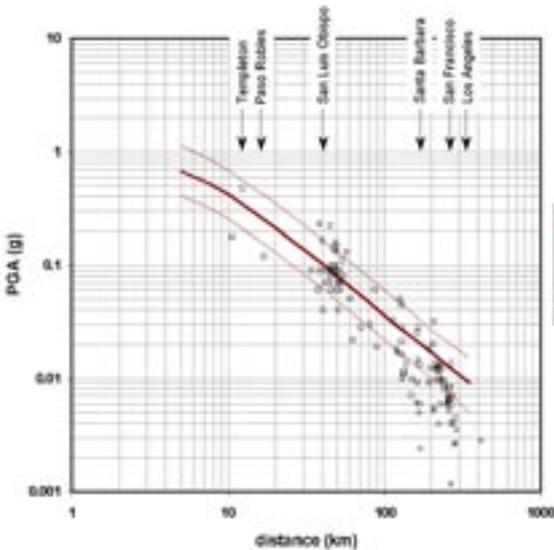
The Institute's Board of Directors hopes that this additional resource for potential employers will prove to be mutually beneficial for members and students.

Learning from Earthquakes

San Simeon Report Update

Subsequent to publication of the March *Newsletter* insert on the San Simeon earthquake, a revised figure 3 (on page 2 of the insert) has been developed (see below). This important record comes from the Templeton Hospital, where accelerations on the roof exceeded 0.5g. Further discussion of this record is planned for the longer report on the San Simeon quake that EERI will issue in mid-2004. The California Integrated Seismic Network (CISN) Engineering Strong Motion Data Center is operated by the Strong Motion Instrumentation Program (CSMIP) within the California Geological Survey.

The CISN has updated the ShakeMap for this earthquake as of March 24. The revised shake maps are available on the web at <http://www.cisn.org/shakemap/nc/shake/40148755/intensity.html>.



Plot of closest distance to rupture (R_{rup}) vs. geometric mean of peak ground acceleration from CSMIP and NSMP recordings, shown with strong motion attenuation curves from Abrahamson and Silva (1997) for Mw 6.5 reverse event.

Announcement

SCEC Summer Internships

The Southern California Earthquake Center (SCEC) Intern Program, now in its 11th year, has expanded and now has two components: SCEC/SURE, and SCEC/UseIT. Both programs provide interns a \$5,000 summer stipend, travel expenses, and group activities, and are supported by the National Science Foundation Research Experience for Undergraduates (REU) program.

The SCEC Summer Undergraduate Research Experience (SCEC/SURE) pairs students from across the country one-on-one with SCEC scientists to work on a research project. The SCEC Undergraduate Summer in Earthquake Information Technology (SCEC/UseIT) unites students from many disciplines and schools across the country in a team-based program at the University of Southern California (USC).

Undergraduate students are encouraged to apply online before April 5 at www.scec.org/internships.



EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

499 14th Street, Suite 320
Oakland, CA 94612-1934

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