Futurist to Kick Off 2010 Annual Meeting

Jamais Cascio, a research affiliate with the Institute for the Future (IFTF), will kick off the EERI 2010 Annual Meeting by giving the keynote address on “Earthquakes from a Futurist’s Perspective” on the first full day of the program, Thursday morning, February 4. His talk paves the way for the program’s envisioning the breakthroughs needed to achieve an outcome of comparatively minimal damage in a repeat in the year 2056 of the San Francisco earthquake of 1906.

Cascio released his first book earlier this year: Hacking the Earth: Understanding the Consequences of Geoengineering. He writes about the intersection of emerging technologies, environmental dilemmas, and cultural transformation, specializing in the design and creation of plausible scenarios of the future. His work focuses on the importance of long-term, systemic thinking, emphasizing the power of openness, transparency, and flexibility as catalysts for building a more resilient society. The IFTF, an independent nonprofit research group located in Palo Alto, California, has more than 40 years of forecasting experience. It works with organizations of all kinds to help them make informed decisions.

The Annual Meeting will be held February 3-6, in San Francisco, California. To register and find everything else you need to know about the meeting, visit http://www.eeri.org/. It has a link to make hotel reservations at the Parc 55 Hotel for the EERI group rate of $159/single or double. The brochure about the meeting has been mailed to all EERI members and can be viewed and downloaded on the site. Don’t procrastinate — register today to take part in this provocative program!

Arthur Frankel Named Joyner Lecturer

Arthur D. Frankel, senior scientist and research geophysicist at the U.S. Geological Survey, has been selected as the 2010 William B. Joyner Lecturer. He will deliver his lecture, entitled “Progress and Controversy in Seismic Hazard Mapping,” on February 6 during the 2010 EERI Annual Meeting in San Francisco. Frankel is the coordinator for earthquake effects research at the USGS.

From 1993 to 2004, as project chief at the USGS, he led the effort to produce and update the new probabilistic national seismic hazard maps of the United States. He also played a key role in the subsequent 2008 update. His work provides the crucial bridge at the interface of earthquake science and engineering that enables the production and use of the maps. Frankel and his team draw upon data from earth science research and earthquake monitoring that form the basis of the maps.
News of the Institute

Remember EERI Before This Tax Year Ends

December brings the last chance for you to reduce next April’s tax burden by making a donation to the EERI Endowment Fund. Your gift will help provide EERI with the flexibility to support worthy projects independently of government funding. Member contributions provide essential funding for innovative projects judged to be of value and importance to our broad-based membership and to EERI’s mission, but for which traditional funding is not available.

Many recent Endowment initiatives have gained importance within the earthquake professions and throughout many seismically vulnerable areas of the world. A project funded this year is developing effective communication and technology transfer tools to train low-income dwellers in seismic areas on the construction of safe and hygienic adobe houses.

The generosity of EERI members has allowed EERI to create many exciting programs since the Endowment’s inception in 1994. Your gift will enable EERI to build on this powerful momentum and support other new and exciting activities in the years ahead. The 2010 dues statement has a line to make a donation, or to donate online, visit http://www.eeri.org/ and click on the donate button in the right column.

Under the Pension Protection Act of 2006, members aged 70.5 years and older may make donations from IRAs without claiming the distributions as income. Please consider discussing this opportunity to support the EERI Endowment with your tax advisor.

EERI Endowment Donors

EERI would like to thank the donors to the Endowment Fund shown 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.

$7,000  Kinematics, Inc.

$500  Robert Chittenden
G. Rodolfo Saragoni
Anshel J. Schiff
Michael Valley

$200-$499  Christopher Arnold
Ian Buckle
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News of the Profession

McNutt Confirmed as Director of USGS

On October 21, 2009, Marcia McNutt was confirmed by the U.S. Senate to be Director of the U.S. Geological Survey (USGS). In accepting the directorship, McNutt has left her position as president and CEO of the Monterey Aquarium Research Institute, where she worked for 12 years. She had previously served as the Griswold Professor of Geophysics at MIT and had worked for the USGS early in her career. She has also conducted research at the Scripps Institution of Oceanography.

A geophysicist, McNutt studied processes within the Earth’s crust and mantle, focusing on how those processes contribute to the formation of mountain ranges and volcanoes. McNutt has participated in 15 major oceanographic expeditions and authored or co-authored over 90 peer-reviewed scientific articles. As the first female director of the USGS, McNutt will benefit from extensive experience serving on advisory boards for national organizations such as the American Association for the Advancement of Science (AAAS) and the Consortium for Ocean Leadership.

Regarding her appointment, McNutt said, “Scientific information from the U.S. Geological Survey is crucial to solving the most important problems facing our society—finding sufficient supplies of fresh water and clean energy, and providing accurate information that allows citizens to prepare intelligently for climate change. I look forward to leading such a respected institution at this critical time.”

McNutt is a member of the National Academy of Sciences and a Fellow of the Geological Society of America, American Geophysical Union, and the AAAS. She served a term as president of AGU.
News of the Profession

Loma Prieta Symposium Calls for Action

On the 20th anniversary of the October 17, 1989, Loma Prieta earthquake, professionals from around the Bay Area gathered in San Francisco for a symposium organized by EERI Subscribing Member PEER (the Pacific Earthquake Engineering Research Center) to evaluate progress and gaps that still remain. Speakers observed that in 1989, nonlinear response history analysis was just beginning to be used in practice. HAZUS or other loss modeling software did not exist, and risk analysis was not yet conducted for conventional structures. No broadly imposed mitigation ordinances or programs were in place. Protective structural systems like base isolation and energy dissipation devices had not become widely accepted, and performance-based design was rarely considered.

In the ensuing 20 years, the earthquake engineering community can claim significant progress. Many earthquake mitigation policies have been created and implemented, such as the East Bay Municipal Utilities District water system retrofit, BART’s seismic retrofit program, unreinforced masonry retrofit programs, Caltrans’ Bridge Retrofit Program, SFPPC’s Hetch Hetchy retrofit and water system upgrades, seismic upgrades by PG&E, and UC Berkeley’s retrofit program. Progress has also been made in improving seismic building codes and understanding ground motion and the seismic performance of soils.

Despite these success stories, many challenges remain. Improved mitigation programs are needed for housing, schools, and social services. Soft story apartment buildings and nonductile concrete structures need to be addressed successfully. Improved coordination and planning of post-earthquake responses of lifeline agencies are needed.

Diminished funding puts earthquake research and mitigation programs at risk. Recovery and mitigation planning has been slow to utilize advances in earthquake science. Interaction among stakeholders is needed to define acceptable levels of earthquake risk and performance. Post-earthquake fires continue to be a significant potential vulnerability. Engineering standards must be improved through basic and applied research to achieve resilience.

EERI President-Elect nominee Tom Tobin issued a challenge to attendees “to use your voice and your expertise to tackle these challenges and influence action.”

For more information about the event, including videos of the presentations, visit http://peer.berkeley.edu/events/2009/loma_prieta/program.html.

Bozorgnia PEER Executive Director

EERI member Yousef Bozorgnia has been promoted to become the Executive Director of PEER at the University of California, Berkeley. Prior to the new appointment, Bozorgnia was PEER Associate Director, and has been successful in managing and expanding large multidisciplinary research projects at PEER. As a multi-campus earthquake center, PEER has research projects ranging from geology, seismology, and geotechnical and structural engineering to the socio-economic impacts of earthquakes. The PEER Director is Steve Mahin, who assumed the responsibility on January 1, 2009.

MCEER Joins EQ Response Exercise

EERI Subscribing Member MCEER took part in “Vigilant Guard New York,” a six-day training exercise simulating response to a magnitude 5.9 earthquake hitting the Buffalo-Niagara Falls region. MCEER director and University at Buffalo professor of structural engineering, Andre Filiatrault, and MCEER chief of staff Donald Goralski participated in two tabletop exercises to aid planners in developing the exercise. Filiatrault provided guidance to New York State Emergency Management officials in developing a HAZUS scenario for the event. He drew upon his knowledge of Canada’s 1988 Saguenay, Quebec earthquake — the largest to hit eastern North America in more than 50 years — in helping GIS planners refine their model.

The exercise, which took place November 1-6, 2009, is one of four national-level disaster response exercises conducted annually by the National Guard Bureau and the United States Northern Command in conjunction with the US Army Corps of Engineers, civilian first responders, and local governments. It drew participation of more than 1,300 National Guard soldiers and airmen from across New York, Pennsylvania, Massachusetts, Vermont, Connecticut, and the U.S. Virgin Islands, as well as hundreds of first responders from throughout New York State, surrounding states and Canada. During the exercise, teams conducted hazardous materials detection drills and simulated search and rescue operations at rubble piles, specially built to replicate a collapsed hospital and multi-level parking garage. The rubble piles also served as a backdrop to a media conference during which Filiatrault joined National Guard, state and local leaders to open the exercise. For more information, visit mceer.buffalo.edu.
News of the Membership

Honors for Chopra, Frangopol, Takewaki

EERI member Anil K. Chopra, professor of structural engineering in the Department of Civil and Environmental Engineering at the University of California, Berkeley, has been included in the International Water Power and Dam Construction’s list of the “60 most influential people in the industry” who “helped shape the course of the global hydro and dams business over the last 60 years.”

Chopra joined UC Berkeley’s civil engineering faculty in 1967. He has authored more than 300 published works, including the popular EERI monograph, *Earthquake Dynamics of Structures, A Primer* (second edition 2005), and a well-known textbook, *Dynamics of Structures: Theory and Applications to Earthquake Engineering* (third edition 2007). It has been widely adopted in U.S. colleges and is used worldwide. It has been translated into Japanese, Korean, Persian, Chinese and Greek.

Chopra was a member of EERI’s Board of Directors from 1990-1993. His numerous honors include EERI’s highest, the George W. Housner Medal in 2002. A native of India, Chopra received his B.S. from Banaras Hindu University, India, and MS and PhD degrees from UC Berkeley.

EERI member Dan M. Frangopol, the Fazlur R. Khan Endowed Chair of Structural Engineering and Architecture and Professor in the Department of Civil and Environmental Engineering at Lehigh University, recently received the lifetime title of Honorary Professor of Tongji University in China, renowned for its engineering research. The award is an acknowledgment of Frangopol’s scientific contributions to bridge maintenance, safety, and management, and to life-cycle civil engineering. Frangopol joins a select group of four world-renowned bridge engineers who share this honor from Tongji: Manabu Ito (Japan), T. Y. Lin (USA), Jörg Schlaich (Germany), and Man-Chung Tang (USA). Following the award ceremony, Frangopol gave a lecture on “Integrated Life-Cycle Optimization Framework for Maintenance, Monitoring, and Reliability of Structures and Infrastructure.”

Frangopol is the founder and chair of the Technical Council on Life-Cycle Performance, Safety, Reliability and Risk of Structural Systems of the American Society of Civil Engineers’ Structural Engineering Institute (ASCE-SEI). He serves as president of the International Association for Bridge Maintenance and Safety (IABMAS) and of the International Association for Life-Cycle Civil Engineering (IALCCE). He also serves as editor-in-chief of *Structure and Infrastructure Engineering*, an international peer-reviewed journal included in the Science Citation Index and dedicated to recent advances in maintenance, management, and life-cycle performance.

EERI member Izuru Takewaki of Kyoto University’s Department of Urban and Environmental Engineering, Japan, was recently awarded the 2008 Paper of the Year in the *Journal of the Structural Design of Tall and Special Buildings* (John Wiley and Sons) for his paper, “Earthquake Input Energy to Tall and Base-Isolated Buildings in Time and Frequency Dual Domains,” Vol.18, No.6, pp 589-606, 2009 (published online in 2008).

Subscribing Member News

AIR Worldwide Positions

EERI Subscribing Member AIR Worldwide seeks candidates for the following three positions in their offices. For more information on all and to apply, visit http://www.air-worldwide.com/Careers.aspx.

Manager, Earthquake Engineering in the Boston office’s Research and Modeling Department: Involves managing the development of new commerical earthquake models for the insurance industry, working closely with a team of structural engineers, seismologists, geologists, and statisticians. Required: 5+ years of professional experience, 1+ years of management experience, and a PhD in civil engineering, with an emphasis on earthquake engineering.

Principal Engineer/Senior Engineer in the San Francisco office’s Engineering Analysis and Research Department: Involves developing and managing in-house portfolio risk analysis models for natural disasters and participating in consulting and research-oriented projects, working closely with a team of structural engineers and specialists in the application of probability and statistics. Required: PhD or MS in structural engineering and 5+ years of experience.

Seismologist in the Boston office’s Research & Modeling Boston Department: Involves working with a team of seismologists, civil and structural engineers, and other professionals to develop seismic risk analysis models used to estimate losses from natural catastrophes. Required: 2+ years of experience and a PhD in seismology or a related field.
SGH Named #1 Best Firm To Work For

EERI Subscribing Member Simpson Gumpertz & Heger was recently named the #1 Best Firm To Work For among large civil engineering firms by CE News. SGH has been ranked highly since the Structural Engineer survey was inaugurated in 2003, placing ninth on the list in 2008, but this is the first #1 finish for the firm.

Inaugurated in 2003 and 2000 respectively, the Structural Engineer and CE News annual rankings identify the structural and civil engineering firms across the country that provide the best workplaces. The evaluations address attributes such as firm culture and values, quality of leadership, compensation and benefits, recognition programs, social atmosphere, and professional growth opportunities. The rankings are based on two key components: a corporate survey regarding employment practices and a confidential employee survey administered by a third party.

SGH is a national engineering firm that designs, investigates, and rehabilitates structures and building enclosures. Its mission is “to build and sustain an inspiring work environment where the best staff in the industry can collaborate to do the best work in the world.”

SGH’s award-winning work encompasses building, transportation, water/wastewater, nuclear, science, and defense projects throughout the United States and in more than 30 other countries.

SGH has offices in Boston, Los Angeles, New York City, San Francisco, and Washington DC. For more information, visit www.sgh.com.

News of the Profession

China-America Frontiers of Engineering

EERI members Jerome Lynch of the University of Michigan and Bozidar Stojadinovic of the University of California were selected as keynote speakers in the first China-America Frontiers of Engineering program, sponsored by the National Academy of Engineering. Hosted by Hunan University, the 3½-day event took place October 17-21 in Beijing and Changsha, China. It brought together 40 engineers from China and the United States. The participants— from industry, academia, and government—were chosen from a wide group of nominees. The goal of the program was to establish contacts among the next generation of leaders in engineering.

EERI Board member Reginald Des Roches was part of the organizing committee and chaired the session on “Sustainable and Disaster Resilient Infrastructure Systems.” Stojadinovic presented an overview of the challenges and new technologies in the area of next-generation bridge structures, while Lynch talked about the opportunities afforded by the emerging area of sensing and structural health monitoring.

Other topics included sustainable energy, intelligent transportation systems, and engineering food safety for public health. For more information, visit http://www.nae.edu/frontiers.

Announcement

MEEES Scholarships to Study in Europe

Applications are invited for the Masters in Earthquake Engineering and Engineering Seismology (MEEES) program, financially supported by the European Commission under the framework of the Erasmus Mundus programme, with a deadline of December 31, 2009.

MEEES is organized by a consortium of European university and research institutions, led by the Centre for Post-Graduate Training and Research in Earthquake Engineering and Engineering Seismology (ROSE School, www.roseschool.it) and featuring also the participation of the University of Patras (Greece), Joseph Fourier University Grenoble (France), Imperial College London (UK) and the Middle East Technical University of Ankara (Turkey).

A number of scholarships, ranging from €15,000 to €38,000, are available to applicants from all nationalities. For more information and to access the online application procedure, visit www.mees.org.
NEES News

Naeim to Chair NEES

NEEScomm recently announced that EERI President Farzad Naeim has agreed to serve as the first chair of the NEES Governance Board. This independent, network-wide, 12-member board will provide strategic oversight of NEES Operations and ensure that NEES operates with transparency and accountability to NSF and stakeholders.

Naeim is Vice President and General Counsel for EERI Subscribing Member John A. Martin & Associates (JAMA), Inc., one of the largest structural engineering firms in the country. He is the principal in charge of setting and implementing policies with respect to technical, analytical, and legal issues involved in operation of this unique international firm.

John A. Martin & Associates, Inc. (JAMA), founded in 1953, is located in Los Angeles, California, with affiliated offices throughout the United States and China. The firm provides engineering services throughout the world with a staff of over 100 in Los Angeles and over 400 in affiliate offices.

Naeim is recognized worldwide as an authority in evaluating ground motion issues for the design of structural systems. He has served as technical director for analysis and design of numerous award-winning JAMA structures. His many awards include the prestigious 2007 Fazlur Khan Medal Award for outstanding structural design in high-rise building construction.

Arthur Frankel continued from page 1

Frankel has worked on a variety of topics in earthquake ground motion research and seismic hazard assessment. More recently, he led the effort to make detailed urban seismic hazard maps for Seattle based on three-dimensional ground-motion simulations. Frankel has been a seismologist with the USGS since 1985. He received his Ph.D. from Columbia University.

Given annually since 2003, the William B. Joyner Memorial Lectures were established by the Seismological Society of America (SSA) in cooperation with EERI to honor Bill Joyner’s distinguished career at the U.S. Geological Survey and his abiding commitment to the exchange of information at the interface of earthquake science and earthquake engineering. Joyner lecturers are chosen on the basis of their work at this interface. Each Joyner Lecture is published in Earthquake Spectra and the Seismological Research Letters.

Publications

Report on L’Aquila EQ

The Natural Hazards Center has announced the release of its latest Quick Response Report, Vulnerability of Reinforced Concrete Frame Buildings and their Occupants in the 2009 L’Aquila, Italy Earthquake. EERI member Abbie Liel and Kathryn Lynch of the University of Colorado Department of Civil, Environmental, and Architectural Engineering, collected information on more than 450 reinforced concrete structures. By examining that information along with census and other social data, they found 38% of L’Aquila residents living in reinforced concrete structures experienced moderate or heavy damage to their homes. The damage led to significant disruption of the community and social fabric, including the closure of government offices, churches, restaurants, and schools.

The fieldwork, funded by the Natural Hazards Center Quick Response Grant Program, will be the basis for a National Science Foundation RAPID research project on progress and priorities in L’Aquila’s recovery and reconstruction. The team will work with CU Engineering Professor Ross Corotis, CU Institute of Behavioral Science Research Associate Jeannette Sutton, and University of Chieti-Pescara Professors Guido Camata and Enrico Spacone to study decision making and recovery progress over the next nine months. Interviews with reconstruction and building industry leaders, government officials, and community leaders are expected to be completed in the second quarter of 2010.

Mujumdar Appointed Editor at NHR

EERI member Vilas Mujumdar has been appointed co-editor and chief engineering editor of the Natural Hazards Review, a quarterly journal of ASCE dedicated to the integration of engineering and social sciences related all natural hazards. Vilas is president of VSM Associates in Vienna, Virginia. His appointment began July 15, 2009.

Announcement

Kyoto Seminar 2010

The Kyoto Sustainability Initiative (KSI) of Kyoto University, Japan, is organizing a seminar on Geotechnics/Earthquake Geotechnics towards Global Sustainability, to take place January 12-14, 2010, at Kyoto University. Conducted in English, the program will consist of a series of seminars and a symposium, including 12 lectures by leading international experts.

Admission is free, but the number of available seats is limited, so pre-registration is required at https://fs222.formasp.jp/r664/form2/

For more information, visit http://www.kier.kyoto-u.ac.jp/ksi/09sympo/jib_en.html.
CALENDAR
The issue containing the first appearance is indicated at the entry’s end. Items listed for the first time are shown in bold.

DECEMBER
1. EERI Samoa Earthquake and Tsunami and Padang Earthquake Briefing, Los Angeles, CA. See page 8 (12/09)
2. CREW/EERI Padang Earthquake Briefing, University of Washington. See page 8 (12/09)
17. SEAONC/EERI Padang Earthquake Briefing, San Francisco, CA. See page 8 (12/09)

2010
JANUARY

FEBRUARY

MARCH
3-5. 7th Conf. on Urban Earthquake Engineering (7CUEE). Tokyo. Info: http://www.cuee.titech.ac.jp/Conference_2010/index.htm (8/09)

APRIL

Info: http://www.lehigh.edu/frk-series (9/09)

MAY
24-29. 5th International Conference on Recent Advances in Geotech. Earthquake Engineering & Soil Dynamics & Symposium in Honor of I.M. Idriss. San Diego, CA. Info: 5goeqconf2010.mst.edu (4/08, 1/09, 11/09)

JUNE

JULY

AUGUST
30-Sept. 3. 14th European Conference on Earthquake Engineering (14ECEE). Skopje-Ohrid, Macedonia. Info: www.eae.e.boun.edu.tr/eaee.htm (12/08, 10/09)

SEPTEMBER

2011
JANUARY
10-13. 5th International Geotechnical Earthquake Engineering Conference (5-ICEGE). Santiago, Chile. info: www.5icege.cl (11/09)

JUNE

Publication
Disaster Management Proceedings
WIT Press has published a new transdisciplinary book, Disaster Management and Human Health Risk: Reducing Risk, Improving Outcomes, containing papers presented at the First International Conference on Disaster Management and Human Health Risk earlier this year. A number of EERI members are on the editorial board of the proceedings.

As the number and frequency of disasters multiplies around the world in conjunction with its interconnectedness, the conference focused on current global risks and how governments can best prepare for, respond to, and recover from disasters in order to reduce their impact on human health.

The Centre for Research on the Epidemiology of Disasters found that natural disasters killed 235,000 people, affected 214,000,000 people, and cost US$190 billion in 2008.

For more information and to order the 416-page book ($316), visit http://www.witpress.com/978-1-84564-202-0.html.
Learning from Earthquakes

Free Earthquake/Tsunami Briefings

A free briefing on both the Samoa earthquake and tsunami of 9-29-09 and the Padang, Indonesia, earthquake 9-30-09 will be held as follows:

December 1 at the University of Southern California, 4:00-6:30 p.m.

Co-sponsors: EERI’s Learning from Earthquakes Program (LFE), the EERI Southern California Chapter, and the Southern California Earthquake Center.

Location: Salvatori Computer Science Center, Room 101.

Speakers on Samoa include Costas Synolakis of the University of Southern California and Lesley Ewing of the California Coastal Commission, who traveled as part of the National Science Foundation and ASCE tsunami teams, respectively.

Speakers on Indonesia: Several members of the EERI reconnaissance team, including Greg Deierlein (EERI team leader), Stanford University; Veronia Cedillos, GeoHazards International; and Tim Hart, Forell/Elsesser Engineers.

Two free briefings on the Padang event only will be held as follows:

December 1 at the University of Washington, 4:00-6:00 p.m. (reception at 3:30)

Co-sponsors: the Cascadia Region Earthquake Work Group, EERI’s LFE Program, and the Pacific Northwest Seismic Network (PNSN)

Location: Johnson Hall, Rm. 102

Speakers include John Vidale, Director of the PNSN, and members of the EERI reconnaissance team, including Nick Alexander of Degenkolb Engineers and Louise Comfort of the University of Pittsburgh.

December 17 at Arup Offices in San Francisco, 6:00-7:30 p.m.

Co-Sponsors: SEAONC and EERI’s LFE Program

Location: Office of ARUP, 560 Mission St., 7th Floor, San Francisco.

RSVP to SEAONC by December 11 (office@seaonc.org)

Speakers: Members of the EERI and Degenkolb reconnaissance teams, including Greg Deierlein, Stanford University; Walter Mooney, USGS; Tim Hart, Forell/Elsesser Engineers; Brian DiBarnaba, Degenkolb Engineers; and Veronica Cedillos, GeoHazards International.