

2002 EERI ENDOWMENT PROJECTS ANNUAL REPORT

2002 Endowment Projects Committee:

Wilfred Iwan, Chair; James Beavers; Richard Eisner; David Friedman; Marjorie Greene, *ex officio*; Frederick Krimgold; Farzad Naeim; Thomas O'Rourke, *Board contact*; Ellen Rathje; Susan Tubbesing, *ex officio*.

WORLD HOUSING ENCYCLOPEDIA

Over the past three years, EERI and IAEE have been developing a web-based encyclopedia of housing construction types in seismically prone areas of the world. The purpose of the encyclopedia is to develop a comprehensive global categorization of characteristic housing construction types. Each housing construction type has been described in a standard form using over 60 different pieces of information, including architectural and structural features, socio-economic, seismic features, performance in past earthquakes, codes and construction practices, and known seismic strengthening techniques used in a particular country. In addition to the text and numerical information, several illustrations (photos, drawings, sketches) are also included in the database. This project has been primarily a volunteer effort, bringing together over a network of over 180 prominent engineers and architects from 50 countries, and providing them an opportunity to share knowledge about housing in their own countries, and to communicate with each other, as reviewers and as users of the data provided on the web site.

The culmination of this major effort was the launching of the web-based searchable encyclopedia and new web site www.world-housing.net in June 2002. The main feature of the site is a searchable database containing over 80 contributions describing housing construction practices in 30 countries. The database can be searched by country, continent, and 12 other parameters e.g. building material, building function, seismic vulnerability, economic level of inhabitants, etc. A growing, and important, section of the web site is the section on General Resources, which is becoming a central place for guidelines,

manuals, and papers on non-engineered as well as engineered construction. The site also contains links to many country-specific web sites with detailed information on the seismic risk in individual countries. The site currently has 3,000 to 4,000 unique visitors per month. The users range from insurers and risk modelers who use the information to refine their models to individual engineers and architects who use the information to improve their design and construction practice and academics who use the information for the research and teaching activities.

In 2002, the project has been given a broad international exposure and recognition as summarized below:

- The project has been designated as a contribution to the International Strategy for Disaster Reduction (ISDR) of the United Nations.
- The project was presented at the special sessions at the 7th U.S. National Conference on Earthquake Engineering in Boston and the 12th European Conference on Earthquake Engineering in London.
- In September 2002, the Internet Scout Project has selected the encyclopedia web site for inclusion in the National Science Digital Library Report for Math, Engineering, and Technology. The report is a biweekly current awareness publication that highlights new and newly discovered Internet

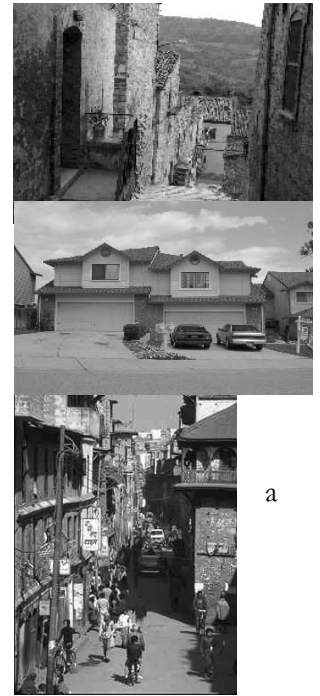


resources; it covers only the most useful resources, considering the depth of content, the authority of the source, and how well the information is maintained and presented.

- Nature Online magazine, an authoritative and accessible online round-up of what's new in science research, has published an article on the project titled *Wise Man Builds His House Upon the Web*.

In the period 2000-2002, the project was financially sponsored by the EERI Endowment Fund and the Engineering Information Foundation. A substantial in-kind contribution related to the web site development was made by JAMA. In the future, the project will continue to exist and further develop as an ongoing EERI activity. The current project steering committee has completed their three-year term and the project will be managed by the

new Editorial Board to be appointed by April 2003 for the three-year term (the positions have been advertised in the January 2003 EERI Newsletter). The Board will consist of four regional editors (Europe, Asia, North America and Oceania, and South America) and the chief editor. Further information is available from the project chair, Svetlana Brzev, sbrzev@bcit.ca, or project manager Marjorie Greene at mgreene@eeri.org.



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GUIDELINES FOR REGIONAL SCENARIOS

Endowment Funds are supporting the development of guidelines for the preparation of regional earthquake scenarios, based on documenting the experience of the Seattle earthquake engineering community in developing an earthquake scenario for an event on the Seattle Fault. The region needs a credible earthquake scenario to be used to assist engineers, architects, building owners, emergency managers, government agencies, and elected officials to plan for response to such an event, and

to serve as a basis for reducing earthquake risks. The process of developing this scenario will form the basis of more general guidelines that can then be used by other communities in developing their own scenario. Board member Don Ballantyne is chairing the scenario development project; EERI member Jane Preuss is preparing the guidelines.

SHAH FAMILY INNOVATION PRIZE

Again selecting from a very large field of very strong candidates, the Shah Family Innovation Prize Selection Committee awarded the 2002 prize to Joshua M. Marrow, Professional Engineer, with Simpson Gumpertz & Heger Inc. Joshua is awarded the Prize in recognition of his broad range of innovative, entrepreneurial, and professional activities and his promise for future contributions to the field of earthquake engineering. In addressing new techniques to minimize earthquake economic losses from damage to stored materials, including wine, he has demonstrated innovative thinking and an entrepreneurial spirit. These activities have been sustained continuously, beginning with his Master's

thesis, thereby demonstrating his intellectual and practical persistence. Josh Marrow has been an active contributor and leader of EERI's Information Technology Committee in developing applications of modern information technology to post-earthquake field investigations. His public service has included mentoring gifted and underprivileged high school age students.



FRIEDMAN FAMILY VISITING PROFESSIONAL PROGRAM

EERI is the recipient of a generous gift from David Friedman and Paulette Meyer, and other members of David's family to underwrite the highly successful Visiting Professional Program. The Friedman Family Visiting Professional Program funds supported the visits of Chris Poland to UC San Diego, Sigmund Freeman to Georgia Tech, Ronald Mayes to University of Texas, Austin, and John Hooper to Notre

Dame. Tom Sabol, Jim Malley, Les Robertson, Farzad Naeim and Ron Eguchi will all be Visiting Professionals in spring 2003 at various EERI student chapters throughout the U.S. Brochures describing the program and listing professionals currently available for visits are available by contacting Sonya Hollenbeck at the EERI office, sonya@eeri.org.

COMING: CONTRIBUTIONS OF EARTHQUAKE ENGINEERING TO HOMELAND SECURITY

The Endowment Committee has endorsed a project involving the development of a document that identifies and illustrates the contributions of earthquake engineering research to advanced technologies. The purpose of this study is to show how investments in earthquake engineering have resulted in technical advances that apply beyond earthquakes to other hazards, civil infrastructure, applied information technology, and homeland security. Some of the many examples include passive/active building control for wind hazards, advanced GIS for lifeline systems and civil

infrastructure management, fiber-reinforced polymers for bridge/building repair and restoration, ATC 20 inspection of buildings protocol applied after the World Trade Center (WTC) Disaster, the benefits following the WTC Disaster of guidelines for hardening telecommunication equipment from earthquake studies, seismic monitoring of nuclear tests, etc. Such a document is critical for pointing out the value and far-ranging consequences of earthquake engineering research and implementation for Federal agencies, Congress, and state/local governments. EERI Board President Tom O'Rourke will chair this project.

FINANCIAL REPORT

Contributions

	2000	2001	2002
EERI Contrib. to Principal			-187,739
Member Contrib. to Principal	37,360	64,183	35,135
Contrib. to Forell Mem. Fund			
Friedman Family Fund	250,000		
Shah Innovation Prize			
TOTAL CONTRIBUTIONS	1,150,670	1,214,853	1,062,249
EARNINGS	66,981	992	0
YEAR-END FUND VALUE	913,628	1,036,026	835,264

Endowment Project Funding

	2002 Actual
Endowment earnings used for projects	-
Endowment Principal used for programs	78,506
EERI funds used for projects	25,778
Friedman Family funding	6,221
Engineering Info Foundation	50,000
FEMA funding for projects	2,795
Nick Forell Funds -- Visiting Professionals	-
Total Funding	163,300

Project Expenditures

	2002 Actual
Administration	25,716
Development Committee	25,778
Project Costs	
Visiting Professionals	6,221
Encyclopedia of Housing Const. Types	100,810
Regional Scenario	4,775
TOTAL PROJECT EXPENDITURES	163,300

ENDOWED PROGRAMS

Shah Family Innovation Prize, a \$10,000 prize awarded annually to a young professional or academic to recognize innovation, creativity and entrepreneurial spirit. Endowed by a \$250,000 gift from the Haresh Shah family.

Friedman Family Visiting Professional Program, endowed by a \$250,000 gift from David A. Friedman and Paulette J. Meyer, along with other members of the Friedman family, Phyllis K. Friedman, Robert E. Friedman and Eleanor F. Friedman.

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WATERCOLORS BY CHRIS ARNOLD

All donations to the Endowment Fund are acknowledged with a watercolor print by Chris Arnold, architect and former EERI president. This year the print is of the newly base-isolated San Francisco City Hall

