News of the Profession

US-Iranian Seismic Workshop and Seminar

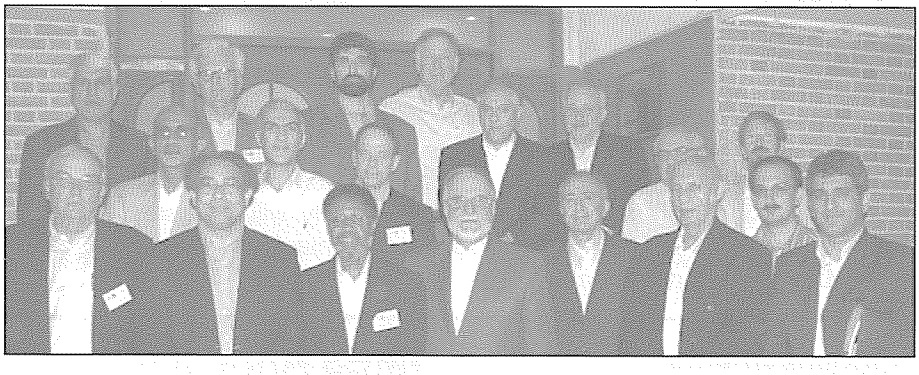
A bilateral invitational workshop on "Seismic Performance of Adobe and Masonry Structures" was held at Sharif University of Technology in Tehran on June 8 and 9, 2008. The workshop was organized by the U.S. National Academies, in collaboration with PEER, and Sharif University of Technology. It involved specialists from 14 Iranian institutions and the American specialists listed below, including several EERI members.

Members of the U.S. delegation included (alphabetically) Dan Abrams of the University of Illinois at Urbana-Champaign; Bill Anderson representing the U.S. National Academy of Sciences; Yousef Bozorgnia (chair) of PEER, UC Berkeley; Ahmad Hamid of Drexel University; Bob Hamilton representing the National Academies, Rich Klingner of the University of Texas at Austin; and Fred Webster of Fred Webster and Associates in Menlo Park, California.

The topic of adobe and masonry vulnerability was selected because of the extensive damage to this form of construction from earthquakes in Iran, including the Bam earthquake of December 26, 2003. Twenty-three technical papers were presented. Common themes in presentations from both countries included earthquake risk management, seismic evaluation and retrofit of historic and older adobe construction, rehabilitation of unreinforced masonry school buildings, performance-based design for masonry buildings, public education, and earthquake preparedness. Of particular collaborative concern was seismic rehabilitation of more than 27,000 school buildings in Iran and reconstruction of the Bam Citadel using surrogate adobe materials. The workshop concluded with a panel session that identified resolutions for future research collaboration.

The workshop was followed with a one-day public seminar on "Seismic Hazard Reduction" also held at Sharif University, with more than 100 participants. Ten technical presentations were made by individuals from Iran and the United States on topics including education and public safety, earthquake loss reduction, performance-based design of masonry buildings, seismic research at the PEER Center, seismic assessment and retrofit of steel structures, seismic rehabilitation of school and hospital buildings in Iran, restoration of heritage masonry structures, and the future evolution of masonry as a structural material.

During its stay in Iran, the U.S. delegation was given a tour of the experimental laboratory facilities at Sharif University. Also visited were the Center for Seismology at the Geophysics Institute, the International Institute of Earthquake Engineering and Seismology, and one of the schools that is undergoing seismic retrofit in Tehran through a major government program.



US-Iranian Seismic Workshop participants.

Learning from Earthquakes

2007 Tocopilla Earthquake Report

A report entitled "Intensity and Damage Assessment of the 2007 Tocopilla Earthquake, Chile," was recently posted on EERI's web site at **http://www.eeri.org/site/content/view/156/35/**. One of the co-authors is EERI member G. Rodolfo Saragoni of the University of Chile. The report presents the findings of a reconnaissance team from three Chilean universities that conducted site visits to approximately 20 towns in the earthquake zone. The team's focus was primarily on damage to dwellings and lifelines, geotechnical effects, and the calculation of intensities. The Ms 7.5 (Mw 7.7) interplate earthquake struck the northern coast of Chile, about 60 km from Antofagasta, on November 14, 2007 (see page 7 of the December 2007 *Newsletter*). The epicentral region is part of the relatively sparsely populated Atacama desert. Much of the damage occurred in Tocopilla, a city of 25,000 inhabitants and the largest city in the area affected by the earthquake. Hospitals, schools, and other public buildings sustained moderate to severe damage. Some of these buildings had been previously damaged in the December 1967 Ms 7.3 earthquake. Highways and urban roads suffered slight damage due to landslides and rock falls. The authors observe that well-constructed confined concrete block masonry for low-cost dwellings is an efficient construction system to reduce earthquake damage.