Seismic pioneer

Sarah Fister Gale

As a child, Bob Englekirk spent a lot of time traveling. He spent many months in Europe, where he witnessed cities being rebuilt after the war. "It was fascinating," he says, "and I wanted to be a part of it." So when he was old enough to go to college, he pursued a civil engineering degree at Tulane University in his hometown of New Orleans, La.

When he graduated in 1959, Englekirk joined the Air Force, where he was ultimately put in administrative charge of a hospital in Spain. It seemed an unlikely post for a civil engineer, but at the time people were concerned about the risks of radiation poisoning as a result of the atomic bomb. The Air Force gathered a group of engineers, including Englekirk, to prepare for nuclear accidents. "Civil engineers have always cleaned up the world's problems," he says.

When he left the Air Force after three and a half years, he felt like he still had a lot to learn about his chosen profession, so he returned to school, at the University of California, Los Angeles (UCLA), to get his master's and PhD in civil engineering. During that time he completed a thesis on earthquake-resistant building designs. "I was a Louisiana boy with no earthquake experience, but my professor and mentor convinced me that I should get involved in this area of design," he says.

That decision would come to shape his entire career.

While in school, Englekirk worked for a couple of engineering firms, but as soon as he graduated he was ready to strike out on his own. In 1969 he launched the firm that ultimately became Englekirk Structural Engineering with another senior engineer, and the firm is still in operation today. His firm designs everything from parking structures and strip malls to churches, theaters, amusement parks, and grand hotels. Many of his projects have achieved landmark status over the years, such as the Getty Center and the 3 million ft^2 (300,000 m^2) Hollywood Highland Complex, which houses the Dolby Theater, the permanent home of the Academy Awards. When that project was still in the design phase, Englekirk suggested that they replace the original cast-in-place design with a precast concrete solution. "It made it more economical and seismically superior, and it was finished in half the time of a cast-in-place design."

He likes being associated with that project, though one of the things he's most proud of in his career is helping the construction industry recognize the seismic superiority of precast concrete. "When I got started, precast was thought to be inappropriate for construction in seismic areas," he says.

He spent years disproving this way of thinking through research, materials testing, and participation on several PCI Seismic Committees, demonstrating the strength and durability of precast concrete in earthquake conditions. Englekirk built his first entirely precast concrete building in Valencia, Calif., in 1969 despite a building code inspector who swore that it would fall. Four years later, he says, a catastrophic earthquake shook the town, causing several buildings to collapse. "My building didn't even have a broken pane of glass," he says.

He also spent much of his career teaching steel and concrete design to students at UCLA and the University of California, San Diego, during which time he wrote several books about his seismic experience, including *Seismic Design of Reinforced and Precast Concrete Buildings*.

Englekirk eventually won PCI's Medal of Honor in 2007 for his contributions to the industry. Although he says he's "not much of a committee person," he did find time to sit on various technical committees and served three years on PCI's Board of Directors.

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As he looks to the future of the industry, he hopes that the next generation will follow in his footsteps and look beyond the ways that things are done today. "Precast concrete is a tremendously challenging field," he says, "but if you want to push the envelope, you've got to be creative and chase the exciting projects."