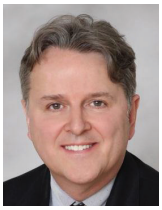
Concrete investigation

Sarah Fister Gale



Like many PCI icons before him, Andy Osborn didn't know what he wanted to do with his life when he first got to college—so he turned to his father for inspiration.

"My father was an engineer," he says. "I admired him and I was good in math, so I became an engineer."

He began as a mechanical engineering major at Cornell University in Ithaca, N.Y., but in his sophomore year, he took a course introducing students to the various engineering paths. The mechanical engineering department offered a boring presentation on how differential equations worked, but the civil engineers blew up a cylinder of concrete. "It was very cool," he says, so he switched majors.

Osborn graduated from Cornell in 1975 and went directly to the University of Illinois in Urbana, where he received a full-ride scholarship to get his master's degree in structural engineering. He finished the program in just one year, focusing much of his research on precast, prestressed concrete systems.

In 1976, he moved to Boston, Mass., where he had hoped to build a career as a civil engineer, but the job market wouldn't comply. After spending a few months waiting tables, he took a job at DeLeuw Cather and Co. (now Parsons Infrastructure) in Chicago, Ill., designing post-tensioned segmental and box girder bridges for Kuwait. It was an opportunity for him to use his precast concrete education, but he quickly grew tired of the work. "Out of 25 bridges, 23 were basically the same," he says. That lack of originality made him restless.

After a year and a half on the job, a colleague mentioned that Wiss, Janney, Elstner Associates (WJE), a small engineering firm in Northbrook, Ill., was looking for someone to investigate structural failures and conduct load tests. "It sounded like exciting work," Osborn says, so he called about an interview and was hired a few weeks later.

That was 40 years ago, and Osborn continues to work at WJE as a senior principal in its Boston office since 2015. Osborn spent his career investigating collapses and structural failures, conducting vibration studies, and designing solutions to prevent future flaws. "It is always interesting and challenging work," he says.

In the role, he has investigated hundreds of structures, including the collapses of the Fisher Place parking structure under construction in Rockville, Md., in 2002 and the National Institutes of Health parking structure under construction in Bethesda, Md., in 2004. He also conducted extensive load tests on the Tropicana Casino and Resort parking structure in Atlantic City, N.J., after its collapse in 2003 and insurance investigations for 30 buildings within and surrounding the World Trade Center following 9/11. "It has been exciting to get to work on so many projects without spending years of my career on any one project," he says.

Osborn has had many mentors at WJE, including former president John Hanson, former vice president Don Pfeifer, founder Jack Janney, and H. Kent Preston, all of whom were actively involved in PCI. In 1981, Pfeifer invited Osborn to join him at a meeting of the Connection Details Committee. "I've been going to PCI meetings ever since," Osborn says.

Osborn spent 18 years on the Technical Activities Council, including four as chair. He is currently a member of the Industry Handbook Committee, Research and Development Council, High Strength Steel and Prestressing Reinforcement Committee, Strand Bond Task Force, and Ties Advisory Committee.

"A lot of people join PCI for the networking and business contacts, but I've always been focused on the subject material and a desire to learn new things and solve problems," he says.

Being a part of so many committees helped him learn everything there is to know about precast concrete and design. "It's what I love about PCI," he says. "Everyone involved advocates for this state-of-the-art material, and I am proud to be a part of that."

He says he has also loved the industry experts he has met along the way, many of whom became advisors over the years. Osborn says Irwin Speyer, a longtime PCI member who died in 2018, was particularly inspiring. "He was an excellent mentor and a great friend," Osborn says. "He will be sorely missed."

As he looks to the future, Osborn says he believes that the next generation of PCI members have the chance to find new ways to showcase the strength, beauty, and versatility of precast concrete. "It's a wonderful material, and there is still huge upward potential to expand its use in the construction industry," he says. Based on the young engineers he works with at WJE today, he says he is confident that this generation already has what it takes to lead PCI forward.