



Engineering DNA

Sarah Fister Gale



Don Raths was born to be an engineer. His father was a civil engineer, his older brother pursued a civil engineering degree before he did, and in high school his counselor recommended he pursue an engineering degree due to his aptitude for science and math.

When he graduated from high school, he was offered a scholarship to Michigan State University (MSU) in East Lansing and went on to be the fifth person in his family to graduate from the university. “I was lucky that I knew what I wanted to be, and I stuck with it,” he says.

It was during his time at MSU that Raths first discovered the versatility and strength of precast/prestressed concrete. He worked a summer job as a lab technician at the Portland Cement Association (PCA) in Skokie, Ill. “During lunchtime, I would go over to the structural lab and watch full-scale testing of AASHTO girders, Lin tees, and column corbels,” he says. “It was an innovative way to design structural concrete members versus cast-in-place.”

During a three-year break from college, the experience of construction surveying on the interstate highway reaffirmed his decision to be a civil engineer. When he graduated in 1964, Raths took a job with Precon Industries (later Precon/Shok Beton) in Kalamazoo, Mich., where he learned about design, production, and the erection of architectural and structural products. Three years later, he took a position with Carl Walker Engineers in Kalamazoo, Mich., when it was just getting started. As a young engineer in the start-up firm, he was given significant responsibilities overseeing structural design, project management, and construction inspection for several major projects. “Carl was a great mentor, and I learned a lot about structural engineering with that company.”

After three years, Raths was ready for his next big role: joining Charles Raths & Associates, his brother’s engineering firm. In 1969, he joined the company, which was renamed Raths, Raths & Johnson (RR&J), and worked with the firm for the rest of his career. At RR&J, Raths focused on design and consulting for precast concrete producers, architects, and developers. Later in the 1970s, the client base expanded into investigation and remedial repair of distressed buildings and structures. To expand

RRJ’s investigation services, they built an office building with a structural testing lab. Over the years, Raths worked on many career-defining projects, including developing a precast concrete modular system for switching substations for Bell Telephone Laboratories; investigating and supervising the remediation of the distressed exterior brick masonry construction at the U.S. Embassy Complex in Moscow, USSR; and replacing the five-story glass curtain walls with precast concrete panels on the Lincoln and Douglas residence halls at Northern Illinois University in DeKalb during a 90-day summer recess.

PCI in 1969 had a big impact on Raths’s career and the trajectory of RR&J. In the early years, PCI gave him the opportunity to learn about the industry and make new connections. When the firm transitioned to investigation and repair work in the 1970s, he found many of PCI’s members reaching out to him for advice and consulting on design, erection, bracing, and rehabilitation projects. “Being a part of PCI helped us expand and build our network of clients during the 1970s,” he says. By the early 1990s, Raths had taken on a leadership role in PCI, serving on the board of directors and as chairman of several committees, including the Journal Advisory, Professional Membership, and Journal Awards Committees.

He spent a great deal of his time during those years helping to shape *PCI Journal*, working closely with editor-in-chief George Nasser for 12 years and later helping to recruit current editor-in-chief Emily Lorenz when Nasser retired. “Working with the journal was a very rewarding experience,” he says. “We had an outstanding, dedicated group of committee members that were instrumental in maintaining the technical reputation of the journal as the recognized authority on precast/prestressed concrete.”

Raths is now semiretired, and while he still participates in technical committees and networking events, he is ready to pass the torch to the next generation. He says he hopes that younger PCI members not only get involved with the committees and board but that they also actively recruit their peers and protégés to the industry. One of the biggest challenges he sees for the industry is attracting the bright, young engineering, technology, and architecture talent to the industry.

“We need to increase and maintain our professional membership levels if we are going to expand the industry and maintain the technical integrity of PCI,” Raths says. **D**