



Coming Full Circle

By Ed Huston, P.E., S.E., NCSEA President

“The Jazz at Lincoln Center Orchestra with Wynton Marsalis” performed in Seattle last week. Between two of the works being played, Wynton Marsalis spoke with warmth and passion about his mentors. His words made me think about my own mentors. I was fortunate to work in a firm with great structural engineers, two of whom became my main mentors. One was the best technical engineer that I have ever met. His skill at analysis was amazing. The other was, and is, the most practical engineer that I know, especially when it comes to detailing a structure.

Grading committees for structural licensing exams assess the performance of candidates on the exam problems. If the performance has been poor, someone invariably criticizes academia for not doing a better job of educating structural engineers. I generally point out that the candidates had four or more years of college, but then the majority of them also had four or more years of experience, generally in a design office. I believe that we, as a profession, have an obligation to take the graduate structural engineer that we hire, with whatever skills and education that engineer brings to the table, and train him or her to become a professional structural engineer. In Washington State, where I practice, the Washington Administrative Code states that “Registrants shall maintain their competency by continuing their professional development throughout their careers and shall provide opportunities for the professional development of those individuals under their supervision.” Accordingly, in Washington State and perhaps in many other states, professional engineers are legally bound to mentor their staff engineers.

I know that there have been many STRUCTURE® articles which addressed the educational needs of the profession. NCSEA and SEI both have committees that work to maintain and upgrade university curricula. I wholeheartedly support those efforts. A university diploma alone, however, cannot provide structural engineers with the knowledge and abilities that it takes to protect the life and safety of the community. The knowledge and abilities that are learned in the university have to be honed and supplemented through *professional practice, professional education and individual mentoring*, to develop the skills necessary to become a *professional structural engineer*. I believe that this is true, not only of structural engineering, but of all branches of engineering. I suspect that structural engineers, who want to hire graduate engineers and have them be productive on their first day at the job, have forgotten how much mentoring they themselves had in the course of their development.

We can take university courses in the design of steel and concrete members; but I haven't seen a course in mentoring. This, too, is something that we have to learn from our mentors. If you have recently moved into

a position of responsibility and find that you need to be a mentor, I suggest reading Davis Adams' excellent article in the April 2007 issue of STRUCTURE, titled *Mentoring Engineering Graduates*.

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Mentoring is a life long process. Sometimes you are the mentor, and sometimes you are the protégé. I work in a small office. There are countless times when either my business partner or I walk into the other's office with a detail that we are working on and say, “Got a minute?” That becomes the start of a mentoring moment that is at the root of life-long learning and professional development.

We can also develop professional networks of potential mentors. I have had structural engineers from across town or across the country call me with a question. Yes, it can be a distraction, but boy am I glad for that same network of resources when the shoe is on the other foot and I'm the one with the question. This is mentoring at the national level.

How do you tap into that level of mentoring? Get involved. Join a code committee or technical committee at your Structural Engineers Association. If your SEA doesn't have a code committee or a technical committee, start one. Join a national committee at NCSEA, CASE or SEI. Volunteer to work on a national standard through a Standards Developing Organization such as ASCE, AISC, AISI, ACI, AF&PA, or TMS. If you are already registered, volunteer to work on professional licensing examinations through NCEES. Involvement in any of these activities will allow you to quickly develop a circle of like-minded professionals; and from my personal experience, you will get more out of it than you put into it.

A couple of years ago, one of my early mentors called me. He had a question about a code provision on a project that he was working on. I was startled to realize that I could, in a very small way, return the favor of offering advice, support and education. I realized that none of us “knows it all” and that none of us ever stops needing to learn, especially in this day and age of increasing complexity. So step up and be a mentor; and don't be too proud to ask for some mentoring when you need it. ■



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