

## Advancing Beyond the Technical

By Richard C. Boggs, P.E., SECB, LEED AP



In December 2017, renowned structural engineer Leslie E. Robertson delivered a presentation at the annual Connecticut Structural Engineers Coalition holiday event entitled *The Structure of Design*. While many in the audience were expecting a retrospective on Mr. Robertson's long career of technical innovation and fascinating tales about the design challenges that he has faced, instead the presentation focused on the importance of building relationships and being willing to assume leadership on one's projects, in one's profession, and in life.

I reflected on Les' perspective as I read Jon Schmidt's editorial in STRUCTURE earlier this year, *Leadership Is Showing Up*. Jon's article outlined the story of his involvement in the creation of his state Structural Engineers Association, later in SEI and NCSEA, and ultimately his rise to the position of NCSEA President. Most important, Jon's article served as an example of one person's decision to make a mark on his profession at a local and national level, and described the route that he took to do so.

Young practitioners of structural engineering find themselves in a role that requires an intense focus on technical issues over a long period to master structural behavior, design, construction, and the tools of our trade. The ultimate objective of this journey is simply to be able to function effectively as a structural engineer – and, of course, to qualify for licensure. Yet, both of these gentlemen made the decision at different points in their lives that technical excellence would not be enough to achieve their professional goals. Technical excellence is essential but otherwise unimportant, to paraphrase Hardy Cross. This is true in the minds of our clients and the general public, who presuppose technical competence on the part of structural engineers unless and until they discover evidence to the contrary. While technical competence is an admission ticket to the profession, successful structural engineers need to be more than just technical experts. They need to find ways to build trust, inspire confidence, and ultimately *lead*.

Much has been written recently about the challenges faced by our institutions of higher learning to prepare students adequately for the workforce. The skyrocketing price of a college degree and intense competition between programs have pressured universities to reduce the scope of their course offerings and lower graduation requirements in the interest of attracting students and controlling costs. At the same time, in the structural engineering field, the increasing automation of design has made familiarity with software for analysis, documentation, and building information modeling essential to graduating structural engineers. So the question has become, what coursework gets eliminated to make room for training in the use of such tools? There is pressure to lighten the requirements for a well-rounded education that includes verbal and written communications, civics, leadership training, and the like. Unfortunately, it is precisely these types of courses and academic diversity that prepare students for

leadership roles in the future, not only through the content itself but also by facilitating interaction with students with a broad range of skills and interests.

The situation is difficult, but not impossible. Fortunately, our professional organizations have done an excellent job of providing vehicles for members to engage with other structural engineers on a local and national level and encouraging them to move beyond the technical realm. Structural Engineers Associations are generally clamoring for volunteers to assist with a whole host of activities, including the code adoption process, program planning, emergency response, advocacy and education, and licensure and other legislative efforts. The committees of CASE, NCSEA and SEI are made up of individuals

from around the country who share their knowledge and experience in every aspect of their local activities. Such committees provide an excellent opportunity for structural engineers at any experience level to become involved and rapidly rise to leadership positions in any area that they find particularly compelling. Most importantly, these organizations are full of role models equipped to inspire those with a desire to make a difference in their profession and their community.

I urge anyone reading this to find your most burning area of interest and get involved! Our associations and our profession need you to engage. If you do not have a specific area of interest, or don't think that you have a specific enough set of skills or experience to bring to bear, the NCSEA Structural Engineering Equity and Engagement (SE3) Committee or Communications Committee (CommComm) might be great places to start. Regardless of where you decide to dip your toe in the volunteer pool, you will develop a network of engineers around your state and the country, hone your leadership skills, and get to meet some pretty amazing people with a remarkably wide variety of abilities and interests along the way. The important thing is to make the decision *not* to be confined to the comfortable, technical zone.

There is an old joke that goes like this: What's the difference between an introverted engineer and an extroverted engineer? The introvert looks at his shoes when he talks to you. The extrovert looks at *your* shoes when he talks to you. (Pause for uncomfortable laughter.) Like many stereotypes, the quiet "nerd" engineer has some basis in truth, not for all, but for many of us. The shy, analytical introvert is something that lives inside most of us who choose this profession, but we can (and should) choose to move beyond this persona if we want to achieve maximum impact – a concept any engineer can appreciate. ■



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