STRUCTURAL FORUM opinions on topics of current importance to structural engineers

For the Love of the Profession

By Robert H. Lyon, P.E.

tructural engineers consistently rank high in levels of job satisfaction and public respect. Through the experiences and testimonies of practicing engineers, both past and present, this series of articles celebrates the joys and satisfactions of our profession. From this collection of personal accounts, sources of career satisfaction are identified and examined. Obstacles are also identified which can impede our level of job satisfaction. These observations are used to formulate keys for improving, advancing and uplifting the structural engineering profession and its personal rewards. Whether an idealistic young professional, or an experienced engineer in need of a career re-charge, reclaim the pleasures that make structural engineering a great profession!

Part One – My Story

My father was a structural engineer. My grandfather was a public works engineer. In several small towns of Iowa you can find plaques on bridges that bear Granddad's name, Harold Lyon. Engineering is a Lyon family tradition. It is in my blood.

As a child, I loved visiting my dad's office. What impacted me the most was not necessarily my fascination with the projects. More than that, I relished the work environment and the camaraderie of professionals.

My dad served alongside my granddad in World War II with a Seabees unit in the South Pacific. The Seabee motto shows them to be the consummate engineers: "The difficult we do immediately; the impossible takes a little longer". When he returned to civilian life, Dad enrolled at Iowa State University and received his bachelor's degree in Civil Engineering. He then worked two years designing bridges for the Iowa Highway Department. One day, he and a colleague took time off work and went up to Chicago to "pound the pavement" in hopes of landing a consulting job.

Dad joined the firm DeLeuw Cather and spent his first ten years there designing and managing various bridge and highway projects. While working on a major highway project in the Washington, D.C. area, the organization was being formed that would

have responsibility for planning, designing and constructing the Metrorail system. My dad saw this as an opportunity of a lifetime and moved our family from Chicago to DC halfway through my kindergarten year.

Growing up, I enjoyed learning – not just math and the sciences, but in all areas. After completing high school, I enrolled at the University of Virginia as a student of Civil Engineering. In retrospect, I am sure that my choice of major stemmed first and foremost from my admiration for my dad and his colleagues.

Upon graduation, I half-heartedly interviewed with one or two engineering firms but decided that school was still too much fun! So I enrolled to study law at The George Washington University. One month before classes were to start, while browsing the university bookstore, I abruptly changed my plans and decided to pursue a master's degree in structural engineering instead. These were two wonderfully interesting, satisfying and fun years.

With a master's, I was much better prepared for a practicing bridge engineering position. Once again my dad came into the picture, advising that I interview with a consulting firm that he held in high esteem. He arranged for an interview with the office leader and, although the Washington office was not hiring, he suggested that a young fellow wanting to learn the bridge business should go and interview at the home office in Kansas City.

I was not excited. Although I did not object strongly to the idea, I had not envisioned moving halfway across the country for a job. However, this was a friend of my dad's, and I felt an obligation to consider it. I agreed to interview.

I lugged my heavy suitcase through Kansas City that morning, wondering why I was there. But when I arrived in the firm's bridge department, it was a "déjà vu" moment. I tingled with childhood memories of my dad's office. The competence, professionalism, collegiality and warmth in that office convinced me that this was where I wanted to spend my career. It had a wonderful mix of thirty-year design professionals, along with a large group of talented, recent graduates.

The combination made for a tremendously invigorating, exciting work place! I also met and married the travel agent that handled the firm's business... but that is a story for another time.

Although the professional road has been winding, and at times rocky, 31 years later my firm remains the same kind of place. When an opportunity came for my family to serve as missionaries in Russia, my supervisors granted me a year's leave of absence with their blessing. Several years later, when an unexpected victory landed me in the state legislature, my firm once again allowed me a series of leaves of absence to serve my term. Although the political experience was interesting, I chose not to seek reelection, primarily because I missed the structural engineering environment.

Having served as a part-time adjunct professor for a number of years, I have recently transitioned to a full-time teaching position at the University of Kansas. Once again, I enjoy the company of numerous distinguished, professional colleagues, and I continue to work part-time with the firm where I started my career. I do not know what the future holds for me professionally. I only hope that it will be possible for me to continue doing exactly what I am doing, because this is a great profession and I love it.

The point of this autobiography is to suggest that nothing is terribly unique about my professional experience. Every structural engineer has a story to tell, and such accounts can serve as a basis for identifying and fostering the tremendous sources of career satisfaction that are ours as structural engineers. In my case, it begins with being in a profession with men and women that I respect, admire and enjoy.

In my next article, I will explore the lives of other, more notable structural engineers, and discover what sources of joy undergirded their professional careers.

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