FROM OLD PARTS TO LARGE SYSTEMS

Rick Barker, a truly global elevator man, talks about his extensive experience in the industry.

by Lee Freeland

Rick Barker (**RB**) is a principal and cofounder of Barker Mohandas LLC, a vertical-transportation (VT) consulting firm founded in 2000. A 40-year-plus veteran of the industry, Barker has been director of Technical Services worldwide at Otis World HQ, VT department head at Jaros Baum & Bolles Consulting Engineers (JB&B), modernization manager for Delta Elevator in Boston (now Otis) and held various positions at Westinghouse Elevator (now Schindler). For more on his projects and history, visit www.barkermohandas.com.

EW: What got you started in the industry?


Barker

RB: Like many young people, I did not have any money and needed a job. A friend of my mother mentioned that her husband, Chuck Schauer, worked for the Westinghouse Electric Elevator Division, which had an opening. Until then, I had only heard of Otis elevators. The job was in Westinghouse's Syracuse office to support the mechanics in the field in both construction and service across New York State, less the New York City (NYC) metro area. It paid less than the mechanics, but the college tuition reimbursement program was a bonus, with the possibility of advancement within Westinghouse. I got to know the parts of the elevator, as I had to

Figure 1: 100-story office tower Tour Sans Fins, planned for the La Défense business district of Paris: design architect: Ateliers Jean Nouvel. Status: design complete; elevator/lift work awarded to Schindler; not built

Figure 2: 200-plus story, mixed-use Nakheel Tower, Dubai: design architect: Woods Bagot. Status: design development complete; foundations started; not built

Figure 3: (l-r) Rick Barker of Barker Mohandas and Neil Woodcock of Nakheel on the Nakheel Tower construction site's center marker

order them or have them made (many from old drawings) and also the field tools. And, yes, I also swept the warehouse floor!

While gradually completing college, advancement came, to the company's regional headquarters in New Jersey. There, I ordered entire elevators for major projects in NYC and Boston and provided technical support for sales. Another internal job offer followed: to join a new nationwide "major projects group," yet I opted to move closer to home to reopen the company's office in Buffalo, New York. I left Westinghouse a bit before it was acquired by Schindler and worked for Delta, which, for an independent company, had an excellent reputation for servicing high-rise elevators, especially in Boston, where it was contracted for most of the city's high-rise office towers. In Boston, I managed modernization until Otis acquired Delta.

The next job was pivotal for me, changing to design: I joined Jaros Baum & Bolles Consulting Engineers in NYC. That led to my position at Otis World HQ, which led to starting Barker Mohandas. At the time, JB&B was also pivotal in the industry: George Strakosch had recently been with the firm after leaving Otis — an event I think was responsible for Otis losing a major role in planning large VT systems, which we do as consultants. VT traffic-system studies were a key part of Otis sales engineering. This was coupled with the publication of the expanded second edition of George's book while at JB&B that openly shared the basic art. When I left JB&B to join Otis World HQ, I hoped to reverse the trend as part of my worldwide role as director, Technical Services. In any case, at Barker Mohandas, I am practicing VT consulting the way I always thought it could be done with great technical people and software tools.

On each of many desks I have used, I placed a pen set engraved, ". . .From Syracuse Westinghouse Field Men." This was a gift on my first move to the big city that reminds me of my roots and many great elevator mechanics in Buffalo, Elmira, Binghamton, Syracuse and Albany, New York.

EW: What are a few of your most memorable projects?

RB: The first was seeing Westinghouse elevators behind the scenes in what was then named Carrier Tower in Syracuse, a 19-story office building that seemed huge to me at the time. (Its twin tower had Otis elevators.) It started a fascination with group relay logic. At Delta in Boston, I more remember modernizing some manual A.B. See elevators than large high-rise systems and still have an A.B. See car switch as a souvenir (with a wheel that moved rods extending through the platform to set the car safeties while loading a safe). Later, at JB&B, it was planning the conversion of antique manual Otis elevators in NYC (with a pit-mounted winding-drum machine, separate car counterweight,

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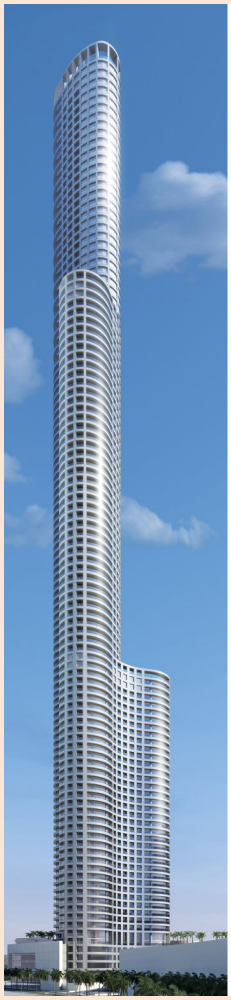

Bill Lewis and I remained close friends until his passing. He once said, “On a tall building, you need to think about everything you can, or the unk-unk’s will get you!” Bill also said several times, “Elevators are just a subsystem of the building.” One realizes that quickly when working on a building design with many other disciplines.

Figure 4: 120-story residential tower World One, Mumbai: design architect: Pei Cobb Freed & Partners. Status: under construction; elevator/lift manufacturer: Schindler

corner-post rails, DC power and low-profile ball-bearing door hangers). Of course, my first job dealing with the “parts” did not hurt!

Later at JB&B, I studied the system and Westinghouse equipment at the Sears (now Willis) Tower, where I suggested postponing modernization until certain drives became available (and now are). As part of that study, I came up with a torque-based control retrofit for the door-operator motors on the sky-lobby shuttles to dynamically deal with stack effect. My knees knocked when I first looked up at the tower.

My most memorable new VT system design at JB&B was a project not built called Tour Sans Fins in Paris, an almost-cylindrical, slender 100-story office tower (Figure 1). It was my first “VT” system design for a tall building. I researched and planned custom twin-sheave machines for the sky-lobby shuttles for their footprint needed at the machine room and for a glass window in the rear of the cabs. The idea was not new. Westinghouse had built such machines in the 1930s for one of the two independently roped elevators in a hoistway. The Paris project had the highest-level attention at Schindler and Otis, and Schindler’s short-lived win before the project was canceled had a bit to do with my joining Otis later.

At Otis, tall-building projects worldwide now seem like a blur. I traveled heavily, while also being involved with new products and ideas, including a study on ropeless elevators. Yet, one memory sticks: Having to pass on a wedding invitation in Bangkok, to work all night to disclose an idea via fax on Otis Odyssey to a patent attorney before presenting it the next day for a proposed tall tower. It’s a reminder of the personal sacrifices we make.

My involvement with such projects and buildings continued with Barker Mohandas, except here, I remember each in detail, being immersed in our designs (or, in reverse, the designs of others or the equipment installed where we are called to assist). On reviewing designs and work by others, I found myself again looking up at the Sears Tower and, later, Burj Khalifa in Dubai; last year, we reviewed plans for something even taller. In any case, I feel really good about our day-to-day system-design work that we have successfully fostered improved fire-protection plans for lift and stairs cores in at least six countries outside the U.S. for that country’s then- or still-tallest building, allowing other disciplines to complete the details. This came from my past involvement in the codes and a sufficient understanding of related building designs.

I am now haunted by memories of our designs for the supertalls not built, like a favorite project called Al Burj, and the Nakheel Tower (Figures 2 and 3), both planned for Dubai and to be 200-plus stories. Yet, more down to earth, I remember all our projects built or under construction now, like World One (Figure 4) in Mumbai and PNB 118 (Figures 5 and 6) in Kuala Lumpur, both to be 100-plus stories. It also appears that another favorite project, a 57-story office tower, Reforma 432 in Mexico City, will

Figure 5: 118-story office/hotel tower (with observation deck) PNB 118, Kuala Lumpur: design architect: Fender Katsalidis Architects. Status: under construction; elevator/lift manufacturer: KONE

Figure 6: (l-r) Gerard Van Beek of Fender Katsalidis Architects and Barker at PNB 118's center marker

proceed to construction. My partner Sean Morris was also very involved in these and is now making his own memories, leading VT design for a new project called Hudson's Site in Detroit, nicely situated in a local time zone!

EW: Who are some mentors or others who helped you progress in the trade?

RB: My first mentor was Robert Syvertsen, who managed the Westinghouse district office where I first worked, for both sales and field. Bob had started his career on an Otis drafting board in NYC and taught me many things but, above all, business ethics, which later carried over to design ethics.

Much later, my second mentor became William S. Lewis, P.E., who led the elevator department at JB&B and whose pending retirement created an opening for me after I responded to a "help wanted" ad in ELEVATOR WORLD! Bill was the best elevator consultant I ever knew. He also introduced me to many of his friends, including EW's founder, William C. Sturgeon. Bill Lewis and I remained close friends until his passing. He once said, "On a tall building, you need to think about everything you can, or the unk-unk's will get you!" Bill also said several times, "Elevators are just a subsystem of the building." One realizes that quickly when working on a building design with many other disciplines, and I think about his words whenever I come across arrogant attitudes within our industry. An understanding of multiple views will make for a better project.

Countless other people were important: some by being tough on me early on, like Jim Rhodes, an engineer at Westinghouse in New Jersey, who refused to provide some traffic studies I needed until I answered a dozen questions. I realized that if I answered all those, I could do these and became good at them, to the point of later leading the Otis Worldwide Product Strategy Committee on "elevatoring" and "dispatching." At Otis, I worked with many R&D engineers on various studies and designs.

Later, the company's top experts in many areas joined our firm — George Wisner, Dr. Clement Skalski, Mike Spaner and Paul Bennett. George (who remains our technology director) and I met just after we both joined Otis, with him coming from the United Technologies Research Center. He said, "Rick, I'm not an expert in elevators." I said, "Good; I'm not an expert in power electronics." Thus, the friendship started. Dr. Bruce Powell (a name I also knew of from my time at Westinghouse) was another positive influence at Otis. We shared a couple of Otis patents in dispatching and a lot more laughs. Today, the person helping me to perfect my trade is our other key partner, Sean Morris, P.E. He gets to excel faster, absorbing in minutes what it took me to gain from so many years, positions and people! Such continuity is the way it should be as we look to the future for another lead consulting engineer.