

Looking Back with Chet Vogel

An interview by Alex Weiss and Bob Daly, written by Bob Daly

Chet Vogel., Alex and I met at the Princeton Club, which now houses the Williams Club, where he has been a member for over 25 years. Chet was born in New York City and lived in Inwood until his family moved to Peekskill, NY in 1948. He was always interested in how things worked and fixed anything mechanical. As a high school sophomore, he wrote a paper entitled “What is Mechanical Engineering?”, and he still has that paper today. He attended RPI in Troy, NY. Prior to graduation in 1958, he was interviewed on campus and offered a job as a temperature control sales engineer in NYC by Ted Doyle, the Albany branch manager for Johnson Service Company. Two weeks after graduation, he reported for work at 79 Madison Avenue, and found himself in the middle of the New York City construction industry. He joined ASHRAE shortly after starting work there. That was the place to meet other professionals that could bring him up to speed in HVAC&R. He quickly became aware of the educational opportunities. He attended various training courses and was mentored by vendors at that time. The training included Trane School (with Joe Giardina), Titus (with Al Weiss), AAF (with Mort Bell), and Carrier (with Bill Goodinow). Syska and Hennessey also provided training through Arnold Windham. Not only was the training excellent, but it also provided connections to others in the industry. He also became aware that ASHRAE meetings were important for learning about new products and applications. He routinely attended the annual Expos in Chicago, Dallas, Atlantic City, and Philadelphia. Chapter All Day, Spring and Fall Seminars were also great places to broaden his knowledge. Interestingly, RPI’s Class of 1958, and particularly the Phi Sigma Delta fraternity, produced three other outstanding HVAC engineers in the NYC construction industry – Steve Fenenbach and Ed Schoen in air side products, and Mark Haies, also an ASHRAE NY past president, in water side products.

A few special memories (he smiled broadly while recalling these) included: The First Dinner Dance in Bay Ridge run by Murray Milander. When they looked at the venue, the owners mistook the request for use by ASHRAE as a religious group named after “oshray” (a Jewish prayer). Other memories include the dinner/dance at New Rochelle Beach & Tennis Club, which he chaired, and several at the Terrace on the Park. He recalled the phone call from Bob Bald when he was asked to join the Board of Governors of the NY Chapter, and his association with Walter Bishop, Tom Brown, Dick Batherman, Deane Keuch, Al Greenberg, Herb Kornbluth and Dick Koral. He rotated through the various chapter chairs and offices until his chapter presidency in 1972. Looking back, the role of education being tied to ASHRAE was always his favorite activity. Seminars and opportunities to learn about new developments in HVAC were both rewarding and provided a wonderful social outlet for him. Chet certainly has an affinity for working with others.

The controls business evolved in New York City over time. The primary systems in use in the 1930’s and 1940’s were a pneumatic control system for dampers, radiators and heating coils in schools, and electric controls in the residential market. There were only a few competitors – Honeywell and Powers. Air Conditioning systems emerged in the late 1940’s and early 1950’s, with the development of chilled water systems. NYU’s Vanderbilt Hall was one of the first large centrally air conditioned buildings, when it was completed in about 1949 by Dick Masters and Dick Baum of Jaros, Baum & Bolles. There were 50 individual air handler units (AHU’s) in the attic. (In 2003, under Chet’s direction, Vogel Taylor Engineers renovated Vanderbilt Hall, and replaced these AHU’s with central rooftop penthouse AHU’s.) Speculative buildings began to rise around NYC in the 1950’s. Emory Roth, an architectural firm in New York City, was a leader in the design of many high rise glass towers during that period. The shell and core were

fitted out as part of the base building construction, prior to fitting out the floors for the individual tenants. The control system was then expanded as each floor became occupied. Typically, the fit out of these rental spaces lasted two to three years, and included 733 Third Avenue, 757 Third Avenue, 1180 Avenue of the Americas, 1301 Avenue of the Americas, and 110 East 42 Street (site of the last Horn and Hardart Automat). In about 1960, the Union Carbide Building (now JP Morgan Chase Bank at 270 Park Avenue) became the first building to use plastic tubing in place of copper tubing for pneumatic controls. Motor Control Centers, with push buttons and pilot lights were the central control systems in these buildings, before the advent of Building Automation Systems. Induction units were the perimeter air conditioning systems for these high rise office buildings, typically with one thermostat and two automatic valves for each two bays. In the 1960's other competitors entered the controls market, first Robertshaw and then Thomas S Brown Associates. Besides becoming a specialist in high rise office building temperature controls, Chet completed other signature projects including Mudd Hall and the Law School at Columbia University and International Flavors and Fragrances on West 57th Street.

In his first role as a controls sales engineer, Chet often called on consulting engineering firms, including Kallen & Lemelson. In 1965 he was offered a position by Howard Kallen as a design project manager. In 1968 he became a professional engineer and in 1970 he became a partner. The educational market was his initial focus, wherein Chet supervised the design of projects for Cornell University, Brentwood Schools, and Wyandanch Schools. Eventually he obtained P.E. licenses in NY, NJ, CT, PA, DE, FL, VT and MA, and specialized in health care, laboratory and other institutional projects. He worked closely with Feyzi Bil, K&L's chief mechanical engineer, until 1985. He then started his own firm, C.T. Vogel, PE Consulting Engineer ("CTVPE") in White Plains, which he moved to 50 East 42nd Street in 1988. His major clients were in the health care and institutional fields. Several projects received Engineering Excellence Awards from The American Council of Engineering Consultants of New York including Yeshiva University's Cardoza Law School, thanks to Ed Rosen of Bovis Lend Lease, NYU Medical Center of Queens, thanks to John Flannigan of Booth Memorial Hospital and Don Pattie of Turner Construction Company, and Delaware's Public Health Labs in Smyrna. In 1985 he also began his forensic engineering practice, which he continues to this day, providing expert opinions and testimony in matters requiring resolution of disputes involving HVAC, plumbing, electrical and fire protection systems. He was admitted to the National Academy of Forensic Engineers (NAFE) in 1990. In 1998, he merged his design practice with John Taylor, an electrical engineer, to form Vogel Taylor Engineers, and in 2003, his firm was acquired by M-E Engineers of Wheat Ridge, Colorado, near Denver. Notable M-E Engineers projects have since included Yankee Stadium, Citi Field for the Mets, and the Madison Square Garden renovations. Chet retired from the firm in 2007, but remains active with CTVPE, his forensic engineering practice in New York and Massachusetts.

Chet has always been aware of the need for continuing education in the HVAC&R field. In 1980, he worked with Mitchell Giurgola Architects to design the mechanical systems for the George M. Low Center for Industrial Innovation at Rensselaer Polytechnic Institute ("Low CII"). The Low CII was a partnership that linked New York State with the university and with industry. Rensselaer sought to use NYS funding, while providing university land for laboratories, and receiving industrial equipment from GE, IBM and others, to educate its students, while promoting research in computer science, and robotics. Chet and his lovely wife Madeline have created an endowment fund that supports the adjunct professor who teaches the HVAC course in the Low CII at RPI, which is now being taught for the first time since 2004. Chet never took the course at RPI, although it was offered then and consistently until 2004, when the teaching professor left RPI. He assists as the primary Guest Lecturer each week, providing his practical HVAC experience and the relationships between the HVAC course material presented in the ASHRAE

textbook and some of his design projects. Chet lectures on HVAC systems and equipment, as well as the design practice, using the Low CII as a “laboratory”, by “touring” the building’s HVAC drawings and the mechanical spaces within the building. Many of the students are now ASHRAE members and have access to the Handbooks, provided online by the RPI Folsom Library. Don Winston of The Durst Organization, RPI Class of 1985, and Ed Bosco of M-E Engineers, RPI Class of 1989, have also agreed to serve as Guest Lecturers for the course, presenting their unique experience in sustainable design, and specialty buildings and stadiums, respectively.

The interview turned to the NYC Building Code. Chet entered the HVAC design community in 1965, just when what was known then as the New Building Code was being written. The Code was published in 1966-67 and it was adopted in 1968. Having attended several seminars that introduced the 1968 Code, and taken special interest in code language and interpretations, Chet joined the Mechanical Code Committee of the American Council of Engineering Companies New York (ACECNY) in the late 1960’s, when Richard Master was the chairman.. When Dick retired in the 1990’s, Chet became the chairman, and he continued in that capacity until his own retirement from M-E Engineers in 2008. Together with other committee members, including Mitch Simpler and Mike Reese, he assisted the New York City Department of Buildings with code modifications and updates, serving on the World Trade Center Sub-Committee for Ventilation in 1996, the, RS 13-1 Committee for the revisions to the Code’s Reference Standard for Ventilation in 2003, and the World Trade Center Task Force for Fuel Oil in 2004. In 2003, the Department of Buildings selected him to be the chairman of the Model Building Code Technical Committee for Mechanical, HVAC, and Boilers. The committee was charged with updating the 1968 Code to the ICC format for all new construction. As a result of the wonderful participation of all 35 members of the committee, from all corners of the HVAC&R industry, the panels for General Requirements, Boilers, Equipment, Piping, Refrigeration and Ventilation produced the related Sections of the Mechanical and Fuel Gas Model Building Codes that went into affect in 2008. His enthusiasm, good nature, and management skills were all put to use during the process. A healthy dose of good engineering judgment and a thick skin for criticism were also required. “It was a great experience!” Chet said as he sat back and thought about it. The code revisions by his committee were completed ahead of schedule in 2006, and in 2007, Chet was selected as Engineer of the Year in New York State by ACECNY. Since its adoption, the New 2008 Code has been implemented for both new construction and renovations to existing buildings. Except for some very minor issues, the 2008 Code is being applied to renovations, even though that was not the criteria for which the committee was charged

I asked Chet “what now?” He smiled and said he has no plan to fully retire, as long as there was still a need for his professional services as an expert. I said that old engineers don’t retire; we just become insignificant figures like the fourth place on a slide rule. He smiled broadly as we ended the interview.

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