

Bill Manly and Bob Charpie: Two jewels in ORNL's crown

(As published in The Oak Ridger's Historically Speaking column the week of 11-2-2020)

Here is the second in a series of three articles by Carolyn Krause

When I was editor of the Oak Ridge National Laboratory Review in the 1990s, I became aware that Bill Manly was a distinguished ORNL metallurgist who had received a prestigious award, the National Medal of Technology, as it was called then. But I knew very little about his history. I became interested in him recently while walking around the Coffey-McNally building on the Oak Ridge campus of Roane State Community College. I stopped and admired the Oriental art on the second floor and read the metal plaque identifying its source: The Jane and Bill Manly Art Gallery.

On my laptop I had a copy of Steve Stow's oral history interview with Bill Manly, done in February 2003, eight months before Bill died. I read it and noticed that Manly remarked on some interactions he had with Robert Charpie. He was another researcher at ORNL whom I was curious about because I had heard that he was considered incredibly bright, that he had been on a national TV quiz show and that he left the lab and later became president of Cabot Corp. in Boston.

As clerk of the session (governing body) at First Presbyterian Church of Oak Ridge, I discovered while looking through the church register that Bob Charpie had been elected to the session in 1960. That was the first time I realized he was a member of the church. As I read the obituary on Manly, I learned he was a member of Bechtel Presbyterian Church in nearby Kingston at the time of his death. "Was he ever a member of FPCOR?" I wondered. I checked the register again and discovered that Bill and Jane Manly were the 750th and 751st members of the Oak Ridge church. Later, Bob and Elizabeth Charpie became members.

Actually, these two Presbyterian men had much in common. Manly and Charpie were both born in Ohio. They both served in the armed forces in World War II. Both were fathers of three sons and a daughter. Manly and Charpie each worked for ORNL, Union Carbide Corp. and Cabot Corp. Both were elected to the National Academy of Engineering. Both contributed to the Oak Ridge community. After he retired, Manly chaired the Methodist Medical Center board; before Charpie left the state, he was vice chairman of the Oak Ridge Board of Education from 1957 to 1961, helping it become one of the first racially integrated school systems in the South. Both were interested in promoting innovation and technology transfer.

At ORNL Bob Charpie (who had B.S., M.S. and Ph.D. degrees in physics from Carnegie Mellon University) was appointed team leader for a gas reactor project by ORNL Director Alvin Weinberg, and Charpie, Bud Perry, Mike Bender and Manly went to Washington, D.C., to get funding for what became the lab's gas-cooled reactor program. Manly became manager of the program from 1960 to 1964.

In 1964, Manly was hired by Union Carbide Corporation (whose Nuclear Division was operating the three nuclear plants in Oak Ridge) to be director of materials technology in New York. Carbide had purchased Haynes Stellite, the alloy development firm that Manly had problems dealing with as an ORNL metallurgist. He gave a two-hour briefing to the managers of Haynes Stellite on how to modernize its operations as it incorporates work from other Carbide research labs. Charpie, a Carbide employee who was present at the briefing, told him on a train ride home that night, "Manly, you oversold."

As a result, Manly was moved to Kokomo, Ind., to run Haynes Stellite for Carbide. In the process, he hired metallurgists from ORNL to join him in advancing the design and fabrication of commercial alloys. In 1970, Cabot Corp. (of which Charpie was the new president) bought Haynes Stellite from Carbide, and Manly moved to Cabot for three years as part of the deal.

"I used to jokingly say I was sold into slavery to the Cabot Corp., but it was pretty damn good slavery," Manly told Stow. Manly retired from Cabot in 1986 as executive vice president of the company's engineered products group and returned to Oak Ridge. Charpie retired as president, CEO and chairman of the board of Cabot in 1988. Haynes Stellite became its own company, called Haynes International.

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During Charpie's 11-year tenure at ORNL, he was a pioneer in the civilian development of nuclear energy and was an international leader in the peaceful uses of atomic energy, according to the obituary published in The Wayland Town Crier in October 2011. "He served as deputy U.S. delegate to the United Nations Advisory Committee on Atomic Energy in 1954; in 1955 he was scientific secretary for the first International Conference on the Peaceful Uses of Atomic Energy, held in Geneva, Switzerland; and he served as secretary to the General Advisory Committee for the Atomic Energy Commission from 1959 to 1963."

Charpie's contributions to public policy and technology extended well beyond the field of energy, according to the obituary. "From 1965 to 1967, he chaired an important panel on technological innovation for the U.S. Department of Commerce, which produced what became known as the Charpie Report. The panel, which focused on the importance of technological change for economic growth in the United States, was a harbinger of today's debate surrounding productivity in the American economy and the country's competitive position abroad."

The obituary also noted that "Charpie was one of the three people named to study the high costs and technical difficulties of the then troubled space shuttle program in 1979. This study, which was presented to President Carter, resulted in administrative changes in the space program and its subsequent improvement in meeting scheduled target dates."

In 1961, Charpie left ORNL and moved to Union Carbide's New York offices as manager of advanced developments. In March 1968, he became president of Bell & Howell. In May 1969, he joined Cabot Corporation as president and CEO. In 1986, he was elected chairman, becoming the first person outside of the Cabot family to hold that position.

In 1969, Charpie, who was passionately interested in education, was nominated by President Nixon to the National Science Board of the National Science Foundation on which he served until 1976. The board's purpose is to strengthen research and education in the sciences throughout the United States.

Although they had much in common as colleagues and friends, Charpie and Manly were quite different in terms of hobbies. Charpie's favorite hobby was great food and wine; he was once president of the International Wine and Food Society. Manly's hobbies included blacksmithing, fishing and shooting fireworks!

They both demonstrated the truth of this statement: "It's not just what you know but who you know that can lead to great success."

In his 1994 book "The First Nuclear Era: The Life and Times of a Technological Fixer," former ORNL Director Alvin Weinberg wrote admiringly about Robert A. Charpie. "Bob was one of the most extraordinary people ever to come to Oak Ridge. A theoretical physicist from Carnegie Tech, Bob had served as a machine gunner in Italy.

"Besides having a very high IQ, Bob had a presence, a grasp of detail, and a way of articulating his ideas that almost always convinced those around him. In meetings Bob would summarize the essence of the matter at hand and propose what was generally a reasonable course of action.

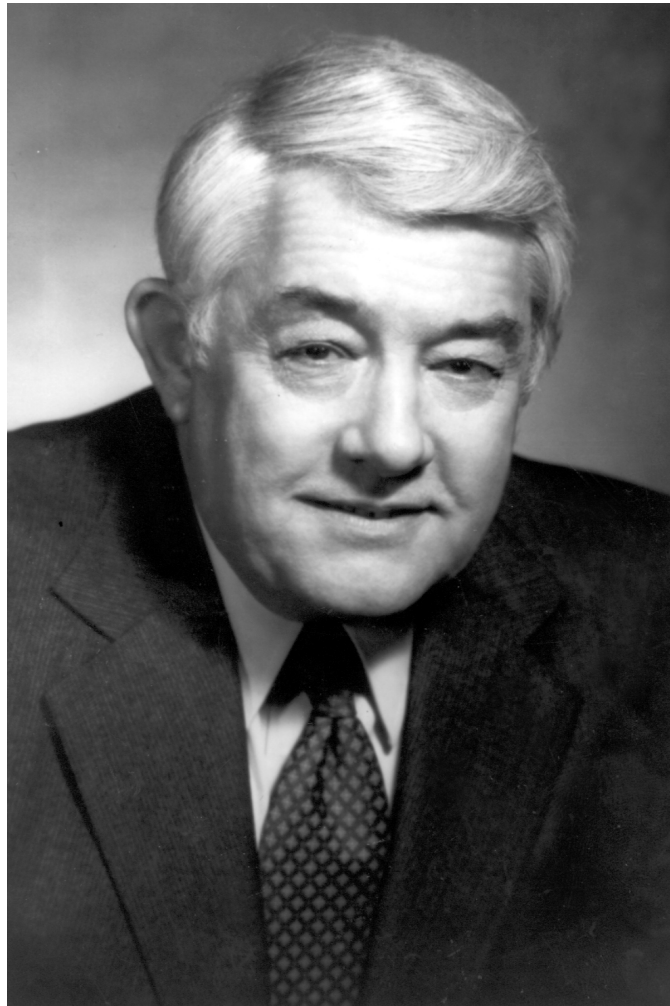
"Bob was hired by Bob Livingston to do experimental nuclear physics on our new cyclotron. After seeing Bob Charpie in action a couple of times, I told him that he would inevitably become an administrator. I soon stole him from Livingston to serve as my personal assistant; he then became an assistant director of ORNL, and was often regarded as my heir apparent.

"But Bob left ORNL in 1964. He eventually became the CEO of the Cabot Corp. During one year at Cabot he was the highest-paid executive in the United States."

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Next Carolyn brings us more stories by and about Bill Manly



Bill Manly

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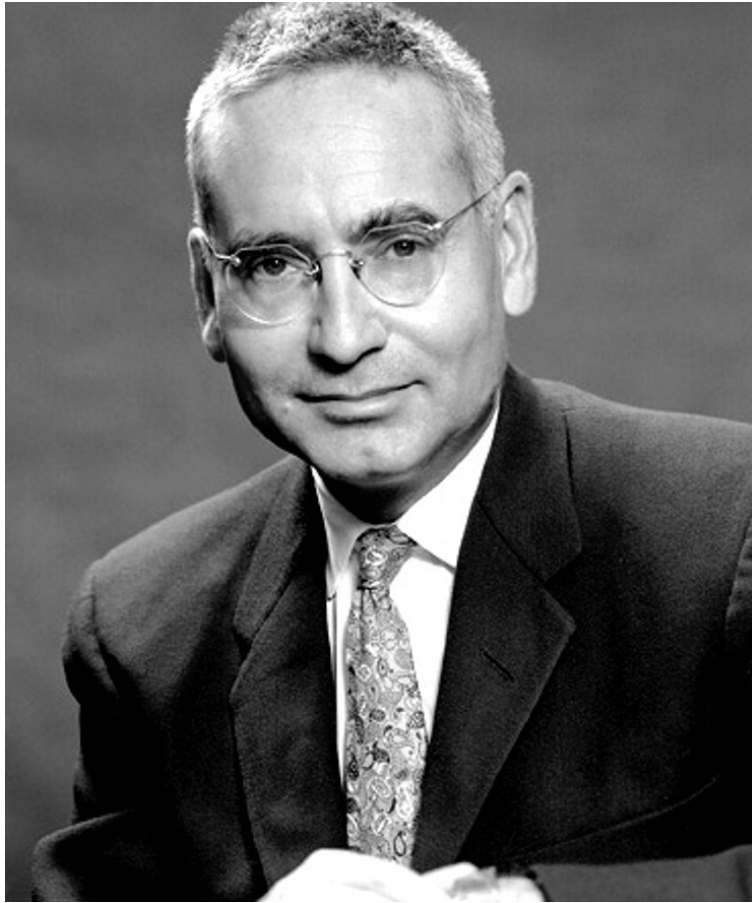
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Robert Charpie

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Alvin Weinberg