## Virginia Coleman: Marrying a chemist

(As published in The Oak Ridger's Historically Speaking column on July 5, 2017)

This is the third in a series on Virginia Spivey Coleman, one of the eight Oak Ridge women involved in the Manhattan Project who is highlighted in Denise Kiernan's "The Girls of Atomic City."

Susan Frederick has written the series of articles and Carolyn Krause has edited them. Enjoy this third installment:

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Virginia continued her lab work in jobs at Y-12 until 1953. She "stayed on," during the period before the gates opened, when "so many people went back to where they had been beforehand, and many were laid off." Virginia was surprised that she would now earn the same salary for a 5-day work week as she was earning for a 6-day week.

Virginia helped conduct some interesting early experiments with the first ion exchange pellets manufactured by Dow Chemical. The pellets were developed and refined by Dow to the point that they are used today for different separation, purification, and decontamination processes.

Modern applications of the ion exchange technique include water purification, biodiesel filtration, separation of metals, and pharmaceutical manufacturing!

Back then, though, Virginia remembers that the first results of the Dow I and Dow II ion exchange techniques "were very dirty, in the sense that they had a lot of debris with them," as she told Ray Smith when he interviewed her for the Center of Oak Ridge Oral History (COROH) last year.

In continuing the story of her work as a chemist, Virginia said, "We tried removing uranium from different solutions using ion exchange. We were having some success. Eventually, a large-scale ion-exchange setup was built and used to recover uranium from solution.

In 1951, Virginia changed departments because she was engaged to marry her supervisor, Dr. Charlie Coleman. Traditional workplace rules did not allow engaged/married couples to work in the same department at that time, and in fact remained in force for quite a while after the war.

One of the projects Virginia worked on in the new department under Grimes was the fuel for the atomic plane being planned. Virginia laughed when describing her role "doing cooling down experiments, adding different ingredients, and trying to find the perfect fuel" in the process of "doing research on the fuel for the (nuclear-powered) plane that never flew."

Virginia greatly admired her late husband Charlie. Her admiration is evident even now, 10 years after his death from complications from Alzheimer's disease. She told Ray Smith that Charlie was the smartest man she ever met and assured me that he was always very supportive of her.

Charlie and Virginia were introduced to each other by Warren Grimes, who became director of Y-12's Chemistry Division. Charlie and Grimes had been roommates at Purdue where they were working on their PhD degree's.

The two were called by their major professor, who had already left Purdue and was working on the Manhattan Project at Columbia University, and he told them "You need to come up here," which they did.

Later, they were sent to Oak Ridge to work. Post-war, Charlie returned to Purdue to earn his PhD, and then came back to Oak Ridge.

Virginia and Charlie were married in 1952 at Chapel-on-the-Hill, "like so many others," Virginia recalled with a laugh. The couple continued to occupy the apartment where Virginia had lived with her two housemates before they married and moved out, until the time she and Charlie were expecting their first

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child. Virginia retired from her lab work as a chemist in 1953, after working right up until six weeks before their oldest son Frank was born.

Virginia acknowledged in her interview with Ray Smith that "It was still pretty hard to get housing where you wanted it. So, I told Keith Brown, Charlie's supervisor, 'Keith, I'm trying to get Charlie to leave, if we can't get another place to live.' The next week, we moved into the Garden Apartments," which, of course, was an acknowledgment by management of the key role that Charlie had been playing in the ongoing research there.

"We lived there until our second child, Nancy, was born in 1956, so that meant we lived there three years," Virginia said. "And then, we lived on Darwin Lane," after moving into the B-Cemesto home formerly occupied by Dot and Wayne Ross, the family of one of Virginia's former housemates.

Dot and "her family had to move to California, because one of their children was so allergic to this environment. She had frequent ear infections, and the doctor finally said, 'You've got to go to a drier climate.'"

The Colemans, by now a family of four, lived there until Virginia and Charlie built their Oak Ridge home in 1958 on Elliott Circle. Their youngest child, Arthur was born in 1959. Virginia still lives there with a caretaker, Gabriel Cole, who is graduating from Pellissippi State Community College this summer and has been accepted at U.T. Knoxville for the fall semester, and her cat, Ebony.

In the next installment of this series, Virginia Coleman will talk about her activities in Oak Ridge, including helping start an organization to give area children a healthier start in life.

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Thanks again, Carolyn and Susan. Feedback from readers has been really good on this series. Ginny is a jewel, that's for sure, and loved by all who know her.



Virginia shown with her two sons, Frank and Art