

Bill Wilcox: On war, peace and reconciliation

(As published in The Oak Ridger's Historically Speaking column on February 18, 2013)

It is with great delight that I bring you this article by Carolyn Krause about my wonderful good friend, Bill Wilcox, who turned 90 years of age on January 26, 2003 amid a winter storm that prevented a grand party planned in his honor. While I have written about him often, I am fully aware that others see him in just as great a light as I do and seeing him recognized by a wide range of people is rewarding to those of us who admire him greatly and embarrassing to him, and that is good, as it should be.

Here's Carolyn:

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From late 1943 to 1945, people living in and outside the Secret City watched long trains with loaded boxcars roll into Oak Ridge several times a week. For most the cargo, including building materials and sealed drums, was a mystery.

What left Oak Ridge weekly in a coffee-cup-size container was kept so secret that most people working on the war effort here had no idea any product was going out. "Don't ask, don't tell" was the unspoken mantra of the culture of secrecy about people's jobs that General Leslie Groves brought to town.

Groves headed the Manhattan Project that employed construction workers to build huge production plants and three small secret cities, as well as scientists and engineers to create two war-ending atomic bombs. He also was responsible for keeping the Germans, Japanese and Russians ignorant of the size of U.S. efforts.

What came in as uranium oxide in boxcars went out weekly as a few ounces of uranium enriched in fissionable U-235. A secret courier carried the mysterious stuff in a briefcase.

"People wouldn't have believed it," Oak Ridge City Historian Bill Wilcox, 90, told Bob Edwards in an interview broadcast by Public Radio International Jan. 27, a day after Wilcox's birthday.

"The product of the \$478 million Y-12 plant was being carried out every week in a briefcase chained to the wrist of a military security person in plain clothes accompanied by a bodyguard in plain clothes."

The two men went by car to Knoxville, where they took a train to Chicago and then boarded a Super Chief passenger train to New Mexico. The product was secretly transported from a little train stop called Lamy to Los Alamos, where the uranium bomb was designed and built.

Wilcox told Edwards that if the enriched uranium transported from Oak Ridge's Y-12 Plant to Los Alamos were melted down, the total amount would be roughly the size of a basketball. It was enough for one atomic bomb.

Los Alamos had collected enough plutonium from the large nuclear reactors in Hanford, Wash., to build a second atomic bomb. The process for producing plutonium and separating it from spent uranium fuel was pioneered in Oak Ridge at the Graphite Reactor at X-10.

On July 26, 1945, the United States, United Kingdom and Russia called for Japan to surrender in the Potsdam Declaration, which threatened Japan with "prompt and utter destruction." The militaristic government of Japan ignored the ultimatum.

On Aug. 6 and Aug. 9 the two atomic bombs created by the Manhattan Project were dropped on Hiroshima and Nagasaki, Japan. The militaristic leaders still refused to surrender, even though the bombs' acute effects killed 150,000 to 250,000 Japanese. Less than a week later Emperor Hirohito insisted that Japan surrender, ending World War II.

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The surrender halted the land invasion of Japan planned for November 1945. Such an invasion would have killed an estimated 250,000 Americans and more than one million Japanese.

Oak Ridgers "reacted to the news of the bombing in the same way as the rest of the United States," Wilcox told Edwards. "We were thrilled that somebody had developed a brand new weapon that might win the war. We were surprised and amazed and we didn't understand it" until they read newspaper articles by New York Times Science Writer William L. Laurence, whom the Army had hired to tell the story.

A Pennsylvania native and a 20-year-old graduate of Virginia's Washington and Lee University, Wilcox was hired in 1943 as a junior chemist by Eastman Kodak. He was sent to Oak Ridge and told to work with other chemists to better understand the chemistry of uranium.

The chemists were ordered to refer to uranium and its compounds as "tube alloy," "tubanyl oxide" and "tubalous tetrafluoride," according to Bart Callan's oral history interview with Wilcox in March 2005.

They also developed methods for separating uranium from solutions containing various metals that dissolved the stainless steel in the receivers of the Y-12 calutrons that enriched uranium in U-235.

"You knew you had been a part of the making of the bomb," Edwards stated, wanting to know how Wilcox felt about the consequences of detonated nuclear weapons.

"We didn't glory in the deaths of 100,000 people in Hiroshima or Nagasaki," Wilcox said. "Nor did we glory in the deaths of 100,000 people in the firebombing of Tokyo on March 9 and 10 [1945]. Those were horrible deaths to contemplate in that horrible war.

"What we did celebrate was that Oak Ridge helped bring peace to the world that was aching from six long years of World War II. Since the war Oak Ridge scientists turned to the peaceful uses of nuclear energy."

He cited Oak Ridge's production of radioisotopes for medical diagnosis, treatment and research, calling the work the foundation of nuclear medicine that has helped people around the world. Another beneficial legacy was the reactor design work at Oak Ridge National Laboratory, which led to nuclear power plants – the source of 20% of U.S. electricity.

"Nuclear energy can be both a blessing and a curse," Wilcox told Edwards. "It's a triumph and a tragedy, just like all our other energy sources, such as fire and electricity. But we have learned how to use them safely and so have conquered our fear of fire and electricity. Now we need to overcome our fear of nuclear energy."

Edwards noted that Wilcox "smoothed over" the local controversy over the bronze Friendship Bell designed in Oak Ridge and cast in Japan in 1993. Local opponents saw it as an apology to Japan paid for by taxpayer funds.

Wilcox helped people reach a consensus that the bell is "a symbol of the bonds of friendship and mutual regard that have developed between Oak Ridge and Japan over the past 50 years." He drafted a statement of purpose for City Council and wrote the words for the bell's plaque. He also spearheaded the Rotary Club of Oak Ridge's development of the Secret City Commemorative Walk in A. K. Bissell Park.

Seventy years later, the Oak Ridge train is still rolling along, and it's no secret that many people who have hopped aboard are dedicated, like Bill Wilcox, to advancing the national interest through science and technology.

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Thank you Carolyn for yet another insightful glimpse into our heritage through oral histories and other sources.

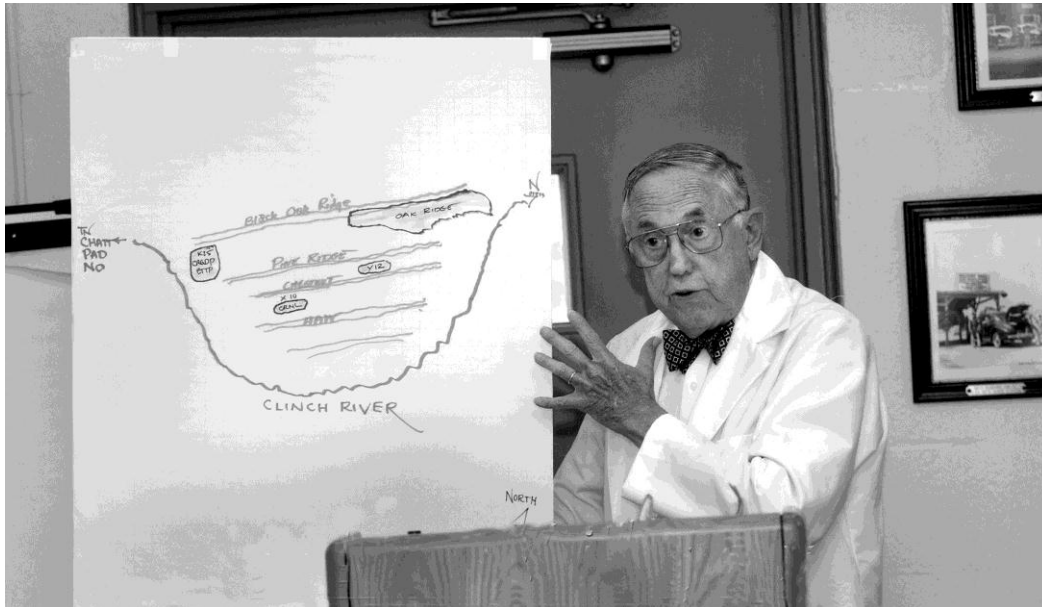


A young Bill Wilcox shown sitting in a rocking chair in 1944

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A slightly more mature leader shakes hands with President Jimmy Carter when he toured K-25
(photo and artwork courtesy of Lynn Freeny)



After retiring Bill took on the challenge to teach us about our history in a personal and engaging speaking style such as here in the Checking Station during a Secret City Festival (photo courtesy of Lynn Freeny)

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Bill Wilcox in his signature Bowtie (Photo courtesy of Lynn Freeny)