

Oak Ridge Secret City

PHOTOGRAPHIC HISTORY EXHIBIT



Provided By
Y-12 NATIONAL SECURITY COMPLEX



PURPOSE

This photographic exhibit tells the story of world-changing events, people and places in East Tennessee. The story begins in 1942 at a most unusual place first called the Kingston Demolition Range, then Clinton Engineer Works and finally known as Oak Ridge. Many of the exhibit photographs were taken by Ed Westcott, the official photographer of the Manhattan Project in Oak Ridge. Ed's eye for exceptional photography produced an enduring body of work and one of the world's best photographic historical records.

Without his photographs, East Tennessee's contribution to what many consider the most significant scientific and industrial accomplishment in the history of the world would not be so well documented.

This booklet supplements the photographic exhibit and provides additional details for selected images. As you view the exhibit, each photograph tells a portion of the overall story. The photo labels focus on the specific historic event, people or place.

Please study the artistic elements of Ed's work – his uncanny ability to portray the normal everyday lives of his subjects as well as the vital work they were doing, in secret, hoping they would help end the war.



Ed Westcott

INTRODUCTION

Before the Manhattan Project, Bear Creek Valley was a peaceful slow-moving farming community. Some families had been there more than 150 years, having settled along the Clinch River in the late 1700s in violation of Cherokee treaty language. By 1942, they were settled in and felt their home place was secure. Little did they know their world was about to change forever, and this part of East Tennessee would never be the same.

In late 1942, the Manhattan Project created a unique place named Oak Ridge. What started as an effort to win the war that came to be known as World War II turned into the world's most significant joint military and industrial scientific achievement and resulted in untold technological advances.

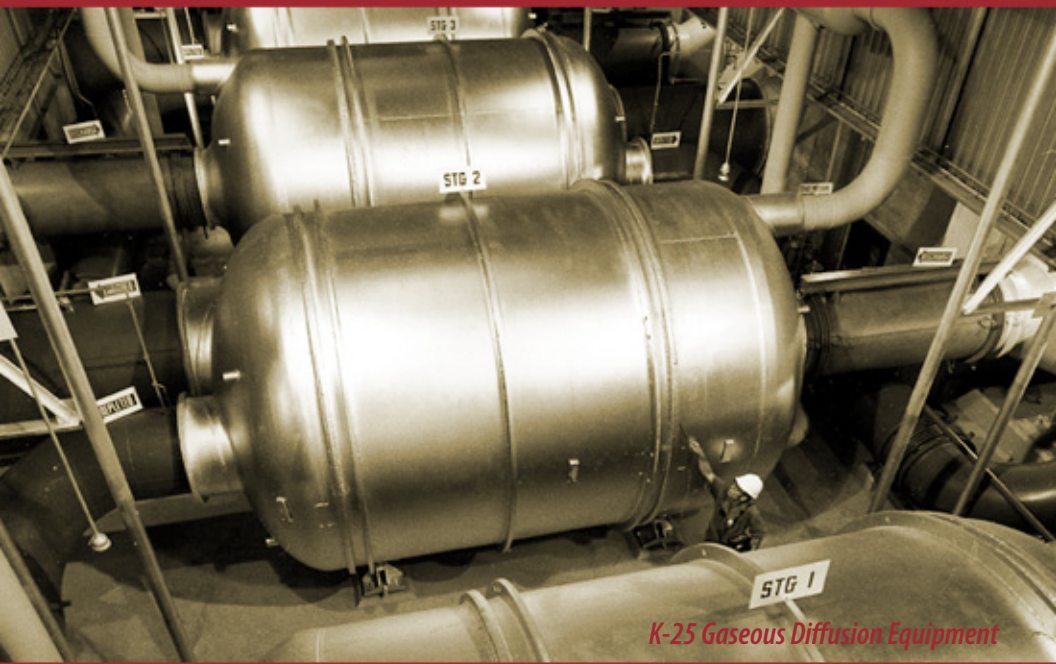
Oak Ridge was the location chosen to separate the Uranium 235 needed for the world's first atomic bomb used in warfare – Little Boy.



Bear Creek Valley before the Manhattan Project



Little Boy



K-25 Gaseous Diffusion Equipment

Eventually Oak Ridge would help win the Cold War as well. The hydrogen bomb needed Lithium 6, and Y-12 was asked to separate that isotope in substantial quantities. K-25 produced the highly-enriched uranium used in all U.S. thermonuclear weapons today as well as much of the low-enriched uranium used in nuclear power reactors.

The Graphite Reactor at X-10 proved that a uranium reactor could produce appreciable quantities of plutonium and produced radioactive isotopes for medical research and treatment throughout the next 20 years.

With seven entrance gates, Oak Ridge may have been one of the nation's first gated communities. Elza Gate was the easterly gate serving the highway to Clinton.



Graphite Reactor



Elza Gate

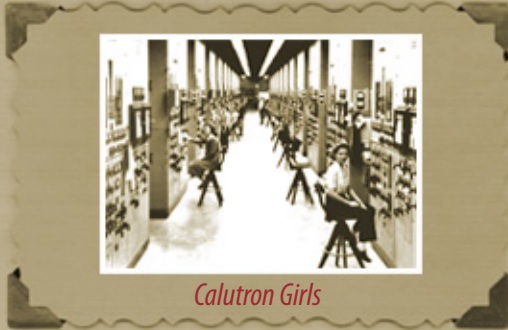


Guard inspecting vehicle



Santa Claus passes inspection

The important work at Y-12 required hiring more than 22,000 people to work on 1,152 Calutrons (CALifornia University cycloTRONS). Because most young men were away at war, young women were hired to operate the Calutrons.



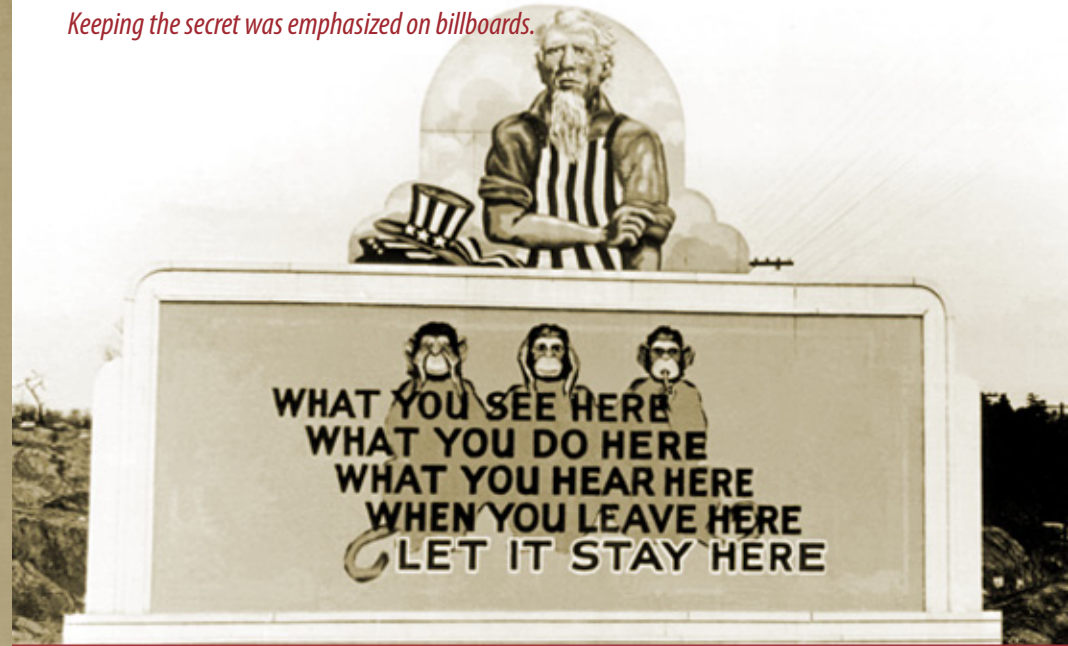
Calutron Girls

Additionally, a large contingent of the Women's Army Corps served in Oak Ridge during the war.

Women's Army Corps



Keeping the secret was emphasized on billboards.



Oak Ridge, along with the rest of the world, learned the secret on August 6, 1945. Local newspapers reported the world's first atomic bomb used in warfare was exploded over Hiroshima, Japan, and the Uranium 235 for Little Boy was produced in Oak Ridge.



Ed Westcott's famous "War Ends" photograph

Ed Westcott was there to record the emotional and awestruck reaction when the newspapers hit newsstands.



Mike, the first hydrogen bomb of the Cold War

Soon after the end of World War II another war began, the Cold War. Oak Ridge played a vital role here as well.



Tower Shielding Reactor

While Y-12 and K-25 concentrated on the Cold War, the Oak Ridge National Laboratory (X-10) expanded into biological research, stable isotope separation and medical isotope creation, reactor design development, and even experiments in the creation of a nuclear-powered airplane.



Oak Ridge Bombers

Not all that happened in Oak Ridge was work related. A semiprofessional, all black baseball team existed from 1946 to the 1960s – the Oak Ridge Bombers.

CONCLUSION

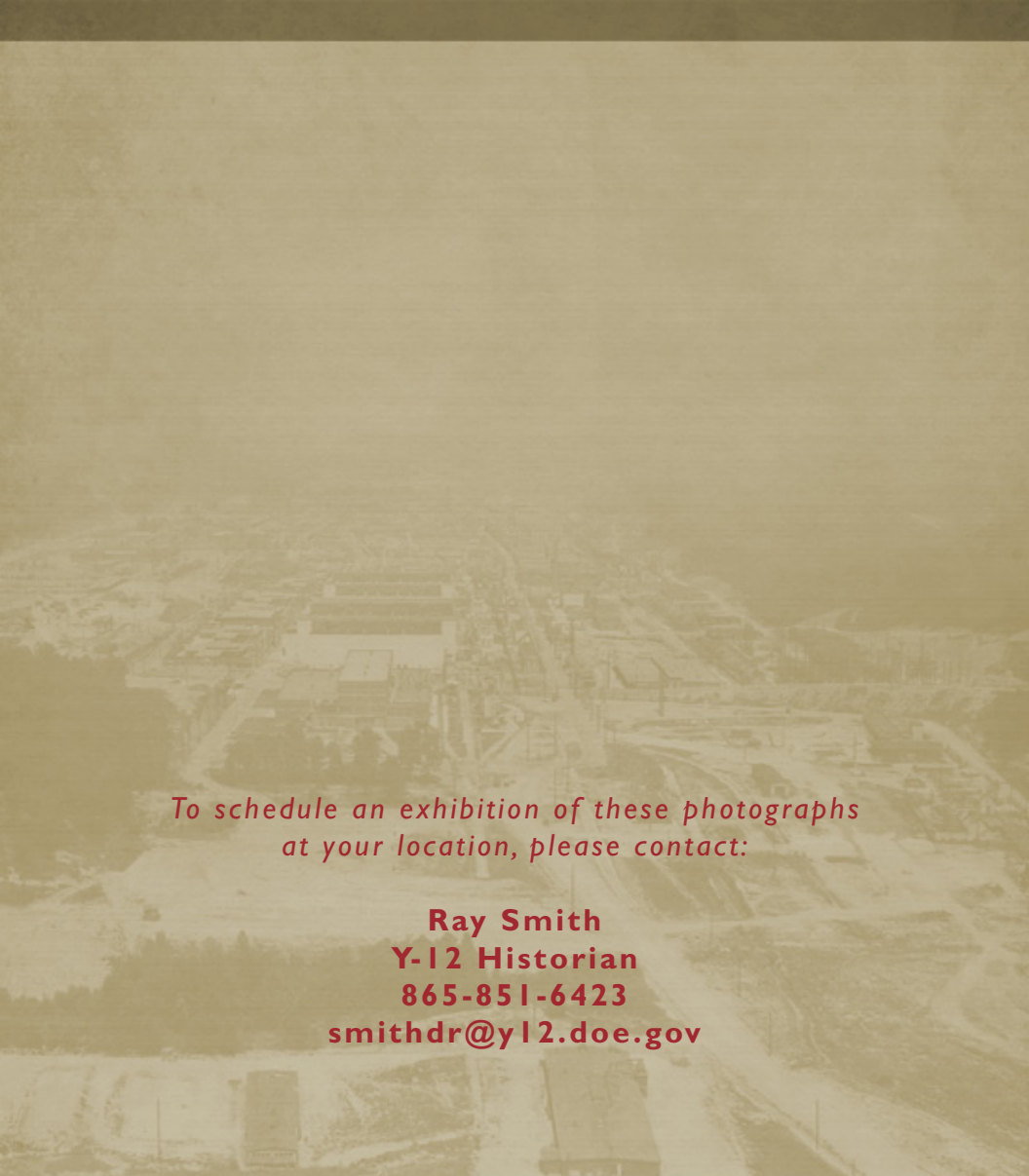
Oak Ridge's history, while brief as histories go, is replete with significant accomplishments and technical achievements. People all over the world have benefited from Oak Ridge discoveries.

Born of war, dedicated to science and striving to maintain peace, Oak Ridge's heritage is unique. The world is safer because of Oak Ridge.

This exhibit of photographs depicting Oak Ridge's history is intended to give the viewer a glimpse of history in the making. It is created as a traveling exhibit that can be displayed in various settings and may contain fewer images if space is limited. The overall impression of technological advances resulting from the Manhattan Project can be seen in the images selected for each exhibit.

At the time of construction, K-25 was the world's largest building under one roof. Here, workers separated the Uranium 235 used in the nation's nuclear weapons.





*To schedule an exhibition of these photographs
at your location, please contact:*

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For more insights into the history of Oak Ridge, visit the American Museum of Science and Energy at 300 South Tulane Avenue, the Y-12 History Center at the New Hope Center at 602 Scarboro Road, or the K-25 overlook at the East Tennessee Technology Park. The DOE Public Tour runs from June through September and takes visitors to all three of the above sites plus the Spallation Neutron Source and the Graphite Reactor at the Oak Ridge National Laboratory.

