ATOMIC HERITAGE FOUNDATION
Preserving & Interpreting Manhattan Project History & Legacy

COMMEMORATING THE MANHATTAN PROJECT

ANNUAL REPORT 2012
A GREAT HUMAN COLLABORATION

Manhattan Project ‘Voices’ retelling story of bomb
By Russell Contreras, Associated Press
November 30, 2012

From living in a top-secret city on a mesa in northern New Mexico to smuggling a suitcase packed with alcohol into a dry federal research lab in Tennessee, some of the lesser-known stories behind the nation’s effort to develop the atomic bomb are now available online.

The Atomic Heritage Foundation and the Los Alamos Historical Society say the “Voices of the Manhattan Project” website is aimed at creating a central repository for the oral histories surrounding the tightly guarded World War II-era project.

From testimonies about personal moral dilemmas on dropping the bomb to a glassblower talking about helping a frustrated Nobel Prize-winning physicist change a flat tire, the interviews seek to give a social history of the Manhattan Project.

“These were real people just doing their jobs and trying to end the war,” McClenahan said.

Top: James Forde’s CBS ID from after the war. During the Manhattan Project, Forde, only a teenager, worked in the Nash Garage Building. He was the only African-American in the midst of PhD scientists.
Middle: Patricia Cox Owen, who served under General Leslie Groves, receiving an award from Groves for her work in the Manhattan Project in March 1947.
Bottom: William Spindel, a physical chemist who worked on plutonium and uranium at Los Alamos.

Front cover: AHF President Cindy Kelly with Senator Tom Udall (D-NM) and Heather McClenahan, Executive Director of the Los Alamos Historical Association. Photo courtesy of the office of Senator Tom Udall.
Back cover: Kirk Christensen, Manager, B Reactor Preservation Project, with Delbert Ballard, a member of the B Reactor Museum Association, in the control room at the B Reactor.
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RECENT CONTRIBUTIONS

The AHF would like to recognize the following who have generously contributed to our efforts in 2012:

The M. J. Murdock Charitable Trust ♦♦♦♦

Clay Perkins ♦♦♦

The National Science Foundation ♦♦

City of Richland ♦

The Institute of Museum and Library Services ♦♦

The B Reactor Museum Association ♦

The Kerr Foundation ♦

♦♦♦♦ $100,000 and up   ♦♦♦$50,000 and up   ♦♦ $25,000 and up   ♦ $10,000 and up
Dear Friends:

This year, as the youngest veterans of the Manhattan Project are celebrating ninetieth birthdays, the Atomic Heritage Foundation is celebrating eleven years devoted to preserving the history of the Manhattan Project. After coming close to having legislation in the 112th Congress, we have high expectations that the 113th Congress will enact the Manhattan Project National Historical Park. With strong advocates in both the House and Senate, we expect that the legislation will be reintroduced and move forward quickly.

In the last Congress, critics of a Manhattan Project National Historical Park contended that the park would “celebrate the atomic bomb.” The National Park Service will not glorify the atomic bomb any more than it glorifies the gruesome battles of the Civil War, where 600,000 lives were lost. Instead, it will help Americans understand the Manhattan Project in the context of World War II, American and world history, science and society, for better and for worse.

Historic properties are important tangible links to the Manhattan Project. Sadly, on January 23, 2013, we lost the entire K-25 gaseous diffusion plant despite ten years of effort to save a representative sliver. As the National Park Service’s report on March 23, 2012 stated: “The K-25 building has no substitute…[The] historic structure gives visitors of all levels of knowledge a sense of “being there” that reproductions cannot fully emulate…Thus, while the present physical condition of the building may argue for its total demolition, the tremendous historical significance of K-25 argues for the opposite.”

A silver lining in this historic loss is the Department of Energy’s agreement to provide a $500,000 grant for the East Tennessee Preservation Alliance (ETPA) to purchase and partially stabilize the Alexander Inn, also known as the Guest House. Built in 1943 to accommodate visiting dignitaries, the property was closed in the mid-1990s and rapidly deteriorated. Fortunately, it will be restored as a senior living center, saving at least one of Oak Ridge’s iconic Manhattan Project properties.

The Manhattan Project can also be preserved through the voices of the participants. Over the last decade, we have preserved the oral histories of over 130 Manhattan Project veterans and hope to record dozens more this year. Last fall, we launched “Voices of the Manhattan Project,” a new website developed in partnership with the Los Alamos Historical Society. We are now reaching out to other sites to create a central repository and directory for Manhattan Project oral histories. Be sure to check out manhattanprojectvoices.org.

Thanks to Manhattan Project veterans and their families, communities of Los Alamos, NM, Hanford, WA and Oak Ridge, TN, and friends across the nation, we can create a Manhattan Project National Historical Park. Onward!

Sincerely,

Cynthia C. Kelly
President
In 2013, the youngest veterans of the Manhattan Project are celebrating ninetieth birthdays. Now is the time for Congress to enact the Manhattan Project National Historical Park. What happened in the 112th Congress and what can we expect from the 113th?

All bills such as the Manhattan Project National Historical Park Act that are not enacted by the end of a Congress are officially “dead.” This fate is shared by more than 90 percent of all legislation. To be considered in the 113th Congress, the sponsors of a bill must introduce it again.

The Oppenheimer House, which could become the “jewel in the crown” of the new park at Los Alamos.

The Manhattan Project legislation will probably be revived early in the first session. In the 112th Congress, staff spent nearly 18 months drafting the bills before they were introduced in June 2012. This time the committee staff can move much more quickly. Ideally, the differences between the House and Senate versions can be ironed out before the bills are reintroduced.

In the 112th Congress, the House and Senate subcommittees held back-to-back hearings on June 27 and 28, 2012. Both subcommittees approved and sent the bills to their respective committees for action. The House Natural Resources Committee passed the bill by unanimous consent on July 11, 2012.
On September 9, 2012, the House failed to get the two-thirds needed to pass the bill on a motion to suspend the rules. Leading the opposition was Representative Dennis Kucinich (D-OH) who strongly attacked the park claiming it would “celebrate” the atomic bomb and cost too much ($21 million over five years). The bill did receive a majority (55 percent) voting in favor which is sufficient to pass under normal procedures.

With the setback in the House, Congress essentially ran out of time to take the legislation forward. For the last thirty years, the Senate has packaged a number of park bills together rather than consider them one-by-one. But no omnibus public lands package emerged from the Senate last Congress. Only one new park was enacted and that was essentially a name change as the Pinnacles National Monument became the Pinnacles National Park.

Senator Ron Wyden (D-OR) takes over from Senator Jeff Bingaman (D-NM) as Chair of the Energy and Natural Resources Committee and has indicated his support for the legislation. The Manhattan Project delegation will be well represented on the committee with Lamar Alexander (R-TN), Maria Cantwell (D-WA) and Martin Heinrich (D-NM). All three have been very supportive of the park.

With the continued support of the Departments of Interior and Energy, the Manhattan Project communities and many others around the country, the prognosis is very good that the 113th Congress will enact the Manhattan Project National Historical Park. Stay tuned!
HANFORD, WASHINGTON

Recent Updates

The Department of Energy received a $5 million allocation to preserve and restore buildings at Hanford. The funds will go towards a new roof for the B Reactor. The grant will also restore pre-war sites, including the Bruggeman Ranch building and the White Bluffs Bank. Nearly 10,000 visitors from 59 countries and 50 states toured the B Reactor in 2012 alone. If the Manhattan Project Park is established, Hanford could receive 150,000 tourists per year, and these pre-war sites could attract many visitors.

LOS ALAMOS, NEW MEXICO

Recent Updates

Phase II of the restoration of the Gun Site was completed in 2012. This phase of the project involved verifying that the roof was sound and not leaking. The next phase, funded by the government and Clay and Dorothy Perkins, will restore the bunker-like buildings, a 45-foot periscope tower, and a Naval cannon and their housings. The Los Alamos Historical Society is currently building a new archives to house its many photographs, documents, and other materials from the Manhattan Project era.

OAK RIDGE, TENNESSEE

Recent Updates

Unfortunately, despite the best efforts of AHF and other historic preservation groups, the Department of Energy deemed saving a portion of the K-25 plant to be “imprudent” as the work would be “unsafe” and “too costly.” The demolition of K-25 was completed on January 23, 2013. Fortunately, the historic Alexander Inn, which was nearly condemned a few years ago, will be restored and converted into a senior assisted living center.
The Atomic Heritage Foundation is developing new exhibits for the B Reactor at Hanford, WA. Collaborating with the B Reactor Museum Association (BRMA), AHF is contracting with Lockheed Martin Services to design and construct two new models to be displayed at the B Reactor, beginning in April 2013. The exhibits are funded thanks to grants from BRMA, the City of Richland, Clay and Dorothy Perkins, and the M. J. Murdock Charitable Trust.

The first model will help visitors understand the importance of the Columbia River and the dozens of auxiliary buildings that once surrounded the B Reactor. The 8’x8’ model will show what the site looked like in 1944 with 20 buildings surrounding the reactor. Lights on the model will trace the flow of water from the Columbia River, through several pump and treatment buildings, to the reactor and back into river.

The second model will enable visitors to understand the precision associated with the “pile” of graphite blocks and process tubes that held the fuel. The exhibit will display some 1940s vintage graphite blocks as if they were in installed in the core of the reactor. Panels will explain how exacting the engineering of the blocks was to ensure the smooth operation of the reactor.

A series of video vignettes will complement these two exhibits so that visitors can learn more about the reactor and what it took to design, build and operate it successfully. Working with BRMA and others, AHF hopes to augment the current vignettes with approximately 25 more.

In September, AHF staff, along with videographer Jeffrey Nalezny of Nalezny Productions, traveled to Hanford to film interviews for the vignettes. Cindy Kelly interviewed BRMA members Del Ballard, Hank Kosmata, and Gene Woodruff on the history of the B Reactor, the importance of the Columbia River on cooling the reactor, and the science behind the graphite for the reactor.

Kelly also interviewed a dozen Manhattan Project veterans and their children. These interviews will also be featured in the vignettes, and will be uploaded to our “Voices of the Manhattan Project” website.

Assuming that Congress designates a Manhattan Project National Historical Park in the near future, there could be as many as 150,000 visitors to the B Reactor and the Hanford site annually over the coming decade. These exhibits will be important resources to help visitors understand the challenges of the project.
In anticipation of the proposed Manhattan Project National Historical Park, the Atomic Heritage Foundation has released two new guidebooks in 2012.

*A Guide to the Manhattan Project in New Mexico* was first published in 2010. After selling out the original print run, Clay and Dorothy Perkins generously donated funds for publishing an expanded version of the guidebook. The second edition is eight pages longer and includes new photographs and oral history excerpts.

The guide gives a full-color preview of attractions that will be included in a new Manhattan Project National Historical Park and provides an engaging history of Los Alamos, where the first atomic bombs were developed.

In 1942, Oppenheimer chose the isolated Los Alamos Ranch School site for the top-secret Manhattan Project laboratory. By early 1943, dozens of the world’s greatest scientists were living and working there. The selection of Los Alamos allowed Oppenheimer to combine his two great loves: physics and New Mexico.

The guidebook profiles the sites where the first atomic devices, nicknamed the “Gadget,” “Little Boy,” and “Fat Man,” were developed and assembled. The Los Alamos National Laboratory has restored the “V-Site,” where the Manhattan Project scientists worked preparing the Gadget that was tested at the Trinity Site.

One section features the Trinity site. Drawing upon AHF’s oral history collection, interviews with Manhattan Project veterans convey the tension that preceded the test and the relief and apprehension that followed. Donald F. Hornig’s story of babysitting the bomb on the tower during the violent thunderstorms on the eve of the test is a classic.

Secrecy defined life at Los Alamos. The single mailing address, P.O. Box 1663, aroused suspicions of Sears & Roebuck clerks fulfilling orders for a dozen bassinets. At La Fonda, scientists were served by FBI agents posing as bartenders who monitored their conversations to make sure no secrets slipped.
The Manhattan Project is usually associated with J. Robert Oppenheimer and the laboratory at Los Alamos, NM. But the first offices of the Manhattan Project were actually in Manhattan, at 270 Broadway. So the Army Corps of Engineers called it the Manhattan Engineer District (MED) or the "Manhattan Project."

“What’s most interesting is that there was an incredible amount of top-secret activity that happened all around Manhattan. Who would believe that 5,000 were working on the project? General Leslie Groves, who directed the entire project, came here nearly 50 times in three years,” commented Robert S. Norris, co-author of the guide and author of Racing for the Bomb.

The second edition of A Guide to the Manhattan Project in Manhattan gives a full-color, in depth look at ten sites that figured in the unfolding of the Manhattan Project during World War II. For example, the stately Woolworth Building was home to the Kellex Corporation, an entity of M. W. Kellogg, responsible for the massive gaseous diffusion plant known as “K-25” built in Oak Ridge, Tennessee. The Woolworth Building also was home for a time to scientist members of the British Mission—including the infamous Klaus Fuchs.

At Columbia University, Nobel Prize-winning scientist Enrico Fermi and his colleagues carried out cutting-edge research. On January 25, 1939, in the basement of Columbia University’s Pupin Hall, physicists used a cyclotron or “atom smasher” to replicate the recently discovered phenomenon of nuclear fission—the first time fission was witnessed in the United States.

For a critical period of time, New York City was where high-grade uranium ore from the Belgian Congo was stored. Edgar Sengier, director of a mining company in the Belgian Congo, fled Belgium just before the Germans invaded. To keep the ore in the Congo out of German hands, he shipped nearly 1,250 metric tons of uranium ore—half the uranium stock available in Africa—to Staten Island. A critical ingredient in making an atomic bomb, the ore was a fortuitous windfall for the Manhattan Project.

In April 1945, Groves asked the managing editor of the New York Times, then headquartered in the Times Square Building, to provide William L. Laurence to write about the project. From his unique position, Laurence witnessed key historic moments, including the Trinity test on July 16, 1945 and the Nagasaki bomb on August 9, 1945.

Publication of A Guide to the Manhattan Project in Manhattan was funded thanks to grants from the Fred J. Brotherton Charitable Foundation, Furthermore: a program of the J. M. Kaplan Fund, and the M. J. Murdock Charitable Trust.
In November, the Atomic Heritage Foundation and the Los Alamos Historical Society launched “Voices of the Manhattan Project,” a website featuring our oral history collections of Manhattan Project and their families.

The Manhattan Project was a great human collaboration. Participants included recent immigrants who fled anti-Semitism in Europe, young men and women straight from high school or college, and numerous Hispanics, Native Americans, and African-Americans. Some 125,000 people worked in secret locations in communities developed by the government for the sole purpose of the project. Most surprisingly, very few knew that they were working on an atomic bomb.

This website captures the stories of Manhattan Project veterans and their families. The oral histories offer a variety of perspectives on the project. Some Native Americans discuss the government’s displacement of the tribes from their ancestral lands in Hanford, WA. In others, Pueblo Indians talk about the impact of the government project on their ancestral traditions and economy. Some interviews are just fun, talking about how the young people blew off steam by hiking and skiing in Los Alamos, dancing and bowling in Oak Ridge, and engaging in a meatball mess hall battle in Hanford.

The prospect of creating a park at the three major sites of Los Alamos, NM, Hanford, WA and Oak Ridge, TN has galvanized interest nationwide in the Manhattan Project and its legacy. Media outlets around the country have published articles on “Voices of the Manhattan Project,” including an Associated Press piece, “Manhattan Project ‘Voices’ retelling story of bomb” that appeared nationwide. Other outlets that have covered the website include the Los Alamos Monitor, the Tri-City Herald, the Knoxville News Sentinel, and the Santa Fe New Mexican.
Our interviews range from Jack Aeby, who took the only color photograph of the first atomic bomb test at Trinity; to Donald Trauger, who worked with Harold Urey and John Dunning at Columbia University on uranium enrichment; and to young scientists such as Becky Diven who worked on the bomb at the Los Alamos scientific laboratory. These interviews highlight the many challenges of the Manhattan Project from living in secret cities to solving complex problems with slide rules, the “high-speed computers” of the day.

One of the website’s features is an interactive map pinpointing the key Manhattan Project sites, with fascinating information and photographs of each site. The website is easily navigable, with a search bar, filters, and tags for organization.

“Voices of the Manhattan Project” is a work in progress. We are currently digitizing and transcribing dozens of interviews and will be adding them to the current collection on a regular basis. We also will be working with other organizations around the country to encourage them to add their oral histories to the website. Our goal is to have “Voices of the Manhattan Project” serve as a central repository for Manhattan Project era oral histories.

This project was funded by grants from the Institute of Museum and Library Services, the Kerr Foundation, and the M. J. Murdock Charitable Trust.

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**ORAL HISTORY EXCERPTS**

**Colleen Black (Oak Ridge):**
“We couldn’t wear nylon hose; the nylons were going to make parachutes. So it was very difficult to be glamorous. We tried. We had leg makeup and would paint our legs to look like we had on hose. We’d take our eyebrow pencils and draw the seam up the side because that was the fashion then. But if it rained, look out!”

**Jack Aeby (Los Alamos):**
“We organized a four-day pack trip with Bences [Gonzales], camp cook. When we came back over the mountains and into the general area of the S-site, lo and behold the end of the war occurred. Just as we topped that hill and came down through the woods, [George] Kistiakowsky decided to celebrate by setting off all the scrap TNT he had out there at the S-site: ‘KABOOM, KABOOM, KABOOM!’”

**Veronica Taylor (Hanford):**
“The Columbia River has played a very important part of our [the Nez Perce tribe] life. I remember the very first time that I saw it, I was just floored by the size of the Columbia River when we used to come down here and camp. I was just a very small young girl, and we used to camp along the riverside.”

**Bill Wilcox (Oak Ridge):**
“I accepted an interview with Eastman Kodak Company. The Eastman Kodak guy that was interviewing me gave me the General Groves treatment! I asked him, ‘Where will I be working?’ ‘I can’t tell you.’ ‘What kind of work will I be doing?’ ‘It’s going to be war work.’ I said, ‘What kind of chemistry will it be? Organic, inorganic, physical?’ ‘No, can’t tell you. Secret! Secret, secret, secret!’”
NSF GRANT AWARDED

The Atomic Heritage Foundation is pleased to announce that we have been awarded a grant from the National Science Foundation to hold a conference in February 2013. The topic of the conference will be “Transforming the Relationship between Science and Society: The Manhattan Project and Its Legacy.”

The two-day conference will bring together leading scholars, researchers and informal science education professionals to explore new ways to engage the public in issues at the interface of science and society. The conference will consider recent scholarship about the Manhattan Project and determine how the issues of science and society raised by the development of the atomic bomb can inform and be integrated with contemporary issues.

ANTHOLOGY

The Manhattan Project: The Birth of the Atomic Bomb in the Words of Its Creators, Eyewitnesses, and Historians, was edited by AHF President Cindy Kelly. Pulitzer Prize-winning historian Richard Rhodes wrote the introduction. On June 1, Amazon selected The Manhattan Project as the Kindle Book of the Day! As a result, the Kindle edition shot up to seventh on all Kindle books sold.

The anthology includes seminal historical documents, first-hand accounts, personal recollections, and excerpts from nonfiction and literary accounts. The Manhattan Project is a terrific way to learn about the top-secret program to build the first atomic bomb, life in the “Secret Cities,” and the legacy of the Manhattan Project.

NEW PROGRAM MANAGER

In January 2012, AHF welcomed our new Program Manager Alexandra Levy. Alexandra received her B.A. in history from the University of Pennsylvania in 2009 and an M.A. in history from the University of Virginia in 2012. Her studies focused on World War II, and her master’s thesis explored the relationship between German public opinion and the termination of the denazification program in the American zone in postwar Germany.

At AHF, Alexandra has directed the Manhattan Project oral history project and managed Facebook and Twitter, publications, student interns, and office administration.

SOCIAL MEDIA

AHF is now on Facebook & Twitter. You can find our Facebook page at Facebook.com/AtomicHeritage-Foundation, and on Twitter @AtomicHeritage.

Follow us to read daily updates on the history of the Manhattan Project and its legacy. Drawing from our Atomic Timeline, we post historical “On This Day” updates exploring the milestones of the Manhattan Project. We strive to create a picture for our followers of the many challenges Manhattan Project scientists and engineers overcame, and the speed with which the Manhattan Project came together and was completed. We also post links to interesting articles and events on nuclear history and contemporary nuclear issues.

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Thank you for your interest!
SUPPORT AND PRODUCTS

The Atomic Heritage Foundation Needs You!

The Atomic Heritage Foundation is working to preserve properties of the Manhattan Project, capture oral histories, and ensure that this history and its lessons for today are not forgotten. Most importantly, we are working towards a Manhattan Project National Historical Park. Please consider supporting our efforts and write a check to “Atomic Heritage Foundation” or donate online. To find out more, call 202-293-0045. Thanks very much!

BOOKS AND PUBLICATIONS

AHF has published a variety of books and educational resources on the Manhattan Project. All of these publications are available through our online store and on Amazon.com.

• The Manhattan Project: The Birth of the Atomic Bomb in the Words of its Creators, Eyewitnesses, and Historians
• Remembering the Manhattan Project: Perspectives on the Making of the Atomic Bomb and its Legacy
• Oppenheimer and the Manhattan Project: Insights into J. Robert Oppenheimer, “Father of the Bomb”
• A Guide to the Manhattan Project in New Mexico
• A Guide to the Manhattan Project in Tennessee
• A Guide to the Manhattan Project in Washington State
• A Guide to the Manhattan Project in Manhattan

FILMS AND MULTIMEDIA

AHF has also produced a number of documentary films and multimedia on the Manhattan Project. Products available on our online store include:

• The Uncommon Man: Crawford H. Greenewalt
• A Sense of Place: Preserving the Manhattan Project at Los Alamos
• Hanford’s Secret Wartime Mission
• General Leslie Groves
• Nuclear Pioneers: Creation of the Experimental Breeder Reactor-I
• Race for the Atomic Power: The Story of the National Reactor Testing Station in Idaho Falls
• Interviews with Manhattan Project Veterans, Volumes I, II, and III

For more, check out our YouTube page online.