

Nuclear Tourism and the Manhattan Project

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Abstract

Upon the opening of the nuclear age, the public has become enthralled in everything atomic. From fears to fascinations, the sheer power of nuclear weapons has drastically altered the world we live in. Films and books on the topic have traditionally served as cultural indicators of the importance of this scientific and technological development. Besides these usual avenues, the public now has another way to embrace the history of the atomic age—through nuclear tourism. Throughout the world, sites where governments tested atomic bombs and where scientists performed groundbreaking research on atomic energy are now becoming tourist destinations. In the United States especially, museums dedicated to telling the history of nuclear developments and legacies of the arms race and the cold war are also being created and visited at an astonishing rate. Public interest in these sites parallels the increasing interest in preservation and heritage tourism that has swept across the United States in recent years. This paper explores the emergence of nuclear tourism and how Americans across the country have embraced this phenomenon. While so many Americans look at their vacation as a time to escape the real world, others face reality head on by looking back at a time period in history that drastically altered the world.

Introduction

When planning a vacation, many Americans flock to the ocean, others choose to take a cruise in the Caribbean, while some head for Disneyland. But in increasing numbers, families and individuals of all ages are headed to small isolated towns, in the middle of the Tennessee mountains, the New Mexico mesas, and Washington State's Columbia basin. While these destinations would not seem to be typical tourist attractions, their connections to the history of the Manhattan Project intrigue visitors and draw larger crowds each year. Tourists come from all across the country to get a glimpse of these secret cities, learn about the birth of the atomic age, and stand where history was made.

This new phenomenon, often called nuclear tourism, is continuing to expand and develop. As we move further away from the Cold War and as more sites are threatened with demolition, concerned citizens and the local and national government are recognizing the need to commemorate this important period in history. In the secret cities themselves, residents are rallying around their past with a sense of civic pride and interest in promoting tourism to their area. Many realize the revenue that increased tourism can bring to their city. In the case of Los Alamos, New Mexico and Oak Ridge, Tennessee, its connection to the atomic past has attracted tourists for years. Hanford, Washington is slowly emerging as a tourist destination, as facilities are being decontaminated from years of plutonium production, and as the local communities are working to preserve the remaining historic buildings. With concerted collaborative efforts to continue the preservation and promotion of the atomic past, the potential of these unique sites to become hubs of nuclear tourism will be realized.

This paper will discuss this new phenomenon as seen through the three secret cities of the Manhattan Project. The various tourist destination spots in these cities illustrate the ways that

the history of the atomic age is being presented to the public and how nuclear memory is being preserved. To understand how history is being presented at these locations, the historic sites and artifacts must first be preserved. This paper also surveys the current efforts to save the remaining physical structures of the Manhattan Project for public consumption, through the work of groups like the Atomic Heritage Foundation. By recognizing the efforts that have already preserved historic structures, much can be learned about how to proceed in the future. But first, this paper will explore how and why this trend towards nuclear tourism has recently emerged.

Promoting the Past

Nuclear tourism is a growing subset of the heritage tourism phenomenon, which has dramatically increased over the past several decades. There is nothing more authentic than visiting a historic site and standing in the place where history was made. Tourists have recognized this, consistently visiting historic sites and museums while on vacation. Now they are adding sites related to the history of the nuclear age to their itineraries. One study cited in *The Tourist-Historic City: Retrospect and Prospect of Managing the Heritage City* indicates a shift in tourism trends, from an interest in “escapism” vacations that are “typified by luxury expenditures” in the 1980s, to an interest in “enrichment” vacations in the 1990s.¹ Furthering the idea of a growing interest in enrichment vacations, a recent Travel Industry Association of America report shows that nearly 93 million Americans say they include some type of historical or cultural activity in their vacationing each year.² This increased interest in cultural and historic sites has helped to direct attention toward preservation issues, and now, historians and preservationists have joined with the government to safeguard America’s nuclear heritage. Heritage tourism is unique because it can:

be a vehicle for conservation and preservation of heritage; it can create interest and appreciation that may become a catalyst in its protection. Moreover the interest of outsiders in heritage may also galvanise [sic] local residents to act to protect a place once they realise [sic] that the heritage has cultural or historical significance, or at least has proven its economic value.³

Because of heritage tourism's ability to create interest among visitors and to provide enriching experiences, it is imperative that historians be involved in the preservation and interpretation of sites to ensure accuracy and authenticity. Patricia Mooney-Melvin argued in the early 1990s when the heritage tourism industry was beginning to expand, "historians should seize the opportunity to influence the heritage part of the equation."⁴ Since then, historians and preservationists have joined with the government to preserve America's past.

As heritage tourism is promoted from the national government down to the local level, it is crucial to explore how this phenomenon is developing within the historic sites themselves. One study notes that it is difficult to assess the importance of historic sites as visitor attractions, mainly because there is very little accurate information on who these visitors are and what their motivations are for visiting such a site.⁵ Historic sites do not always keep attendance records and those that do reflect visitors who either sign a guest book or pay for tour. James Makens' research reveals that many sites are out of touch with their visitor population and suggests greater attention needs to be directed towards outreach and publicity to encourage heritage tourism.⁶

The National Trust for Historic Preservation (NTHP) created a program in 1990 to do just that. The National Trust Heritage Tourism Program, a "fee-for-service assistance" program, created five principles to guide relationships between heritage and tourism—1. Collaboration; 2. Finding the proper fit between the community and tourism; 3. Making sites and programs come alive; 4. Focusing on authenticity and quality; 5. Preserving and protecting the site. These

five principles have helped guide many sites, in addition to the consultations that the NTHP provides. Learning how to promote and market oneself is crucial to the “tourism” aspect of the equation, a notion William Alderson reminds in a section of his article titled “Shout it from the Rooftops.” “The survival of a tourism site,” he writes, “depends on its marketing success.”⁷ The presence of an organized body like the NTHP, with the resources to help these places improve their programs and publicity, is indicative of the positive direction that heritage tourism is taking in the twenty-first century.⁸

Nuclear tourism, as well as the entire tourism industry, is also growing in large part thanks to the Internet. Two web sites in particular are helping to promote the many locations related to the Manhattan Project. The Bureau of Atomic Tourism web site (www.atomictourist.com) is dedicated to “promoting tourist locations around the world” that are sites of atomic explosions, that display related exhibits, or contain the vehicles designed to deliver atomic weapons. While the name of this site sounds official, it is not related to any government agencies or tourism organizations. This site is maintained by someone interested in sharing the history of the nuclear age with the public.⁹ While the mission statement of this site claims to promote locations around the world, the vast majority are sites here in the United States. Not all the links work, however the site received good ratings by the Wall Street Journal, Entertainment Weekly, and the Seattle Times when it first debuted almost ten years ago.¹⁰ Further legitimating the Bureau of Atomic Tourism is the presence of its link on sites like the Los Alamos National Laboratory web page, the Bulletin of the Atomic Scientists web page, the UT-Austin Nuclear and Radiation Engineering Program’s web page, and The Harvard Project on Cold War Studies web page.¹¹ The fact that such a web site even exists is proof of the growing interest in nuclear tourism.

Also helping atomic tourists plan their vacations is a new CD-ROM book entitled *The Traveler's Guide to Nuclear Weapons*, which is promoted through its web site (www.atomictraveler.com). This multimedia device provides people with maps, photographs, tour schedules, and contact information for various nuclear history sites.¹² The authors of this guidebook have extensive scientific and environmental backgrounds and explore both the history of nuclear weapons and the sites that created and tested them. Their extensive list includes 160 important homes, offices, labs, factories, mills, and bomb detonation sites in U.S. alone. With so much information provided, as its publicity claims, anyone can “visit these historic locations, vicariously or in person.”¹³ The CD-ROM book has been reviewed in a favorable manner like the Bureau of Atomic Tourism web site. Tom Vanderbilt, author of *Survival City: Adventure Among the Ruins of Atomic America*, wrote that the book is “an invaluable mapping of the secret, forgotten, and hidden-in-plain sight infrastructure of the national defense landscape.”¹⁴ The complimentary responses this CD-ROM book has received seem to indicate that there is a need for something like this and that such a book is truly providing a great service to the many who wish to tour the nuclear landscape.

These two web sites illustrate how both the general public and scholars are recognizing the importance of the Manhattan Project facilities. This phenomenon is not relegated to an isolated portion of the population; instead, it is becoming more prevalent each year. The age of the baby boomer generation today lends itself to a possibility for increases in heritage tourism. As they reach middle age, most have the expendable income necessary for travel, and as studies have shown, many are in line with the demographics of individuals who visit museums and historic sites while on vacation.¹⁵ With a built-in audience ready to share the history that shaped their generation with their own children, historic sites and museums that present the history of

the atomic age are prime tourist destinations. However, most of the museums and sites do not have the funds to publicize their offerings, and rely mostly on tourist guidebooks, web sites, and word of mouth. Nevertheless, with greater collaborative efforts, these important places will be preserved, making these sites more accessible as tourist attractions.

Preserving the Nuclear Landscape

In the spring of 2004, residents of Los Alamos and Santa Fe, New Mexico, Oak Ridge, Tennessee, and Richland, Washington came together with members of the Atomic Heritage Foundation to discuss their past and their future. On the agenda of these public meetings was the preservation of the nuclear history in their surrounding areas. The Atomic Heritage Foundation (AHF), a nonprofit corporation dedicated to “preserving the history of the Manhattan Project and the Atomic Age,” received a grant from the Department of Energy (DOE) to prepare recommendations for preserving the history and sites related to the Manhattan Project.¹⁶ In response to concerns that the physical remnants of the Cold War are being destroyed, the AHF has helped to mobilize a committed group of state and local governments, politicians, preservationists, and concerned citizens. With a combination of governmental and grassroots efforts, the push to salvage what is left of the country’s nuclear landscape is quickly gaining momentum.

Thus far, some sites remain in fairly good condition. Their current state lends them to further preservation, increased interpretation, and greater access for the public. With the attention that the AHF recommendations direct towards sites at the three main research centers related to the Manhattan Project—Los Alamos, Oak Ridge, and Hanford—their future historical integrity will be addressed. At the Los Alamos National Laboratory, since 9/11, security measures have prevented full access to the public. There have been other obstructions to

preserving the remaining significant Manhattan Project buildings at Los Alamos. In 2000, the Cerro Grande fire destroyed some of the properties and created the need for a new restoration plan.¹⁷ At the Oak Ridge National Laboratory, the X-10 Graphite Reactor and the Y-12 Beta 3 Calutrons have already been acknowledged as National Historic Landmarks. However, since the sites are also located on the grounds of a National Laboratory, public access has been restricted.¹⁸ In Hanford, Washington, the remaining buildings that produced plutonium for the atomic bomb are especially threatened as clean-up efforts put such facilities in jeopardy. The Department of Energy (DOE) has partially restored the B Reactor, however unless a long-term management and care solution is created, the DOE plans to entomb the building. This process would “destroy the historic value and eliminate the public use of the building.”¹⁹

The Trinity site in New Mexico has also been recognized through national historic site and national historic landmark designation. The extreme importance of the Trinity site as the birthplace of the atomic age is obvious, reiterated by its designation as a National Historic Landmark in 1965. However having landmark status does not ensure its survival. The National Historic Landmarks Program brochure states that “[t]he federal government has no power to make owners maintain their property, even if it is important to the heritage of all of us.”²⁰ The Department of Defense now owns the site and limits public visitation to two days each year. While one would expect the Department of Defense to recognize and maintain the property, comprehensive efforts have not yet been taken to ensure its continued preservation.

Since the Manhattan Project and the development of the atomic bomb will probably always be seen as an integral part of American and world history, it is crucial that the few physical remnants be preserved while there are still sites left to save. After the Cold War ended, the DOE shifted its focus from weapons research and development to demolishing the surplus

properties that they no longer needed. It also began cleaning up the environmental damages caused by the years of nuclear research and weapons production across the U.S.²¹ An inventory was taken of the important “resources and relics” related to the Cold War, as mandated by the Defense Appropriations Acts of 1991, however no study has been done exploring how the resources can be preserved and interpreted.²² Congress’ recent grant to the AHF is one attempt to rectify such problems.

Because the Cold War is so fresh in most American’s minds, these sites have not been as “fully appreciated as they will be in the future,” notes Cold War researcher Don Bender.²³ For many, the Cold War does not necessarily resonate as a historical event, yet. In addition, many of these building are not over fifty years old, the cut off date for any National Register of Historic Places designation. Another obstacle to the preservation of Cold War sites is the architectural style employed in these buildings and landscapes. The government built these buildings quickly with one thing in mind—functionality—and therefore there is little aesthetic nature to these structures. The sites of atomic test explosions also suffer a similar fate. The Associate Editor of *Preservation Magazine* notes the “irony inherent in any effort to save...an atomic test site...The [Frenchman’s] Flat was built to be bombed, after all.”²⁴ The various difficulties in preserving atomic history sites is illustrated by a recent Committee on Energy and Natural Resources report. They highlighted that out of 2,329 designated national historic landmarks, only five recognize the civilian and/or military aspects of Cold War history; of the more than 72,000 listings on the National Register of Historic Places, only seventeen related sites are listed, which includes the five landmarks.²⁵ This lack of inclusion and lack of assurance that the sites will be safe from destruction is slowly changing. With the AHF’s detailed proposal aimed at preserving and

sharing the atomic past with the public will hopefully come government funding to achieve their vision.

Traveling the Manhattan Project Landscape

Throughout the world, areas where governments tested atomic bombs and scientists performed groundbreaking research on atomic energy are becoming tourist destinations. In the United States especially, museums dedicated to telling the history and legacies of nuclear developments are also being created and visited at an astonishing rate. Local forces, with support from the national government, are advocating for this new trend towards nuclear tourism. In and around the three secret cities of the Manhattan Project--Los Alamos, Oak Ridge, and Hanford--museums and the remnants of the sites themselves are interpreting the history of atomic energy and illustrating the collaborative efforts necessary to preserve and present complex historical issues.

The Bradbury Science Museum is the official museum of the Los Alamos National Laboratory (LANL)—home of the Manhattan Project that spearheaded the efforts to develop the world's first atomic bomb. Named after Norris Bradbury, the Lab's director from 1945-1970, the Bradbury Science Museum opened in 1963 with the mission of interpreting the history of the research performed at LANL, the activities that took place there, and the Lab's role in national security programs.²⁶ The exhibits at this museum tell the history of a scientific program that ultimately resulted in a weapon that wrecked havoc unlike the world had ever known; however, they provide a counterbalance by focusing on the many positive things that emerged from the research completed there. In its first year alone, the museum welcomed 14,000 visitors from various states and countries. Its location on the grounds of the LANL began to limit attendance,

so in 1993 the museum moved to the heart of downtown Los Alamos. After moving the facility to a more accessible location, they saw a dramatic increase in its visitor attendance, proving that a central location is crucial to drawing in visitors. Even though Los Alamos is a small town on top of a New Mexico mesa, it still draws in tourists from all over.

Since opening at its new downtown location, almost 110,000 visitors each year have attended the museum for some type of event, program, or tour.²⁷ Throughout New Mexico, a study of tourists' destinations and interests for 2003 showed that visiting historic places and museums was very important, ranking just behind outdoor activities and shopping as the things that tourists most participated in.²⁸ The Bradbury Science Museum is benefiting from this growing interest in experiencing the history of that Los Alamos, New Mexico has to offer vacationers. However, since 2000, attendance throughout New Mexico museums has dropped slightly because of the devastating Cerro Grande forest fire, according to the Bradbury Science Museum's director. He also attributes this recent decline to the post 9/11 effects on tourism and the increased price of gas.²⁹ Nevertheless, they are still drawing in visitors from across the U.S., 77% of their patrons being from outside New Mexico; 7% of their visitors are foreigners as well. The director of the museum notes that most of the visitors surveyed heard about the museum through word of mouth. As part of the DOE, their budget for publicity is nearly non-existent. They have had to settle with free listings in most New Mexico travel guides and in the local New Mexico newspapers. Despite these setbacks, thousands of Americans eager to learn about the history of the Manhattan Project pass through the turnstiles of the museum each day to learn about the secret project that ushered in the atomic age.

The Bradbury Science Museum's exhibits explore the history of the nuclear age solely. All its artifacts date from the Manhattan Project forward and discuss the research done at LANL

that is both weapons and non-weapons related. In the Technology Gallery, one of three galleries that make up the museum's main exhibit area, visitors learn how the Lab has attempted to solve environmental problems, increase the national energy supply, and develop more advanced technology.³⁰ By focusing on the peaceful role of the Lab and therefore the government, visitors learn that the work that took place in this secret city was not all dedicated to weapons of destruction. This helps to paint a more balanced picture, however it also runs the risk of presenting a view of history that is sympathetic to government-sponsored programs and ideology. Museums that interpret difficult and controversial issues such as nuclear weapons and nuclear energy must be careful to present history and let the visitors make their own interpretations. This is difficult to achieve, especially when the facility is a DOE museum.

In the case of the Trinity site—the location of the first atomic bomb detonation—the Army has been responsible for its status as a tourist destination. The site does not lend itself to enormous traffic, because it is located deep in the desert near Alamogordo, New Mexico. However, on the two days each year that the site is open to the public, visitors in the thousands brave the unpredictable desert weather to experience where the atomic age first began. Now part of the White Sands Missile Range (WSMR), the Trinity site welcomes visitors on the first Saturday in April and October, mostly because budgetary constraints prohibit them from increasing the frequency of these open houses.³¹ Interest in Trinity has been around since the very beginning. Just a few months after the first atomic test had taken place, the press descended on the site, snapping some of the most memorable photographs—for example, General Leslie Groves and J. Robert Oppenheimer talking with reporters as they point out where the tower holding the bomb had been located. In 1953, after the Atomic Energy Commission-led clean up of the site, the first public visitors attended an open house.

Writing for *American Heritage of Invention and Technology* about his visit to Trinity during one of these open houses, S.L. Sanger described Trinity as possibly “the most nondescript of all spots in American where something truly momentous occurred.”³² The site was declared a national historic landmark in 1975, which includes ground zero, the base camp where the scientists and staff involved with the test lived, and the McDonald ranch house where scientists assembled the plutonium core.³³ Today, visitors are able to tour ground zero and the ranch house. Standing just two miles from ground zero, the ranch house survived the blast, however, over time it fell into disrepair because of bad weather. It was not until 1982 that the Army stabilized the house to prevent further damage.³⁴ In 1985, with funds from the Army and the Department of Energy, the National Park Service restored the house to its July 12, 1945 appearance, and added informational panels and photographs to orient visitors.³⁵ The effort to preserve this small 1,750 square foot building, illustrates how collaboration can be crucial to the preservation and interpretation of a historic site like Trinity. The view of ground zero might be, as S.L. Sanger has described, “anti-climactic,” however the continual increase of visitors along with the increased effort to interpret its past, testifies to the continued importance of Trinity in the larger story of the Manhattan Project. While there is no amazing visual scene at Trinity, visitors have noted that “it’s the simple fact of being there, at Ground Zero, which is significant.”³⁶

Despite articles that describe Trinity as anti-climactic, thousands of people each year visit the site. Jim Eckles of the WSMR Public Relations Office notes that in recent years upwards of 3,000 - 4,000 visitors have come to the site. An April 2003 visitor survey shows that the majority of visitors were from New Mexico, while 46 of the surveys turned in were from individuals from Texas, Colorado, Oklahoma, Arizona, and Utah, and 76 were from other

states.³⁷ Over the years, the Trinity site has continuously drawn in visitors and in most recent years, attendance has even increased although no changes have been made to the extent of publicity. Similar to the Bradbury Science Museum, there is little money to be spent on public relations. They rely on interest in the birthplace of the atomic age, which draws tourists from all over the country and even the world, indicating the important role tourism plays in the promotion of nuclear history, and vice versa.

Oak Ridge, Tennessee is another of the Manhattan Project's secret cities and it deliberately portrays itself as such for marketing purposes. Lying within the eastern Tennessee mountains, this small town was created with the purpose of producing the enriched uranium for the atomic bomb developed to end World War II. It has done little to separate itself from its roots as a secret city. The Convention and Visitors Bureau refers to Oak Ridge as "a city born of war, living for peace and growing through science," which "offers a unique blend of the past, present and future for visitors."³⁸ They entice visitors through their brochures and web site by inviting people to "discover where the most significant story of the 20th century began." A close connection to its past has helped to ensure that the story of the Manhattan Project and the history of atomic energy would be told in this region.

Because Oak Ridge presents its historic sites as tourist attractions, visitors from across the country travel there to see one of the Manhattan Project secret cities. In 1949, as the gates to the town were officially opened to the public, a new museum opened its doors under the direction of the Atomic Energy Commission.³⁹ The American Museum of Atomic Energy, located in an old wartime cafeteria, was dedicated to educating their visitors about the peaceful uses of atomic energy.⁴⁰ In 1975 and 1978 respectively, the museum moved into a new facility and then received a new name, the American Museum of Science and Energy. Since it first opened in

1949, the staff estimates that eight million visitors have toured the museum. Now run by the DOE, the museum offers hands-on exhibits and special videos that discuss the history of the Manhattan Project, the creation of Oak Ridge, the history of energy in the United States, including both natural resources and nuclear energy, among many other issues.⁴¹ The variety of topics presented at this facility parallels the museum's dedication to achieving a balance between discussion of the atomic bomb and atomic energy, with other environmental and scientific issues.

The Department of Energy also sponsors a public tour in Oak Ridge, that takes visitors to all three DOE Oak Ridge Facilities—the Oak Ridge National Laboratory, the Y-12 Security Complex, and the East Tennessee Technology Park—and includes a stop at the historic landmark Graphite Reactor. This tour begins at the American Museum of Science and Energy with an introduction in their history exhibits, before visitors embark on their journey through the nuclear landscape. The DOE Oak Ridge Facilities public tour only takes place between April and September each year, however more than 17,000 Americans from all 50 states have already participated.⁴² They gear this tour towards those with a “nontechnical interest” in the Oak Ridge facilities, proving that this program is intended for tourists of all backgrounds. The existence of such a program illuminates the DOE's dedication to supporting and promoting tourism to these sites.

Another way to learn about the history of this secret city is by taking a trip on the Secret City Scenic Excursion Train. This 90-minute train ride in restored 1950s vintage diesel locomotives takes tourists close by many of the important structures related to the research and development of the atomic bomb. Riding on the original rail line built to move materials to and from the K-25 plant that separated uranium-235 from uranium-238, visitors pass through “the heart of the formerly secret facility” allowing them to “see where history was made.”⁴³ Since

they launched the train excursion in 1998, the Southern Appalachia Railway Museum has welcomed nearly 3,000 passengers each year, even though the train only runs twice or three times a month at most.⁴⁴ With the price tag of \$13 per adult ticket and \$9 per child ticket, this tourist activity is not supposed only to be educational, but profitable as well. The city of Oak Ridge, through such programs, has many opportunities for nuclear tourists to visit a secret city that was central to the production of the atomic bomb and later played a large part in the production of nuclear energy.

Unlike Oak Ridge, the Hanford site and companion secret city, Richland, Washington have not marketed itself in such a way that many tourists are visiting this secret city, yet. Much of the site is still busy with an extensive multibillion-dollar clean-up project that has rendered many of the historic structures permanently inaccessible. So far, the DOE has partially restored the B Reactor, the world's first full scale nuclear reactor. Unless a long-term management and care solution is created, the DOE plans to entomb the building, as it has done to other reactors on the site.⁴⁵ A nonprofit group called the B Reactor Museum Association (BRMA) is working vigorously to keep the B Reactor from being entombed, a process that would “destroy the historic value and eliminate the public use of the building.”⁴⁶ Its mission is to preserve the B Reactor as a public access museum. Its goals include adding “exhibits that reflect the history of the Hanford Nuclear Site, educating the public as to the historical and technological significance of B Reactor, and promoting other attractions in the area to increase visitors to B Reactor.”⁴⁷ Upon forming in 1991, the BRMA organized public tours of the reactor.⁴⁸ These tours were halted after 9/11 and the BRMA shifted its efforts to preserving the structure and advocating its use as a museum. In their final year of offering these public tours, BRMA hosted as many as 1,200 interested visitors. The BRMA and other concerned parties are facing major obstacles to

redevelop the site as a tourist spot because the necessary clean-up efforts are putting such facilities in jeopardy. However, they are receiving support from the Atomic Heritage Foundation and their local senators and representatives. Hopefully, if the challenges are successfully met and this aspect of the Manhattan Project's history is preserved, there will be greater publicity and public attention to Hanford as a nuclear tourist destination.

Conclusion

By evaluating the sites and museums that explore nuclear history, one can see that a public interest truly exists. Thousands of people from across the country have already taken the journey into the New Mexico mesas, the Tennessee mountains, and the Pacific Northwest's Columbia basin to see for themselves where the nuclear age began and to learn about the development of that history. Preservation efforts need to continue to ensure that the physical history will be preserved. The Atomic Heritage Foundation, originally created because Founder and President Cynthia Kelly recognized the threats to several Los Alamos structures, is currently working on this specific issue.⁴⁹ Senators and representatives of New Mexico and Washington, in collaboration with the AHF, introduced legislation that called for a National Park Service special resource study of the important Manhattan Project sites. The goal of the Manhattan Project National Historical Park Study Act is to assess the possibility of including such sites in the National Park System. In September 2004, the Senate and House passed the bill, and on October 18, 2004, it was signed by President Bush. Now fundraising is underway.

With so many different groups involved in promoting nuclear tourism, including independent web sites like www.atomictourist.com and www.atomictraveler.com, the initial steps are already well under way to preserve the history of an era that changed the world. Greater collaboration and awareness will help draw attention towards sites that are being

threatened, by encouraging further preservation efforts. Many local community members are hoping that some Manhattan Project sites will be incorporated into the National Park Service, as one way to help preserve these hallmarks of the atomic age. As the National Trust for Historic Preservation reminds us, collaboration is the key to making nuclear tourism successful; in the case of Oak Ridge, for example, the AHF and the Oak Ridge Convention and Visitors Bureau have been working together to create a “heritage tourism master plan” for the city. This plan calls for the rebuilding, preserving, and/or upgrading of important sites so that more visitors can experience them. The AHF is also interested in creating a nationwide heritage tourism plan to ensure the continued interpretation of nuclear history throughout the country.⁵⁰ Hopefully, the sites in New Mexico and Hanford will also identify such an opportunity as a great way to improve preservation efforts and visitor attendance. Although nuclear tourism has not yet received a lot of attention from historians in the literature, as more preservationists, community members, local governments, and national government agencies work together to sustain preservation and promote interpretation, scholars will begin to take notice of this growing subset of heritage tourism. Moreover, as collaborations proceed, the complex history of the atomic age that emerged from the collaborative efforts of scientists, military, and government so many years ago will forever be embraced as a cause worthy of supporting.

¹ G.J. Ashworth and J.E. Tunbridge, *The Tourist-Historic City: Retrospect and Prospect of Managing the Heritage City* (Oxford: Elsevier Science Ltd., 2000), 54.

² *The Historic/Cultural Traveler*, 2003 ed. (Washington, D.C.: Travel Industry Association of America, 2003).

³ Norman Douglas, Ngaire Douglas, and Ros Derrett, eds., *Special Interest Tourism: Context and Cases* (Brisbane: John Wiley & Sons Australia Ltd., 2001), 155.

⁴ Patricia Mooney-Melvin, "Harnessing the Romance of the Past: Preservation, Tourism, and History," *The Public Historian* 13, no. 2 (1991): 45.

⁵ James C. Makens, "The Importance of U.S. Historic Sites as Visitor Attractions," *Journal of Travel Research* 25 (Winter 1987): 8. Cheryl Hargrove also notes that few studies have been done to assess people's motivations for visiting historic sites. Cheryl Hargrove, "Tourism: History's Wake-up Call," in *Heritage Tourism: Partnerships and Possibilities* (Nashville and Denver: American Association of State and Local History and the National Trust for Historic Preservation, 1994), 2.

⁶ Makens based part of his study on questionnaires he sent to 335 historic sites with "multiple building restorations" regarding their visitor attendance. He received a 37% response rate, and among those many said that they had no way of telling how many visitors their site had.

⁷ William T. Alderson, "Standing out in the Crowd," in *Heritage Tourism: Partnerships and Possibilities* (Nashville and Denver: American Association of State and Local History and the National Trust for Historic Preservation, 1994), 11.

⁸ President George W. Bush reinforced this trend towards preservation by enacting Executive Order Preserve America (EO 13287). EO 13287 is "an initiative to encourage and support community efforts for the preservation and enjoyment of our priceless cultural and natural heritage." Section Five of EO 13287 promotes "preservation through heritage tourism" by directing the federal government to work closely with local communities to "strengthen and improve heritage tourism activities...as they relate to Federally owned historic properties." Advisory Council on Historic Preservation, U.S. Department of Commerce, and U.S. Department of the Interior, "Preserve America: Explore and Enjoy Our Heritage," September 29, 2003, <www.preserveamerica.gov> (October 27, 2003).

⁹ The contact e-mail address for the web page is no longer working, therefore the webmaster could not be contacted for comments and questions about his/her site.

¹⁰ "Bureau of Atomic Tourism," September 24, 2001, <<http://www.atomictraveler.com>> (September 28, 2003).

¹¹ These links can be found at <http://www.lanl.gov/worldview/welcome/history.html>; http://www.thebulletin.org/web_only_content/online_resources.htm; <http://www.me.utexas.edu/~nuclear/web.htm>; <http://www.fas.harvard.edu/~hpcws/gallery.htm>. These are just a few of the many scholarly web sites that make reference and provide a link to the Bureau of Atomic Tourism site.

¹² James Maroncelli and Timothy Karpin, "The Traveler's Guide to Nuclear Weapons: A Journey through America's Cold War Battlefields," 2002, <<http://www.atomictraveler.com>> (November 5, 2003). This CD-ROM book is available for sale on its web site for \$29.95 plus shipping and handling.

¹³ Maroncelli and Karpin, "The Traveler's Guide to Nuclear Weapons."

¹⁴ Tom Vanderbilt, "Not Your Typical Road Trip," review of *The Traveler's Guide to Nuclear Weapons: A Journey Through America's Cold War Battlefields*, by James Maroncelli and Timothy Karpin, *Bulletin of the Atomic Scientists* 59, no. 6 (November/December 2003): 74-75. Vanderbilt's own book, *Survival City: Adventures Among the Atomic Ruins of America*, is a result of his travels throughout the U.S. to explore the hidden Cold War landscape and its remaining architecture. In his review, he mentions how he wishes he had had the CD-ROM book before he began his journeys through the nuclear landscape. Tom Vanderbilt, *Survival City: Adventures among the Ruins of Atomic America* (New York: Princeton Architectural Press, 2001).

¹⁵ Hargrove, "Tourism: History's Wake-up Call," 2-3.

¹⁶ Atomic Heritage Foundation, "Atomic Heritage Foundation Homepage," n.d. <www.atomicheritage.org> (October 27, 2003).

¹⁷ Atomic Heritage Foundation (AHF), *Interim Report to Congress (Preliminary Draft), Preserving America: A Strategy for the Manhattan Project*, Washington, D.C., September 4, 2003, 26; Scott Elder, "Atomic History: A Plan to Save Relics of the Atomic Age," *Preservation Magazine*, July 18, 2001.

¹⁸ Atomic Heritage Foundation, *Interim Report to Congress*, 19.

¹⁹ Atomic Heritage Foundation, *Interim Report to Congress*, 20. A nonprofit group called the B Reactor Museum Association is working vigorously to keep the B Reactor from being entombed. Its mission is to preserve the B-

Reactor as a public access museum. Its goals include adding "exhibits that reflect the history of the Hanford Nuclear Site, educating the public as to the historical and technological significance of B Reactor, and promoting other attractions in the area to increase visitors to B Reactor." B Reactor Museum Association, "Brma Goals," 2003, <<http://b-reactor.org/>> (October 15, 2003).

²⁰ National Park Service, "National Historic Landmarks: Illustrating the History of the United States (Brochure)," February 28, 2003, <<http://www.cr.nps.gov/nhl/publications/bro6.htm>> (November 5, 2003).

²¹ Atomic Heritage Foundation, *Interim Report to Congress*, 4.

²² House of Representatives, Committee on Resources, *Requiring That the Secretary of the Interior Conduct a Study to Identify Sites and Resources, to Recommend Alternatives for Commemorating and Interpreting the Cold War, and for Other Purposes*, 107th Congress, 1st session, Report 107-220, September 28, 2001.

²³ Elizabeth Benjamin, "Are Cold War Sites Worth Preserving?," *Preservation Online*, October 17, 2001. Don Bender has been advising the National Park Service on their restoration of the Nike missile site at Fort Hancock in New Jersey.

²⁴ Sudip Bose, "Bunker Down," *Preservation Magazine*, May/June 2002. Frenchman's Flat, located in the Nevada desert, was the site of the world's first atomic artillery shell test in 1953.

²⁵ Senate, Committee on Energy and Natural Resources, *Cold War Sites and Resources*, 107th Congress, 2d session, Report 107-261, September 9, 2002.

²⁶ Los Alamos National Laboratory, "Bradbury Science Museum Homepage," 2003, <<http://www.lanl.gov/museum.about.shtml>> (October 18, 2003).

²⁷ Ibid.

²⁸ New Mexico Department of Tourism, "Travelscope," 2002, <<http://www.newmexico.org/Industry/travelscope.html>> (October 15, 2003).

²⁹ John Rhoades, "Re: BSM visitor info questions," Personal e-mail to author," December 3, 2003.

³⁰ Los Alamos National Laboratory, "Bradbury Science Museum." The other two galleries are the History Gallery and the National Security Gallery.

³¹ White Sands Missile Range Public Affairs Office, "Rumors, Misinformation and Lies About Trinity Site," n.d., <<http://www.wsmr.army.mil/paopage/Pages/trnrum.htm>> (October 23, 2003).

³² S.L. Sanger, "A Visit to Trinity," *American Heritage of Invention & Technology* 17, no. 1 (2001): 59.

³³ Ron Swartley, *New Mexico's Atomic Tour: A Guided Trip through the Birth and Flowering of the Atomic Age in New Mexico* (Albuquerque: Frontier Image Press, 1992), 13.

³⁴ Andy Walton, "Route Cold War: A Journey through America's Cold War Heartland," 1998, <<http://www.cnn.com/SPECIALS/cold.war/guides/about.site/>> (November 1, 2003). Walton traveled throughout the Southwestern United States to visit nine sites related to the Cold War, the third stop being the Trinity site. He also visited Los Alamos, Titan II Museum in Phoenix, and the Nevada Test Site. The remaining sites are related to Cold War history and not the production of atomic weapons, testing, or research. His articles share unique pieces of information about each site he visited as well as photographs and other visual aids.

³⁵ White Sands Missile Range, "Trinity Site Pamphlet."

³⁶ Swartley, *New Mexico's Atomic Tour*, 46-47.

³⁷ White Sands Missile Range Public Affairs Office, "Trinity Site Open House Attendance," n.d., <<http://www.wsmr.army.mil/paopage/Pages/trnatt.htm>> (October 23, 2003). Other results of the survey showed that most visitors were there for the first time, most would have been willing to pay a fee of about \$5 if WSMR began to charge, and that a large number of people used the WSMR website for additional information. These are preliminary results assessed by Eckles. He has given the surveys to a University of New Mexico professor to analyze further. He expects to receive the final results within the next year. Eckles, "Re: Trinity Nuclear Tourism q's."

³⁸ "WWII's Secret City Oak Ridge Driving Tour (brochure)," (Oak Ridge: Oak Ridge Tennessee Convention and Visitors Bureau, n.d.). Copy in possession of author.

³⁹ Smithsonian Institution Affiliations Program, "American Museum of Science and Energy," 2003, <<http://affiliations.si.edu/html/affiliates.asp?ID=100&bhcp=1>> (November 22, 2003).

⁴⁰ American Museum of Science and Energy, "Information: History of the Museum," 2003, <<http://www.amse.org/info.html>> (October 15, 2003).

⁴¹ American Museum of Science and Energy, "Programs: A Teacher's Tour," 2003, <<http://www.amse.org/programs.html>> (October 15, 2003).

⁴² Oak Ridge National Laboratory, "Communications and Community Outreach: Tours and Visits," October 31, 2003, <<http://www.ornl.gov/info/news/cco/visiting.shtml>> (November 9, 2003).

⁴³ Southern Appalachia Railway Museum, "A Typical Train Ride on the Secret City Scenic," 2001, <http://www.techscribes.com/sarm/srm_typical_trip.htm> (November 9, 2003).

⁴⁴ Bart Jennings, "Re: Secret City Train q's," Personal e-mail to author, December 5, 2003.

⁴⁵ It is clear that the DOE has recognized the importance of this structure. In 2001, they designated B Reactor as one of eight "Signature Facilities of the Manhattan Project" that "provides the essential core for successfully interpreting for the American public the Manhattan Project mission for developing the atomic bomb." Atomic Heritage Foundation, *Interim Report to Congress*, 5.

⁴⁶ Atomic Heritage Foundation, *Interim Report to Congress*, 20.

⁴⁷ B Reactor Museum Association, "BRMA Goals," 2003, <<http://b-reactor.org/>> (October 15, 2003).

⁴⁸ Lisa Stiffler, "B Reactor Is Worth Preserving, Some Historians Say," *Seattle Post-Intelligencer*, April 19, 2002.

⁴⁹ Cindy Kelly, "Re: Few Questions on AHF," Personal e-mail to author, December 2, 2003.

⁵⁰ Atomic Heritage Foundation, "Atomic Heritage Foundation: Tourism Plan," n.d. <www.atomicheritage.org/ahfheritagetourism.htm> (October 15, 2003).

The Manhattan Project was started in response to fears that German scientists had been working on a weapon using nuclear technology since the 1930s and that Adolf Hitler was prepared to use it. America Declares War. The agencies leading up to the Manhattan Project were first formed in 1939 by President Franklin D. Roosevelt, after U.S. intelligence operatives reported that scientists working for Adolf Hitler were already working on a nuclear weapon. The Army Corps of Engineers joined the OSRD in 1942 with President Roosevelt's approval, and the project officially morphed into a military initiative, with scientists serving in a supporting role. The Manhattan Project Begins. Nuclear tourism is travel to places connected with nuclear research and technology, places where there have been atomic explosions, or places related to peaceful or wartime use of nuclear energy. They include: Sites of nuclear explosions (bombed cities, weapon test sites, sites related to peaceful use of nuclear explosions). Sites of nuclear accidents and accidents of nuclear weapon carrying aircraft. Atomic museums. Otherwise remarkable sites of projects in nuclear technology. Manhattan Project, U.S. government research project (1942-45) that produced the first atomic bombs. The project's name was derived from the location of Columbia University, where much of the early research was done. The first bomb was exploded in a test at Alamogordo air base in southern New Mexico on July 16, 1945. In 1939, American scientists, many of whom had fled from fascist regimes in Europe, were aware of advances in nuclear fission and were concerned that Nazi Germany might develop a nuclear weapon. The physicists Leo Szilard and Eugene Wigner persuaded Albert Einstein to send a letter to U.S. Pres. Franklin D. Roosevelt warning him of that danger and advising him to establish an American nuclear research program.