Alert Today, Alive Tomorrow
Living with the Atomic Bomb, 1945 – 1965

Alert Today, Alive Tomorrow explores how Americans experienced the atomic threat as part of their daily lives from 1945 to 1965. The exhibition focuses on how media messages in print, on the radio, in film, and in popular mass-culture objects like toys conveyed a climate of heightened preparedness and fear that became an integral part of Cold War life through the early 1960s. Alert Today starts at the moment when Americans first learned of the dropping of the atomic bomb on Hiroshima, Japan on August 6, 1945. The exhibition then leads visitors through three chronological displays and four main thematic sections to show how civil defense publications, household objects, books and magazines, toys, and scientific equipment all changed over the course of twenty years in response to the changing political and technological threats of the Atomic Age. The messages were inescapable. While images like Bert the Turtle and pamphlets announcing “6 Survival Secrets” to an atomic attack may seem naïve or futile to us, Alert Today asks audiences to take a step back in time and understand how thoroughly the culture of atomic awareness permeated every aspect of life during the 1950s.

How would we respond today if a similar set of concerns so dominated every arena of our lives—at home, at school, in the community, and even at play?

These docent notes follow the order of the chronological and thematic areas of Alert Today, Alive Tomorrow. You may wish to combine this material with a reading of the exhibition script (e.g. all label and panel text) that begins on page 7 of this guide.

Introduction and Timeline: The Blast, 1945 - 1950

Building the Bomb
For most Americans, knowledge of the extent of America’s atomic power wasn’t fully known until the announcement about the bombing of Hiroshima in August 1945. But that act was the culmination of four years of testing and experimentation, most of which happened in complete secrecy. The United States’ effort to build an atomic bomb started quietly with the Manhattan Project in 1941, and gained momentum in 1942 after physicists led by Enrico Fermi successfully produced a controlled nuclear chain reaction at the University of Chicago. The main assembly plant for the project was built at Los Alamos, New Mexico, and at its height, the Manhattan Project employed more than 120,000 Americans. But most of the people working on the project did not know what they were developing. To ensure that information was not leaked to our enemies during World War II, only a small inner circle of scientists and government officials were aware that they were creating an atomic weapon. Even Vice President Harry Truman did not know about the project; he didn’t learn of it until after he became President following Franklin Delano Roosevelt’s death on April 12, 1945. The first successful test of an atomic bomb occurred at the Trinity Site near Alamogordo, New Mexico on July 16, 1945.

Truman’s Decision
President Truman learned about the Trinity Site test soon after the event occurred. Less than a month later, he faced the decision of whether or not to use the bomb against Japan. European
enemies in World War II had already surrendered; the Allied victory in Europe had been declared on May 8, 1945. Truman had known about the existence of the bomb for a matter of mere months. Why did he make the decision that he did? There were two primary reasons:

1. Japanese armed forces had conducted an especially brutal war in the Pacific. Even by the horrific battle standards of the European theater, Japanese forces seemed to wage war with a kind of blood lust that followed a different set of rules. Indeed, they were not a “western” culture and did not fight according to the long-established rules of European military conduct. The Japanese code of Bushido demanded that they fight on, whatever the cost. Few people believed that the Japanese military would ever surrender.

2. There was a very real fear that the cost in U. S. lives of an invasion of Japan would be far greater than Americans could accept. This fear was not based solely on emotion. Previous experience of the carnage at the American invasions of Iwo Jima and Okinawa provided a glimpse into what U. S. forces would face in an invasion of the Japanese homeland.

Truman and his military advisors ultimately decided that using atomic weapons against Japan offered the best chance of shocking that nation’s military forces into surrender.

For a deeper discussion about Truman’s decision, including access to many of the original source documents, follow this link to check out the Truman Presidential Library’s website, The Decision to Drop the Atomic Bomb:

http://www.trumanlibrary.org/whistlestop/study_collections/bomb/large/index.php

**Hiroshima and Nagasaki**

A number of Japanese cities were suggested as targets for the first atomic bomb, including Kyoto, Hiroshima, and Yokohama. Hiroshima was selected because of its size and prominence as an army depot. U. S. military leaders felt that the bombing target needed to be a city that would clearly serve as a warning, with a potential level of destruction that would emphasize the bomb’s power. Nagasaki was an important port city. After the first bombing at Hiroshima did not result in surrender, a decision was made to target this second urban center three days later, on August 9, 1945.

**How do we interpret the meaning of Hiroshima and Nagasaki?**

Today there are many divergent viewpoints about the reasons, ethics, and impact of Truman’s decision to use atomic weapons. This topic is not the direct focus of *Alert Today*, but it is an area in which your visitors may have many questions. Certainly for many Americans in the 1950s, knowledge of the complete and almost unimaginable devastation that the atomic bomb wreaked on the civilian populations of two Japanese cities also played into their own fears about what some other enemy might do to the United States.

You might wish to review sources that represent varying perspectives on this topic. The list is extensive, but here are a few suggestions. You should be able to find most of these books at your local library; they are also all available through Amazon.com.

Hiroshima, John Hersey

One publication that gave Americans an intimate firsthand glimpse into the catastrophe of atomic attack was John Hersey's *Hiroshima* (1946), an article that initially took up a complete edition of *The New Yorker* on August 31, 1946. The article caused a media sensation: the magazine quickly sold out and the story was read aloud on the radio. It was soon published in book form. Hersey's article was not the first story to tell Americans about the effects of the atomic blast in Japan. A number of mass market publishers and magazines came out with articles and photographs almost immediately in the weeks and months after August 1945. But Hersey's work, published a year after the events at Hiroshima, put a distinctly human face on the experience of Japanese survivors. The author spent three weeks in Japan, interviewing residents and researching the story. He made a conscious decision not to focus on Hiroshima's structural devastation. Instead, he traced the stories of six residents (all civilians) who survived the initial bombing. They each told of their experience from the moment they first awoke that day to the sudden impact of the blast, and then recounted their struggles to survive over the next few hours and days.

*Hiroshima* did not necessarily cause all Americans to question the wisdom of dropping the bomb. Even other media sources like the *New York Times* expressed no outward regret. But the article allowed people to place themselves in the footsteps of the survivors and envision what an atomic attack might be like. Hersey's story helped the general public begin to ask larger questions about human conscience and the dangers brought on by the Atomic Age.

*Hiroshima* (a copy of which travels with the educational materials for *Alert Today*) is an excellent example of a message from a non-governmental source that highlights the divergent opinions present in American society after the conclusion of World War II. While the majority of U. S. residents rejoiced in an American victory and did not question the motivations behind the use of the atomic bomb, that did not mean that they didn't also question what the act meant for the long-term future of the world in which they lived.
Timeline: Under the Mushroom Cloud, 1951 – 1956

The Soviets get the Bomb
One of the key milestones to remember when talking with visitors about the objects featured in Alert Today is the literal bomb that was dropped on America’s sense of security after the Soviets successfully tested their own atomic weapon on August 29, 1949. What we now think of as the Cold War, with its paranoia, duck and cover drills, and fallout shelters was ushered in after this point, essentially starting around 1950. By 1951, the official structures of the U. S. civil defense network were firmly in place. Prior to 1949, Americans may have worried about the implication of what it meant to have a weapon that could destroy the planet, but they didn’t worry about imminent attack. After 1949, the specter of the Soviet Union delivering to the United States what had already been visited upon Japan was suddenly very real.

The Soviets were among the early leaders in atomic research, focusing on nuclear physics as early as the 1930s. Their work was not far behind western scientists, and like the Americans, they too concentrated on nuclear fission. They officially launched their own project to construct an atom bomb in 1942. But poor administrative management and a focus on the war effort caused them to fall behind. In fact, the secrecy concerns of the Manhattan Project were well-founded: it is widely accepted that the ultimate Soviet completion of an atomic bomb benefited from espionage into American and allied scientific advancements. The paranoia of the Cold War was based on actual events. The Soviets called their atomic bomb “First Lightning.”

The Federal Civil Defense Administration (FCDA)
One of the biggest legacies of “First Lightning” in the United States was a renewed post-war focus on civil defense. The Federal Civil Defense Administration was a federal agency organized by order of President Harry S. Truman in December 1950. It became an active agency in January 1951. Its main purpose was to prepare American citizens for a new kind of war — an atomic war. The FCDA created and distributed volumes of materials that promoted knowledge about “The Bomb,” about how to prepare for an attack, and what to do to survive its deadly after-effects. If the FCDA’s primary media message was “be prepared,” its underlying goal was to prevent panic and build a collective sense of resolve. The agency was largely an information clearinghouse through the early 1950s. But the greater level of threat caused by expanded Soviet missile capability prompted a change in its status around 1958. President John F. Kennedy placed a new level of emphasis on civil defense, and the FCDA officially became the Office of Civil and Defense Mobilization. In this capacity, it was much more active in surveying and creating fallout shelters, and distributing monitoring equipment (like Gieger counters and dosimeters) to strategic shelter locations nationwide. The familiar black and yellow fallout shelter sign was also a result of this later phase of concentrated national action.

Women in Civil Defense
What do you envision when you think of a housewife in the 1950s? For many of us, a stereotypical view of the perfectly coiffed and dressed homemaker in a new suburban neighborhood probably comes to mind. Alert Today, Alive Tomorrow offers docents a chance to encourage visitors to think past such stereotypes, because the role of women in civil defense during this period was much more complex than that idealized view of the 1950s would suggest. Objects like the Grandma’s Pantry membership card and numerous other images found on posters and pamphlets in Alert
Today demonstrate that women were regarded as a crucial link in the nation's civil defense network. This was a very serious role that was assigned great responsibility. At home, women were seen as the key organizer of family preparedness. Programs like Grandmas' Pantry stressed that it was women who ensured that their home was well stocked with the necessary provisions, that the family fallout shelter was fully supplied, and that everyone, including Dad and the children, knew what to do in case of an atomic attack. A whole subset of federal civil defense publications spoke directly to women. Likewise, because they were also the family's primary social networking agent in the community, women's roles extended well beyond the home. Women were also clearly expected to advocate for and even organize civil defense activities within their larger neighborhood. “If your community does not have an active civil defense network,” observed a 1952 pamphlet, Women in Civil Defense, “much of the blame must fall on you and your neighbors. Unless you, as a responsible American woman, take action, you are gambling with the safety of your family, your friends, your community, and your country.” A number of federally produced civil defense films even showed women as the family members who would be most likely to survive an immediate nuclear attack. (Dad would have been at work, in a location strategically more likely to be directly impacted by an atomic blast.)

At the same time that federal, state, and local officials emphasized the important part that women played in civil defense, they also tried to do so in ways that did not challenge the clearly defined gender roles of the period. Women's roles still focused predominantly on the domestic sphere. So while women were highlighted as the caregivers, in charge of housekeeping, family preparedness, child care, and strengthening the social ties in their neighborhood, men were encouraged to serve as firefighters, rescue personnel, and air raid wardens. Nonetheless, there were some activities in which men and women both participated, such as the Ground Observer Corps.

What do women from your community remember about their experiences during this period? For more information about women’s participation in civil defense in the 1950s, here are a few sources you might wish to consult:

Web resource:
Women Defend the Nation (1950) – from the Journal of Cold War Studies, offered on the website of the Cold War Museum:
http://www.coldwar.org/articles/50s/women_civildefense.asp

Books:
Elaine Tyler May. Homeward Bound: American Families in the Cold War Era. Basic Books, 1990. (Professor May is listed as a speaker resource in this guide.)
Timeline: Nuclear Fallout, 1957 - 1965

Intercontinental Ballistic Missiles (ICBM)
The toy “Atomic Mobile Unit” in this case is a humorous reminder of what was, in truth, a very frightening technological development that impacted how Americans responded to the atomic threat after 1957. In August of that year, the Soviet Union successfully tested the first intercontinental ballistic missile, also known as an ICBM. This was a rocket-launched, long range missile developed largely to carry nuclear warheads. “Ballistic” refers to the launch strategy of a missile that is guided (or steered) only early in flight, and then follows a sub-orbital rotation around the earth to reach its intended target. Ballistic missiles had been tested by multiple countries since Germany in the 1930s. The difference with ICBMs is that they were designed with the capacity to travel thousands of miles (more than 3,500 miles), eliminating or minimizing the need for an airplane delivery method for nuclear warheads. In theory, this made it possible for the Soviet Union to launch a simultaneous atomic attack on multiple U. S. targets in a matter of minutes. The “doomsday scenario” explored in movies like Dr. Strangelove (1964) and Fail-Safe (1964) was based on the attack capabilities initially enabled by ICBMs.

Ironically, the United States had initiated ICBM research in 1954 and had made significant progress with its Atlas program, but not at the same pace as the Soviets. American scientists were well aware of the Soviet goal, but they were still shocked when two events in 1957—the August launch of an ICBM and then the successful launch of Sputnik in October—emphasized the very real technological gap that existed.

Sputnik and American Impact
After the stunning news of the Soviet launch of an ICBM in August, the next blow to American scientific prestige came just two months later. On October 4, 1957, the Soviets announced the launch of Sputnik 1, the first artificial satellite successfully sent into Earth’s orbit. The news about Sputnik provoked a wave of governmental and scientific concern, and accelerated the pace of what became known as “the Space Race.” Especially relevant to the context of Alert Today is the dual impact that these two events had on the general public fear of the period. They made it seem all the more possible that the threat of a Soviet atomic attack could be imminent at any moment and without any warning. “Bomb shelters” became “Fallout Shelters” because the real fear was that fallout from multiple attacks could spread death and destruction far from the original impact zone. Many of the symbols that we now most closely associate with the Atomic Age—like Geiger counters and dosimeters, public fallout shelter signs, and the Emergency Broadcasting System—either originated in or gained broader use after the period that was ushered in with the events of the late summer and fall of 1957.

Radiological dosimeters and Geiger counters
Both the radiological dosimeter and the Geiger counter are scientific devices used to detect and measure the existence of ionizing radiation. Radiological dosimeters (small cylindrical instruments) measure the amount of a person’s exposure to radiation. There are also other kinds of dosimeters that measure exposure to factors like sound and ultraviolet light. Geiger counters, named after original inventor Hans Geiger, function as ionizing radiation detectors, confirming the emission of radioactive particles. Radiation science predated the Atomic Age by at least half a
The initial discovery of radiation was announced by a French scientist in 1896, and its danger to humans was understood early in its history. But radiation protection was largely a private, non-governmental function until after World War II, when the development of the atomic bomb and other nuclear developments finally prompted a new evaluation. The Federal Radiation Council was finally established in 1959 to advise the President and work with the States on radiological issues impacting public health. While radiological monitoring equipment was available in the early 1950s, it wasn’t until the early 1960s when tools like Geiger counters and dosimeters became more widely known to the general public. Both were distributed nationally in “Shelter Radiation Kits” overseen by the Office of Civil Defense. Look for the civil defense logo on all of the dosimeters and Geiger counters included with Alert Today.

The Thematic Areas

The next four sections of Alert Today play off of the chronology established in the Timeline cases, but each focuses more specifically on a distinct sphere of American daily life—at home, in the community, at school, and at play. For each area, encourage your visitors to try and draw parallels with these same spheres of life today. Many of the objects and topics highlighted here offer good talking points to engage your visitors with further dialog about the messages found in Alert Today.

Theme: At Home with “The Bomb”

One World or None
While Americans received an almost endless supply of government publications during this period, they also enjoyed a wide range of other reading materials from a variety of publishers. Independently produced newspapers and periodicals often revealed a far more diverse set of national opinions and concerns about the impact of the atom bomb.

One of the key early objects in Alert Today is the copy of the report published by the Federation of American Scientists in 1945, entitled One World or None. The report, which proved so popular that it became a New York Times national bestseller in 1946, represented the concerns of the scientific community that emerged very quickly after Hiroshima. Indeed, many scientists were uncomfortable with the potential uses of nuclear science long before the intensification of the Manhattan Project and the creation of the bomb. J. Robert Oppenheimer’s famous thought that he later recounted came to mind during the Trinity Test in New Mexico in July 1945 – “I am become death, the destroyer of worlds” – referred to the absolute life or death power of the Hindu god Shiva.

After Hiroshima and Nagasaki, when it was possible to measure the true impact of an atomic weapon upon a real human target, the chorus of concern grew louder. Amidst the victory celebrations after World War II, there were many private, scientific, and religious publications that played up the sense of potential disaster. Periodicals like The Atom Bomb!, (displayed in the same case with One World or None) drew readers in by featuring obvious symbols of public destruction and fear. Other early books, like The Atomic Age Opens, emphasized the leap into the scientific unknown. But One World or None, with its serious, text-based cover and list of pre-eminent scientific names, sought to ask a serious philosophical question about the impact of the atomic bomb: What had man done by creating such a weapon? If there was no defense against atomic
weapons technology, how was the Earth to survive? Ultimately, the phrase “One World or None” came to stand for a philosophy and a movement that advocated for the creation of one World Government to prevent the dangers of another World War from escalating into total atomic annihilation.

**Operation You! Families and Civil Defense**
American households received a constant stream of information from federal, state, and local civil defense agencies during the Atomic Age. Messages on the radio and in print emphasized the same idea: an attack could happen at any time and each individual played a unique role in civil defense. This was especially true for the family unit. Federal, state, and local officials all knew that in the event of an attack, civilians would effectively be on their own to survive in the first critical hours and even days after a blast. The family was essentially on the front line of the Atomic Age’s civil defense initiative: preparedness began and ended at home. Mothers, fathers, and children all had roles in this process, and civil defense publications provided them with “how-to” instructions: select a location for a shelter, help to make sure it is well-stocked, know how to shut off utilities, make sure to keep the pets inside.

Notice all of the images of families that appear on government pamphlets, posters, and other materials featured in *Alert Today*. Where do these images appear and what words or phrases are presented with them? What consistent messages are conveyed by this combination? Beyond basic preparedness, the family was an especially important social concept in the conservative post-war world of the 1950s; one that had special meaning during the Cold War. It was the refuge through which values like democracy were fostered and threats like communism were kept at bay. So posters, pamphlets and other graphics that emphasized the atomic threat by using images of the family were also emphasizing the threat posed to America as a nation. The survival of the family following an atomic attack equaled the survival of the American democracy.

The topic of family life during the Cold War is a rich and complex subject that is deserving of far more attention than can be given to it in *Alert Today*. For more information on this aspect of American life during the 1950s and 1960s, you may wish to check out the following source:


**Atomic Bomb Rings and Ice Crushers?**
In contrast to our understanding of the reasons behind most governmental and private publications, modern audiences may find objects like the KIX “Atomic Bomb” Ring and the Dazey Atomic Ice Crusher difficult to comprehend. What would happen today if MacDonald’s offered a Happy Meal novelty in the form of a rocket launcher or a nuclear warhead? Looking back from our vantage point, knowing what happened during the Cold War, the Cuban Missile Crisis, and the nuclear proliferation of the next three decades, these objects seem naïve at best and in quite bad taste at worst. But in the late 1940s and early 1950s, fear about the atomic bomb mingled with profound joy and relief that a World War had been won and that American troops had returned safely home. There was also great public fascination with the discoveries of a science that, in the eyes of many, had brought about that victory. Also remember that at the time the KIX ring was...
offered (1947), America was still two years away from learning that the Soviets also had the bomb. And at the time, many scientists in this country would have estimated that it would have taken the Soviets far longer than that.

Encourage visitors to take a close look at the graphics on the back of the KIX box or at the 
newspaper advertisement presented with the atomic bomb ring: what do they emphasize? As the ad notes: “A seething scientific sensation!” And the KIX box promises: “Not a mere toy. Kix Atomic “Bomb” Ring is based on a scientific principal used in laboratories for the study of nuclear fission. When your eyes adjust themselves to the dark you’ll see through the lens the effects of atomic energy in action!” These objects weren’t solely about the bomb; they were selling an idea about a new and exciting modern life built on the world of science and technology. Many people even hoped that atomic energy (as opposed to the bomb) would offer great promise to help poorer nations and cultures achieve a higher standard of living. The juxtaposition of such ideas didn’t seem ridiculous to consumers in the late 1940s and early 50s, people who had literally benefited from what the atomic bomb had wrought. They couldn’t see into the future that we look back upon with a far different sense of “buyer’s remorse.”

CONELRAD
CONELRAD, which was an acronym derived from the words “CONtrol of ELectromagnetic RADiation” referred to an AM radio system established by President Harry Truman in 1951 to function as a national civil defense information network and a radar scrambling system to confuse enemy planes. In the event of an emergency, all television and FM radio stations in the United States would shut down. AM stations would continue to broadcast government information at 640 or 1240 kHz on the radio dial. Stations would broadcast intermittently, passing the signal from station to station to disrupt airplane radio navigation. Between 1951 and 1963, CONELRAD broadcast an unrelenting stream of public service announcements, instructional features, and information about preparedness drills. By law, all radios manufactured between 1951 and 1963 carried “CD” marks at the 640 and 1240 frequencies. You can see these marks on the light blue Philco tabletop radio, c. 1960-1961, included in this section of the exhibition. (Note that the same marks don’t appear on the small Philco radio from 1942 found in the opening section of Alert Today.)

What happened after 1963?
After the Soviet development of intercontinental ballistic missiles made an airplane attack unlikely, CONELRAD was discontinued in 1963 and replaced by the Emergency Broadcast System (EBS). Unlike CONELRAD, the EBS also functioned as a broader warning system for natural disasters such as tornados and hurricanes. This was the precursor to the Emergency Alert System that we have in place today.

The Family Fallout Shelter
When someone says “Atomic Age,” what comes to mind? For many people (including many of your museum visitors) it’s likely that the image of the family fallout shelter is a top candidate. As a signpost of atomic era culture, it is one of the most familiar symbols of the Cold War. But the real story behind the fallout shelter is more complex than the image based on popular imagination.
Bomb Shelter to Fallout Shelter

The precursor to the fallout shelter was the bomb shelter of World War II. In the early years of the Atomic Age, this term was sometimes still used. But as concerns with radiation fallout became widespread (especially after 1957), the concept of the bomb shelter changed. These underground structures were no longer viewed as protection against the impact of a direct bomb strike. Federal officials acknowledged that no one within the impact zone would survive. But beyond the initial blast radius, many millions of people could be saved if they were protected from deadly secondary contact with radiation fallout. “Bomb shelters” became “fallout shelters” because they were designed to protect people from the sources of contamination, not direct bomb blasts. While a “bomb shelter” could shield a family for a few hours or a day, a “fallout shelter” needed to be able to protect and sustain life for potentially a much longer period of time. Ideally, it needed enough physical mass to shield inhabitants from direct radiation, enough space for people to live in, and adequate ventilation. Fallout shelters also needed to be stocked with enough food, canned goods, water, and daily supplies to sustain life. Objects like the “Grandma’s pantry” membership card in the Timeline section, and the Small Fry shelter stove and the sample family shelter plans featured in the “Home” section remind us how detailed and time-consuming assembling all the components for such a shelter could be. Government warnings and civil defense pamphlets about fallout shelters were designed to scare people enough to get them to devote serious effort to undertake a project that required real work.

The National Shelter Initiative

The issue of fallout shelters became especially prominent after July 26, 1961, when President John F Kennedy talked about them during a speech about the Berlin crisis. He proposed spending more than $207 million dollars on a national fallout shelter initiative, a much more aggressive federal approach to the question than had been taken by previous administrations. This is the initiative that eventually led to public buildings across the country being marked with those now-familiar (though fading) yellow and black signs. The fallout shelter became a common topic of broad national conversation. Many magazines, like LIFE, Time, and Fortune, ran articles about fallout shelters, often describing or even picturing idealized versions that echoed the styles of modern living in the booming 1960s. The LIFE magazine from September 15, 1961, even included a full page letter from President Kennedy. At the bottom of the letter, under the President’s signature, the page-long feature ended with a rather stark admonition: “You could be among the 97% to survive if you follow the advice on these pages . . .” It was the type of Cold War media coverage that people tended to remember.

Fallout Shelters and Suburban Life

Today, some scholars would argue that Americans talked about fallout shelters more than they actually built them. The truth was that the full backyard, underground, metal or concrete shelter was an expensive construction project that was well beyond the financial means of many Americans. It wasn’t an option for city or apartment dwellers. Many people did what they could in their own basements, and most government, state, and local publications continued to include plans for basement shelters. Check out the basement fallout shelter featured as late as 1964 in the “Fallout Shelter Cut-Out Book” from the Maine Office of Civil Defense and Public Safety. This type of plan was probably the reality for most Americans.
But during the years of expansive suburban growth in the 1950s and 60s, it wasn’t surprising that the idea of installing a full shelter in the backyard became a widespread notion. Some government pamphlets acknowledged this, noting that the construction of a full shelter was most economical if it was “constructed at the time a house is being built.” (The Family Fallout Shelter, June 1959) Where was most of such new construction occurring? Largely in the growing suburban developments that were just beginning to ring major American cities. Certainly some families did decide to go to the trouble and expense of installing a full shelter. One famous example lives on at Smithsonian Institution. (To see it, follow this link: http://historyexplorer.si.edu/artifacts/resource.asp?id=99). But the real number was probably far lower than the popular image we carry today of every family safely hidden away in their own backyard underground bunker.

For a deeper discussion about the history of the fallout shelter in America during this period, please see:


Theme: Civil Defense and Community

Mr. Civil Defense
As has already been discussed, the Federal Civil Defense Administration got its legislative start late in 1950 and became an active agency in early 1951. During the FCDA’s first few years, it mainly oversaw the production of pamphlets and governmental publications. At times, its real usefulness was questioned, and some experts felt that it was too fragmentary and diffuse to be of much real service. (Packman, M. (1956). Civil defense, 1956. Editorial research reports 1956 (Vol. II). Washington, DC.) But by the mid 1950s, the agency started taking wider action to assess and advocate for a greater level of atomic preparedness. In 1956, the FCDA introduced a new mascot.

Mr. Civil Defense appeared on posters for National Civil Defense Week. He also appeared as a counter cut-out and as a disaster preparedness guide in a variety of comic books. Drawn by Al Capp (best known for his comic strip Li’l Abner), Mr. Civil Defense advocated public readiness for all disasters, natural and atomic. In the light of other criticism about the FCDA’s lack of a nationally unified profile, Mr. Civil Defense was probably unveiled as a friendly means to help all Americans identify more broadly with the concept of civil defense and the work of the agency. The choice of the artist was a very strategic decision. Al Capp was more than just a well-known cartoonist of the period. He was also an extremely popular speaker and media spokesperson in the 1950s. He appeared regularly on radio and on television shows like CBS’ The Ed Sullivan Show and NBC’s Today. Any character he created was sure to receive wide national exposure, and with it, the associated agency as well.

Fallout on the Farm
Although cities and towns seemed to get the most attention in many civil defense initiatives, rural Americans were also asked to be vigilant and prepared. Rural areas initially offered escape from highly populated locations. The development of the H-bomb in 1954 led to a change in FCDA policy that shifted emphasis away from the “stay put” mentality of the early A-bomb years to a goal of pre-attack evacuation. This, it was hoped, would allow more of the roughly 35 million Americans
who lived within the country’s major population centers to get out of harm’s way. (Some states and cities had made this decision on their own years earlier, creating and implementing evacuation plans as early as 1951.) Even rural plains states like Nebraska participated in drills that tested smaller communities and identified a new state capitol in case the existing capitol (in the case, Lincoln) was destroyed by an atomic bomb.

You’ll note that all of the civil defense materials in Alert Today that relate specifically to rural communities date to the early 1960s. With the advent of atomic missile systems after 1957, rural locations became equally vulnerable to the effects of fallout. They even became targets when U. S. missile silos were established far from urban centers. With warning times reduced from hours to minutes, a new level of preparedness was required. In 1958, the FCDA issued Radioactive Fallout on the Farm, a pamphlet created to answer questions about the impact of radiation on livestock and crops. (A copy of this pamphlet can be seen in Michael Scheibach’s book "In Case Atom Bombs Fall," pp. 46 -49. A copy of the book travels with the exhibition.) Rural Civil Defense information kits emphasized the dangers to farmers and provided checklists and guidelines for protecting livestock and facilities, and for handling their crops and land in a post-atomic world. To drive the point home, posters like Radioactive Fallout Can Reach Your Farm (1960) presented aerial views that emphasized the threat to agricultural areas: these locations did not need to be at the center of a blast radius to be threatened by the impact of fallout; the clouds would come to them.

The Ground Observer Corps
One civil defense initiative that involved hundreds of thousands of Americans was the Ground Observer Corps. You’ll find artifacts related to this civilian effort in both the Timeline section of the exhibition (look for the GOC pins) and in a sequence of posters included in the section Civil Defense and Community. The Ground Observer Corps started during World War II as a force of civilian plane spotters trained to report enemy bombers. That original corps was disbanded in 1944. After the Soviets acquired the A-bomb, a new need for the corps arose. The Ground Observer Corps of the Atomic Age was revived in 1950 with 160,000 volunteers serving at 8,000 civilian observation posts located in gaps between radar network sites. Both men and women participated.

After the success of the initial pilot, the project was fully expanded nationwide by 1952 and titled “Operation Skywatch.” At it peak, more than 800,000 adults and teenagers were trained to recognize the characteristics of different planes and be prepared to make that crucial warning call. Post locations constructed special buildings, usually on a hill or higher observation point; many communities erected towers. Teams of volunteers manned the posts and watched the skies, rotating in shifts around the clock. The Ground Observer Corps was truly a national effort involving cities like Rochester, NY and Chicago, IL as well as small towns like Lorain, Ohio, and tiny rural settlements like Scotch Grove, Iowa. For sample images of Ground Observer Corps posts, you can check out these links: http://danielebrady.blogspot.com/2011/01/manning-lorains-civil-defense-tower-in.html and http://rochesteravonhistory.blogspot.com/2011/06/vanished-rochester-ground-observer-post.html

Some toy manufacturers even created playthings that encouraged children to practice their observation skills—look for the toy “Radar Center” in the section At Play in the Atomic Age. The Ground Observer Corps ultimately became a victim of changing weapons technologies. After the
Soviets achieved missile capacity in 1957, the need for plane spotters declined. The Ground Observer Corps was reduced to ready-reserve status in 1958, and permanently inactivated in 1960.

**American Highways and the Evacuation Route**

The Evacuation Route road sign and the auto visor evacuation map also featured in this section remind us of the critical importance of the nation’s highways and road system during the years covered in Alert Today. It’s important to keep in mind that concern about America’s roads wasn’t a product of the atomic era: a “Good Roads movement” had existed in this country since the early 1900s; and legislative efforts to create a national limited-access highway system had been pending in various forms since the 1930s. But by the time President Dwight Eisenhower took office in January 1953, only about 6,500 miles of new highway had been completed. Eisenhower realized that this was clearly not enough, and the issue began to receive new attention. It was, Eisenhower said in his 1954 State of the Union speech, in “the vital interest of every citizen,“ to have a “safe and adequate highway system.”

After several false starts that involved debates over funding models, the National Interstate and Defense Highways Act was finally passed in 1956. The act’s passage jumpstarted the creation of today’s familiar limited access multi-lane highways and inner-city beltways, although the total actual highway miles of the project weren’t completed until the 1970s. The National Interstate and Defense Highways Act wasn’t expressly created for the purpose of atomic evacuation, but the timing of the initiative and the shift in FCDA policy to emphasize evacuation as an official civil defense response linked the two developments in the public mind. New highways and beltways allowed people to get out of town faster and travel much more quickly between locations.

Highways designated part of the official Civil Defense evacuation route system were marked with a round blue sign that included the “CD” marker and, in many cases, an arrow showing motorists which direction to follow. In addition to the sign in Alert Today, you can also see a good example of one of these signs and a photograph of its highway use in Milwaukee, Wisconsin by following this Wisconsin Historical Society link: [http://www.wisconsinhistory.org/museum/artifacts/archives/003654.asp](http://www.wisconsinhistory.org/museum/artifacts/archives/003654.asp)

Like many other programs of the FCDA, the evacuation route signs were originally used primarily for atomic awareness activities. But over time the goals of civil defense broadened to include natural disasters. It is in this area of preparedness that the round blue signs still exist today, largely seen along America’s coastal regions as markers for Hurricane evacuation routes.

**“Atomics” at School**

**The Double-Edged Atom**

Teachers had an especially difficult job during the Atomic Age. Students needed to learn how to survive an atomic attack. They also needed to be prepared if they did not: schools even handed out dog tags to students in the 1950s. You can see examples of such artifacts here: [http://ncchistory.blogspot.com/2009/07/pet-milk-and-dog-tags-for-cold-war-kids.html](http://ncchistory.blogspot.com/2009/07/pet-milk-and-dog-tags-for-cold-war-kids.html). But in spite of the questions and the climate of fear, students also needed to learn how to **live** in an atomic age. It was the reality of the world in which they would grow up and become functioning...
members of society. The long-term future of the American democracy depended upon them being able to move past fear of the bomb and commit to building a better society. What would happen if children succumbed to the belief that they had no future?

“Atomics”— a term coined by a teacher in 1946 to refer to the integration of atomic themes into school curricula — entered the classroom almost as soon as America entered the Atomic Age. The general nature of the word symbolizes how schools had to balance their teaching of atomic themes to avoid allowing the negative aspects the atomic bomb to outweigh the (hoped for) potential benefits that atomic science offered for the broader welfare of human culture. “You are the future,” students were told. Understanding atomic science meant understanding its potential for peace as well as destruction. As an excerpt from Operation Atomic Vision (1948) noted:

... there is a much brighter, a much more constructive, and a much more thrilling side of the atomic energy picture. If we look long enough ... we might be able to see a world free from war, strife, poverty, and sickness; a world of hope and of great possibilities for human welfare. ... Why not keep the bright side of the atom picture in the center of your attention?"

For schools, then, the atom truly was a double-edged topic: teachers walked a fine line trying to negotiate between the needs of atomic preparedness and the knowledge of what an atomic attack could do, and encouraging students to learn how elements of that same science could advance the progress of civilization. In science and social studies classes, in textbooks, in school programs and drills, children learned about the dangers of the atomic bomb and the benefits of atomic energy. Government pamphlets even encouraged schools to integrate “atomics” beyond the realms of science and social studies, recommending their inclusion in activities for art classes, student council discussions, physical education, business courses, and the school library.

Encourage your visitors to look closely at the school-related objects in Alert Today. Watch for a balance between preparedness activities and materials that explored the exciting possibilities of atomic science. The Exploring Atomic Energy textbook in Deck 12 opens to a page that reads “Learning about atomic energy.” It shows three students envisioning different outcomes for an atomic world: this is a great image to use as a starting point for a tour discussion in this section of Alert Today.

Duck and Cover

Of all the civil defense materials created during the 1950s, no other film, pamphlet, or program achieved the widespread exposure that was enjoyed by Duck and Cover. Even today, Bert the Turtle and his catchy little musical jingle are familiar to audiences born generations after the film’s original release. Duck and Cover was created in 1951, when Archer Films made it under contract with the new Federal Civil Defense Administration to produce short films for the nation’s public schools. Three million copies of the Duck and Cover cartoon booklet were first distributed to schools late in 1951. The film debuted on January 7, 1952 during the public launch of the Alert America national truck caravan. It was then previewed later that month by a group of educators in New York City. The New York Post announced the occasion: “Pupils to See ‘Bert Turtle’ Duck A-Bomb.” The film didn’t invent the concept of “duck and cover”—the title came from the “duck and cover” sneak attack drills that students were already practicing in classroom across the country. The teacher would stand in front of the classroom and yell “Drop!” and students would
duck and cover under their school desks. The goal of such activities was something the civil defense authorities thought of as “emotion management” – preparing students to respond instinctively to a threat and prevent panic. In the film Duck and Cover, the idea was that a friendly cartoon character and a cheerful song would also help children remember these same steps and minimize their fear.

Duck and Cover was one of nine films created under the original private / public partnership organized by the FCDA. It was one of two films produced by Archer. (The other was Our Cities Must Fight, 1951.) These would be followed by many more. But unlike other civil defense films, Duck and Cover entered a different level of American pop culture. Eventually, the film’s title, character, and content came to symbolize the combination of paranoia and optimism that marked the 1950s. By far the most thorough account of the story behind the creation of Duck and Cover can be found on the CONELRAD website (http://www.conelrad.com) that explores all things Atomic Age. To read the full account (which runs through four separate web chapters), follow this link: http://www.conelrad.com/duckandcover/cover.php?turtle=01.

At Play in the Atomic Age

Toys and Games in the Atomic Age
It’s not surprising that toy manufacturers and producers of other mass-culture entertainment turned to the themes and the stories of the Atomic Age for inspiration. How could anyone overlook such a dominant experience of the times? Atomic awareness was everywhere—it surrounded people’s lives and even directed their behavior. Merchandisers who didn’t acknowledge it would have seemed out of date or even out of touch with the world around them. The items featured in this section of Alert Today cover only a very small portion of the almost endless supply of atomic ray guns, battle games, science fiction films, and comic books that responded to the fear, amazement, and irony of a new atomic world. An exhibition that presented only these types of materials might leave a very different impression with visitors about how people experienced the atomic threat during these years.

Toy manufacturers followed the official messages of the Atomic Age the most closely. In the conservative post-War world of 1950s and early 1960s America, average toy consumers—many of them perhaps young veterans with new growing families—weren’t going to seek toys that ran counter to the prevailing general culture. Many military-themed toys like the Atomic Chief head set, the Atomic bomber wind toy, and the two versions of the atomic bomb dexterity game included in Alert Today echoed the public values of post-War America: the atomic bomb ended World War II, saved American lives, and thus, was something people should not be ashamed to celebrate. Products like the Electric Radar Center allowed children to practice skills that adults were using to protect the nation while also reminding everyone of the not-so-distant past of World War II. Toy gun manufacturers like Daisy and Hubley were also quick to apply the atomic namesake to their products during the early years of the period, between 1946 and the mid-1950s. Atomic ray guns competed for shelf space with the cowboy rifles and colt revolvers that remained popular with western-crazy kids.

As the Cold War wore on, toys reflected the changing technology that also impacted the adult world. Objects like the Kusan KF-110 Atomic Train (1957 – 1960), with its reactor car and guided
missile car, and the Atomic Mobile Unit missile launcher (c. late 1950s; seen in the Timeline section of Alert Today) may seem morbid to us today. But they were created and marketed during a period when even average Americans were intimately familiar with the basic details of the Cold War weapons race. Surrounded in the media by missile counts, atomic attack drills, blast radius maps, and, eventually, the rhetoric of the space race, such toys didn’t seem so unfamiliar or threatening to people who lived with the reality of what they represented every day. At the same time, following the civil defense psychology of preventing panic through public education, such toys may even have helped parents explain to children what the all the adult discussion was about.

At the Movies: Sci-Fi and the Atomic Age
In contrast to the general content of many Atomic Age toys, movies in the 1950s expressed more of the underlying anxiety of a nation that wondered where the world was heading. This was especially true for the genre of science fiction. Movies such as The Beast from 20,000 Fathoms (1952) and Them! (1953) were just two of hundreds of films that used atomic testing and experiments with radiation as catalysts for tales of human-wrought disaster.

There were, of course, many other films produced between 1945 and 1965 that used atomic themes. Not all storylines involvedmutant insects and angry dinosaurs. For example, the drama The Beginning or the End? (1947) explored arguments and justifications for Truman’s decision to use the bomb. Films like The Atomic Man (1955) and Alfred Hitchcock’s Notorious (1946) focused on murder mysteries and atomic espionage. Political thrillers like Fail-Safe (1964) and dark comedies like Dr. Strangelove (1964) highlighted the futility of nuclear escalation. Other science fiction films, like The Day the Earth Stood Still (1951), explored deeper socio-political questions about the global ethics of a weapon like the atomic bomb. It’s also important to keep in mind that the movie image of the “mad scientist”—immersed in his mysterious laboratory heedless of the impact his experiments may wreak on greater mankind—emerged at least two decades earlier than the Atomic Age, by the early 1930s.(Think of films like Frankenstein, 1931, and the Island of Lost Souls, 1932.) It was natural that aspects of such a long-established cinematic tradition would reappear during a period that found some people questioning the wisdom of atomic science.

But the 1950s clearly ushered in a unique invasion of mutant monsters and creature features unprecedented in earlier decades. Films like The Beast from 20,000 Fathoms and Them! —as well as the eventual worldwide phenomena, Japan’s Gojira (Godzilla) —spawned a wave of similar creations. For at least the next ten years, film screens crawled with oversize tarantulas, leeches, giant caterpillars, a wide assortment of aliens, and a multitude of prehistoric beasts. In part, these films resonated with audiences precisely because they did echo the paranoia of the Cold War and the anxieties of a new atomic world. But their great popularity was also based on changes in larger demographic trends and new leisure patterns that resulted from those changes. In short, while parents were buying their children atomic ray guns and toy trains, it was teenagers who were going to the movies. As television ownership increased during this period, dramas and other forms of screen entertainment found a new and more accessible home on the small screen. But the collective audience thrills of watching giant mutant insects or radiated reptiles wreak havoc upon unsuspecting cities found a much more effective platform on the large screen. Movie companies found a ready audience for such fare in the era’s teenagers. The creature feature and sci-fi films of the Atomic Age were marketed largely to them. In fact, movies like The Beast from 20,000 Fathoms were the real
precursor to today's cinema industry tradition of targeting major release films largely to younger adults.

The theme of cinema during the Atomic Age is a popular topic. You may also wish to consider these sources at your local library:


**The Atomic Age in Comics**

Like toys and movies, comic books were also quick to capitalize on the popularity of atomic themes. By the early 1950s, the word “atomic” (or variations of it) could be found in a wide variety of comic book genres, from superheroes and war titles to humorous animal characters. In fact, early atomic science was reflected in comics even before America's entry into World War II. At least one character, “the Atom” (so-called for his tiny stature) first emerged in 1940. *Real Life Comics* even focused an issue on “The Atomic Bomb” in January, 1945 – the issue focused on the Oak Ridge laboratory. (Los Alamos was unknown until after the war.) Following World War II, multiple comic book titles focused on combat themes like *Atomic War* (“Only a strong America can prevent”) and *Atomic Attack!* There was also an amazing variety of superheroes and animals, including *Atomic Rabbit* (starting 1955), *Atomic Bunny* (1958-1959), *Atomic Mouse* (starting 1953), *Atom Bomb*, *Atoman* (starting 1946), and *Atom the Cat* (1957). Even Superboy had his nuclear spotlight – In “The Atomic Superboy” (DC comics #115, September 1964). Humor Magazines like *MAD* and *Panic* didn’t pick up the atomic theme in words, but as the copies featured in *Alert Today* show, their content often satirized the climate of paranoia, espionage and counter-espionage, and the seemingly futile nuclear escalation of the period. And *MAD’s* title evoked an acronym that most Cold War comic book fans were sure to understand: Mutual Assured Destruction—the military doctrine of total shared annihilation.

*Alert Today* touches on just a few of the many different titles featuring atomic themes. New “atomic” characters and titles continued to be created into the 1980s and 1990s. You may wish to partner with a local comic book club or collector and mount a supplemental exhibition exploring this topic in more depth.

For more information about comic books and humor magazines, here are a few sources you might wish to consult:


For a database of cartoon characters with atomic-related names and downloadable public domain comics, try the following websites:

- **Don Markstein’s Toonopedia**
- **The Digital Comic Museum** – try searching under “atomic”