feature

Life Underground

Building the Bunker Society

Joseph Masco

What are the long-term psychological consequences of living within a nuclear culture? What fears are now so ingrained in American life that we can't seem to live without them? How, in other words, has nuclear fear remade everyday American society as permanently insecure, even as the United States has become the most powerful military state on earth?

Of the many astonishing cultural achievements of the atomic revolution in the United States, let's consider the transformation of the underground, windowless room into a site of both global power and social dreaming. In the nuclear age, the room with no view, often buried and hardened against attack, became a place where futures were both held hostage and re-imagined. Here, the critical relationship between citizens and the State was remade, reorganized within a crucible of nuclear fear. This turn inward toward built spaces stocked with state-of-the-art technologies and commodities presented a utopian vision of an invulnerable America closed off from the outside world but still functioning perfectly.

One of the first and most powerful effects of the bomb was to transform the United States into a special kind of bunker society, fixated on impending nuclear attack while fantasizing about life within both mental and physical fortresses. Positing life in the bunker as livable (even exciting) was a vital mechanism of militarizing American society in the face of an expanding nuclear threat. It also set the terms for a long-running American fantasy about achieving an absolute and total form of security. Figures 1 and 2, for example, are Federal Civil Defense Administration (FCDA) proposals from the mid-1950s for the next generation of public schools. The nondescript ground-level building depicted in figure 1 pales in comparison to the underground bunker with its carefully diagramed spaces filled with bunk beds, escape hatches, offices, and infirmary. Similarly, the above-ground swings and slides in figure 2 seem no match for the playful imagination of the hidden, windowless spaces below, which promise order, self-sufficiency, and insulation from the universe of danger above. There is no sign here of the reality of nuclear war, of the scorched and barren radioactive landscape, or the extreme trauma of life in a postnuclear environment. Indeed, even as civil defense publicly promoted the security of the bunker, Rand Corporation nuclear strategist Herman Kahn was trying to calculate at what point the "survivors would envy the dead."

New Fortresses for the Mind and Body

The atomic bomb created fundamental military, social, and psychological contra-

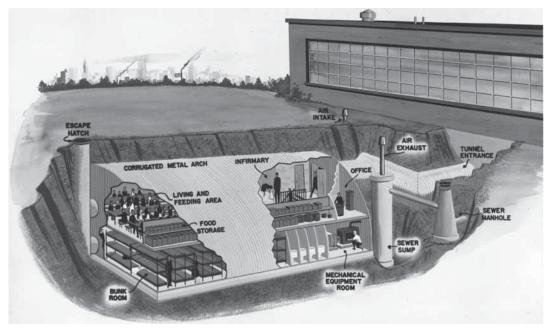


Figure 1. FCDA plans for Group Fallout Shelter for 240 Persons. The nondescript ground-level school building pales in comparison to the underground bunker with its carefully diagrammed spaces. (U.S. National Archives)

dictions that long-standing concepts of "security" could not resolve. Instead, federal authorities sought to manage nuclear fear rather than eliminate it, to structure American perceptions of the bomb to enable support for a potentially long Cold War. To this end, the nuclear state embraced the profound contradictions nuclear weapons posed by normalizing a nuclear state of emergency and then simply calling the result "national security." By the late 1950s, for example, the federal government was not only feverishly building thermonuclear weapons and the means to deliver them around the world, it was also considering a massive investment in fallout shelters across the United States, a program promising an entirely new national infrastructure, all underground. For example, in 1958 the Rand Corporation offered a detailed plan to relocate four million New Yorkers to deep underneath Manhattan (Rand 1958:7):

The shelters were to be excavated 800 feet below the surface, using conventional excavation and mining techniques. They were to be almost completely isolated from the surface, with air purified and enriched with oxygen as in a submarine, with water tapped from the Delaware Aqueduct system of tunnels and treated (or in an emergency, drawn from internal storage), and with power provided from diesel generators vented to the surface but isolated from the shelter proper. Occupants

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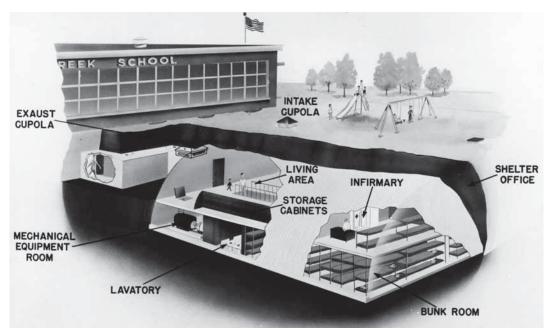


Figure 2. FCDA plans for Group Fallout Shelter for 240 Persons. The above-ground swings and slides seem no match for the windowless spaces below which promise insulation from danger above. (U.S. National Archives)

would be assigned berth in a large dormitory, would receive two cold meals and one hot meal per day, and would draw fresh clothing, take showers, and exercise on a rotational basis. Some 91 entrances were planned and distributed according to population, so that every point in Manhattan was within 5 to 10 minutes walking distance of an entrance; elevator design characteristics currently employed in New York should permit about a fourth of the people in the buildings themselves to reach the street every 5 minutes. The entrances were sloped tunnels and had 500psi blast doors both at the top and at the bottom; provision could be made to collapse any single tunnel if the upper door gave way.

Isolated from the surface as in a submarine. This effort to build in the imagination an underground city, hardened against nuclear attack, would be physically realized in the command and control centers for U.S. nuclear forces. The general public, however, would focus more on constructing psychological defenses in the nuclear age than on actual shelters. Nuclear civil defense was, in this regard, an extraordinarily powerful means of defining the boundaries of both security and threat for the public, while training citizens to think about nuclear war in specific ways.

The civil defense projects of the 1950s formally positioned the bunker as a new American frontier space, populated by a new kind of citizen defined by the constant

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preparation for nuclear attack. This new Cold War subject was designed to be immune to panic but nonetheless motivated by nuclear fear. Thus, just as Cold War military technologies were being hardened to survive nuclear attack, civil defense efforts sought to engineer a new kind of citizensoldier, one who was emotionally equipped to support the nuclear state. Hardening both technologies and psychologies against the bomb was a dual project of the early nuclear state-making the nuclear bunker a new site of nation and state building. The embrace of stone and steel and concrete as protective shield transformed the windowless bunker into both a technological challenge and a utopian space. And via the promise of the bunker, the logical outcome of nuclear war-the destruction of the nation state in a radioactive firestorm-was denied and a different future horizon opened up.

As Americans contemplated life underground in the early Cold War period, a new kind of social intimacy with mass death was deeply installed in U.S. national security culture. As the military built multiply redundant technological systems for fighting a nuclear war (including always-on-alert bombers, missiles, and submarines), the civil defense program sought to build a society capable of withstanding the internal pressures of living within a constant state of emergency and facing a new kind of totalizing destructive force. Cold War planners explicitly merged nuclear fear with the ideology of American Exceptionalism. In doing this, they engineered a new kind of militaIn 1957, the Gaither Committee brought together the leading military-industrial planners in the country to contemplate the benefits of a national fallout shelter program in response to the Soviet nuclear program.

rized society, in which America was depicted as both powerful and vulnerable. This ideology continues to inform U.S. national security culture to this day. The elevation of the bunker into an icon of state power and social responsibility played a critical role in psychologically preparing and orienting Americans for escalating militarism.

In addition to reconceptualizing schools, government buildings, and mass transit sites as future shelters, the Cold War state constructed a new infrastructure of buried military facilities in support of nuclear weapons systems and for continuity of government operations. Simultaneously, officials recruited private citizens to the shelter project, asking them to build home shelters or risk death or permanent injury in the coming nuclear conflict. In this crosscutting embrace of the bunker as the future of the nation, a new kind of national security culture emerged—one that reorganized everyday life as permanent warfare.

In 1957, the Gaither Committee brought together the leading military-industrial planners in the country to contemplate the benefits of a national fallout shelter program in response to the Soviet nuclear program. In addition to declaring (and inventing) a terrifying "missile gap" between the United States and the Soviet Union (leading to a massive arms buildup in both the late Eisenhower and Kennedy Administrations), the committee recommended a crash shelter program that would cost as much as \$55 billion over five years. The Committee was explicit in the value of the program: The shelter system was designed not only to save lives as the bombs began to fall but also to communicate to the Soviet leadership an American "will to live," and thus win, either a cold or hot war. Civil defense was theatrical as well as practical, a means of sending signals out into the world from underground bunker spaces, both real and imagined. The bunker linked public, private, and military domains in a formal contemplation of nuclear war.

Moving Underground

It is difficult for us to assess today the incredible energy and creativity that went into building American apocalyptic technologies, and the difficult, ongoing social work of normalizing a permanent war economy in the United States. Consider the extraordinary national infrastructure built in support of nuclear war. In the first decade of the Cold War, the nuclear state moved underground, supported by a new concept of command and control that focused not on seeing the world directly but rather on approaching the computer screen as world. As missiles, radar systems, and command centers became buried in hardened military facilities across the globe, windowless bunker sites came to link earth, sea, air, and eventually space, as data points on technologically mediated screens. The core example of this new system was the North American Aerospace Defense Command (NORAD), located deep within Cheyenne Mountain in Colorado. Authorized in 1958, NORAD tracked all flying objects over North America, a job that became increasingly important as intercontinental missiles and satellites joined bombers as forms of Soviet military power.

NORAD was the most advanced bunker facility of its time and perfectly illustrates the passions of the Cold War nuclear project. The central facility is buried 2,400 feet deep inside a mountain of almost solid granite and is supported by 1,319 steel springs (each three feet in diameter and weighing more than 1,000 pounds), designed to absorb the shock of nearby nuclear detonations. NORAD was simultaneously the most isolated and the most connected site in the United States. Secured behind 25-ton blast doors (see Figure 3), the facility was both locked down and networked to radar systems, computers, and eventually satellite surveillance systems, assembling enormous data sets of moving objects tracked in real time on a giant central screen (see Figure 4). This central screen was the lens for viewing nuclear threat throughout the Cold War, a powerful tool for orchestrating U.S. military deployments

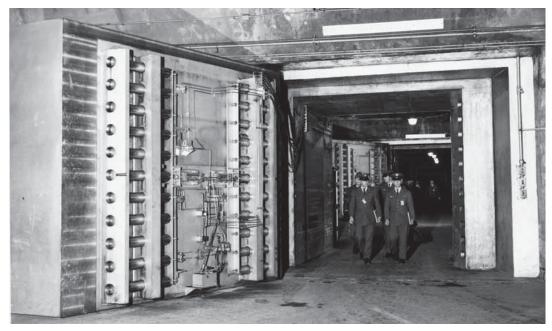


Figure 3. Deep within the Cheyenne Mountain in Colorado, NORAD was secured behind 25-ton doors. (U.S. National Archives)

and achieving Mutual Assured Destruction. NORAD was designed as the ultimate panopticon—a form of surveillance enabling crew members, invisible to the world in their hardened underground bunkers, to watch all of North America and provide an early warning of nuclear attack.

The windowless bunker provided a new kind of vision, one that amplified the ability to recognize dots on a giant screen as friend or foe in the minute-to-minute orchestration of the balance of nuclear terror. This representation of the world as data points is among the most profound technological evolutions of the nuclear age. As Paul Edwards (1996) has argued, the Cold War concept of Soviet "containment" found a perfect technological metaphor in the form of the computer screen, creating a "closed world" system of mutually reinforcing ideologies, metaphors, and technologies. NO-RAD is thus both a technological system and a model of an idealized world, one where the points on the global map are preselected for their value and importance and all other forms of information are ignored. Over time the "closed world" vision naturalizes these preselected data points as the world itself, forgetting the messy complexity of cultures, politics, and ecosystems. Like the concept of "collateral damage" (the unintended violence of warfare), the kinds of information not convertible into dots on a screen (culture, intentions, mistakes, technological malfunctions) were rendered invisible in favor of a machine-to-machine as-



Figure 4. The representation of the world as datapoints is among the most profound technological evolutions, but it omits the messy complexity of cultures, politics, and ecosystems. (NORAD Command and Control, U.S. National Archives)

sessment. Nonetheless, by 1965 the power of NORAD was not only defensive, but it was also offensive in its ability to coordinate the use of the 31,000 nuclear weapons in the U.S. arsenal, demonstrating the extraordinary power of the windowless bunker in the nuclear age.

Life in the hardened bunker quickly became a site of Cold War fantasy for both military leaders and citizens. For the military it presented a vision of the globe as a totally knowable and controllable space. For citizens, the windowless bunker became a privatized dream space—where time spent waiting for the bombs to fall and the radioactive clouds to clear could be a source of renewal not ruin. Citizens, however, did not approach the bunker on their own terms or of their own choosing; instead, they were taught how to think about nuclear crisis and their own role in managing it. The project of "civil defense" in the 1950s was less about the protection of citizens and cities than about the emotional training of the populace, and the psychological conversion of U.S. citizens into Cold War Warriors. Developed with the help of advertising experts, psychologists, and military planners, civil defense was primarily a means of instilling nuclear fear, and a coded response to it, within the U.S. population as part of the larger Cold War effort. This took the form of the largest federal media campaign in U.S. history. Relying on newspapers, magazines, radio, television, and film, civil defense was designed to teach

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U.S. citizens just enough about the dangers of nuclear war to mobilize their support but not enough to produce terror or a public movement to end to the Cold War project.

The Bunker as New American Frontier

Cold War civil defense was above all an extraordinary national conversation about collective death. The media campaign forced citizens to consider a postnational state of being and eventually, as the power of nuclear arsenals grew, the possible end to life on planet Earth. Civil defense was an unprecedented national project as federal authorities sought simultaneously to mobilize and naturalize nuclear crisis within the United States. They did so by teaching citizens to fear an imminent global nuclear attack each minute of the day while also arguing that such a threat could be approached as just another form of potential crisis, alongside floods, fires, and earthquakes. The domestic form of the "balance of terror" presented a constant problem of emotional and informational calibration to Cold War planners. In one widely distributed civil defense pamphlet from 1959 titled "Ten for Survival: Survive Nuclear Attack," for example, readers learned that "survival" is simply a question of knowing "what to do and how to do it." But this promise that "knowledge is survival power" is paired with a description of nuclear war that overwhelms ducking and covering as a mode of protection:

Dangers facing you: The bomb produced heat of several million degrees—a good deal hotter than the temperature on the surface of the sun. This heat travels at the speed of light. A megaton explosion could kill an unshielded man 8 miles from ground zero. A 20-megaton explosion could kill an unshielded man 20 miles away. It could blister and cripple the bodies of unsheltered people well beyond that.

At the speed of light. As part of the larger effort to mobilize the public for nuclear war, civil defense authorities increasingly responded to these gruesome facts by seeking first to naturalize, and then to romanticize, shelters. Life in the bunker was depicted as quintessentially American, a new frontier experience where the resilient citizen could outwit a dangerous world with grit, skill, and moral determination.

At the height of the fallout shelter debate, the Federal Civil Defense Administration (FCDA) produced photographs (see following pages) documenting ordinary Americans in their home bunkers. These images represent the fallout shelter as pure dreamspace, not only privatized but also part of a pastoral landscape. The FCDA presents each shelter in a photographic sequence, beginning with a view from ground level looking at the owners descending into the shelter entrance, followed by a view from the windowless interior. This sequential structure underscores the break between the world above and the bunker below. In each case, the shelter hatch begs to be locked down tight, sealing the inhabitants below in their submarine-like security, locking the inhabitants within a special kind of fantasy space: militarized, privatized, post-nation-state.

Figure 5 presents the arresting image of the suburban home on a seemingly peaceful, sunny day, with a father and daughter slowly descending into a circular hatch cut neatly into the lawn. Framed to enhance the sky and grass, while underscoring the dramatically unhurried nature of the fatherdaughter descent into the earth, the photograph registers a preternatural calm, belying the context of nuclear war that necessitates this shelter project. Figure 6 then shows the neatly ordered family space below, complete with air purifier, stove, and bunk beds, already populated by three generations of happy shelter inhabitants. The father can sleep in this image precisely because he has put forth the labor to build a shelter as a

personal response to the international nuclear crisis. The grandparents and daughter simply enjoy the time together in this windowless underground space. The canned goods and medical kits become a register of good parenting in this advertisement, which also suggests that time spent in the bunker can be quality family time.

Figures 7 and 8 repeat this pictorial structure but with more humor and a repositioning of the shelter as a place to get some peace and quiet, away from the troubles of the world above. In the first image, the smiling male owner pops his head out of the carefully hidden shelter entrance, presenting a covert space surrounded by a thicket of trees and shrubs. On the inside we see him in relaxed pleasure, legs crossed lying on a bunk bed enjoying a magazine, a slight smile on his face, the very picture of con-



Figure 5. Family Fallout Shelter Residential Exterior (U.S. National Archives)



Figure 6. Family Fallout Shelter Residential Interior (U.S. National Archives)

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Figure 7. Hidden Fallout Shelter (U.S. National Archives)



Figure 8. Hidden Fallout Shelter Interior (U.S. National Archives)

tentment. Here the fallout shelter is presented as a privatized retreat, as much bachelor pad as survival kit. But the hidden entrance to the bunker sends a double message: It is a secret retreat (a place to gather one's thoughts in private) and a regional secret—an implicit recognition of the value of the shelter at a time of nuclear crisis, when less prepared Americans might be scared into violent acts of appropriation. Indeed, one of the immediate concerns of the shelter debate involved how to cope, not with the bomb or a Soviet invasion, but with traumatized neighbors reduced to a violent state of panic.

Figure 9 presents the family fallout shelter as pure dream space. As clouds gather on the horizon, a farming family moves into their hidden shelter space, dwarfed by grass and sky. This image magnifies the drama of the world outside the shelter, the enormity of global politics, and replaces it with the cool forward-thinking bunker logics documented in Figure 10. The mother here sorts her stock of preserved food, revealing months of labor already invested in preparing for a postnuclear future. The FCDA sought to divide up shelter responsibilities by gender and age within the family structure, tasking men with shelter construction and organization, women with food and first aid, and children with studying nuclear effects (to keep their parents on track). The family farm could be incorporated into civil defense as well, participating in a larger FCDA campaign for food recovery, including shelters for cattle. These two images merge the survivalist narrative of self-preservation and independence characteristic of American frontier heritage with a pure pastoral image of the farming landscape as cover for the windowless life below. The iconography of a family alone in



Figure 9. Rural Family Fallout Shelter Exterior (U.S. National Archives)

the wilderness, preparing for the tough winter is deployed here to make the fallout shelter a uniquely American space, bringing together the rural, the pastoral, and the radioactive in one conceptual drama.

Each of these shelters is also a privatized enterprise, stocked largely with purchased commodities, from generators to radios, bunk beds and flashlights. The fusion of shelters and consumer capitalism was essential right from the start. President Kennedy asked each American to prepare for nuclear war by finding or building a shelter. He also proposed a \$400 million national shelter program one year before the Cuban Missile Crisis, energizing a new industry in store-bought shelters. The FCDA sought to enhance the allure of the shelter by sponsoring a national campaign to design multiuse rooms, good for sitting out a nuclear war or for use in the pre-attack everyday. In



Figure 10. Rural Family Fallout Shelter Interior Food Storage (U.S. National Archive)

the shelter campaign, families were always depicted together, in good health and happy underground when war broke out. These conceptual designs start to explain why families were depicted this way: The FCDA was attempting to relocate the American family to the nuclear bunker—to make the bomb the source of family life rather than the destruction of it.



Figure 11. Fun-Room Fall-Out Shelter Design (U.S. National Archives)

Figures 11 and 12 document this FCDA effort to normalize the nuclear bunker as a part of everyday life-useful before, during, and after nuclear war. Designed by the Los Angeles firm of Dorothy H. Paul, Figure 11 is a concept drawing for the "Fun Room Fall-Out Shelter"-a dual-use playroom and bunker. Instead of windows, the walls of this shelter are painted with a playground scene of children in a park, running and climbing trees-precisely the environment that would likely be scorched or radioactive after a nuclear exchange. Stations are set up for book reading and for viewing films; board games are stacked along the wall. The "fun" to be had here requires both faith and imagination, transforming the terror of a nuclear war into an opportunity for game playing and other modes of distraction. Figure 12 takes this argument about the value of time in the shelter to its logical conclusion. Designed by Marc T. Nielsen of Chicago, it presents the "Family Room of Tomorrow Fall-Out Shelter." Also a windowless, cinderblock bunker, the design includes both Stone Age wall paintings and a world map, as if to raise the question of what kind of tomorrow the family will have-the prehistoric or the modern? This design was shown in full-scale mock-up at a Chicago trade show, where it met not with praise and admiration but the anger of a crowd sickened by the assumption about what a nuclear "tomorrow" might look like.

Despite this effort to romanticize the shelter and to construct it as a dual use

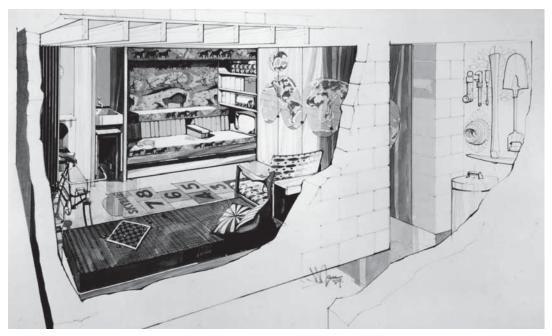


Figure 12. Family Room of Tomorrow Fall-Out Shelter Design (U.S. National Archives)

room suited for all kinds of catastrophe as well as for entertaining guests, most Americans did not—indeed, could not—build nuclear bunkers. Instead, Figure 13 depicts the most wide-ranging response to the bomb: the duck-and-cover drill that every American schoolchild practiced for the forty years of official Cold War. Here, face down, internalized in one's own mind, and completely vulnerable to the world around, is the ultimate Cold War posture—a sightless, private bunker of the most pathos-driven kind.

The FCDA campaigns always offered citizens the best-case scenario for nuclear war—in which the bombs explode well over the horizon—allowing Americans time to get to their shelters and minimize the most destructive effects. The FCDA consequently focused on the middle-class, suburban family living on the periphery of urban centers, creating and reinforcing an image of America as an exclusively white nuclear family. This left unrepresented a vast population of Americans while ignoring the predominantly urban concentration of U.S. populations. Nonetheless, the FCDA campaign sought to link the shelter to a specific American narrative of frontier survival and, in so doing, presented the bunker largely as a commodified dream space rather than a disaster zone. Via civil defense, federal authorities promoted an idea of an invulnerable American-able to exist outside of time and space-located within a new mythology of perfect national security.

Scientists and activists almost immedi-



Figure 13. Duck-and-Cover Drill (U.S. National Archives)

ately challenged this denial of death. They critiqued the factual claims of civil defense, helping to foment peace, civil rights, and environmental movements. Perhaps the most devastating critique of the bunker society came in Stanley Kubrick's 1963 film, Dr. Strangelove, or How I Learned to Stop Worrying and Love the Bomb. At the end of the film, as the president and his war council are holed up in the closed world command center known as the "war room," a huge computer screen follows the path of U.S. and Soviet bombers on their final bombing runs, detailing the now unavoidable outbreak of global nuclear war. Rather than producing despair, however, the president's science advisor, Dr. Strangelove, suggests that the United States could now move a "nucleus of human specimens" to the deepest mine shafts and prepare them (with nuclear reactors for energy and greenhouses to

produce food) to wait out the radioactive fallout for a few hundred years. Suggesting a 10:1 ratio of women to men to repopulate the human species, the erotics of the shelter produce immediate desire among the president and his all-male war council, as well as a renewed state of competition with the Soviets, this time to prevent, over the hundreds of years it would take for surface radiation to decay, the development of a "mine shaft gap!" The nuclear bunker is revealed here as pure masculine fantasy, participating in an erotics of death that is not subject to selfanalysis even as the bombs begin to fall.

From a Secure, Undisclosed Location

What has become of the Cold War bunker society in the 21st century? In the days after

the terrorist attacks on the World Trade Center and the Pentagon in September 2001, one of the most theatrical people in the country was Vice President Dick Cheney. Having spent much of his career thinking about continuity of government plans for nuclear war, Cheney issued his public statements from a "secure, undisclosed location." Almost instantly a joke, it was funny precisely because most Americans could picture the windowless, underground bunker (now outfitted with the Internet and video conferencing) that the vice president chose to speak from. Energizing the entire Cold War system for nuclear crisis, Cheney began to orchestrate from his buried control center the start of a global military response that he called the "new normal." The bunker here was not the idyllic space imagined by the FCDA for citizens. Rather, it was the militarized bunker linked to global technologies for war.

One of the Bush administration's first projects in the "war on terror" was to normalize a state of permanent crisis, using the legal, rhetorical, and emotional structures of the Cold War security state to radically change both foreign and domestic policy. By calling what they were doing over the following years—multiple wars, unprecedented domestic surveillance, global renditions, the suspension of the writ of *habeas corpus*, and torture—"national security," the Bush Administration was able to suspend law and moral order in the United States.



Today, federal authorities no longer ask citizens to go into underground rooms made of steel and concrete, but into bunkers of the imagination.

We do not build nuclear shelters anymore. This is not because the bunker society has been outmoded, but because it has been so completely integrated into public life. Early Cold War civil defense was concerned primarily with militarizing the public and mobilizing citizens for a long wartime commitment. The long-term success of that project has created a "national security culture" that is unprecedented in human history. Today, federal authorities no longer ask citizens to go into underground rooms made of steel and concrete, but into bunkers of the imagination. These conceptual bunkers free the national security state to operate in an uncontested field of global action. No state in history has given as much to "security" as the United States. Currently the United States has less than 5 percent of the world's population but outspends the entire world combined on its military-nearly \$1 trillion in 2007. Yet this extraordinary military expenditure does not produce a sense of security; quite the opposite.

The history of the Cold War bunker tells us why: the focus has never been on stopping violence but on preparing psychologically to endure it, which has created a perverse concept of security. Certain rituals of security today—the airport screenings that do not enhance security, the acquiescence to domestic electronic surveillance, and the extraordinary sums of money spent on "defense" work not to protect but to underscore, and even create, a sense of vulnerability. This evocation of risk is then acknowledged by the security state as a call for more security (in the form of "preventative" wars, covert actions, and greater secrecy), leading to an escalating militarization of national life.

The "war on terror" promises, in this way, to end the experience of terror, first by saturating national politics with forms of fear, and then by pursuing an ever-greater counterterrorist response to them. The Bush administration promoted the ideology of the bunker into a full national security culture, one that trained citizens to define "security" as a state project and to ignore the vast manipulation of public life conducted in the name of "defense." "National security" demanded docility from citizens while enabling policies that were in violation of any concept of democratic governance and that were deadly. Just as the fallout shelters would not have saved many Americans during a nuclear war (indeed, it would have suffocated most in spaces that became ovens under the full force of nuclear warfare) this concept of "national security" has been used to justify unprecedented sacrifice in terms of life, law, and capital since 2001. Perhaps now that the wreckage of the "war on terror" is mounting up and becoming both visible and unavoidable to Americans, the concept of "national security" and its nuclear roots can be formally reconsidered. Perhaps it is even time for Americans to get out of the nuclear bunker once and for all, begin demilitarizing, and re-enter the world in all its bright and messy insecurity.

Suggestions for Further Reading

For key texts in the Cold War policy debates over fallout shelters, see: The Rand Corporation, *Report on a Study of Non-Military Defense* (1958, Santa Monica: The Rand Corporation); Security Resources Panel of the Science Advisory Committee (known as the "Gaither Report") *Deterrence and Survival in the Nuclear Age* (1957, Washington: U.S. Government Printing Office); and for a detailed history of the commission, see David L. Snead, *The Gaither Committee, Eisenhower, and the Cold War* (1999, Columbus: Ohio State University Press); and Herman Kahn, *On Thermonuclear War* (1960, Princeton: Princeton University Press).

For a photographic history of Cold War bunkers, see Richard Ross, *Waiting for the End of the World* (2004, New York: Princeton Architectural Press). For an excellent cultural history of the fallout shelter movement in the United States, see Kenneth D. Rose, *One Nation Underground: The Fallout Shelter in American Culture* (2001, New York: New York University Press). For visual analysis of the cultural work of atomic ruins in the US, see Joseph Masco, "Survival Is Your Business: Engineering Ruins and Affect in Nuclear America," *Cultural Anthropology* (2008, 23(2): 361–98); and Tom Vanderbuilt, *Survival City: Adventures Among the Ruins of Atomic America* (2002, Princeton Architectural Press).

For a discussion of the politics of fear, terror, and panic in the early Cold War, see Guy Oakes,

The Imaginary War: Civil Defense and American Cold War Culture (1994, New York: Oxford University Press), as well as Jackie Orr's assessment of the long-term impacts of emotional management campaigns on U.S. culture in Panic Diaries: A Genealogy of Panic Disorder (2006, Durham: Duke University Press). For a stimulating discussion of the role of psychology in early Cold War planning and its larger effects on American society, see Catherine Lutz, "Epistemology of the Bunker: The Brainwashed and Other New Subjects of Permanent War" in Joel Pfister and Nancy Schnog (eds.), Inventing the Psychological: Toward Cultural History of Emotional Life in America (1997, New Haven: Yale University Press), pages 245-270. For a critical assessment of civil defense as performance, see Tracy C. Davis, The Stages of Emergency: Cold War Nuclear Civil Defense (2007, Duke University Press).

For analysis of the Cold War technological system as ideology, see Paul Edwards, The Closed World: Computers and the Politics of Discourse in Cold War America (1996, Cambridge: MIT Press). For a discussion of how gender roles were positioned in early Cold War civil defense, see Laura McEnaney, Civil Defense Begins at Home: Militarization Meets Everyday Life in the Fifties (2000, Princeton: Princeton University Press); and for an analysis of gendered discourse in Cold War strategic thinking, see Carol Cohn, "Sex and Death in the Rational World of Defense Intellectuals," Signs (1987, 12(4): 687-718). For an assessment of the U.S. nuclear project in New Mexico, see Joseph Masco, The Nuclear Borderlands: The Manhattan Project in Post-Cold War New Mexico (2006, Princeton: Princeton University Press).

It is important to recognize that American society did not merely commit to building and maintaining a state-of-the-art nuclear arsenal after destroying Hiroshima and Nagasaki in August of 1945. The United States increasingly built itself through and around the bomb. During the second half of the 20th century, one of every three federal dollars went to the nuclear complex, making it the third largest federal expenditure, ranking just after the non-nuclear military and social security; see Stephen Schwartz (ed), Atomic Audit: The Costs and Consequences of US Nuclear Weapons Since 1940 (1998, Washington D.C.: Brookings Institution Press). See also Robert Higgs, "The Trillion-Dollar Defense Budget Is Already Here," available online at: http://www.independent.org/newsroom/article. asp?id=1941. For a chart of global military expenditures put together by GlobalSecurity.Org, see: http://www.globalsecurity.org/military/world /spending.htm.

For crucial filmic insights into the psychology of the Cold War nuclear system, see *Dr. Strangelove: Or How I Learned to Stop Worrying and Love the Bomb* (1964, Directed by Stanley Kubrick) and *Fail Safe* (1964, Directed by Sidney Lumet). For an example of bunker discourse within the "War on Terror," see Vice President Cheney's transcript at: http://www.whitehouse. gov/vicepresident/news-speeches/speeches/ vp20011025.html.

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