The Ideology of Defense and Paul Shambroom's Photographs of the Bomb

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May, 2004

Introduction

Strategic and tactical nuclear weapons technology dominates United States foreign policy. Originally invented to end World War II, expanded to fight a cold war, and further developed after that war for "deterrence," these weapons' existence underscores each and every desire of the United States across the globe. With them, the U.S. plays the role of sole superpower, led by a man constantly followed by the "football"—a briefcase literally handcuffed to a presidential aide that holds the keys for destroying the world. The photographs in Paul Shambroom's book, titled "Face to Face with the Bomb," present the first independent pictures of these weapons. Yet these are not mere photographs of bombs and other related technologies—they are representations that reveal an ideology: that these weapons have a legitimate place in the world of civilized human beings.

In an increasingly postmodern world, where images dominate the culture and guide our conception, it is perhaps not surprising that most everyone's experience with nuclear weapons technology is at least one step removed from reality. Shambroom spent years gaining access to these sites, providing the rest of us with the only glimpses we're likely to get.[1] The images serve to distance us from the weapons' existence, yet there is something ironic in the fact that one's sole connection to these weapons is an inherently postmodern representation of something so drastically modernistic in conception and execution. It would seem that Shambroom is aware of this irony, evidenced by his dual-meaning title of "Face to Face with the Bomb." Certainly he was indeed face to face, but the reason for this

action (the capture of photographs), and the result tendered to the viewer (representations of reality), is at least one face removed from the actual.

That images provide more information than a simple picture of the object(s) is a well-discussed aspect of visual culture. Jean Baudrillard offers his notion that our concepts are driven by images, leaving us submerged in a constant stream of simulations that prevent our accurate determination of reality. The power relationship between the viewer and the picture has been explored by Jacques Lacan, whose notion of the gaze explains how images mediate that relationship. And how meaning that is actually constructed is made to appear natural is explored in the mythologies of Roland Barthes.

This essay will primarily concentrate on the ways in which these photographs by Shambroom mythologize a number of historically contingent ideas, how they illustrate notions of patriarchy, and how they combine these functions to present a variety of accepted ideologies that on inspection (and deconstruction) are wholly unsupported. The ideologies will be further explored by considering these images' relation to the sublime of Immanuel Kant, their place in the "American Technological Sublime" of David Nye, and the ways that these images extend, embody, and potentially destroy our notions of the sublime, concluding with an exploration of how these images and their mythologies relate to current affairs.

Mythologies

Barthes' mythologies serve to deconstruct hidden meanings, and are particularly relevant in the analyses of imagery and language. The essential mythology (and resulting ideology) behind all of Shambroom's photographs is that nuclear weapons have a legitimate place in the world—that they deserve to exist (because they ensure safety), that they have a reasonable purpose (to provide "defense"), and that humans that use them can ensure their full control. The essence of defense, and a defensive good supplied by nuclear weapons technology is addressed by Barthes in his short essay *Operation Margarine*. "One

inoculates the public with a contingent evil to prevent or cure an essential one."[2] In this sense, the inoculation is against the evils of bombs that can destroy the world in order to "cure an essential evil"—the need to develop these weapons, and to spend half of society's money building them in the name of defense.

The mere existence of these weapons, as represented in Shambroom's photographs, serves as overwhelming justification for the idea that they are reasonable and just. The enormous societal expense necessary to produce the massive infrastructure (silos, launchers, submarines, control rooms, etc.), the weapons themselves, and the numbers of humans dedicated to their production and maintenance deter questions of relevance and importance. If so much is spent and so much time dedicated to these things, then it must be important and necessary. Every image in the collection documents this infrastructure, and in many cases, illustrates the extensive human commitment in service of it.

The massive infrastructure also serves the purpose of suggesting human domination over and control of this technology. The eight-ton concrete and steel blast door pictured in plate 18 implies that we can protect ourselves from the weapons, and thus keep ourselves safe. Safety in the face of destructive technology implies control. The vast array of dials and switches in the "Launch Control Center" (plate 20) also implies control—yet a nuclear explosion, once delivered, devours everything for potentially tens or hundreds of miles. Further, the technology pictured is old and dated, without computerization, and reliant on a rotary phone for communication. The orderly seating structure and commanding technology (phones, microphones, monitors) of the "Emergency Conference Room" pictured in plate 55 suggests that war can be directed and controlled by a small few. Yet despite the hopes that nuclear weapons make war nice and neat by restricting its waging to tidy hierarchies of privileged men, most wars quickly evolve into a conflict between individual soldiers trying to kill each other. Even the sign that reads "No Lone Zone; Two Man Concept Mandatory" (plate 18) suggests that we will maintain control over the firing

of these weapons by never allowing one person to have control over a launch. But the "Two Man Concept" is in place to deter someone from tampering with the launch technology, not necessarily to ensure that at least two people must agree to fire the weapons.

The painting on the blast door in plate 18 is further revealing of an inherent ideology present in the military in general, and to nuclear weapons facilities specifically. That the huge, muscular eagle tramples the continental U.S. intimates that national defense is essential and trumps all other concerns. The absence of stars on the upper-left corner of the U.S. map further implies this, suggesting that the states' individual rights and interests are relatively unimportant in these matters. The painting screams superpower, with the eagle's dominant size and massive weaponry. Finally, the size of the door itself suggests that this task (firing nuclear weapons) is so important that we'll build a ridiculously large door to ensure its completion.

The mythologies are also extended via language by the military's refusal to acknowledge the truth in an Orwellian sort of way, as their terminology denies the real functions of the weapons. Intercontinental Ballistic Missiles (ICBM's) become "Peacekeepers." "Words such as 'bomb' and 'warhead' are rarely used. Instead, the air force uses the acronym 'RV' (for 'Reentry Vehicle'). … Bombs are 'gravity weapons.' Warheads are jokingly referred to as 'physics packages.' Anything nuclear is 'non-conventional.'"[3] By removing the real function from the language used to describe it, those who handle and maintain these objects can avoid the implications of their actions.

Patriarchy, Hierarchy, and Fetishism

Notions of patriarchy and hierarchies in general pervade the imagery in this collection of military technology. This hierarchy serves to reinforce notions of legitimization of the weapons by suggesting a civility to their direction, maintenance, and use. Looking once again at the Emergency Control Center (plate 55), one notices a distinct

hierarchy literally built into the structure of the room. The center table is surrounded by plush white leather armchairs on wheels, each seat adorned with a microphone. A second layer of seating behind this consists of rows of stationary medium brown armchairs. Finally, a third layer of seating behind these utilizes dark brown auditorium-style fixed seating. The characteristics of the seating reinforce notions of hierarchy by drawing on both familial and racial metaphors. The style of chair (rolling, stationary arm, and fixed auditorium style) implies levels of power, such as the various ranks of military achievement, but also perhaps evokes a patriarchal family model with the father in the first row, mother in the second, and children in the third. The color of the chairs mimic racist hierarchies, with the whites in command, medium brown behind, and the darkest browns in the back.

The SAC (strategic air command) memorial window in the Command Chapel in plate 68 reinforces patriarchy with its depiction of a memorialized soldier as a male that leaves behind a mother, a first son as oldest child, and a young daughter. This image reinforces the role of the soldier as the mighty white masculine fighter that saves the heterosexual white family from the evils of the world. As a huge image within the military church, it further serves to indoctrinate the visitors with a sense of awe and honor for those that choose this role of straight white protector.

There is also a clear gender hierarchy at play when considering the entire image collection. Only one woman is clearly pictured throughout the photographs (in plate 20—another figure helping to move a guard rail is potentially a woman in plate 71). Although that woman is in a somewhat powerful position—that of a switch flipper in a launch control center (women weren't allowed in this role until 1988)—the apparent power of this position is partially deceiving, as orders to fire missiles originate elsewhere, and their collection of missiles can be fired by a nearby team in another bunker. No woman is pictured as technician, maintenance worker, or engineer. No woman is pictured in a position of actual

power. When combined with the control mythologies described previously in plate 55, the clear idolization of the fallen soldier in plate 68, and the male dominance of all humans included in the collection, the patriarchal natures of these spaces and environments become clear.

Unsurprisingly given the subject matter, the book is full of imagery that can be explained by Freud's notion of the commodity fetish—the tendency to attribute phallic power with physical objects, and to enumerate those values based on their degree of association with "masculine" characteristics such as strength and power. Just as typical Freudian fetish objects like guns and SUVs empower the Oedipal male, the 21-meter long, 2-meter diameter ICBM 'Peacekeeper' missile provides the ultimate in dominant psyche to its creators, operators, and controllers. The photograph in plate 22 shows the male handlers as perhaps so enamored by the phallic object that they must reach for it, even if they can't quite bring themselves to touch it (and at that, only with gloved hands). In another example, the eagle painted on the blast door in plate 18 is depicted as a muscular male, standing on legs made from bombs, holding a phallic missile as if it were a gun. Finally, the tunnel of the Combat Alert Facility (to ensure 24-hour instant readiness for nuclear bombing missions) in plate 13 is suggestive of a vagina, with the male bomber pilot as the phallus himself. After navigating the birth canal, the phallic male bursts into the light of day with the sole purpose of dropping his bombs on the enemy with haste.

Beyond Freud's commodity fetish, Marx' use of the term also applies. Marx suggested that humans suffuse objects with an extra value beyond their use-value that is enumerated by the mythologies we place on those objects. What is the use-value of total annihilation of the human race, or the continued development of weapons to achieve that destruction at the expense of numerous social ills? Society has certainly come to fetishize these weapons as valuable because of the feelings they provide in regards to our notions of defense and power. The costs of these weapons are immense, and well beyond their sticker

price given the ways in which they affect the world, the waste they leave behind, and the resultant destruction of the environment (whether detonated or not).

The Sublime

Kant's notion of the sublime is concerned with the state of mind when we experience that which we can't truly comprehend—its vastness is beyond us. Of his two divisions of the sublime, the mathematical and the dynamic, the latter is most applicable to nuclear technology. The dynamic sublime upsets our thinking as it relates to things that have incredible force in relation to ourselves. Generally related to nature, the dynamic sublime occurs in something so strong and powerful that we have trouble resisting it. However, it must be something that does not actually elicit fear due to a sense of absolute freedom from its dangers.

On first glance, nuclear weapons fall into step with the dynamic sublime. They suggest fear because of their destructive power, and that power is at least as powerful as typical examples of the dynamic sublime (i.e. hurricanes and storms). Yet because they are actually human-produced, we (theoretically) control them, providing us with that essential freedom. However, nuclear weapons technology, as with a variety of other vast and powerful technological inventions made in America, falls within the bounds of a subcategory of the sublime called the American technological sublime.

The American Technological Sublime and the Atomic Bomb

In his book titled the "American Technological Sublime,"[4] David Nye investigates the ways in which natural and human-made objects provide a sublime experience, and how that experience differs from those described by Kant, Edmund Burke, and others. It is a faculty that morphs out of the unique American experience. While "the experience of sublimity is based on a universal capacity for a certain kind of emotion … [the] Americans nevertheless shaped this emotion to their own situation and needs."[5] The American sublime

is a way for Americans, with their relatively short history, to celebrate themselves and their country. They use it to celebrate their independence from rule, and in thought:

> "Since politics was expected to inspire vigorous debate … rather than automatic patriotism, another realm of unquestioned allegiance was needed to unite the citizenry. Hence the centrality of the natural and technological sublimes. While voters might disagree on the issues of the day, they could agree on the uplifting sublimity of Niagara Falls, the Natural Bridge, or the Erie Canal at Lockport." These objects were "…understood as product[s] of democracy."[6]

Divergent from the European sublime theory of interest to the intellectual elite, the American technological sublime thus merges with religion, nationalism, and eventually technology to create a unique sublime experience embraced by all. "Where Kant had reasoned that the awe inspired by a sublime object made men aware of their moral worth, the American sublime transformed the individual's experience of immensity and awe into a belief in national greatness."[7]

The first atomic bomb, dropped on July 16th, 1945, was also understood as a product of democracy—one whose awesome power was used to preserve it. To those who viewed the explosion from a safe distance (or at least those who thought their distance was safe at the time) the experience undoubtedly qualified as sublime. It was a power so great that it could not be comprehended, yet being human-made and –directed provided a feeling of absolute control. Years later, Sputnik, the first orbiting satellite put in space by the Soviet Union, ushered in a new age of technology built on the foundation of rockets, bringing with them the potential to deliver nuclear devices remotely over great distances. Thus, in a rush to continue the preservation of democracy after the war (and thus block the spread of communism), Americans continued to develop and refine their newfound ultimate power.

Art as Sublime

While atomic weapons clearly fall under the category of the American technological sublime as described by Nye (he uses the atomic bomb as an example), can Shambroom's

photos of these weapons also invoke the sublime? Generally photography, paintings, or other art objects are not considered capable of this.

> "There is a very real difference between observing a volcanic eruption and, to use Lyotard's examples, looking at a Picasso or reading James Joyce. A volcano, unlike a painting, can kill the observer. An eruption can cause the terror that lies at the core of Burke's philosophy of the sublime and which later was an essential part of Kant's theory of the dynamic sublime."[8]

But perhaps these photographs fall within an unusual category. They provide an extremely rare glimpse of these heavily guarded deadly weapons, and certainly have more potential to elicit a sublime reaction than a painting of an erupting volcano. The mere existence of a row of 1-megaton bombs (i.e. plate 3 depicts 13 'gravity weapons,' each 50 times more powerful than the bomb dropped on Hiroshima), and the pictured proximity of humans to them at least serves to elicit a strong sense of unease.

People rarely see the great American sublime objects (i.e. the Grand Canyon, Niagara Falls) in person for the first time. They will have been conditioned through photographs, oral stories, and narrative depictions. "As a result, in many cases tourists do not experience the sublime at all."[9] In the case of nuclear weapons technology, however, most people have not even seen photographs, let alone had a first-hand look. They have very little real visual connection with the objects themselves. As such, viewing of the photographs may indeed evoke the sublime, just as visiting the Grand Canyon for the first time would without having had any prior knowledge of it.

Baudrillard helps to further support this argument that these photos evoke the sublime with his notion that our concepts are driven by images, leaving us submerged in a constant stream of simulations that becomes more real than the real (his theory of the hyperreal). Images of nuclear weapons (and the military that surrounds them) undoubtedly constitute part of our concept of country. Atomic bombs recall our memories of Hiroshima (images of the Enola Gay, the first atomic device, and of mushroom clouds), and our winning of World War II. If our concept of defense is partially or wholly derived from

images of "defensive actions" (i.e. war), then seeing *images* of nuclear weapons is nearly as real as seeing the actual weapons themselves (which we'll never see in person), and as such, may evoke the sublime.

Ephemerality of the American Technological Sublime

Just as the current consumer society is obsessed with the latest, new technological gadget at the expense of the old (i.e. last week), the technological sublime seeks out new objects. While Kant's notion of the sublime was constant, "yesterday's technological wonder is today's banality."[10] The ephemeral nature of nuclear weapons as the technological sublime is cleverly hinted at in Shambroom's photos by pointing out an associative property—the ephemerality of humans in the face of nuclear weapons. A common visual thread throughout these images is that the soldier's movements are often blurred, giving the impression that they are less important, and less persistent than the weapons themselves. In the photo of the technician drastically half-buried in the rocket side of a Minuteman missile in plate 33, the soldier's left leg is blurred, yet the photograph is sharp. The soldier's position does not look particularly safe, and its half-buried nature makes reference to being buried alive. The 1-megaton bombs in plate 3 are also sharp, yet attended to by a blurred soldier sweeping debris from the floor. The memorialized dead soldier in the SAC stained glass window in plate 67 emphasizes the inherent risks associated with national defense.

Considering the proliferation of these weapons during the cold war (referred to as an "arms race"), and their continued development beyond the capability of world destruction, the constantly upgraded nuclear weapon makes an excellent example of the technological sublime. Nye sees this condition as representative of the unique shared experience characteristic of the American technological sublime. "Over time, the same objects cannot always be counted upon to evoke the sublime response. Their power often decays, and

other alternatives are sought. Ultimately, the constant is not the technological objects, per se; it is the continual redeployment of the sublime itself, as a preferred American trope."[11]

Gender and the Sublime

Having already noted the gender inequities visible throughout Shambroom's photographs, it seems relevant to discuss the inherent gender bias in various notions of the sublime. In an early work of Kant's, he leaves no question as to his position on this issue:

> "…all the other merits of a woman should unite solely to enhance the character of the beautiful, which is the proper reference point; and on the other hand, among the masculine qualities the sublime clearly stands out as the criterion of his kind."[12]

This is further notable in regards to the technological sublime—generally products of male design throughout American history. Women have endured a strong negative bias in the fields that typically produce the technological sublime. Speaking about the nineteenth century, Nye notes that "even more than the professions of medicine, architecture, and law, engineering was overwhelmingly male, and women were thought to be intellectually incapable of higher mathematics."[13] Even in modern times, a gender imbalance is real and palpable within the field of engineering. In 2001, women received only 19% of the bachelor degrees conferred in engineering by four-year universities, yet they completed 57% of all bachelor degrees across all fields in that same year.[14] While women have achieved extraordinary gains over the last 100 years in regards to their representation in positions of civilian and political power, that trend is not evident within a U.S. military designed to best accommodate white males in power.

On the Destruction of the Sublime

An essential component of the sublime experience is one of personal security. One views the terrific storm, but from a safe distance; one approaches the dangers of Niagara Falls in a boat that will not venture closer. These safe distances provide humans with a feeling of control over nature and elicit that feeling of absolute freedom that is the required

antecedent to the absolute totality of the fearful object of nature. "The sublime feeling is therefore a kind of 'rapid alternation' between the fear of the overwhelming and the peculiar pleasure of seeing that overwhelming overwhelmed."[15]

What is a safe distance from a nuclear weapon? Certainly when you compare the force of a hurricane to a tiny 1-megaton "gravity-weapon," you realize the infinitely powerful force of the hurricane is a pittance compared to that of the atomic bomb. "The classic form of the technological sublime has broken down not because the objects of our contemplation have ceased to be fearful but because terror has become their principal characteristic, and we have no sense that we can observe them safely."[16] The human-made origin of this arguably most-fearful object of "nature" thus entirely threatens the sublime experience. If part of the sublime judgment is an inability to comprehend the force of that which evokes the sublime, what happens when this force is human-produced? It may very well produce a circular pattern of judgment, whereby the comprehension of extreme fear succumbs to the knowledge that it is man who produced that fear for himself. The absurdity of his creation thus negates the sublimity of the experience, and "the exaltation of the classic sublime seems impossible."[17]

Of course, perhaps for most of the American population, this negation of the sublime might be usurped by the postmodern domination of visual culture. Propaganda and mythologies have encouraged our acceptance of the atomic bomb. It is part of our identity as a superpower, and it is this that justifies our keeping the bomb (while demanding that nobody else can have it). As such, these mythologies produce a refusal (or inability) to accept the truth of these weapons—that they have no other purpose than to destroy large numbers of people and property; that they can never be limited to strictly military casualties; and that they have such an unmanageable boundary of destruction that their use threatens to destroy the planet. This lie we accept thus allows us to avoid the circular

judgment that the ultimate natural terror is human-produced, and to stay oblivious to the consequences of our societal choices.

And finally, returning to the question of safe distance, could Shambroom's photographs actually be more sublime than actual proximity to the weapons themselves? Just as a powerful storm evokes the sublime as long as it is in the distance, a photograph of a nuclear weapon also provides that feeling of control. Any distance close enough to be able to see a nuclear device with the naked eye is too close to provide the absolute freedom required for the sublime. So in a context where Baudrillard's simulations produce a *hyperreal*, Shambroom's photographs of nuclear weapons become an implementation of a *hypersublime*—a simulated sublime that is more real than real.

The Age of Pre-emptive War

A sad irony surrounds Shambroom's photographs in our current age of pre-emptive war. In March of 2003, after several months of United Nations weapons inspections turned up nothing in Iraq, George Bush convinced the country that the U.S. must attack Saddam Hussein in order to prevent his use of weapons of mass destruction (WMD) against the world. Contradicting the wishes of most nations, the U.S. sent its men and women to their deaths in order to find these WMD.

More than a year later, over 700 U.S. soldiers have died, countless Iraqi soldiers and civilians have been killed, and not a single weapon of mass destruction has been found. David Kay, the chief weapons hunter returned and declared that none exist. Colin Powell, the Secretary of State, now regrets his use of questionable intelligence in his speech to the U.N. that sold the American public on the WMD question. And George Bush, President of the United States, finds the "mistake" funny enough to joke about looking for WMD under couch cushions in the White House.

But Shambroom's photographs show us and the rest of the world where the WMD are—they are right here in the United States. Stored in silos and warehouses, we have more

than enough nuclear arms to destroy the world as many times over as we can imagine. We even store some of them in submarines designed as mobile nuclear annihilation launchers, supposedly to ensure we get them before they get us.

But there is no them. There is only us. As Shambroom quotes Donald Rumsfeld, the Secretary of Defense:

> "Some have asked why, in the post-Cold War world, we need to maintain as many as 1700-2200 operationally deployed warheads. The end of the Soviet threat does not mean we no longer need nuclear weapons. To the contrary, the U.S. nuclear arsenal remains an important part of our deterrence strategy, and helps us to dissuade the emergence of potential or would-be peer competitors, by underscoring the futility of trying to reach parity with us."[18]

Who are the would-be competitors? Who can compete with the U.S. nuclear arsenal? Who will compete with a country that goes to war on a lie? The hypocrisy of the U.S. policy of pre-emptive war to retrieve non-existent WMD is utterly revealed, and illustrated throughout Shambroom's collection of photographs.

There is also a strange parallel between the original funding of the atomic bomb and the original funding of America's current war with Iraq. Development of the atomic bomb was seen as an essential component of the war strategy waged by the executive during World War II. But they did not trust the congress, or anyone else enough to disclose their plans. As such, they funded the infamous Manhattan Project in secret, without congressional approval or appropriation. The result was the most deadly device known to humans. Fast forward sixty years, and you find that the executive once again knows better than the rest of us. While fighting the Taliban in Afghanistan in retaliation for the September 11th attacks, the White House once again funds an initiative without congressional approval or appropriation—only this time it's to prepare for a pre-emptive war with Iraq designed to seek out the very weapons that its predecessors developed. The irony is excruciating.

Conclusion

The atomic bomb holds an unusual place in human history as the most terrifying device ever created. Yet it was introduced to the world as an object of success and humanity in order to end a world war. This introduction, combined with continued fears fueled by the outgrowth of that war, served as public sanction of an ideology that suggests these weapons are legitimate objects of deterrence with a reasonable place in the society of civilized human beings. This ideology is further supported by the countless mythologies of visual culture that support the "us against them" mindset. As both a part of that support structure, and as keys to its disclosure, Paul Shambroom's photographs serve a dual function. Let's hope the latter survives the former.

PLATES

All following photographs are from *Face to Face with the Bomb: Nuclear Reality after the Cold War* **by Paul Shambroom (Baltimore: John Hopkins Press, 2003). Images reprinted at low-resolution with permission of the photographer. Images are © Paul Shambroom, 2003.**

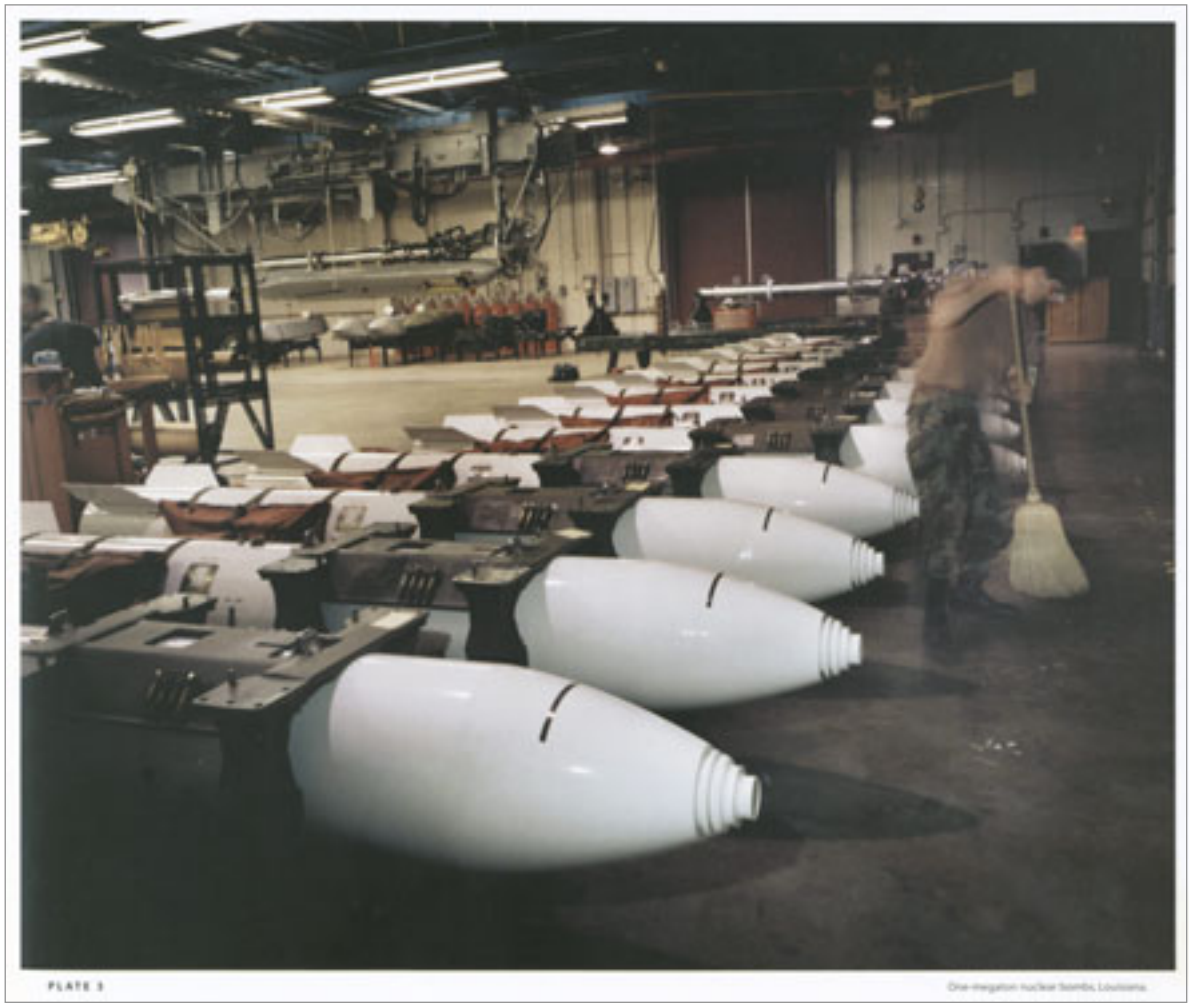

PLATE 3: One-megaton nuclear bombs, Louisiana

PLATE 13: Combat Alert Facility, South Dakota.

PLATE 18: Blast door, underground missile Launch Control Center, South Dakota.

PLATE 20: Missile crew in underground Launch Control Center, South Dakota.

PLATE 22: Peacekeeper missile before test launch, California.

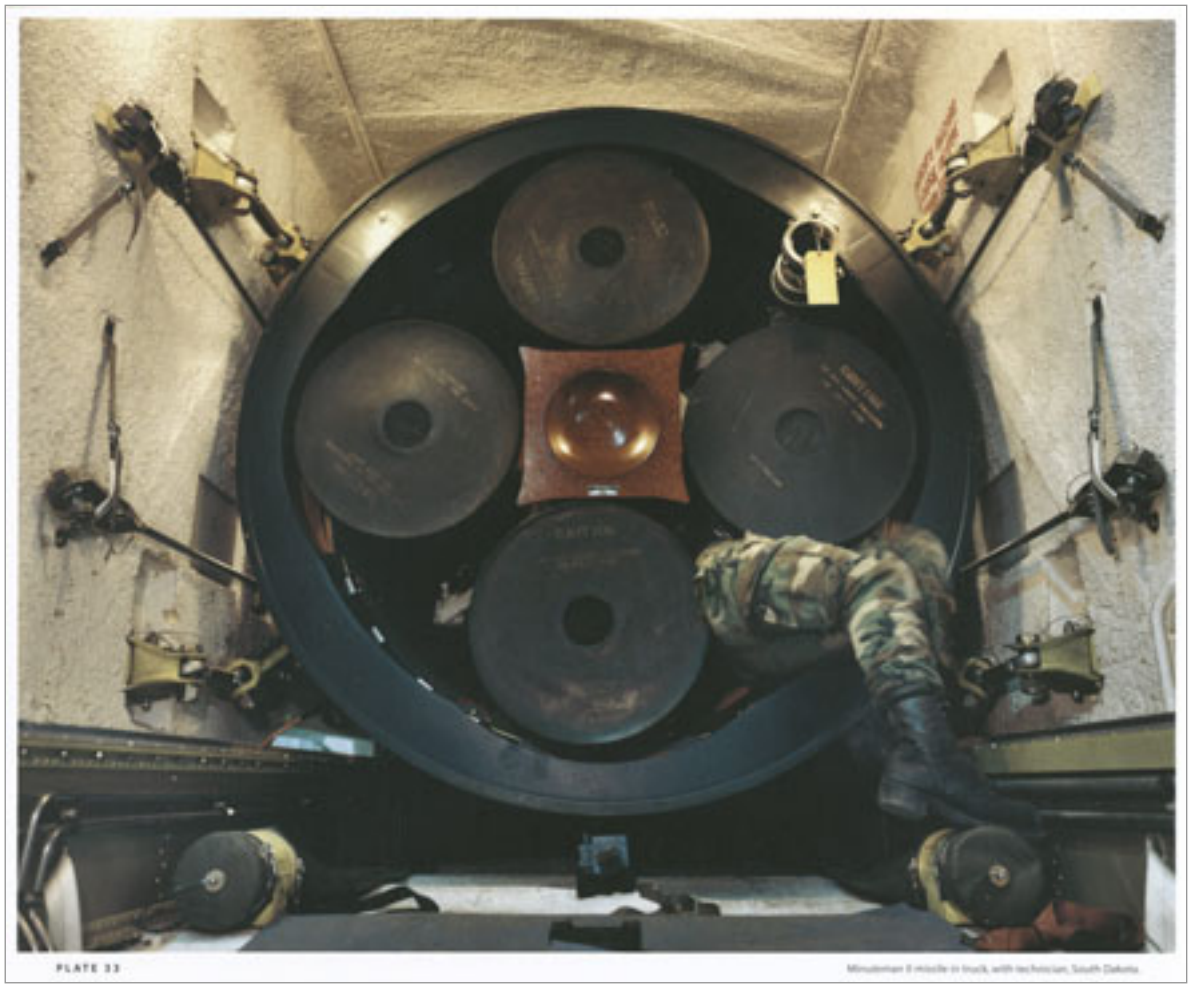

PLATE 33: Minuteman II missile in truck, with technician, South Dakota.

PLATE 55: National Military Command Center, the Pentagon, Washington, D.C.

PLATE 68: Strategic Air Command Memorial Window, Command Chapel, Offutt Air Force Base, Nebraska

[1] After the end of the cold war, Shambroom went through a long session of correspondence with various military and political officials in order to gain access to the sites he photographed. He eventually gained access to a variety of sites throughout the 1990's. On September 11th, 2001, his access was removed, and its reinstatement is not expected.
[2] Roland Barthes, *Mythologies* (New York: Hill and Wang, 1983), 42.
[3] Paul Shambroom, *Face to Face with the Bomb: Nuclear Reality after the Cold War* (Baltimore: John Hopkins Press, 2003), *xv*.
[4] Dave E. Nye, *American Technological Sublime* (Cambridge, MIT Press, 1994).
[5] Nye, *American Technological Sublime*, 23.
[6] Nye, *American Technological Sublime*, 35-36.
[7] Nye, *American Technological Sublime*, 43.
[8] Nye, *American Technological Sublime, xx.*
[9] Nye, *American Technological Sublime*, 13.
[10] Nye, *American Technological Sublime*, 237.
[11] Nye, *American Technological Sublime, xiv.*
[12] Immanuel Kant, *Observations on the Feeling of the Beautiful and Sublime* (Univ. of California Press, 1960), 78-79.
[13] Nye, *American Technological Sublime*, 31.
[14] According to the National Center for Education Statistics, http://nces.ed.gov/programs/digest/d02/tables/dt255.asp .
[15] Douglas Burnham, "The Sublime," Internet Encyclopedia of Philosophy, http://www.iep.utm.edu/k/kantaest.htm#3.%20The%20Sublime .
[16] Nye, *American Technological Sublime*, 235.
[17] Nye, *American Technological Sublime*, 255.
[18] Rumsfeld, Donald. Statement to the Senate Foreign Relations Committee, July, 17, 2002.