architectural **response** to war

introduction to semiotics
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Time worn solid, spotted and cracked, swallowed by darkness, enveloped inside and hidden. Stop in place, still time, relentless silence, tension, quiet silent darkness, slow repetition sameness, trapped hidden buried. S1

A steel mouthed artifact to be discovered holds
my relationship to war. Years before it was a
space to explore. Few would be allowed to make
the journey inside. Its contents hidden from view,
sealed from above. The remoteness of lying un-
disturbed gave life to flying roaches, spiders held
in wait with webs throughout. Sunlight would
not penetrate through the steel underground.
Widows never seen the light grew white with
green hour glass beneath.

This moment in time created a space not like
anything else I had experienced. Strange unfa-
miliar shapes penetrate the ground, rise to meet
the space above. Silent, waiting to be entered.
Dormant, stopped in time. The structure is all
but hidden from view, deep below. Lines define
shapes and materials suggest purposeful direc-
tion and calculated thought. A utility permeates
the structure. No color other than that of the
material. Each form follows specific function
though not revealed to the untrained eye. There
is a singular purpose inside. To be apart from
that which is above, shut off from the outside. S8
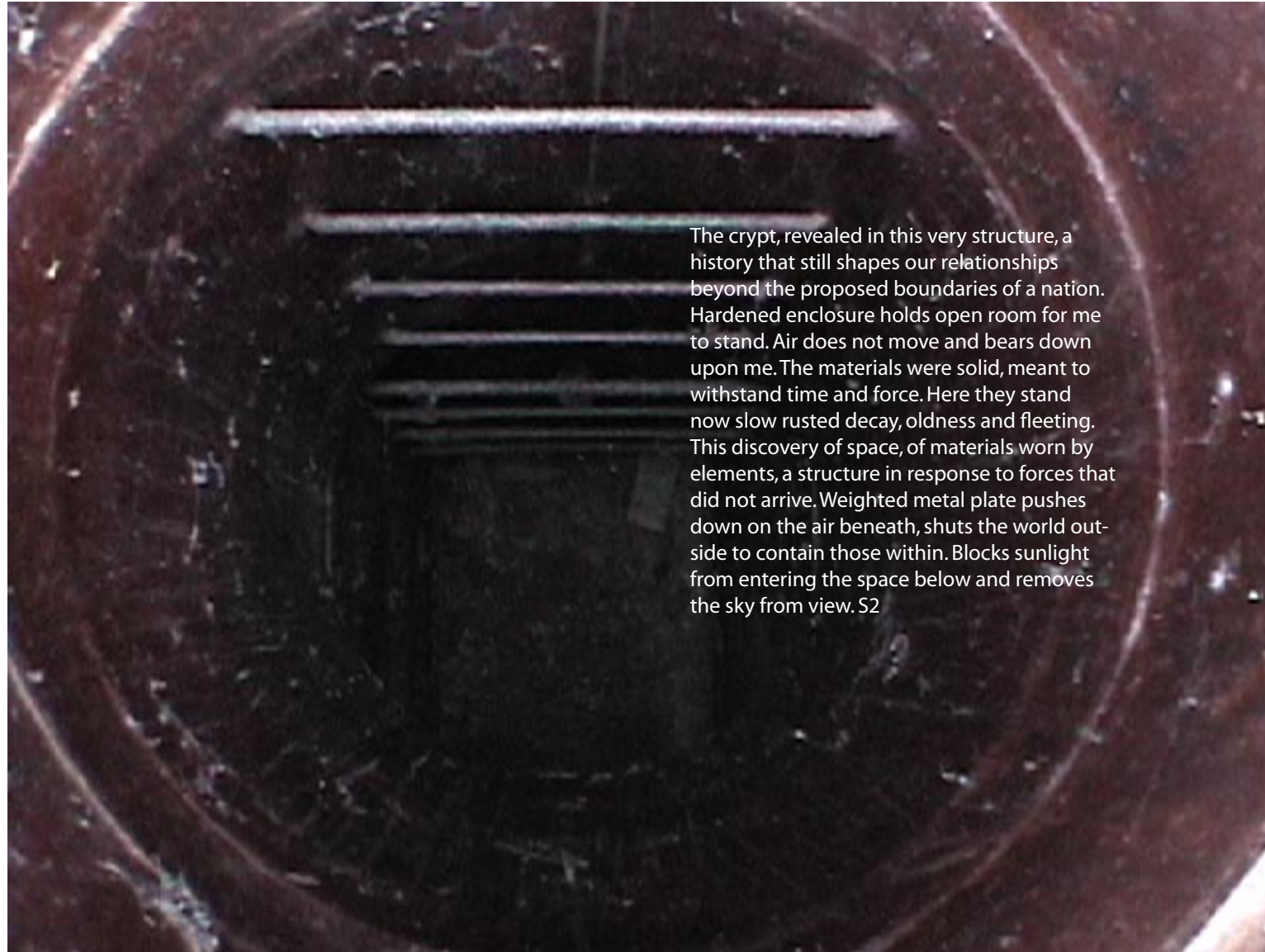
The crypt, revealed in this very structure, a history that still shapes our relationships beyond the proposed boundaries of a nation. Hardened enclosure holds open room for me to stand. Air does not move and bears down upon me. The materials were solid, meant to withstand time and force. Here they stand now slow rusted decay, oldness and fleeting. This discovery of space, of materials worn by elements, a structure in response to forces that did not arrive. Weighted metal plate pushes down on the air beneath, shuts the world outside to contain those within. Blocks sunlight from entering the space below and removes the sky from view. S2
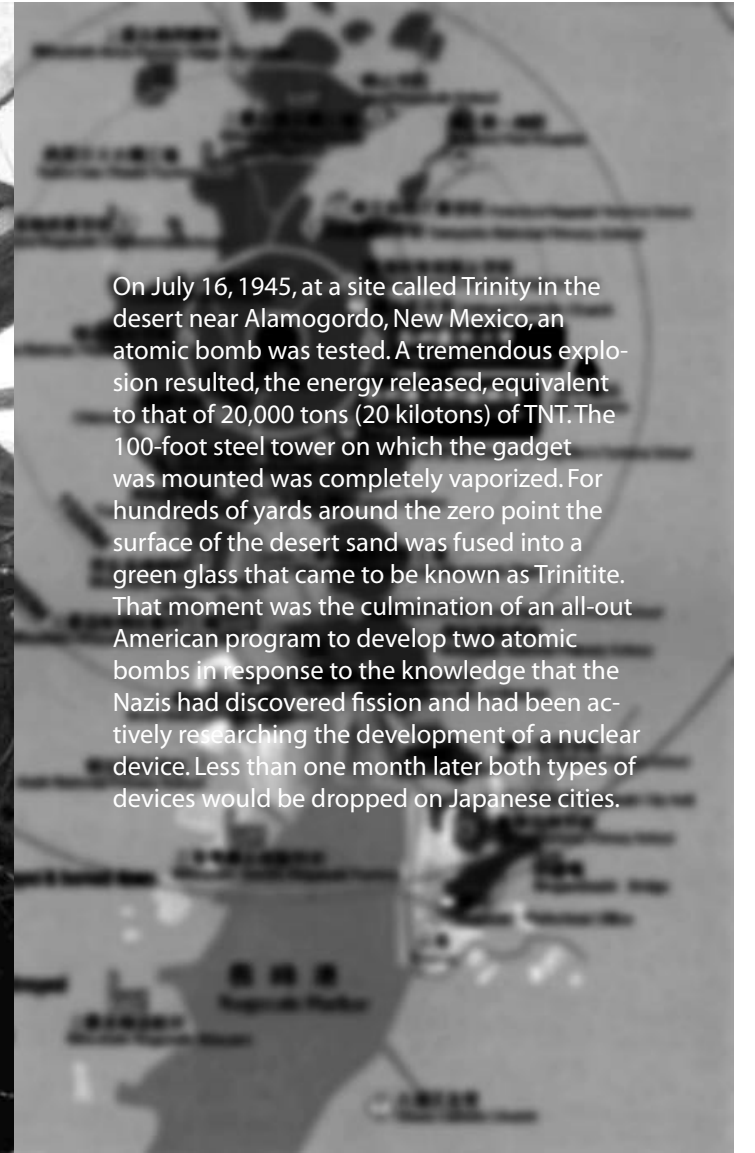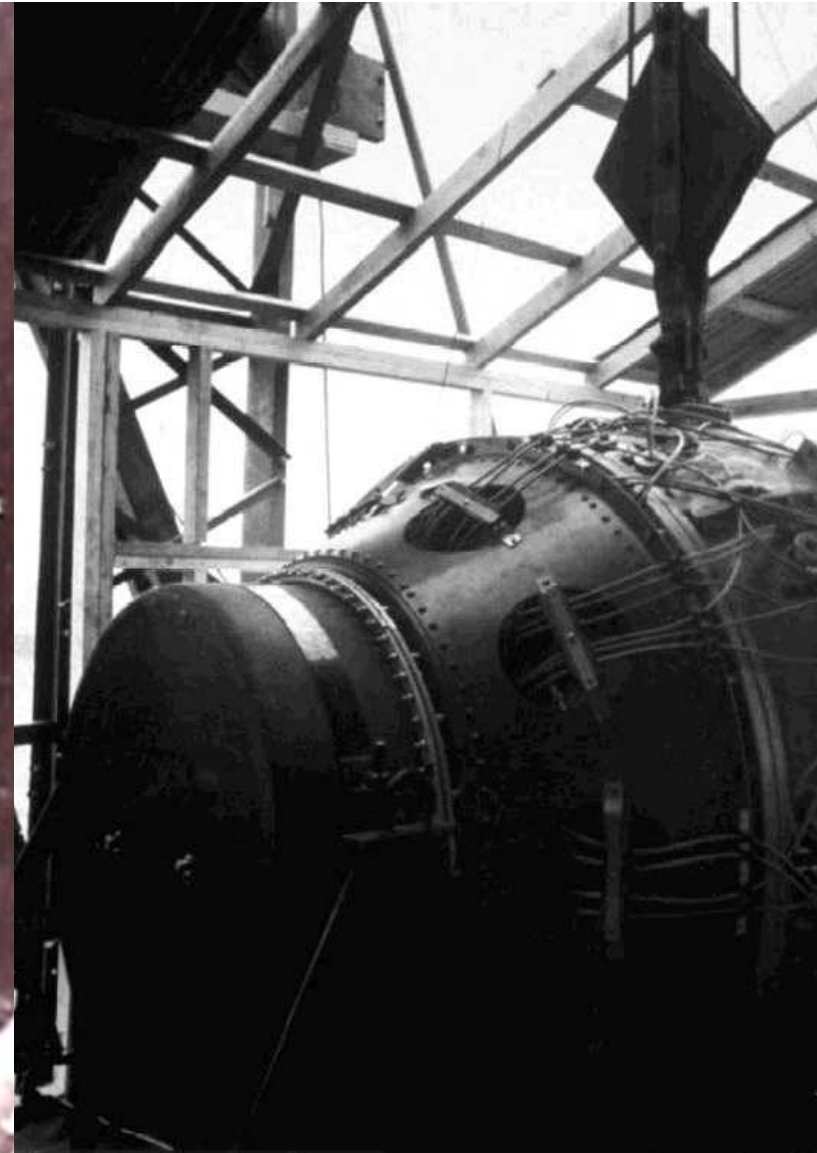
On July 16, 1945, at a site called Trinity in the desert near Alamogordo, New Mexico, an atomic bomb was tested. A tremendous explosion resulted, the energy released, equivalent to that of 20,000 tons (20 kilotons) of TNT. The 100-foot steel tower on which the gadget was mounted was completely vaporized. For hundreds of yards around the zero point the surface of the desert sand was fused into a green glass that came to be known as Trinitite. That moment was the culmination of an all-out American program to develop two atomic bombs in response to the knowledge that the Nazis had discovered fission and had been actively researching the development of a nuclear device. Less than one month later both types of devices would be dropped on Japanese cities.

A transformation led to this level of power and war. On September 30, 1938 the League of Nations Assembly passed unanimously a resolution for the Protection of Civilian Populations against bombing from the Air in case of War. The following principles are recognized within the text: 1.The intentional bombing of civilian populations is illegal; 2.Objectives aimed at from the air must be legitimate military objectives and must be identifiable; 3.Any attack on legitimate military objectives must be carried out in such a way that civilian populations in the neighbourhood are not bombed through negligence.

The League of Nations after failing to prevent the Second World War ceased its activities. This war would leave those principles behind and introduce the concepts of terror bombing and the definitive change from precision to area bombing. Terror weapons like the V2 rocket and techniques of fire bombing entire cities, eliminated the line between soldier and non-combatant. The state as a machine for war further eroded the distinction between those classifications. At the end of World War II the concept of total war would be realized and the techniques for effective defense against weaponry would be destroyed. The nuclear age brought with it weapons of unprecedented power, such that the scale and force could not be grasped. On March 1, 1954 the United States tested its largest thermonuclear device on Bikini Atoll. "BRAVO" released more firepower in that single moment than all wars in all of history combined with a yield of 15 megatons. 15,000,000 tons of TNT. The fireball generated during that explosion was some 5 miles in diameter.

Enormous changes continued through the succeeding decades with the development of more powerful weapon systems and more effective means of delivery. The latest United States ICBM "Peacemaker" has the ability to hit multiple targets at 8000 miles from its take-off point. At its peak during the Cold war the world would see 68,585 nuclear warheads distributed around the globe. Deterrence through numbers assuring mutual destruction maintained a balance. Progress was also made through diplomacy to control the spread of these arms. During this time architecture would attempt to respond to the realities of the situation through construction.
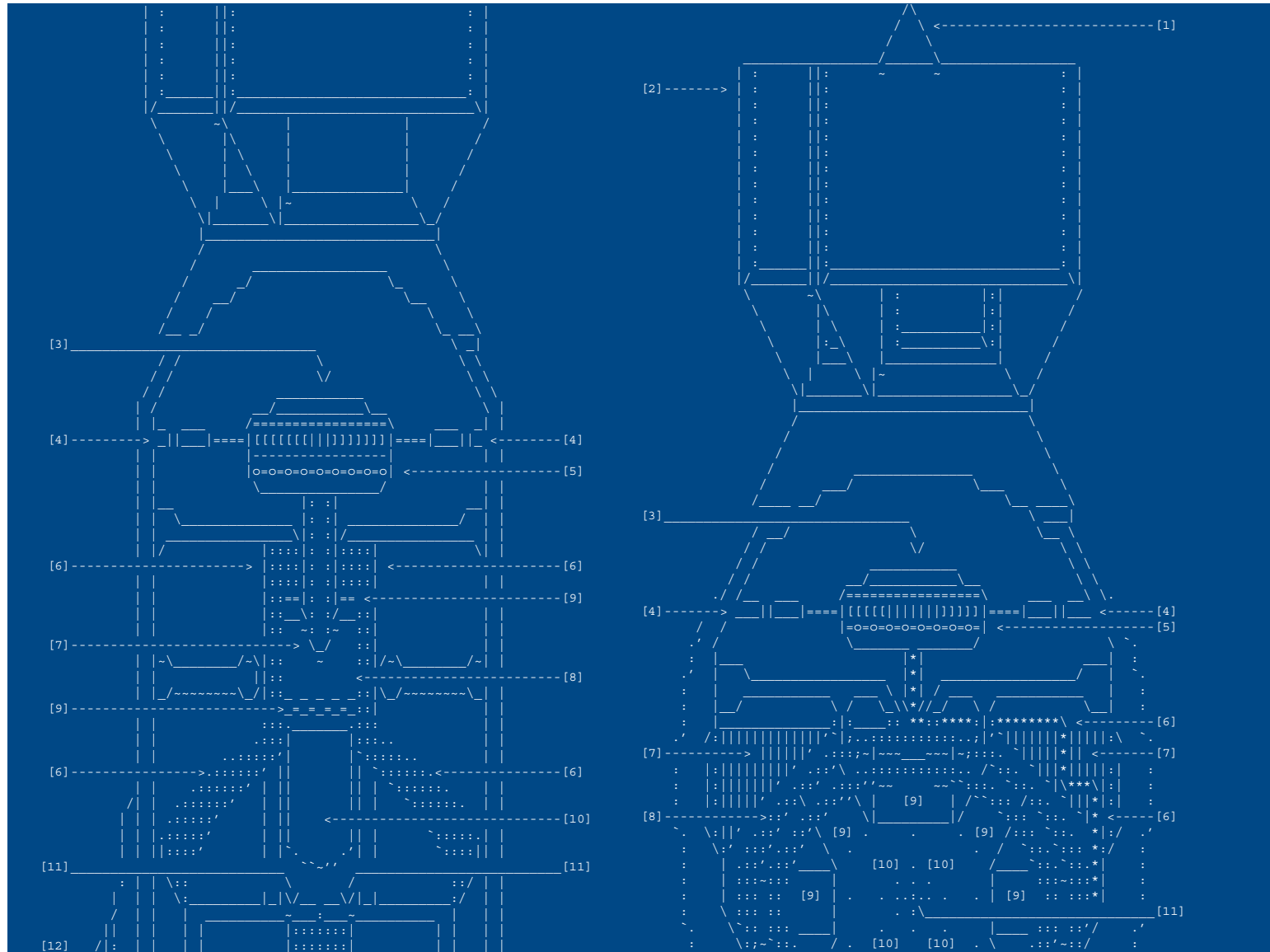
Diagrams of shelters suggest size, materials, depths, provisions. They are lines on paper that define a physical space without consideration to purposes of the space. The diagrams describe an object without a world around it. Without this context a diagram of any kind is believable so long as it implies structure, safety, and survival. Studies were generated, pamphlets produced, suggesting the appropriate response in physical structure to a force that is outside the realm of conception. S5
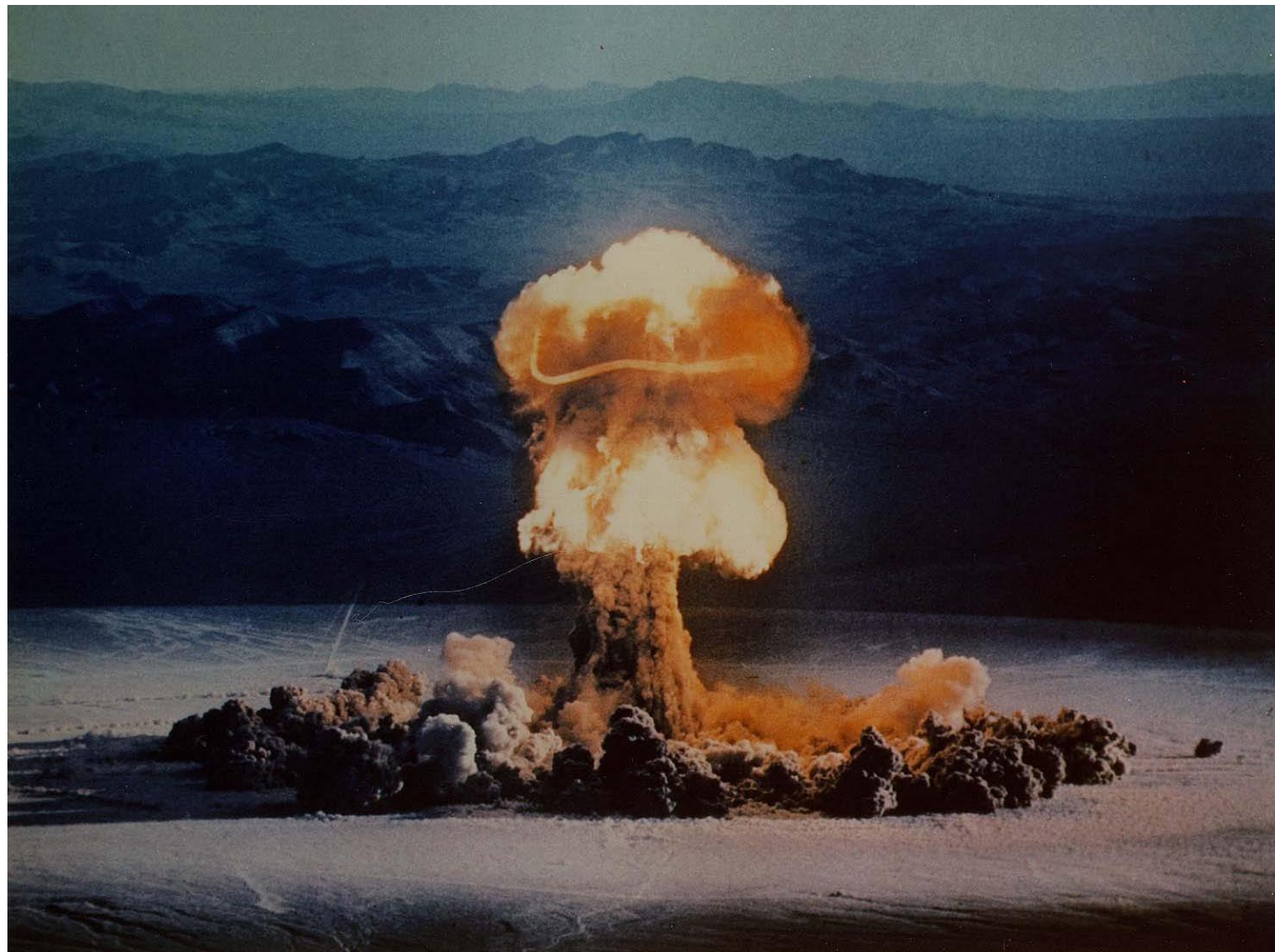
The shelter is a throwback to a time when there was land to defend. After a history of defending frontiers through architecture the front line has disappeared. The Nazi's Atlantic wall was the last built for wartime.

"A long history was curled up here. These concrete blocks were in fact the final throw-offs of the history of frontiers, from the Roman limes to the Great Wall of China; the bunkers, as ultimate military surface architecture, had ship-wrecked at lands' limits, at the precise moment of the sky's arrival in war" Bunker Archeology p.12

Even this massive construction fell to power from the air, to radar, to speed. The fortifications need a frontier to exist. The Berlin Wall separated ideologies. It was the demarcation of the frontier from east to west. This shelter, this place, this architecture wants there to be a frontier but it has been lost. The definition of defensible land is gone in total war. There is no defined military target because the world is the target. The extents are as large as the ideologies with no boundaries.

The shift took place but we did not prepare for it. This sad underground dwelling trying to block out everything above cannot hide from the changes surrounding it. The structure could no longer respond to the threat. It is impotent architecture that proposes a solution which does not address the symbolic nature of the bomb.

Below grade, no windows, no connection to what is above. 15 feet underground placed in a steel pipe. Elements of life held in cans contained in the shelter. Two steel vents penetrate above ground, free trapped air from below. The barrier needed to sustain life is broken when the hand crank is turned to pull that which is outside down to the structure below. The location is defined because the connection between upper and lower must be maintained. Without this link the structure cannot support life but connected below, life cannot survive the effects of reality above. S3

3/4" plate steel separates the entrance pipe from the outside. This detail is reinforced when the lid is lifted to an open position with the assistance of a large steel counterweight. Attached to the underside of the lid, a wheel allows the structure to be sealed from the inside. The act of opening the hatch to enter down into, brings forth all the elements of the military intent of the structure. In that moment of crossing the threshold my relationship with the architecture is altered. Lifting the steel and lowering my body into this unknown space prepares me for what is below. The materials of the entrance, the qualities of the threshold call out a purpose of this place. S4

The materials and forms of this place come together to create a specific pattern, a shelter. The fallout shelter is universal. It survives alone without relation to the environment in which it sits. Above ground is irrelevant as it is meant to be separated from. The structure provides only place. The habitant must decide how to utilize this space. This architecture is consistent throughout, providing only shelter. Air from above enters the form as the only connection to the natural systems that define that other place. All else is removed, survival with only the essentials. Silence beneath steel and dirt, alone with simple structures. S6

There is a history of using architecture to respond to and become part of war. Humans create structure to defend, define and understand their surroundings. In most cases these structures are singular within a larger system. A castle is created to provide a sense of place, a center to define my place in the world. From this I can defend my world. This castle becomes part of a series of fortifications which define a land through conquest and defense.

The materials and size respond directly to the problem for which it is seen as a solution. Stone deflects the steel of swords and arrow heads. Walls give the high ground to those inside making defense more successful.
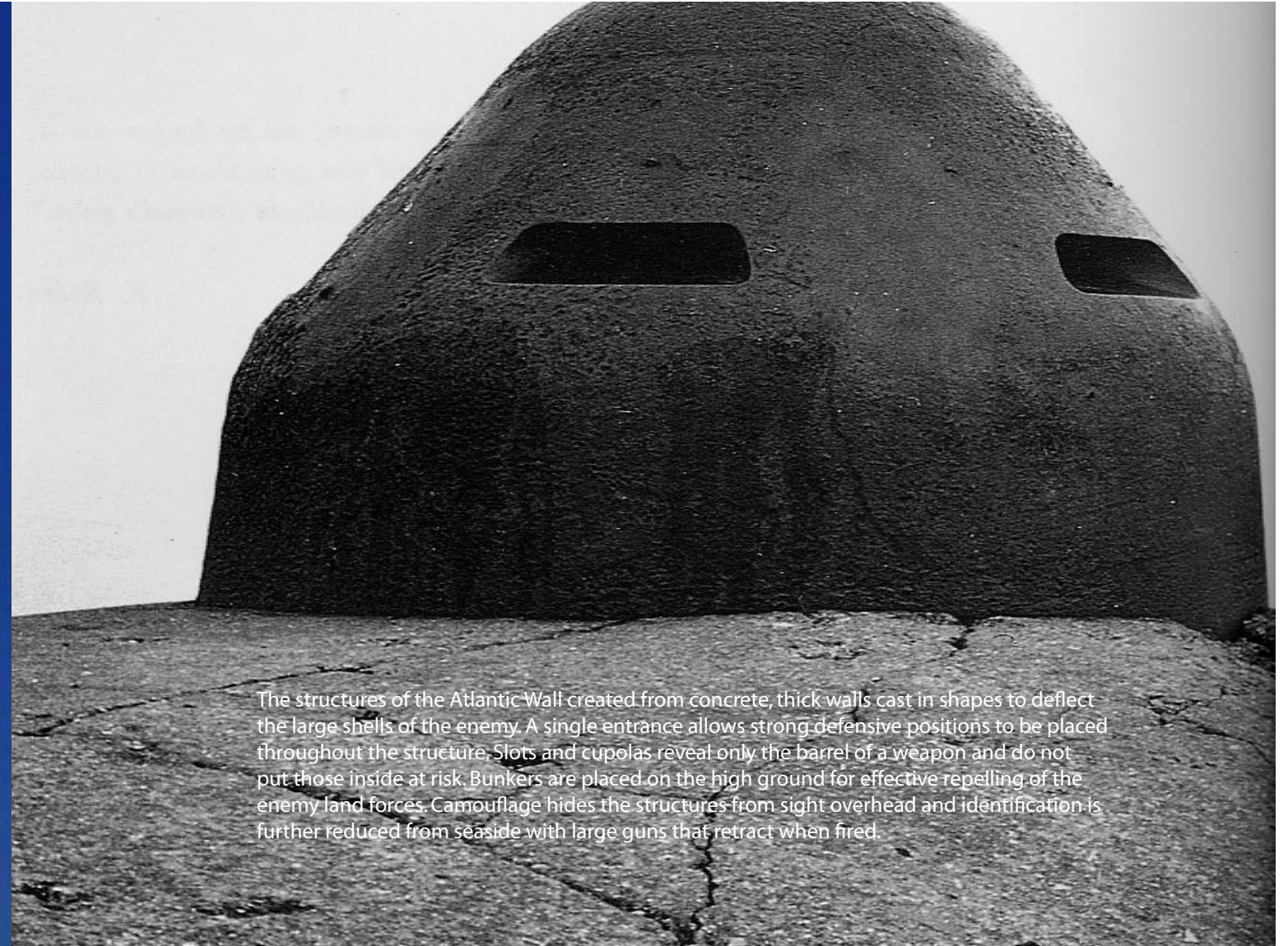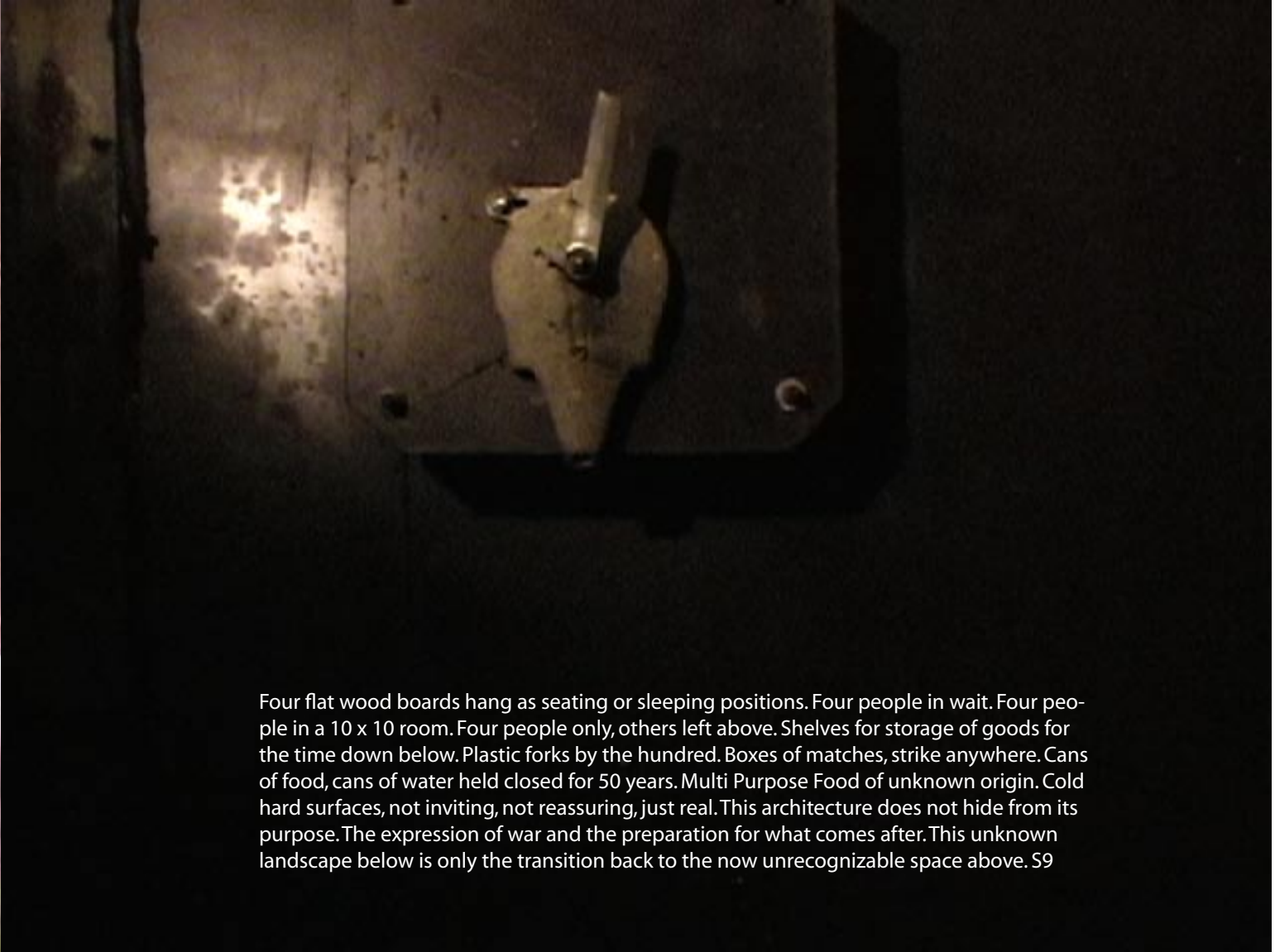
The structures of the Atlantic Wall created from concrete, thick walls cast in shapes to deflect the large shells of the enemy. A single entrance allows strong defensive positions to be placed throughout the structure. Slots and cupolas reveal only the barrel of a weapon and do not put those inside at risk. Bunkers are placed on the high ground for effective repelling of the enemy land forces. Camouflage hides the structures from sight overhead and identification is further reduced from seaside with large guns that retract when fired.

These structures are both defensive and offensive. An act of defiance. The physicality of the built environment sends a clear message. Too often this focus is misdirected. The shelter like those bunkers which came before is a defensive fortification but one that responds ineffectively to the force focused upon it. There is an attempt to imbue the structure with an offensive component in response to false reports that the Soviets were preparing nationwide shelters and their civil defense program was fully realized. The shelter is sold in the image of the people of the U.S. standing together in defiance of the enemy.

The fallout shelter is only singular. A system did not arise from the discussions. For the larger part of the population, thermonuclear war was the end. Therefore the only defense could be no war. The shelter did not represent safety. There was no system of defense. Instead this structure was the realization of the time. This futile architecture becomes the embodiment of the war with no solution. S7

Four flat wood boards hang as seating or sleeping positions. Four people in wait. Four people in a 10 x 10 room. Four people only, others left above. Shelves for storage of goods for the time down below. Plastic forks by the hundred. Boxes of matches, strike anywhere. Cans of food, cans of water held closed for 50 years. Multi Purpose Food of unknown origin. Cold hard surfaces, not inviting, not reassuring, just real. This architecture does not hide from its purpose. The expression of war and the preparation for what comes after. This unknown landscape below is only the transition back to the now unrecognizable space above. S9
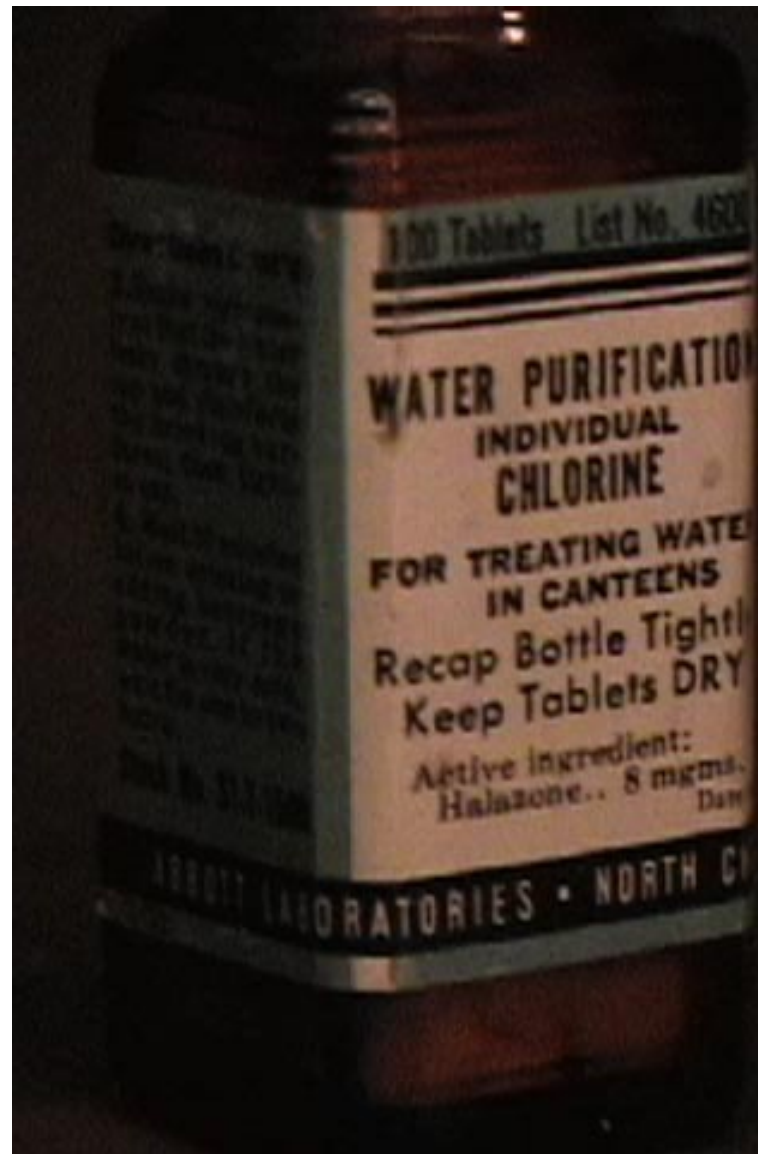
The fallout shelter is an inappropriate response to war in the nuclear age. It is an architectural form which cannot respond to the symbolic nature of nuclear weapons and the time in which we live. The shelters iconic representation is misused to sell the idea of shelter. Architectural form as a place of safety and protection. However the structure fails to propose a solution to the indexical facts of the bomb. The response is a misused sign - one can survive, see how easy it is, just like grandma's pantry. The shelter architecture is an inappropriate response to nuclear warfare because it masks the symbolic nature of the bomb. The bomb is a symbol of power, look at how many I have.
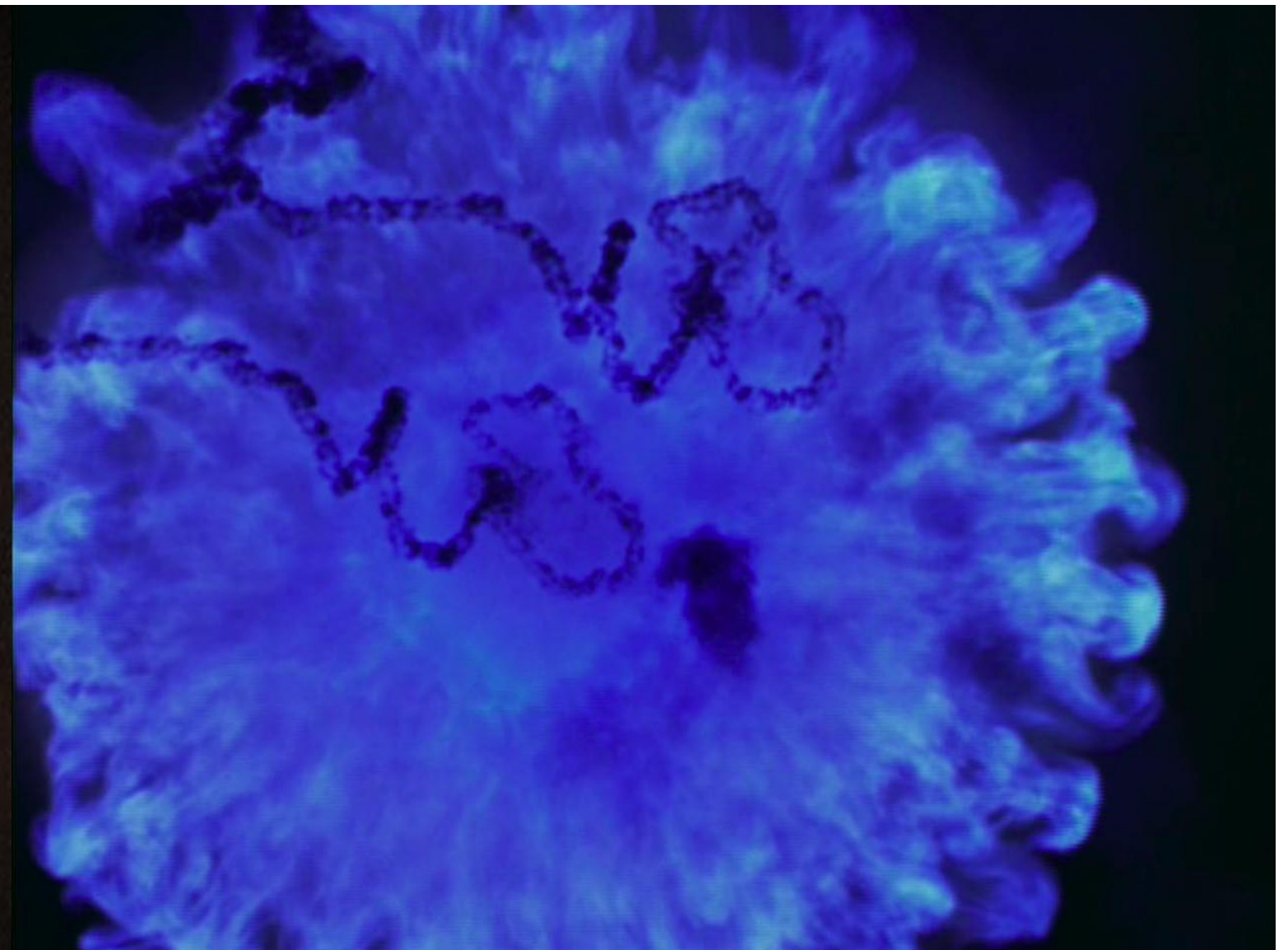
The bomb is the nature of the universe unleashed. It symbolizes a power greater than humans because it can destroy us. Calculated and planned but complex and unstoppable. The indexical reality of the bomb is that nothing survives. The symbolic nature of the bomb represents the end of everything . We fall back to architecture to respond to destruction through the building of something physical. We respond to bombs and war as we once had, build bunkers, fortify our landscape to withstand attack, keep out intruders. The shelter keeps out those thoughts that all would be lost if it came to total war. It only deflects the reality we choose not to respond to. The public witnessed the indexicality of the bomb and those of the shelter.
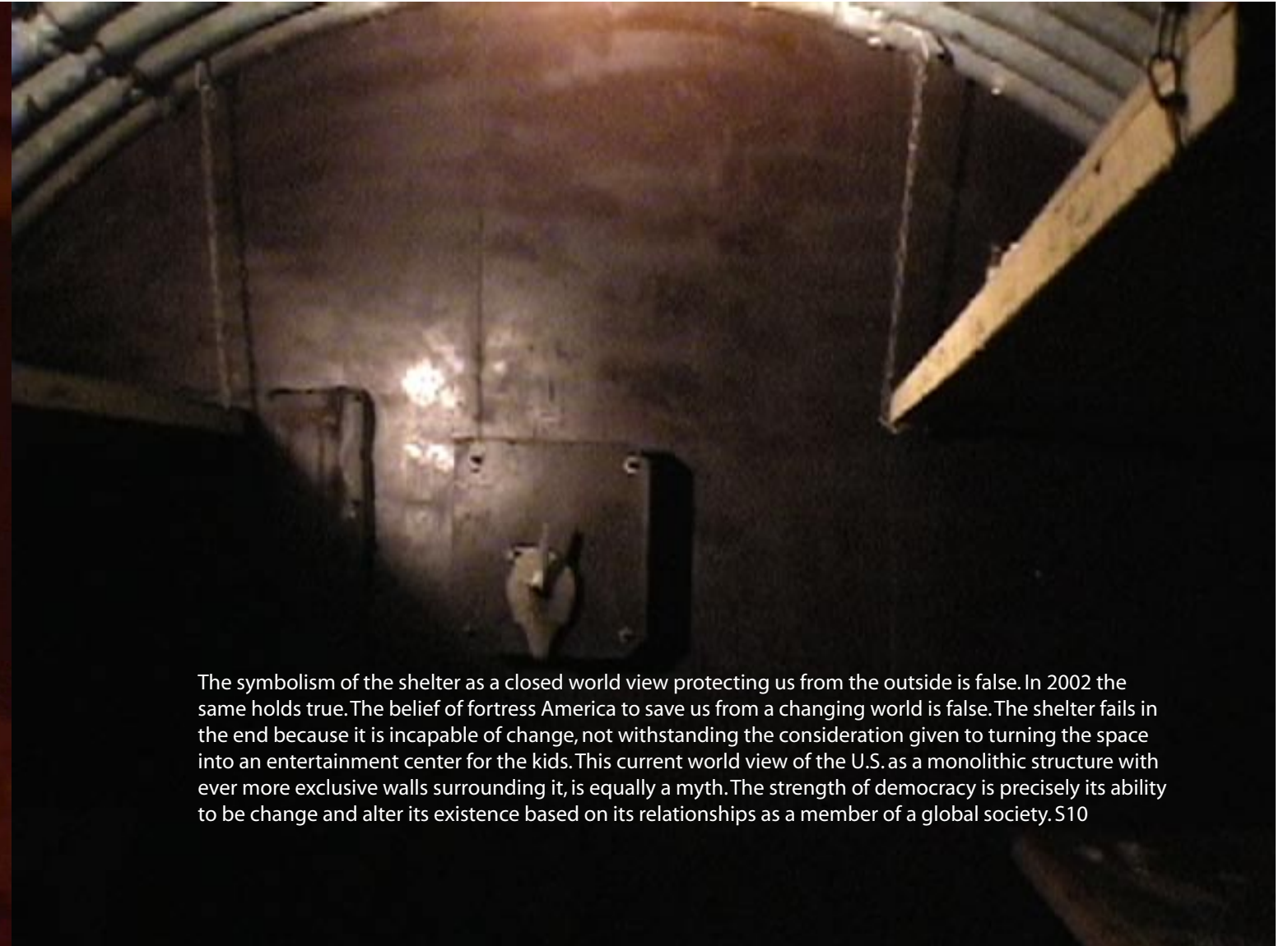
The symbolism of the shelter as a closed world view protecting us from the outside is false. In 2002 the same holds true. The belief of fortress America to save us from a changing world is false. The shelter fails in the end because it is incapable of change, not withstanding the consideration given to turning the space into an entertainment center for the kids. This current world view of the U.S. as a monolithic structure with ever more exclusive walls surrounding it, is equally a myth. The strength of democracy is precisely its ability to be change and alter its existence based on its relationships as a member of a global society. S10