

# MUSHROOMS OF AUGUST

BY MICHAEL McCUSKER

"Now the sun has come to earth,  
shrouded in a mushroom cloud of death."  
—KATE WOLFE

The Nuclear Age began 56 years ago.

The Mushroom Cloud was first seen in the clear sky over a desert. Quickly it became the tombstone of two Japanese cities. Hiroshima was the first, on August 6, 1945. Nagasaki was next, three days later on August 9. Less than a week afterward humanity's most terrible war was over.

If there ever was a supreme pivotal moment in human history, that was it. All the discoveries of science and their application to warfare culminated in the splitting of the atom and its use as an apocalyptic weapon of annihilation. Warfare might have stopped at that point with the realization that its ultimate potential would conceivably be the obliteration of civilization and probably the extinction of humanity. Instead the war planners devised greater weapons of destruction while simultaneously continuing traditional warfare on a much smaller scale than the two World Wars — a new word in the military lexicon, *Limited War* that presumably might be fought by "client states" without reaching the irreversible point of oblivion.

The world's most accomplished experts on the effects and consequences of nuclear weapons are the survivors of Hiroshima and Nagasaki: as many as 140,000 died on the days of attack or immediately afterward, and the death toll rose by another 30,000 the next 5 years. Hundreds of thousands more were severely injured, many to never recover — more than half a century later people continue to die from wounds or illnesses traced to the effects of both bombs. A dozen years after the atomic bombs were used against human beings, Max Born wrote in the *Bulletin of Atomic Scientists* (June 1957), "Since the destruction of Nagasaki and Hiroshima, the atom has become a specter threatening us with annihilation."

The nuclear bombs that ended World War 2 were carried by large human-piloted machines. Weapons of the air developed in the 20th century — not the short-range arc of an arrow or an artillery shell of past wars, but from powered machines that soared higher than birds and flew immense distances. World War 1 bombers were crude and clumsy, unable to haul large bomb loads long distances, yet they killed thousands of soldiers and civilians in the world's first true air raids, and more significant to the human psyche, these primitive wood and fabric airplanes made the very sky that envelops the Earth the most dangerous threat to existence.

World War 2 fulfilled a vision by Francesco Lama de Terzi who wrote in 1670 his visions of fleets of aerial machines that could fly over cities and drop vast numbers of missiles down upon defenseless citizens below. Powered flight developed in many directions but it has been as an agent of warfare that has made its first century the bloodiest battleground in history. The bomber in particular has accounted for the slaughter of more victims than a hundred-fold of previous wars.

Europe was bombed to rubble in World War 2. Japan set on fire and nuked by American B-29s. The earlier bombing of Guernica during the Spanish Civil War prompted Picasso's masterpiece, which portrayed the outcry of ordinary citizens against deliberate and indiscriminate death from the sky.

The two nuclear bombs that ended World War 2, instead of putting an end to war, initiated a nuclear arms race between two conflicting and aggressive ideologies, the United States and Soviet Russia, allies and victors in the war against Nazism. Each developed huge stockpiles of nuclear weapons capable of obliterating the planet several times over. The result was a bipolar world maintained by a balance of terror defended by arguments that only nuclear parity could prevent a third world war. The USA and USSR spent hundreds of billions of dollars developing their nuclear arsenals, each government posing the threat of the other to continually escalate the race.

The two superpowers raced through generations of nuclear weapons, blackmailing each other into increasing their arsenals and making treaties that allowed for more and deadlier weapons rather than their removal — and the contradictory idea of "preventive wars," starting a war to prevent a war, was a common rationale for threatening world obliteration. Every small war anywhere in the world was a threat of nuclear confrontation; simultaneously these wars skirted oblivion by acting as pressure vents against the big bang.

Within 40 years the U.S. and USSR built up arsenals which together contained more than 60,000 nuclear warheads. Soviet warheads alone numbered some 45,000 at their peak in 1986. By the end of the Cold War in 1991 with the collapse of the USSR, the awesome arsenal of nuclear devastation had been transferred out of human management to primarily technological control, primarily through computers and electronically controlled intercontinental ballistic missiles (ICBMs); a slippery robotic hold on the nuclear trigger.

The use of nuclear energy was from the very beginning surrounded in secrecy. "Only a handful, of course, knew what they were creating," Dwight MacDonal said after Hiroshima and Nagasaki. "It hardly needs to be stressed that there is something askew with a society in which vast numbers of citizens can be organized to create a horror like *The Bomb* without ever knowing they are doing it."

The so-called national security state started with Hiroshima, Robert Jay Lifton and Greg Mitchell (authors of *Hiroshima in America: 50 Years of Denial*) wrote in *The Nation* — a small group of relatively isolated leaders making drastic decisions and then concealing from the public the nature and consequences of their decisions. "The American coverup has been apocalyptic in at least two ways," they wrote: "in the grotesque human dimension of what has been suppressed and in the relationship of that coverup to our continuous embrace of still more destructive nuclear devices." Hiroshima, Lifton and Mitchell said, was "the mother of all coverups, creating distortions, manipulative procedures and patterns of concealment that have affected all of American life. Secrecy has been linked with national security — and vice versa — ever since."

Nuclear alienation was the result of secrecy: starting with Hiroshima, officials advised Americans to leave concerns about the bomb to political, scientific and military "experts" — the nuclear priesthood. Americans were requested to opt out of the most critical issues of the age. Surrendering their right to know more about nuclear policies contributed to the gradual alienation from the political process. Despite mass collusion in official secrecy, and resentment at what had been concealed and falsified, Lifton and Mitchell asked, "To what extent do we



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feel ourselves a people who have been unforgivably deceived in the most fundamental of human areas — having to do with how, when and by whose hand, or lethal technology, are we to die?"

The obsessive secrecy of the nuclear powers did not prevent the international proliferation of nuclear technology. The effect instead was to remove the public from the issue and make it a process of a very few who profited immeasurably from nuclear armaments. Patriotism and claims of national defense and security obscured the fact that immense fortunes were made from a war economy fueled and made self-perpetuating with public money. Only now and then was an expensive corruption revealed (and quickly hushed up), but the process itself was never examined nor its devastating impoverishment of the social fabric seriously discussed. The mutual distrust and political paralysis that characterized the growth of the arms race spoiled chances for disarmament. Despite the insistent desire of the world's population to de-escalate nuclear terror the arms race never slowed down until the internal collapse of the Soviet Union, much of it the result of exhausting its resources in the arms race.

Leo Szilard, described as "the man who has thought longer and harder than anyone else about the consequences of chain reaction" and without whom the U.S. might not have so readily developed an atomic bomb in time for its use against Japan, argued even before the world's first human created nuclear explosion in July 1945 ('Trinity') that the nation was "moving along a road leading to destruction of the strong position (it) hitherto occupied in the world." He was not referring to a moral advantage but that American military strength was due to the fact that the USA could outproduce every other country in the world in heavy armaments. By preparing to test and use atomic bombs, Szilard said the U.S. would lose that advantage "in just a few years" when other countries acquired nuclear weapons. He was amply prophetic: "Perhaps the greatest immediate danger which faces us is the probability that our 'demonstration' of atomic bombs will precipitate a race in the production of these devices between the United States and Russia."

Szilard echoed Niels Bohr's wish for an open international covenant with nuclear weapons when he said "these decisions ought to be based not on the present evidence relating to atomic bombs but rather on the situation which can be expected to confront us in this respect a few years from now."

Niels Bohr understood that the bomb was a source of terror but also a source of hope, "a means of welding together the nations by their common dread of a menacing nuclear stand-off," wrote Richard Rhodes in his Pulitzer Prize winning book *The Making of the Atomic Bomb*. "The problem was not

exchanging information to improve America's moral standards; the problem was leaders sitting down and negotiating a way beyond the mutual danger the new weapons would otherwise install. The opening up (of knowledge about the atomic bomb) would emerge out of those negotiations, necessarily to guarantee safety; it could not in the real world of secrecy and suspicion realistically precede them."

Though Rhodes writes that no one "should presume to judge these men as they struggled with a future" that no one could "barely imagine," the future they created started off in the wrong direction. Instead of opening up to the world the U.S. denied information about the bomb to the Russians thereby guaranteeing a nuclear arms race. The arms race began when the U.S. attempted to impress Russia with its military might so that it might be more manageable at the Potsdam conference in May 1945, directly after the Nazi surrender, and withdraw its troops from Eastern Europe. Instead the USSR began a crash program to develop nuclear capability which it did four years later in 1949, at the same time dropping an 'Iron Curtain' (Winston Churchill's metaphor) over Eastern Europe.

J. Robert Oppenheimer, who ran Los Alamos when it built the first atomic bomb, thought about "the implications for mankind for the thing we had created and the wall into the future we had breached." Secretary of War Henry L. Stimson might have had it right when he lamented, in Oppenheimer's recollection, "the appalling lack of conscience and compassion that the war had brought about... the complacency, the indifference, and the silence with which we greeted the mass bombings in Europe and above all, Japan." Oppenheimer said that Stimson felt, "as far as degradation went, we had had it; that it would take a new life and a new breath to heal the harm."

Or as General Curtis LeMay, commander of the B-29s firebombing Japanese cities, put it, "We knew we were going to kill a lot of women and kids when we roasted a town." Those firebombings were even used as a benchmark for use of the atomic bomb; in the words of one government official, the "number of people that would be killed by the bomb would not be greater than the number already killed in fire raids." Total death in total war, as Rhodes called it.

Once the United States began to rely on nuclear weapons to counter the perceived Soviet threat, the issues that kept the arms race going with the USSR were, as Carl Kaysen wrote, the "profound ideological antipathy and demonization of the other side, the lag between the decision to build new weapons and their deployment, worst-case analyses, Soviet secrecy and successful Soviet bluffs about the size and capability of their forces, and American belief in the possibility of sustaining technological superiority."

"Spurred on by the mass media, the pressure exerted by the military, scientific and industrial complex played an enormous part in fashioning the nuclear ethos of the U.S., with the USSR inevitably following suit," Lord Zuckerman, who once headed the British nuclear establishment, wrote just before his death in 1993. The rational views of scientists, dissenting politicians and millions of common people who organized against U.S. nuclear policies "were powerless to prevent the waste of billions of dollars on unusable or unneeded systems," Zuckerman wrote. The attempt to squelch public dissent during the Cold War dramatized the inseparable weave of business and military in peace and war. It also illuminated the charge that patriotism is a form of opportunity.

Beginning with Harry Truman, every Cold War President spoke of the necessity to achieve what Jimmy Carter and his successor Ronald Reagan called "zero nuclear weapons." Yet under each administration the arms race with the Soviet Union intensified until it seemed self-perpetuating and irreversible. Ironically, it was the United States that initially offered a blueprint for the abolition of nuclear weapons, suggesting "the elimination from national armaments of atomic weapons and of all major weapons adaptable to mass destruction..."

The U.S. plan was named after its representative to the United Nations Atomic Energy Council, Bernard Baruch, who said in 1946, "The search for the absolute weapon has reached fruition in this country. But she stands ready to proscribe and

