STAR WARS
The Cultural Implications of Reagan's Strategic Defense Initiative

On March 23, 1983, amid mounting public fears of nuclear war and a nuclear-freeze campaign that seemed to be gathering momentum, President Ronald Reagan offered a brilliantly crafted response. In a dramatic television address that caught even top Pentagon strategists off guard, Reagan unveiled his Strategic Defense Initiative (SDI), a multibillion-dollar military project to develop and deploy an impenetrable shield against nuclear missiles. Quickly dubbed “Star Wars” by the media and the public, Reagan’s plan envisioned the use of incredibly complex computer technology to pinpoint incoming missiles, and futuristic laser weaponry to destroy them.

SDI eventually collapsed, or at least mutated into something considerably less grandiose, a victim of reduced Cold War tensions and of its own science-fiction aspects. For several years in the mid-1980s, however, it loomed large in public discourse—and in the military budget. As this fascinating episode unfolded, I was again struck (as I had been during the nuclear-freeze campaign) by parallels to earlier periods of America’s nuclear history. In this essay, first published in the Nation magazine on January 10, 1987, I reflected on the cultural sources and ramifications of Star Wars, moving in a fairly freewheeling way from antebellum Transcendentalism to contemporary children’s games.
SINCE PRESIDENT REAGAN'S memorable Star Wars address of March 1983, the technological feasibility of the Strategic Defense Initiative has been debated exhaustively. By contrast, its cultural and psychological implications have been largely ignored. This is particularly surprising because it is government-sponsored efforts to defend the civilian population against nuclear attack, rather than the buildup of offensive weapons, that have historically proved most unsettling to Americans and have left the deepest mark on our culture.

Ask any audience of Americans over thirty years of age about their nuclear memories, and what invariably come tumbling out—apart, perhaps, from the primal event, Hiroshima, and the frightening Cuban Missile Crisis—are recollections of civil defense: sirens, fallout shelters, CONELRAD radio alerts, crouching under schoolroom desks. These are the experiences evoked in the documentary film Atomic Cafe and in partially autobiographical novels like Tim O'Brien's The Nuclear Age. Now the government has embarked on the ultimate civil-defense project: Star Wars. The sky itself is to be converted into one vast schoolroom desk under which we will collectively huddle while Teacher hurls erasers at the marauding invaders.

What may be the cultural and psychological effects of this latest strategy? It is always risky to identify a single causal factor—even one as protean as SDI—in explaining or predicting cultural change. Nevertheless, a number of cultural developments may reasonably be anticipated if SDI research proceeds along its multibillion-dollar course and if some form of missile defense shield is eventually deployed. My speculation is somewhat disciplined by my research on the cultural impact of the atomic bomb in the first few years after World War II.

In the post-Hiroshima era, the atomic-bomb motif saturated American mass culture, from country music and cereal giveaways (Kix cereal's "Atomic 'Bomb' Ring" was especially popular) to jewelry design and skimpy bathing suits (the bikini). We may now expect all manner of SDI-derived images, concepts, and artifacts to show up in movies, television shows, and advertisements, and on the shelves of the neighborhood Toys "R" Us and Kmart.

One toy manufacturer has already introduced "Lazer Tag: The Game
That Moves with the Speed of Light." Along with alluring drawings of kids in Buck Rogers—style protective gear, the ads offer an enticing prospect: "Welcome to the age of Lazer Tag. Discover the exhilaration of one-on-one competition at the speed of light. Or a galactic free-for-all, where it's every man, woman and child for himself." A complete Lazer Tag set for two players, with all accessories, costs $316.

Such evidence can be accumulated with ease; the challenge is to assess its significance. The relationship between mass-culture ephemera and the shaping of popular attitudes toward public policy issues is highly complex. In the case of SDI, President Reagan's 1983 speech was preceded by a vogue for Star Wars—type video arcade games and, of course, by George Lucas's 1977 hit movie, Star Wars, which featured laser weapons and other futuristic forms of intergalactic ordnance. Many cultural observers have plausibly suggested that the video games and movies helped condition the public, especially the young, to imagine nuclear war as a high-tech game played on computers, with minimal human risk and involvement.

But the video games and the movies did not emerge from a void. Before the signing of the 1972 Anti-Ballistic Missile Treaty, there was extensive research on exotic antimissile technologies, and at least some of that research filtered into popular awareness. As early as 1962, General Curtis LeMay spoke publicly of "directed energy weapons" that would "strike with the speed of light" to destroy incoming missiles.

Rummaging even further back in our collective cultural memory, we find not only the Ur-hero Buck Rogers but the 1940 Warner Brothers' movie Murder in the Air, to which historian Stephen L. Vaughn has called our attention. This features a proto-SDI secret weapon called the Inertia Projector, whose mysterious rays can strike down incoming enemy aircraft from miles away. (Murder in the Air, by the way, starred a twenty-nine-year-old actor who had been signed by Warner Brothers a few years earlier—Ronald Reagan.)

Mass-culture fantasies and government weapons programs appear to be interwoven in complex ways. The fantasies lay the psychic groundwork for the weapons programs; the weapons programs in turn stimulate new fantasies. As SDI progresses, we should have ample opportunity to observe this phenomenon at work.
CHAPTER ELEVEN

A striking feature of the post-1945 cultural climate has been the pervasive fear of nuclear attack. Before supersonic bombers, intercontinental ballistic missiles or missile-launching nuclear submarines, the characteristic nightmare was of nuclear blackmail: The components of an atomic bomb would be smuggled into the country, secretly assembled, and the product employed to force an American surrender. Give up, or say goodbye to New York! In a 1946 article, the physicist Edward Condon painted a terrifying picture of urban life in which every building, room, and filing cabinet potentially concealed an atomic bomb.

Within days of the president's March 1983 address, pundits and editorial writers were warning that SDI would still leave the nation vulnerable to other forms of nuclear attack, including the smuggled bombs that aroused such terrors in the late 1940s. In a country "protected" by SDI, nuclear fear would surely not diminish. It might even be more socially destructive, because the potential source of attack would now be so ubiquitous and innocuous—a fishing trawler, a diplomatic pouch, a shipping container of Stolichnaya vodka.

Under these circumstances a bunker mentality would probably develop rapidly, together with an accompanying obsession with secrecy and cultural conformity. In a remarkable 1947 essay on the social effects of the atomic bomb, Lewis Mumford imagined a society propelled by nuclear fear into a grim preoccupation with defense. In Mumford's scenario, the degraded, terrorized populace ekes out a miserable existence in a vast underground warren, dominated by an authoritarian government whose power rests on its control of the instruments of atomic war and by an elite of "scientists and technicians responsible for atomic production and anti-atomic defense."

The preoccupation with atomic secrecy that gripped the nation after Hiroshima would be more than matched by fears for the security of the exotic technologies being developed by SDI researchers. Already four million Americans hold security-rated jobs that are shielded from public scrutiny. The deployment of a Star Wars defensive network, with its vast infrastructure of supporting systems, would increase that number enormously.

SDI rests on a fundamentally nationalistic premise. In a world of nuclear menace and "evil empires," we must take our fate into our own
hands. Its subtle and insidious subtext appeals to a dark and deeply rooted theme in U.S. culture, from the essays of Emerson to the mythology of the Old West. Self-reliance is best; draw the wagons into a tight circle. The upsurge of nationalism would be accompanied by an intensification of the myth of American innocence, one of the more tenacious themes in this country's cultural history. The conviction that our actions are by definition high-minded and pure crops up incessantly: in Andrew Jackson's sanctimonious justifications for removing Indians from Georgia in the 1830s; in the lofty rhetoric in which Woodrow Wilson enveloped his decision to enter the war in 1917 and his peacemaking efforts in 1919; and in President Truman's repeated postwar assurances that the United States viewed its atomic monopoly as a "sacred trust," never to be used for merely nationalistic ends.

Once Ronald Reagan shared his Star Wars dream with the world, both the Soviet Union and the system's domestic critics quickly pointed out that what appeared from the Oval Office as a benign defensive system could be viewed in a far more sinister light. In the Alice-in-Wonderland world of nuclear strategy, "defensive" systems turn into "offensive" ones with the slightest twist of the looking-glass. As former secretary of defense Robert McNamara notes in *Blundering into Disaster*, even a partial strategic defense system comports nicely with a first-strike strategy. Advocates of SDI respond to such criticism with self-righteous variations on the myth of national innocence. How could anyone suspect the virtuous United States of plotting anything so wicked and immoral? We are just not that kind of people.

Although the myth of national innocence is as strong as ever, public attitudes toward scientists and technicians remain profoundly ambivalent. These mixed feelings intensified with the explosion of the atomic bomb in August 1945. The same scientific discovery that had apparently brought an end to one terrible war simultaneously raised the specter of future wars of inconceivable destructiveness. An almost schizophrenic view of the scientist as public benefactor and as sinister impresario of death pervaded American culture.

In a time of highly visible, heavily publicized Star Wars research, this ambivalence would likely reach a new plane of intensity. On the one hand, the eager young Star Warriors pursuing their high-frontier experi-
ments at Lawrence Livermore National Laboratory and elsewhere will be the Oppenheimers, Comptons, and Fermis of our age. The cultural prestige of science might be enormously enhanced, bringing further hefty federal endowments for scientific research—at least for SDI. On the other hand, that very process could also bring its antithesis—a powerful reaction against science and its imperial pretensions—as the rest of us increasingly realize our irrelevance in a world ruled by technology. As Lord Zuckerman, former chief science adviser to the British government, and others have pointed out, the split-second nature of SDI leaves no alternative to total automation. Preprogrammed computers will command the entire apparatus; there will be no human intervention, no time for human judgment.

Washington, of course, aided by the media, will do everything in its power to allay these fears. In the late 1940s and early 1950s, as the government stockpiled atomic bombs, developed advanced delivery systems, and organized research on the hydrogen bomb, a stream of euphoric propaganda poured forth from Washington, the radio networks, and the popular press, portraying an exciting future of atomic transportation, cancer cures through nuclear medicine, atomic weather control, and a brave new world of genetic manipulation. As we have seen, David E. Lilienthal, the first chairman of the Atomic Energy Commission and an enthusiastic cheerleader for the peaceful atom, made the circuit of civic gatherings, religious conventions, and high school graduations, telling audiences to forget their atomic anxieties and focus instead on the bright promise of atomic energy. That propaganda served an important political function. It muted dissent and diverted public attention from the buildup of atomic weapons.

We are witnessing the beginnings of a similar campaign today. As SDI's critics challenge it on technological, strategic, and foreign-policy grounds, proponents paint an increasingly rosy picture of the project's beneficence for the civilian sector. Echoing Lilienthal's earlier pronouncements, Lieutenant General James Abrahamson, head of the Pentagon's SDI research project, vowed to "capitalize on the results of SDI research and apply it across all facets of our economy and society." In rhetoric eerily evocative of 1946, two leading Star Wars researchers at Livermore have predicted that SDI laser technologies could also propel
giant solar reflectors into orbit to create a system of global meteorological control. They declared, “We can thereby demonstrate our racial competence for terraforming other planets for human use by first bringing our own one to its full potential.”

The full, ripe flavor of this genre of SDI hype is well conveyed in “The Star Wars Spinoff,” an article in the New York Times Magazine (August 24, 1986) by the science writer Malcolm W. Browne. In breathless prose, Browne offers a tantalizing sampler of the goodies that await us in the SDI cornucopia: Powerful new computer-modeling programs will enhance long-term weather forecasting and make possible detailed maps of the ocean floor; advances in computer pattern-recognition will at last enable us to develop robots to serve as “surrogate servants, laborers and bodyguards”; electron beams capable of penetrating human tissue at precise depths will be able to “hit a malignant tumor with pinpoint accuracy”; optic signaling and the substitution of such new synthetic crystals as gallium arsenide for the silicon chip will increase computer speed a thousandfold. To anyone who has pored over hundreds of late-1940s descriptions of the technological utopia to be expected from the invention of the atomic bomb, such rhetoric produces a profound sense of déjà vu—and a profound sense of depression.

The recently adopted Latin motto of the Army Strategic Defense Command is Munimentum in Aethere Novis: “Defense in Space.” In a more innocent era, observers disturbed by the impact of technology found solace in the thought that whatever the machine’s toll on earth, the starry skies above were immune to human folly. In his 1836 essay “Nature,” Emerson offered the sky as a symbol of the possibilities of spiritual transcendence. In Walden, Thoreau describes how the clouds of steam from the intrusive Fitchburg railroad—his primary symbol of industrialization—escape to heaven while the noisy cars rumble on toward Boston.

This imaginative embrace of the heavens as a pristine alternative to the chaos of life on earth, long since undermined by the Wright brothers, has collapsed totally in the era of Star Wars. Space retains its symbolic power, but now as a vast stage set on which the deadly drama of Cold War military competition can be enacted on a literally cosmic scale.