

Structure, not scientists to blame for Los Alamos failings

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Policy decisions and poor management have substantially undermined the US Los Alamos National Laboratory -- and, consequently, national security, according to an article available today in the current issue of the *Bulletin of the Atomic Scientists*. The article calls into question media and government stereotypes that have blamed Los Alamos's scientists for the decline.

According to George Mason University professor of anthropology and sociology Hugh Gusterson, who has studied America's nuclear weapons scientists since the 1980s, morale at Los Alamos is the worst it has ever been in the lab's seven-decade history. Its ability to function as an institution and to superintend the nuclear stockpile has been substantially eroded, he writes. Driven by a mistaken belief that Los Alamos's organizational culture is characterized by arrogance and carelessness, congressmen and government officials are to blame for framing Los Alamos as an institution in need of reform and for implementing deleterious management practices, which have reduced effectiveness, Gusterson writes.

Gusterson is an expert on nuclear culture, international security, and the anthropology of science. His article, "The assault on Los Alamos National Laboratory: A drama in three acts," highlights the decline of Los Alamos, the famous nuclear laboratory originally established by J. Robert Oppenheimer in the high desert of New Mexico during [World War II](#).

The first phase began with a media circus when Chinese-American scientist Wen Ho Lee's downloaded secret computer codes in 1999. Lee was arrested and charged on 59 counts of mishandling [national security](#) information, 58 of which were dropped.

The media reinforced the perception that Lee's behavior was symptomatic of a culture of laxness at Los Alamos. Security was tightened, yet additional disks were misplaced. FBI agents descended on Los Alamos, administering polygraphs to weapons scientists, commandeering their offices, and dragging some from their beds at night for interrogations. The National Nuclear Security Administration was created to superintend weapons labs and General Eugene Habiger was put in charge of security at Los Alamos and the nation's other weapons lab, Lawrence Livermore.

The 2003 appointment of Pete Nanos as director of Los Alamos marked the next phase of decline. After more disks apparently went missing and a student was hit in the eye by a laser beam, Nanos called for swift and extreme action. Calling lab employees "cowboys and buttheads" who thought they were above the rules—and describing "a culture of arrogance" and "suicidal denial" at a news conference— he suspended lab operations for up to seven months, forcing employees to retrain and reflect on security practices.

The shutdown cost \$370 million. Both Nanos and his actions were deeply unpopular with lab staff. Nanos abruptly resigned in 2005. It turned out the disks had not gone missing, but had in fact never existed. It was an inventory management error. Extreme and destructive acts of cultural reengineering had cost the Los Alamos National Laboratory and, presumably, national security dearly.

Next, instead of renewing the University of California's management contract, the federal government put the contract out to bid. Los Alamos

National Security (LANS), a consortium headed by the Bechtel Corporation with the University of California as a junior partner, won the contract in 2005. A year later, it also won the contract to run the lab at Livermore.

To boost profits, Bechtel increased the management fee tenfold, rewarding its senior LANS officials. The budget was static but costs increased, resulting in heavy job losses at the Livermore Laboratory. New managers did not establish the same rapport with scientists as previous managers who had risen through the ranks. Peer reviewed publication output by scientists dropped sharply. But the number and quality of articles published, papers given, and experiments conducted by lab scientists was now irrelevant to the government's evaluation of managerial effectiveness. Scientists were discouraged from raising concerns, which could impact management bonuses.

Gusterson concludes that misattribution of Los Alamos's problems to a pathological organizational culture involved at least two misreadings of the situation: The actions of a rogue individual (Lee) were confused with the informal norms of an entire organization, and the organizational dysfunction at Los Alamos has been misdiagnosed as a problem of culture when it is more likely a problem of structure.

"Having survived the antinuclear protests of the 1980s and the end of the Cold War a few years later, American [nuclear weapons](#) scientists are now finding that the main threat to their craft comes from an unexpected source: politicians and administrators who are supposed to be on their side," says Gusterson. "As so often seems to be the case, well-meaning attempts to make the country more secure are having the opposite effect."

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