BOOKS: HISTORY

Los Alamos Stories

Hugh Gusterson

I recall a reporter who interviewed me about my research on the culture of nuclear weapons designers and kept pushing me to tell stories about the scientists' eccentricity and dark humor. He would be pleased with journalist Jo Ann Shroyer's book about the nuclear weapons laboratory at Los Alamos, which is spiced with striking anecdotes of just this kind. We read, for example, about the weapons designer who likes to drive around the desert in his spare time looking at craters his bombs have made, and about the group of Los Alamos scientists who, for a joke, calculated the size of the bomb needed to "slosh the Caspian Sea and wash Iran off the face of the earth."

Secret Mesa:
Inside Los Alamos National Laboratory
by Jo Ann Shroyer
Wiley, New York, 1997. 240 pp. $24.95. ISBN 0-471-04063-0.

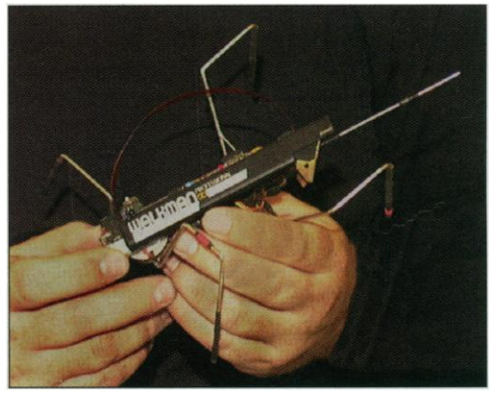
If this makes Los Alamos scientists sound puerile or insensitive, this is not Shroyer's intent. "They are not a community of Dr. Strangeloves," she tells us, and she reports sympathetically their sense of themselves as "tragic heroes" who perfected weapons that "made the risk of big wars unthinkable" at the cost of making themselves "every child's nightmare." The dark humor is, as one weapons designer tells Shroyer, "a way of coping."

Almost a decade after the end of the Cold War, Shroyer visited Los Alamos to report on the laboratory's struggle to redefine itself in a one-superpower world where the environmental bills run up over a half century of weapons research are coming due. She says relatively little about what is now Los Alamos' principal mission—constructing new technologies to maintain the nuclear arsenal in the absence of nuclear testing. But she gives readable sketches of Los Alamos scientists doing joint experiments with their Russian counterparts to build trust, working on ways to dispose of nuclear waste, and developing technologies to detect the crude nuclear and biological weapons with which, they fear, terrorists will threaten American cities. There is a particularly vivid chapter about a young scientist who has constructed a menagerie of robotic insects that, so long as they survive the predations of his cat Ninja, clean his windows and sweep his floor. He imagines a future in which these "mechanical ants" will do our housework, disarm landmines and, replacing insecticides, "bite off the heads of biological pests."

The scientists Shroyer interviewed often feel embattled—unfairly criticized by antinuclear activists and journalists, and misunderstood by the general public. They complain that the controversial radiation experiments of the 1950s on children and the terminally ill have been sensationalized in the media, that Los Alamos is much less contaminated than the press and environmental bureaucrats make out, and that popular fears of anything radioactive are often ill-informed. "The smartest people were here. We didn't do anything stupid with the environment," says one scientist.

The problem is that reading Shroyer's book is like hearing only one side of a telephone conversation. We hear scientists telling us why the human radiation experiments were ethical (they did not harm their subjects), why they do not believe allegations that there is an epidemic of brain cancer in town, why federal regulations for handling radioactive materials are excessively strict, and why the bombing of Hiroshima and Nagasaki was justified. Although these scientists may be right, it would be nice to also hear the voices of activists, journalists, and regulators. Not only is it good journalistic practice to give multiple sides of a story, but the book would be less flat and more illuminating if these issues were explored through an interplay of opposing perspectives.

Shroyer's marginalization of the laboratory's critics is nicely symbolized by a vignette at the end of the book about a protest at Los Alamos on the 50th anniversary of Hiroshima. "There actually were more reporters in the park than protestors," writes Shroyer. Now it so happens that I was also an observer at this protest, and I can only say that Shroyer somehow mistook a large number of protestors for journalists. This is just one of a number of factual approximations in the book that will grate on the informed reader. Shroyer also tells us Sakharov was exiled outside the Soviet Union when he was, of course, confined within it. And she says Edward Teller arrived in Los Alamos in 1945 and went on to found the Livermore Laboratory because he was persona non grata at Los Alamos after he testified against Oppenheimer at his loyalty hearing. In fact Teller came to Los Alamos in 1943, and he helped found the Livermore Laboratory two years before Oppenheimer's loyalty hearing. Such errors suggest a casual attitude to research, one reflected in a book that is—in the final analysis—full of entertaining stories and vivid quotes but superficial and of uneven reliability.



LOS ALAMOS NATIONAL LABORATORY

Mechanical ant. Made from junk for mere pennies and containing only 12 transistors, this robot uses simple stimulus reactions to navigate about its environment, adapting its gait, position, direction, and speed to climb over or around obstacles in its path.

VIGNETTE

Citation Science

Before we develop a pseudoscience of citation analysis, we should remind ourselves that what matters absolutely is the scientific content of a paper and that nothing will substitute for either knowing it or reading it. We should also recognize that citation often tells us more about the sociology of science than about the science itself. In rapidly developing subjects, the lifetime of the average paper is exceedingly short, perhaps only months, before it utterly vanishes, never to be referred to again. I have been told that in physics only a handful of papers more than 25 years old are still being cited. It must be very gratifying to have a paper in this class, but better still to be the author of a work that is so well known that it doesn't require a literature citation. If in writing a paper now on DNA one cited Watson and Crick (1953) it would probably be regarded as part of an elaborate joke.

Sydney Brenner
in *Loose Ends from* Current Biology
(Current Biology, 1997)

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