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Paul Rubinson. "Crucified on a Cross of Atoms': Scientists, Politics, and the Test Ban Treaty."

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Review by **Lawrence S. Wittner**, State University of New York, Albany

As U.S. scientists played an important role in securing the Limited Test Ban Treaty (LTBT) of 1963, a number of scholarly works have examined their activism.¹ Some writers have chided these scientists for straying beyond their areas of expertise to address broad policy questions.² By contrast, Paul Rubinson -- in his article "'Crucified on a Cross of Atoms': Scientists, Politics, and the Test Ban Treaty" -- criticizes them for being too cautious, too ready to compromise "moral" considerations by focusing on "technical" arms control issues. Rubinson argues that, from the late 1950s to the early 1960s, "their strict observation of the technical boundaries of their positions hindered the antinuclear arguments they could make" (348). Indeed, he goes so far as to claim that "Cold War politics, exemplified by the test ban debate, turned the strengths of antinuclear scientific activists into weaknesses and narrowed the range of acceptable dissent against nuclear weapons, accelerating the arms race that scientists had hoped to end" (349).

In a number of ways, this is an exemplary article. Exceptionally well-documented, it draws on key private manuscript collections, government records, memoirs, biographies, and scholarly studies. The article also focuses on major scientists, important scientific organizations (such as the Pugwash movement), and official science advisory bodies (such as the President's Science Advisory Committee) that engaged in the lengthy,

¹ See, for example: Robert Divine, *Blowing on the Wind: The Nuclear Test Ban Debate, 1954-1960* (New York, 1978); Benjamin P. Greene, *Eisenhower, Science Advice, and the Nuclear Test-Ban Debate, 1945-1963* (Stanford, CA, 2007); Lawrence S. Wittner, *Resisting the Bomb: A History of the World Nuclear Disarmament Movement, 1954-1970* (Stanford, CA, 1997).

² Harold K. Jacobson and Eric Stein, *Diplomats, Scientists, and Politicians: The United States and the Nuclear Test Ban Negotiations* (Ann Arbor, MI, 1966), 479-481.

sometimes acrimonious debate over the test ban. Finally, the article is well-written and well-argued.

Rubinson makes a very convincing case for an important aspect of his thesis: that a portion of the scientific community pulled its punches and resorted to technical rather than moral arguments in its discussions of nuclear policy. He shows conclusively that, starting in the late 1950s, the U.S. government's science advisors, particularly, did eschew broad critiques of nuclear weapons and nuclear war and focused, instead, on the technical feasibility of monitoring a nuclear test ban. Other scientists, including the physicist Edward Teller, the key figure in the development of the H-bomb, not only failed to display any moral qualms about nuclear weapons, but deployed ever more ingenious technical arguments to sabotage a nuclear test ban.

Nevertheless, Rubinson skips over the fact that a substantial scientific constituency -- and not merely the Nobel chemistry laureate Linus Pauling (whom he credits with taking a rather lonely "moral" position) -- issued sharp critiques of nuclear weapons. Pauling's 1957 "Appeal by American Scientists" garnered the signatures of over 2,000 American scientists on a strongly-worded petition calling for a nuclear test ban. This was so successful that Pauling turned it into an international appeal, which, by early 1958, was signed by 11,038 scientists from 49 nations. They included more than a fifth of the members of the U.S. National Academy of Sciences, 95 Fellows of the Royal Society of London, and 216 members of the Soviet Academy of Sciences. In addition, the Federation of American Scientists and the *Bulletin of the Atomic Scientists* repeatedly assailed the nuclear arms race during the late 1950s and early 1960s.

Furthermore, Rubinson's critique of the scientists carries with it the implication that, if the government's scientific advisors had taken a stronger stand against nuclear weapons, U.S. policymakers would have followed their lead. But, in fact, U.S. policymakers of the era were caught between their Cold War-driven concerns (i.e. standing up to the Soviet Union through overwhelming nuclear "strength") and the growing public demand to halt nuclear testing and stop the slide toward nuclear war. Moral considerations were the last things on their minds, and scientific advisors who raised them would likely have been ignored, dismissed, or investigated by the FBI (as Pauling was).

In addition, although scientific pressure for a test ban was important, it was only one component of a much larger U.S. campaign -- led by groups like the National Committee for a Sane Nuclear Policy and Women Strike for Peace -- that did emphasize broader concerns, such as the dangers of nuclear fallout and the horrors of nuclear war. This public campaign did not need all scientists to serve as moral spokesmen. But it did need some of them inside the U.S. governmental apparatus who would employ technical arguments to soothe the fears of top officials that, if a test ban treaty were signed, the Soviet Union would conquer the world.

Finally, Rubinson underestimates the significance of the test ban. He writes, disparagingly: "The LTBT did little to slow the arms race, but still provided many Americans with the calming illusion that the superpowers were taking steps to make nuclear war less likely" (347). Admittedly, the U.S. and Soviet governments continued their arms race by moving nuclear testing underground. Nevertheless, by limiting nuclear weapons options in the interest of the global community, this first nuclear arms control treaty established an important precedent. Not surprisingly, it was followed by the nuclear Nonproliferation Treaty, the ABM Treaty, SALT Treaties, the INF Treaty, START Treaties, and the Comprehensive Test Ban Treaty. These agreements, as well as the LTBT, did slow the arms race in important ways, for they not only limited the numbers and kinds of nuclear weapons that could be built, but discouraged nuclear proliferation. Although dozens of nations were reportedly on the verge of developing nuclear weapons in the early 1960s, after the signing of the LTBT only two additional nations (China and Israel) went nuclear over the next 35 years.³ Perhaps the most important effect of the treaty upon nuclear weapons policy was opening up a period of détente between the United States and the Soviet Union. In the context of this warming superpower relationship, the decreased likelihood of nuclear war was probably more than an "illusion."

Nevertheless, although some portions of Rubinson's argument are highly debatable, the appearance of his article should be welcomed. Based on massive research and a thorough knowledge of the nuclear weapons controversy, "'Crucified on a Cross of Atoms'" is an impressive achievement. Scholars interested in the struggle over the nuclear test ban or in the role of scientists in addressing national security issues will find it well worth reading and discussing.

Lawrence S. Wittner is Professor of History emeritus at the State University of New York/Albany, where he taught from 1974 to 2010. He served as a president of the Conference on Peace Research in History (now the Peace History Society) and as an editor of the journal *Peace & Change*. His published writings on the history of peace movements, nuclear disarmament, and U.S. foreign policy include more than two hundred articles and reviews, as well as eleven books. Among these publications is *The Struggle Against the Bomb* (Stanford University Press), an award-winning scholarly trilogy on the history of the world nuclear disarmament movement and its impact on public policy. It is comprised of *One World or None* (covering the period up to 1953), *Resisting the Bomb* (covering the years 1954 to 1970), and *Toward Nuclear Abolition* (covering the period from 1971 to 2003). His most recent book, *Confronting the Bomb: A Short History of the World Nuclear Disarmament Movement* (Stanford University Press, 2009), is an

³ India conducted an explosion of a nuclear device in 1974, purportedly for "peaceful" purposes. But only in 1998, after a 35-year lapse, did that nation begin regular nuclear weapons tests and begin developing its nuclear arsenal. Pakistan quickly followed that same year, with both countries now formally emerging as nuclear powers.

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abbreviated, updated version of the trilogy. Currently, he is putting the final touches on his memoirs, which will be published by the University of Tennessee Press in 2012.

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