

H-Net Reviews

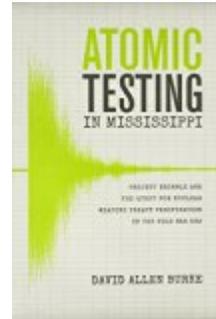
in the Humanities & Social Sciences

David Allen Burke. *Atomic Testing in Mississippi: Project Dribble and the Quest for Nuclear Weapons Treaty Verification in the Cold War era*. Baton Rouge: Louisiana State University Press, 2012. ix + 194 pp. Illustrations. \$39.95 (cloth), ISBN 978-0-8071-4583-8.

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During the early 1960s the state of Mississippi fought a states' rights battle with the federal government over civil rights, showcasing in many overt ways an antipathy towards Washington at the state and local levels. However, hypocrisy often knows no bounds where economics are concerned. Mississippi business and government representatives courted and welcomed the Atomic Energy Commission and hoped for a large influx of atomic dollars to create jobs and jumpstart a high-technology sector. This is the setting for David Allen Burke's study of the AEC's Project Dribble underground nuclear test series in large salt domes near Hattiesburg, Mississippi. The largely forgotten tests allowed the AEC to evaluate the effects of underground nuclear detonations as part of its effort to monitor foreign underground nuclear tests to verify international treaty obligations. Public memory of atomic testing is often confined to the Nevada test site near Las Vegas or somewhere in the Pacific and it could come as a surprise that testing occurred in Mississippi, Colorado, and Alaska, albeit underground.

Derived from his dissertation, Burke has chosen a topic not well covered in the literature generally; more specifically, he discusses Project Dribble in three ways: the state politics and business interests, the role the tests played in U.S. schemes for nuclear arms control, and the technical hurdles of conducting underground testing, with the added bonus of a scientific and environmental discussion of salt domes. The official history of the AEC available to the public ends before the period in question, and the Defense Nuclear Agency history *Defense's Nuclear Agency 1947-1997* (2002) does not mention the Mississippi tests. Burke has clearly mined all the significant secondary works such as Richard Miller's *Under*

the Cloud: Decades of Nuclear Testing (1986), which does not cover the Mississippi tests and is considered a standard work on the subject. However, Burke attempts to make the case that the significance of his work lies not simply in discussing an unexplored subject but in the positive impact of the Mississippi tests on the U.S. ability to monitor international arms control agreements.

The great strength of the study is in the discussion of Mississippi politicians and businessmen attempting to profit from federal dollars during the era of civil rights unrest that can only strike readers as oxymoronic and underscores the complicated nature of the standard states' rights political position. Arguments from Mississippians who viewed such efforts as socialistic and harmful to the future resource extraction in the area due to radiation hazards went unheeded. Burke even touches on the attempt to bring a federal particle accelerator to Mississippi. The failure of the AEC project to bring the imagined prosperity is a testament to the hopes and dreams of chambers of commerce everywhere.

A secondary strength is the role Project Dribble played in arms control. Burke explains and argues for the importance of the tests in establishing whether a foreign power could successfully mask an underground test by decoupling the detonation in an underground chamber. Decoupling consisted of exploding an atomic device suspended in a void underground so the shock wave would not directly be transferred to the ground but would travel through air first, hence decoupled from the earth. The AEC needed to see what the exact seismic profile of both coupled and decoupled explosions looked like in order to seismically monitor for illicit detonations, combined with

other techniques such as air sampling. This explanation of why the tests occurred is valuable and his argument that the tests were important for U.S. arms control efforts is solid.

The technical discussion of the drilling and related problems, and other onsite activities could put off some readers and does not appear necessary to tell the story. Detailed descriptions of the interior of the underground cavities appear to have no purpose other than to explain detail for detail's sake. The author's field is the history of technology and that is evident from the inclusion of so much technical detail. However, the technical discussion, or really an environmental discussion, of salt domes and how they form and why they would work for such tests could be useful for environmental history scholars.

In addition, the environmental effects of leaking radiation and decontamination and the entire cleanup effort including extended monitoring demonstrates how costly such nuclear-related projects are.

Burke's work really only suffers from being a dissertation turned into a book, which betrays certain stylistic problems. The author's use of the passive voice is pervasive and at times distracting. However, this reviewer understands that may not be a problem for other readers and should simply be a matter of stylistic taste. Overall, this work offers a discussion of topics relevant for readers interested in Mississippi relations with the federal government during a pivotal era, and Cold War historians looking at details of arms control.

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