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Title:	Did you know the Lab and its first director share a birthday month? A look back at Oppenheimer’s wartime legacy through historical items in our collections
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Did you know the Lab and its first director share a birthday month? A look back at Oppenheimer's wartime legacy through historical items in our collections
By Emily Seyl

Many birthdays ago, at only 38 years old and with no previous administrative experience, J. Robert Oppenheimer accepted responsibility for a national security mission of unprecedented scale.

His charge, handed down by Manhattan Project director General Leslie R. Groves, was to lead a team of the world's foremost scientific minds in developing the first atomic bomb. Under Oppenheimer's leadership, a community of over 6,000 scientists, engineers, and other personnel living and working at the top-secret lab in Los Alamos completed their task in only 27 months, delivering the world's first two atomic weapons to the U.S. military.

In honor of what would have been Oppenheimer's 119th birthday (on April 22), the National Security Research Center remembers his contributions as an administrator and scientist and the scope of his legacy as the first director of the Lab through items in our unclassified collections.

Link: https://drive.google.com/file/d/1klld6rd_YYs-LMETV70NXiv5xvLPI0X9/view?usp=share_link
Text: J. Robert Oppenheimer's badge photo, taken in 1943 as he began his directorship at the top-secret lab in northern New Mexico.

Long before joining the Manhattan Project, Oppenheimer had a personal connection to New Mexico. Prone to illness in his youth, an 18-year-old Oppenheimer was sent out West by his father, where he spent a formative summer at the Los Piños dude ranch and visited the Los Alamos canyon on a horsepacking trip. He often returned to the New Mexico desert in adulthood, even as a busy academic teaching physics at Berkeley and Caltech.

The fall of 1942 found Oppenheimer back in New Mexico touring a potential site for Project Y, the wartime codename for the Lab. Both he and Groves found the location unsuitable, and Oppenheimer proposed an alternative farther up the canyon: the Los Alamos Ranch School. It sat on an isolated, nearly inaccessible plateau, but with basic infrastructure already in place — the perfect hideout for a secret lab.

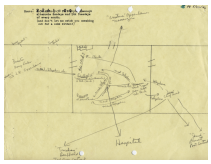
Groves agreed, and within a few months, 50,000 acres had been acquired and crews were breaking ground on a full-scale nuclear research laboratory. Nestled in the middle of nowhere, New Mexico, Project Y brought together Oppenheimer's two great loves: "physics and desert country."

Link: https://drive.google.com/file/d/1n3kltN9EcpXYr6lEqslyskn-CsQMpyYi/view?usp=sharing
Text: Some of J. Robert Oppenheimer's first thoughts on the challenges to come at Project Y were penned before his arrival at Los Alamos, including these handwritten notes on the back of a letter from his bank.

Even before the construction dust settled, in March of 1943, Oppenheimer and Groves began assembling a team of the world's brightest scientific minds, including Oppenheimer's own. An accomplished theoretical physicist, intellectual jack of all trades, and a deep thinker well-read in Eastern philosophy, Oppenheimer was a guiding force in asking and answering the research questions that led to groundbreaking innovations at the Lab.

Link: https://drive.google.com/file/d/18Gr2lbAjBFa9-IygASIsxQNvbeV6eqwL/view?usp=sharingText: Oppenheimer's copy of the Hindu text *Bhagavad-Gita*, the source of his remarks on the successful Trinity test: "I am become death, destroyer of worlds." (Book donated to the Bradbury Science Museum by Ben and Sara Beck Svetitsky.)

Though he had no shortage of expert advisors and team leaders, including more than a dozen current or future Nobel laureates, Oppenheimer bore the responsibility of making critical scientific and personnel decisions to keep the lab on track and on schedule. Those who worked with Oppenheimer have often said that there was no other man for the job. His profound understanding of both nuclear physics and human nature made Oppenheimer a natural shepherd of brilliant minds and an able keeper of the specialized research underway across the Lab's four divisions.



Link: https://drive.google.com/file/d/1LMaWV1hyP49Z42wf_wvvsdxOAodY9hl5/view?usp=sharing Text: This sketch of Oppenheimer's wartime office at Los Alamos is from the collections of the National Security Research Center, which houses the Lab's classified archives along with unclassified legacy materials.

Oppenheimer's counsel continued to pave the way as Los Alamos reached a crossroads in mid-1944, still in a race against the clock and now caught in a deadlock with the laws of physics.

Atomic bomb design had been progressing along two lines: a gun-type uranium device called Little Boy and a gun-type plutonium device called Thin Man. After a series of failed experiments, attributed to an incompatibility between the gun-type mechanism and plutonium fuel, Oppenheimer gave the order to abandon the Thin Man design.

Work continued on the remaining weapon, Little Boy, but its uranium fuel was in short supply. To make use of the more readily available plutonium, it would be necessary to design a more complex and unproven implosion-type weapon.

Oppenheimer took a leap of faith and entrusted his team with the task, reorganizing the lab to create a Weapons Physics Division and declaring that "all possible priority should be given to the implosion program."

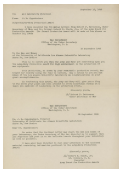
The decision paid off. The prototype of the new implosion-type device came to be called The Gadget and was detonated one year later at the Trinity site, making history as the first nuclear weapon ever tested. The successful design — patented by Oppenheimer — was replicated as Fat Man, one of two atomic bombs supplied to the U.S. military near the end of the war.

Link: https://drive.google.com/file/d/1SBRx4hcNnHo7kcLvWrQlVuD9lyH7ahLF/view?usp=sharing
Text: The Lab's successful plutonium weapon, Fat Man, utilized an implosion-type mechanism developed by scientists at Los Alamos. The patent application for the Fat Man atomic bomb design lists J. Robert Oppenheimer as the inventor.

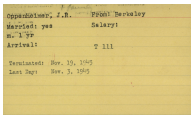
Link: https://drive.google.com/file/d/16dGnfVxXn4twJNklue2C3uRtWGg8yj-1/view?usp=sharing
Text: This newly rediscovered, classified manual is 149 pages and includes detailed drawings showing how to assemble the Fat Man atomic bomb. It is the only known copy of 25 created that still exists.

The Little Boy and Fat Man atomic bombs were released above Japan on August 6 and 9, respectively. Japan surrendered shortly thereafter, and World War II was officially over on September 2, 1945.

The Manhattan Project was complete. On October 16, 1945, the Army-Navy E Award for excellence in war production was bestowed upon Oppenheimer and the scientists, engineers, military personnel, and others at the Lab whose patriotism "helped our country along the road to victory." On the day of this capstone event, Oppenheimer announced his resignation. He would go on to serve in important advisory roles as the U.S. debated the future of nuclear research and the wartime Lab at Los Alamos.



Link: https://drive.google.com/file/d/1y0b3qe36u_rdy2y9rqFpErclSxKKZPEj/view?usp=sharing
Text: A September 17, 1945, memo from Lab Director J. Robert Oppenheimer to all staff sharing news from the Under Secretary of War that the Lab would receive the Army-Navy E Award for excellence in war production in recognition of its successful development of the atomic bomb.



Link:
https://drive.google.com/file/d/1LUeoJAz65SJxoyvTaf2IFAs-hQh4QmFL/view?usp=share_link
Text: Oppenheimer's "McKibbin card," as laboratory personnel cards were called in reference to their issuer, Dorothy McKibbin, notes his date of final departure from Los Alamos.

Interested in learning more about the Lab's first director and its wartime history?
Be on the lookout this summer for a documentary on J. Robert Oppenheimer, created by the Lab's National Security Research Center and based on its collections from the Manhattan Project era as well as interviews with today's Lab staff and Oppenheimer experts.