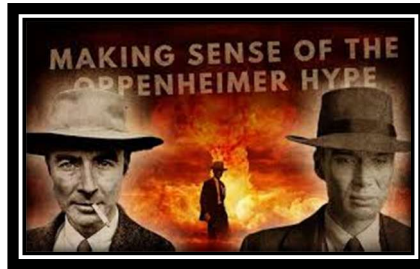


THE REAL HISTORY BEHIND CHRISTOPHER NOLAN'S MOVIE 'OPPENHEIMER'

HOLLYWOOD & HISTORY

AN UPDATED SUMMARY OF THE LIFE OF J. ROBERT OPPENHEIMER

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THE "FATHER OF THE ATOMIC BOMB" HAS LONG BEEN MISUNDERSTOOD. WILL THE NEW FILM FINALLY GET THE STORY OF J. ROBERT OPPENHEIMER, RIGHT?



JULY 28, 2023

Since the end of World War II, historians and artists alike have been fascinated by the brilliant, enigmatic J. Robert Oppenheimer, the theoretical physicist who led the Manhattan Project laboratory that developed the atomic bomb. Beginning as early as 1946, documentaries, television miniseries, plays, books, graphic novels, feature films, and even an opera have explored the scientist's life, work, and legacy. In recent years, however, much of that complexity has been reduced to a single popular image: the broken genius, haunted by his invention, reciting a line from the Bhagavad Gita in a 1965 NBC News documentary. "Now I have become death, the destroyer of worlds," Oppenheimer intones.

But Oppenheimer's life was about far more than regret. "[He] was interesting as the father of the bomb," says Kai Bird, co-author of the 2005 Pulitzer Prize-winning biography *American Prometheus: The Triumph and Tragedy of J. Robert Oppenheimer*. **"But the real arc in the story is the tragedy."**

Christopher Nolan's *Oppenheimer*, which opens in theaters on July 21, will be the first feature-length film to tackle the scientist's life in its entirety, and it promises to be spectacular. Starring Cillian Murphy of "Peaky Blinders" fame in the title role alongside an ensemble A-list cast, the film (which uses *American Prometheus* as its main source material **will reintroduce the scientist and the top-secret bomb project he helmed to a new generation of Americans**). *Oppenheimer* provides an opportunity to revisit this charismatic, contradictory man and **reconsider how previous attempts to tell his story have succeeded—and failed**—at fathoming one of the 20th century's most fascinating public figures.

OPPENHEIMER AND THE MANHATTAN PROJECT

Born into a secular Jewish family in New York City in 1904 and educated at Manhattan's Ethical Culture School, **Oppenheimer graduated summa cum laude from Harvard University in just three years**. If Harvard was easy, growing out of his awkward adolescence was harder. He struggled with mental health issues while pursuing a graduate degree at the University of Cambridge—**"I was on the point of bumping myself off,"** he later recalled—**and ended up on probation after lacing an apple with chemicals and leaving it on his tutor's desk**.

But by the time World War II broke out in 1939, Oppenheimer had transformed himself into a respected physicist at the University of California, Berkeley.

"He was sort of a caricature of the eccentric professor," Bird says, an intellectual omnivore who read Sanskrit, loved Elizabethan poetry, rode horses, and made a great martini.

He had also fallen in love with Jean Tatlock (played by Florence Pugh in Nolan's film), a dues-paying member of the Communist Party who awakened his interest in politics. Oppenheimer was "likely sympathetic to ... communist goals," according to the nonprofit Atomic Heritage Foundation, but he never officially joined the party. ("Any attempt to label Robert Oppenheimer a party member is a futile exercise—as the FBI learned to its frustration over many years," wrote Bird and co-author Martin J. Sherwin, who died in October 2021 at age 84, in *American Prometheus*.) But many of his closest friends and family were party members at one point or another: his brother, Frank Oppenheimer; his friend Haakon Chevalier; and his future wife, Kitty Oppenheimer. These associations would cast suspicion on the physicist himself later in his life.



A circa 1950 photograph of Albert Einstein (left) and Oppenheimer (right.)

Oppenheimer's political leanings didn't prevent him from being recruited, in early 1942, for a secret project authorized by President Franklin D. Roosevelt that was drawing scientists from all over the country. Three years earlier, Albert Einstein had written a letter to Roosevelt warning that breakthroughs in nuclear fission promised "extremely powerful bombs of a new type." Now, the race was on to figure out how to build one of these bombs before Germany did.

In the summer of 1942, Oppenheimer organized a series of secret seminars at Berkeley, where the United States' top physicists roughed out the outlines of a possible bomb. As it turned out, Oppenheimer was a natural manager. "I don't know how he had acquired this facility for handling people," said Edward Teller, a colleague who would later testify against him. "Those who knew him well were surprised."

That September, General Leslie Groves (played by Matt Damon in the new film), an Army engineer who'd previously overseen the construction of the Pentagon, took over as head of what was by then called the Manhattan Project, after its inaugural offices in lower Manhattan. Groves knew construction but not physics, so the charming Berkeley physicist caught his eye. "Oppenheimer was the first scientist Groves had met on his tour who grasped that building an atomic bomb required finding practical solutions to a variety of cross-disciplinary problems," wrote Bird and Sherwin. He wasn't an obvious choice—"He couldn't run a hamburger stand," said a Berkeley colleague—but in October 1942, Groves named Oppenheimer the project's scientific director.

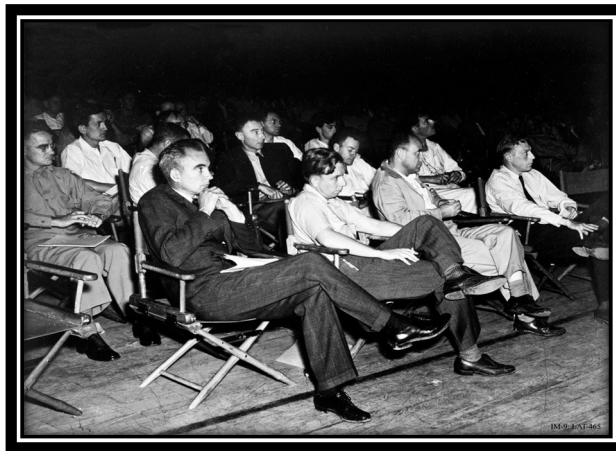


Maj. Gen. Leslie R. Groves (r), and J. Robert Oppenheimer view the base of the steel tower on which the first atomic bomb hung when tested near Alamogordo, New Mexico, in July 1945. The intense heat of the bomb melted the tower and seared the surrounding sands into jade-green glass-like cinders

The government operation brought hundreds, and eventually thousands, of scientists, civilians, and Army personnel to a mesa in Los Alamos, New Mexico. Their ranks eventually included Teller, Hans Bethe, Richard Feynman, Seth Neddermeyer, Robert Serber, Kenneth Bainbridge, Enrico Fermi, and many others. (Nolan's film portrays each of these figures and, judging by the full cast list, more or less recreates the entire field of theoretical physics in the 1930s and '40s, including Kenneth Branagh as Nobel Prize winner Niels Bohr.) The scientists reported directly to Oppenheimer, who, at 38, was learning on the job how to run a lab. Oppenheimer's lab was only one part of the Manhattan Project. Built on the site of a former boys' school, Los Alamos was one of three "securities" seized and transformed by the U.S. government in late 1942 and early 1943.

The other two—Oak Ridge, Tennessee, and Hanford, Washington—accounted for the vast majority of the manpower, expense, and industrial scale of the project, which employed an estimated half a million people between 1942 and 1945. At Oak Ridge, uranium was refined at the largest factory in the world, newly built for that purpose. In Hanford, an area half the size of Rhode Island was cleared of residents, their houses bulldozed to make way for reactors to produce plutonium. "I told you it couldn't be done without turning the whole country into a factory," Bohr said to Teller in 1944. "You have done just that."

At Los Alamos, Oppenheimer came into his own as a gifted leader. "[He] had a very distinctive voice that was very soft," says Bird. "You had to listen very carefully, but he was magnetic." That magnetism kept the lab productive even after an initial design for the bomb, known as Thin Man, had to be scrapped in July 1944. Ultimately, the scientists settled on two workable designs for a bomb, which they called Fat Man and Little Boy. At 5:29 a.m. on July 16, 1945, almost three years of work culminated in the first nuclear detonation in history. Known as the Trinity test, it lit the hills of the New Mexico desert.



A group of physicists at a 1946 Los Alamos colloquium. Oppenheimer is third from left in the second row, wearing a black jacket and tie. Other scientists featured in the image include Enrico Fermi, Edward Teller, and Richard Feynman. (Los Alamos National Laboratory via Wikimedia Commons)

Oppenheimer, already famously thin, had lost weight during the project, and during the countdown, he reportedly barely breathed. Later dramatizations had the scientist reciting the line from the Bhagavad Gita during the moment of detonation (Oppenheimer himself later claimed the line had come to him then), but he reportedly said something closer to "It worked."

After the test, Oppenheimer was transformed by relief. "I'll never forget the way he stepped out of the car," fellow Manhattan Project scientist Isidor Isaac Rabi later said. "His walk was like *High Noon* ... this kind of strut. He had done it. On August 6, 1945, Enola Gay dropped Little Boy on the Japanese city of Hiroshima.

August 9, 1945, three days later, Bockscar dropped Fat Man on Nagasaki.

Estimates of deaths from the two bombings vary widely, from a contemporary figure of around 110,000 to a later estimate of closer to 210,000. On August 15, 1945, Emperor Hirohito announced Japan's surrender.

THE BATTLE OVER THE BOMB

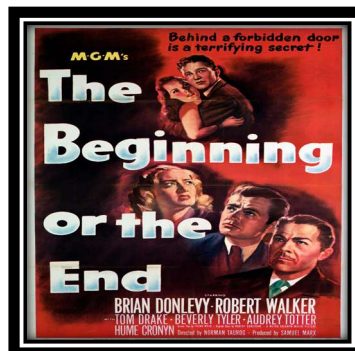
In the years immediately following the war, public opinion about the use of the atomic bomb hadn't yet solidified. The first time Oppenheimer appeared on the big screen was in August 1946, when he starred in the 18-minute documentary "Atomic Power," which was part of *Time's* "The March of Time" series. Onscreen, Oppenheimer (one of several figures who participated in the film, including Einstein, Groves, and Rabi) re-enacts waiting anxiously for the detonation at Trinity with Rabi, who gives a stilted performance as he reassures his boss, "It's going to work all right, Robert. And I'm sure we'll never be sorry for it."

Oppenheimer was already sorry. In October 1945, he told President Harry S. Truman (played by Gary Oldman in Nolan's film), "Mr. President, I feel I have blood on my hands." The tide of public opinion was also beginning to turn. Three weeks after "Atomic Power" was released, John Hersey's searing, book-length article "Hiroshima" appeared in the *New Yorker*, awakening many Americans for the first time to the horrors of the bomb.

Fearing they were losing the battle for the history books, Truman and other officials sprang into action, compelling former Secretary of War Henry Stimson to defend the use of the bomb in a *Harper's* magazine article published in February 1947. The story, which reads as a simple recitation of the facts, portrays the decision to use the bomb as one made with sagacious care. It introduced the argument—repeated often since—that the bomb prevented an Allied land invasion of Japan that would have cost "over a million casualties, to American forces alone."

"That article set the history for most Americans for the next generation," Bird says. "And the narrative was, 'Oh, it was a difficult decision. It was terrible. But it was necessary, and it saved perhaps a million American lives.'"

The first major Hollywood film about the bomb, *The Beginning or the End*, debuted the month after Stimson's article. Initially conceived by atomic scientists as a way to educate the public about the dangers of nuclear warfare, the movie went through script approvals and retakes ordered by Groves and Truman that turned it into a "pro-bomb celebration—dictated by the Pentagon and White House," wrote Greg Mitchell in his 2020 book, *The Beginning or the End: How Hollywood—and America—Learned to Stop Worrying and Love the Bomb*.



Poster for the 1947 film "The Beginning or the End"

Directed by Norman Taurog, the film "is so instructive because it is the earliest, and one of the most complete, reassertions of the pro-bomb narrative just when doubts were being raised," Mitchell tells *Smithsonian* magazine. "Even Truman got involved, to the extent of ordering a costly retake and getting the actor playing him fired. The studio voluntarily handed over control of the film to the Pentagon, via Groves, and the White House. Oppenheimer himself caved to pressure."

The Beginning or the End claimed the American military dropped warning leaflets about the atomic bomb on Hiroshima and that the *Enola Gay came under attack from Japanese antiaircraft missile fire on its bombing run.* Like Stimson's article, it depicted Truman carefully working through the decision to drop the bomb before arriving at a pivotal moment.

The U.S. did not drop leaflets warning of the atomic bomb specifically, though pilots may have dropped more general notices of impending attacks on Hiroshima, and *the Enola Gay did not come under antiaircraft fire.*

Many historians disagree that there was a single moment of "decision" on Truman's part. In an essay included in the 2020 anthology *The Age of Hiroshima*, Alex Wellerstein, a nuclear historian at the Stevens Institute of Technology in New Jersey, wrote that Truman "was quite peripheral to most of the decisions that led to the use of the weapons." Wellerstein argued that Truman may have even mistakenly believed that Hiroshima was a military target rather than a city made up largely of civilians. As for that figure of one million projected American casualties, Bird later asked Stimson's ghostwriter, Mac Bundy, where he got it. "He looked at me," Bird recalls, "and he says, 'Oh, we pulled it out of thin air.'"

Oppenheimer described the script of *The Beginning or the End* as "without purpose or insight." Another physicist, Leo Szilard, put it even more bluntly: "If our sin as scientists was to make and use the atomic bomb, then our punishment was to watch *The Beginning or the End.*"



Murphy, as Oppenheimer, walks through a crowd of photographers. The real Oppenheimer started speaking out publicly about the dangers of atomic warfare soon after the war's end. (Universal Pictures)

THE OPPENHEIMER SECURITY HEARING

Almost immediately, Oppenheimer began speaking out publicly about the dangers of atomic warfare, even as he continued to act as a nuclear weapons consultant for the U.S. government. In November 1945, he told an audience in Philadelphia that the bomb was "by all the standards of the world we grew up in ... an evil thing." He gave television interviews starkly elucidating the risk of nuclear war. In 1949, as the head of an advisory committee for the newly formed Atomic Energy Commission (AEC), *he delivered a report warning against developing a hydrogen bomb*—a fusion weapon more powerful than the Trinity, Hiroshima, or Nagasaki bombs—that had been conceived by fellow Manhattan Project scientist Teller. "A super bomb might become a weapon of genocide," Oppenheimer wrote. "A super bomb should never be produced." In 1953, he gave a speech likening the nuclear-capable United States and the Soviet Union to "two scorpions in a bottle, each capable of killing the other, but only at the risk of his own life."

Oppenheimer's outspoken warnings made him a target, and in December 1953, amid McCarthy-era paranoia about Soviet spies in the highest levels of government, AEC Chairman Lewis Strauss (played by Robert Downey Jr. in Nolan's film), who harbored a dislike for Oppenheimer, *called the scientist into his office and told him his top-secret security clearance had been revoked.* *Oppenheimer insisted on defending himself, leading the AEC to call what became a highly publicized security hearing to resolve the matter.*

The monthlong hearing, which began on April 12, 1954, *amounted to an X-ray of Oppenheimer's adult life.*

Transgressions large and small were dragged into the open and held up to exacting scrutiny. Key pieces of the case against Oppenheimer included his close friendship with Chevalier, a scholar of French literature at Berkeley and a card-carrying Communist whom the physicist had once protected from incrimination, as well as Oppenheimer's opposition to Teller's hydrogen bomb. The usually persuasive scientist panicked under questioning by AEC lawyer Roger Robb; at one point, caught in a contradiction, Oppenheimer accounted for his defense of Chevalier by admitting bluntly, "I was an idiot." But he also had to defend personal matters, such as his decision to spend a night with his communist ex-fiancée, Tatlock, in the summer of 1943, while he was working at Los Alamos, six months before she died by suicide in 1944. Why did he have to see her? The committee asked. "Because she was still in love with me," Oppenheimer responded.



A 1946 photo of Edward Teller, the former Manhattan Project scientist who later testified against Oppenheimer at his security hearing.

On May 27, the board overseeing the hearings voted 2 to 1 not to reinstate Oppenheimer's security clearance. "I think that our failure to clear Dr. Oppenheimer will be a black mark on the escutcheon of our country," wrote lone dissenter Ward V. Evans. Either way, Oppenheimer's relationship with the U.S. government was now officially over. He returned to Princeton, New Jersey, where he'd been the director of the Institute for Advanced Study since 1947. The hearings "destroyed him," Rabi later said. Another friend, diplomat George Kennan, remembered trying to comfort Oppenheimer by telling him he'd surely be welcome abroad. "His answer, given to me with tears in his eyes: 'Damn it, I happen to love this country.'"

Oppenheimer tried to minimize the importance of the hearings. "I think of this as a major accident, much like a train wreck or the collapse of a building," he told a reporter. "It has no relation or connection to my life. I just happened to be there." As much as he might have wished that to be true, Oppenheimer's downfall during the hearings came to define him in the public eye. In 1964, the German playwright Heiner Kipphardt drew directly on the published transcripts of the security hearings for his *In the Matter of J. Robert Oppenheimer*. Discussing the play with the *Washington Post*, perhaps still trying to prevent his downfall from defining him, Oppenheimer said, "The whole damn thing was a farce, and these people are trying to make a tragedy out of it."

In an attempt at public rehabilitation, President Lyndon B. Johnson presented Oppenheimer with the Enrico Fermi Award, the AEC's highest honor, in 1963. Nonetheless, the physicist never fully recovered from the blow to his reputation. He lived out the rest of his days in Princeton, where he kept his job at the Institute for Advanced Study until 1966, and died of cancer there in February 1967. As the New York Times wrote in his obituary, "This bafflingly complex man nonetheless never fully succeeded in dispelling doubts about his conduct."

Oppenheimer's security clearance remained revoked until December 2022, when the Department of Energy vacated the commission's 1954 decision. "Oppenheimer occupies a central role in our history for leading the nation's atomic efforts during World War II and planting the seeds for the Department of Energy's national laboratories," said Secretary of Energy Jennifer Granholm in a statement.



President Lyndon B. Johnson presents Oppenheimer (left) with the Enrico Fermi Award in 1963.

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"As time has passed, more evidence has come to light of the bias and unfairness of the process that Dr. Oppenheimer was subjected to, while the evidence of his loyalty and love of country [has] only been further affirmed."

THE MYTH OF OPPENHEIMER

In the more than 50 years since Oppenheimer's death, popular culture has taken varied approaches to exploring his life. The Peabody Award-winning 1981 documentary *The Day After Trinity* focused on his regret over his role in building the bomb. The 1980 BBC TV miniseries "Oppenheimer," by contrast, starred a thin, quietly charismatic Sam Waterston and was more interested in the question of Oppenheimer's communist ties and his downfall.

Later fictional depictions of Oppenheimer grew less interested in complex readings of his psychology and often flattened him into a character who sometimes bordered on the ridiculous. In 1989, director Roland Joffé made a big-budget bet on the story of the Manhattan Project in *Fat Man and Little Boy*. Despite an A-list cast—Paul Newman as Groves, John Cusack as a fictional Manhattan Project scientist, and Laura Dern as that scientist's girlfriend—the film flopped. The script was simplistic, the dialogue groan-inducing ("Naked. Isn't that a beautiful word?" Dern says to Cusack when propositioning him) and veracity an afterthought. But the film suffered most from the performance of Dwight Schultz, best known to viewers from "The A-Team" and "Star Trek: The Next Generation," as Oppenheimer. Schultz brought a blankness to his portrayal of a man who famously had charisma to spare. "Schultz is stiff and actorly," wrote the *Washington Post*. "Like an irredeemably tone-deaf singer, he hits only false notes."

In the otherwise excellent TV show "Manhattan," which ran for two seasons in 2014 and 2015, Daniel London played Oppenheimer as an already broken man, as though the actor's only reference for the character was the famous "I have become death" interview. His Oppenheimer was more interested in self-preservation than the success of the project, whereas the real Oppenheimer of the Los Alamos years was a nimble ball of energy, guiding the complex endeavor toward completion thanks to his keen feeling for the challenges his fellow scientists faced.

No list would be complete without one other fictional depiction of Oppenheimer: Pulitzer Prize-winning composer John Adams' 2005 opera, *Doctor Atomic*.

If Oppenheimer objected to Kipphardt's play, he surely would have found *Doctor Atomic's* elevation of his life into an operatic Faustian tragedy ridiculous.

But the opera, which centers around the days leading up to the Trinity test and culminates in the detonation of the first atomic bomb, was rapturously received by critics and has been restaged several times since its debut. In the *New York Times*, science writer Dennis Overbye wrote that the opera had disabused him of his preconceptions about the bomb: “I long ago concluded that there was not much new to say about the atomic bomb. But I was wrong. As I was watching ... I began to wonder if anything had yet been said that counted.”

NOLAN'S OPPENHEIMER

Before Sherwin died in 2021, he and Bird read several scripts based on *American Prometheus*. One, Bird says, was boring. Another was just weird: “It had dream sequences, a ghost speaking Oppenheimer’s poetry. It had a scene in which [Oppenheimer] is at a cocktail party in Berkeley and imagines himself dropping a cyanide pill into Edward Teller’s drink and watching him collapse on the floor and die in agony.” Bird and Sherwin sent back a long memo detailing the script’s many historical errors.

So Bird was relieved when, in the fall of 2021, he became one of a handful of people outside the film’s production to read Nolan’s take on Oppenheimer. “I think it’s a fabulous script,” Bird says. Unlike other recent depictions, it covers scenes from Oppenheimer’s entire life and doesn’t shy away from the moral questions of the bomb. “Nolan covers in a very deft way the argument among the physicists over whether the bomb was necessary or not and has Oppenheimer after Hiroshima saying the bomb was used on a virtually already defeated enemy,” Bird adds. “People who know nothing about Oppenheimer will go thinking they’re going to see a movie about the father of the atomic bomb.” Instead, “they’re going to see this mysterious figure and a deeply mysterious biographical story.”

Regardless of whether subject matter experts believe there is nothing new to say, the general public’s understanding of Oppenheimer and the Manhattan Project hasn’t changed significantly since Stimson’s 1947 *Harper’s* article. After all, most people’s sense of history doesn’t come by way of the academy or densely researched biographies. Visiting Los Alamos myself a few years ago, I asked a docent what they thought might renew public interest in the history of the Manhattan Project.

The answer? “A movie.”

“Oppenheimer himself couldn’t make up his mind how he felt about making and helping to use the bomb, right to the end of his life,” says Mitchell. Until now, “filmmakers also couldn’t seem to get a handle on his conflicting emotions and statements. In that sense, he is a valuable audience surrogate, severely divided or conflicted on these questions.”

Nolan’s film arrives at a precarious moment in which optimism about nuclear disarmament is giving way to talk of a new nuclear age. Few world leaders today have direct experience with the horrors of nuclear bombs, and some younger people are ignorant of even basic facts about World War II. But perhaps our distance from Oppenheimer’s era also presents an opportunity.

“Today, almost 80 years have passed since the end of World War II,” says Cynthia C. Kelly, president of the Atomic Heritage Foundation. Now, she adds, “the public can more openly consider different interpretations of atomic history.”

Why did it take so long for a director of Nolan’s caliber to take on Oppenheimer’s story? Perhaps it’s because we’re only now far enough away from those world-changing events to be open to seeing them—and him—with fresh eyes.

That’s no easy task. As Oppenheimer himself told an interviewer in 1948, “If you’ve lived a life that isn’t free and open with people, it’s almost impossible to unsnarl it, to unravel the ball of twine.”

NOTE

Doesn't it seem rather odd that Oppenheimer is being presented with this Prestigious Fermi Award by the President Of The United States in 1963 and the United States has not yet seen fit to restore his security clearance which they revoked in 1954 (9 years earlier) until 2022, (68 years after it was revoked and 59 years after receiving the Fermi Award?

Based on what I have read here and in other articles makes me feel that he was never given a FAIR hearing to begin with and his security clearance should have never been removed

