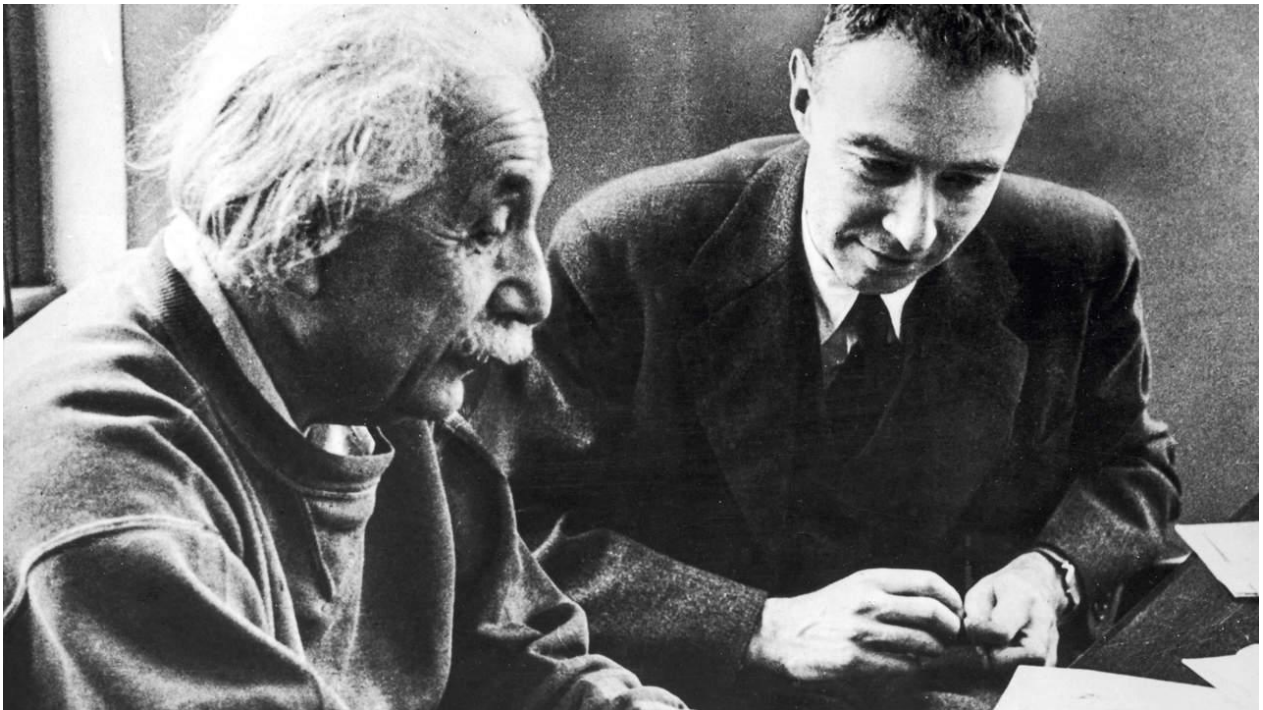


The Father of the Atomic Bomb: J. Robert Oppenheimer [B2]

Il direttore del “Progetto Manhattan” era uno scienziato brillante e carismatico che è passato alla storia come il padre della bomba atomica. Il regista Christopher Nolan ha diretto una grande produzione cinematografica che ne narra la vita e le scoperte che cambiarono il mondo per sempre.



Born in New York on 22 April 1904, the boy who would one day be known as the ‘father of the atomic bomb’ was the son of [affluent](#) German Jewish immigrants. A lonely child with a love of minerals, Julius Robert Oppenheimer [corresponded](#) so eloquently with the New York Mineralogical Club that they invited him to give a [lecture](#), [unaware](#) that he was just twelve at the time.

POLYMATH

In 1925 Oppenheimer graduated in chemistry from Harvard University, but [was drawn to](#) physics in Cambridge in the UK and then in Göttingen in Germany, one of the world’s leading centres for theoretical physics.

Returning to the US, he worked at the University of California and the California Institute of Technology, conducting research in many scientific fields, including nuclear physics, [quantum field theory](#) and astrophysics. A polymath, [he took an interest](#) in non-scientific topics too, including learning Sanskrit. In 1940, Oppenheimer married the botanist Katherine 'Kitty' Puening and they had two children.

TRINITY TEST

As director of the Manhattan Project's Los Alamos laboratory, Oppenheimer was critical in creating the atomic bomb. In July 1945, he and his team tested it at Alamogordo, New Mexico. He watched from a control bunker as the world's first nuclear explosion took place. On its success, his first words reportedly were: "I [guess](#) it worked".

NOW I AM DEATH

Twenty years on, Oppenheimer delivered a more sober account of the Trinity test. By then, the destruction caused to the Japanese cities of Hiroshima and Nagasaki was understood, and America was [in the midst](#) of an [arms race](#) with the Soviet Union. In the 1965 television [broadcast](#), Oppenheimer spoke of using the bomb to "put an end to [butchery](#)" and that it felt like "the right thing to do." However, by 1945, the US government knew that neither the Nazis nor the Japanese had atomic weapons. Oppenheimer [quotes](#) from a sacred Hindu text to emphasise his point. **J. Robert Oppenheimer (American accent):** We knew the world would not be the same. A few people laughed, a few people cried. Most people were silent. I remembered the line from the Hindu scripture, the Bhagavad Gita: Vishnu is trying to persuade the Prince that he should do his [duty](#), and to impress him, takes on his multi-armed form and says, "Now I am become Death, the destroyer of worlds." I suppose we all thought that, one way or another.

HIROSHIMA AND NAGASAKI BOMBINGS

On 6 August the US [dropped](#) its first atomic bomb on Hiroshima. Known as “Little Boy”, the uranium bomb exploded with about thirteen kilotons of force. Up to 166,000 people are believed to have died following the explosion. After five years there were around 230,000 people killed directly or indirectly by the bomb’s effects, including burns, radiation sickness and cancer. On 9 August a second atomic bomb was [dropped](#) on Nagasaki – a 21-kiloton plutonium device known as “Fat Man”. It is estimated that between 40,000 and 75,000 people died immediately, while another 60,000 people suffered severe injuries. Japan [surrendered](#) on 14 August 1945.

SON OF A BITCH

In October 1945 Oppenheimer [resigned](#) as director of the Los Alamos laboratory. When he’d heard that after Hiroshima, a second bigger bomb had been [dropped](#) on Nagasaki, he [confronted](#) US President Harry Truman, saying he had “blood on my hands.” After the meeting, Truman told his [aides](#): “I never want to see that son of a bitch in this office again.”

THE H-BOMB

Oppenheimer tried to use his celebrity status to influence US nuclear policy. He became an Atomic Energy Commission advisor, but then lost the position by opposing the development of a hydrogen bomb, a more deadly device. The US made the H-bomb anyway, and tested it in 1952. Then in 1954, Oppenheimer was officially accused of being a Soviet spy. Like many in the 1930s, he had associated with Communist Party members, and certainly Soviet spies had intercepted the Manhattan Project, but there was no evidence that Oppenheimer was [trading](#) secrets. His top-secret [security clearance](#) was immediately revoked. This [sham ruling](#) was nullified in 2022.

REDEMPTION

In 1960, Oppenheimer helped establish the World Academy of Art and Science along with Albert Einstein. Until his death of cancer [throat](#) in 1967, Oppenheimer continued lecturing around the world. In 1963 he was given the Enrico Fermi Award by US President John F. Kennedy. But, although nominated three times for a Nobel Prize, he was never awarded one.

OPPENHEIMER - THE MOVIE

Released on 21 July, a Christopher Nolan film starring Cillian Murphy explores the life and legacy of J. Robert Oppenheimer. Like the project the physicist directed in the 1940s, details of the movie remain top secret! Oppenheimer [had a penchant for surrounding himself](#) with mystery. He was often [misrepresented](#) in the media, and romanticised characterisations of him as a tragic hero or [guilt-ridden](#) pacifist persist. He left little [in the way of](#) personal writings or journals, and [scholars](#) have [relied on](#) official documents, correspondence and colleagues' accounts instead. They build an image of a complex, multi-faceted and ambitious figure, whose influence on US nuclear policy fluctuated. Oppenheimer was an admirer of Niels Bohr, a Danish Nobel Prize-winning physicist with whom he worked. He shared Bohr's vision of 'open-world' science, where research is shared freely between nations.

Glossary

- **quantum field theory** = teoria quantistica dei campi
- **trading** = commerciare, trafficare
- **affluent** = benestanti
- **in the midst** = nel mezzo
- **arms race** = corsa agli armamenti
- **surrendered** = arrendersi
- **surrounding himself** = circondarsi
- **in the way of** = in termini di
- **lecture** = conferenza
- **butchery** = macelleria
- **quotes** = citare
- **misrepresented** = travisare, distorcere
- **guilt-ridden** = tormentato da sensi di colpa
- **corresponded** = tenere una corrispondenza
- **resigned** = dimettersi
- **throat** = gola
- **security clearance** = permesso di sicurezza
- **scholars** = studiosi
- **unaware** = inconsapevoli
- **guess** = supporre
- **aides** = collaboratori
- **was drawn to** = sentirsi attratto da
- **he took an interest** = interessarsi
- **had a penchant for** = avere una passione per
- **relied on** = fare affidamento su
- **broadcast** = trasmissione
- **dropped** = lasciar cadere
- **confronted** = affrontare
- **duty** = dovere
- **sham** = fasullo, fittizio
- **ruling** = provvedimento, sentenza