



**Einstein in 1912.** When this picture was taken he had returned to Zurich as professor of physics after a brief stay in Prague. He was already becoming a famous physicist and had received offers from several other institutions.

SCHWEIZERISCHE LANDESBIBLIOTHEK



**At home** with his first wife, Mileva, and their son, Hans Albert, in 1904. He was then working in the Patent Office in Bern as a "technical expert, third class." In his spare time he was working on the great papers of 1905.

EINSTEIN ESTATE

## Einstein's life in pictures

**T**he year 1879 was a remarkable one for the sciences. James Clerk Maxwell's death in November had been more than compensated by four notable births during the previous year: Max von Laue on 9 October, Albert Einstein and Otto Hahn on 14 and 12 March, and Lise Meitner on 7 November, 1878. All four worked as friends and colleagues for many years at the Kaiser Wilhelm Institute in Berlin. Together with Max Planck, Walther Nernst and others they formed one of the most prestigious groups of scientists in the world. Laue discovered the interference of x rays. Hahn and Meitner worked side by side on nuclear chemistry; their work led to the discovery of nuclear fission.

But no scientist since Newton made such a mark on his time as Einstein. He was, without a doubt, the greatest physicist of his generation. More remarkably, he was known and respected—revered—everywhere. He became a symbol of knowledge and wisdom and humanity. A symbol of what Man can be, but rarely is. The only exception to this attitude came during the Nazi period in Germany, where he was vilified as a symbol of Jewish, dogmatic, formalistic science. Planck, as dean of German scientists, Hahn and a few others, and, outstandingly courageously, Laue, did what they could. But the madness was too powerful. Einstein, fortunately, had left in 1933. He never set foot in Germany again. After the war he increased his efforts on behalf of Zionism and, later, Israel, to increase the hope that Jews might find a safe refuge from future Holocausts.

His contributions to physics, starting with the monumental papers of 1905 and continuing for most of his life, are too well known to physicists to need lengthy discussion here. In this special issue, therefore, Banesh Hoffmann and Peter Bergmann—both former colleagues of his—discuss less familiar aspects of Einstein's work. Hoffmann describes the effects his style and philosophy and his support for some seemingly bizarre ideas had on the progress of physics. Bergmann discusses developments in what was Einstein's last quest, the search for a unified theory of gravity and other interactions. And in these eight pages we show a few pictures to illustrate his life.

—TVF



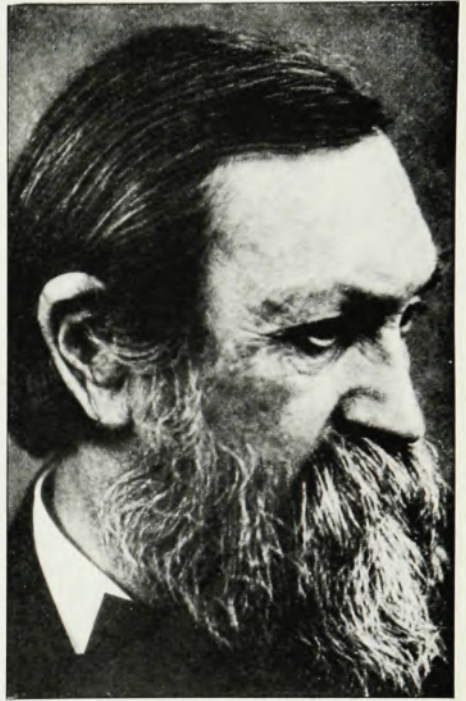




**Left**, the physical institute at the ETH in Zurich. Einstein studied there, but he was a poor student, and only graduated with the help of notes taken by his friend, Marcel Grossmann.

**Below left**, the "Olympia Academy," Konrad Habicht, Maurice Solovine and Einstein. They met often in Bern to discuss physics, philosophy, and anything else that interested them.

**Below**, Ernst Mach. His critical text of Newtonian mechanics had a profound influence on Einstein. He was also instrumental in getting Einstein his first professorship in Prague. AIP, E.T.H. BIBLIOTHEK; AIP



**Below**, the Einstein apartment at 49 Kramergasse in Bern. He lived here until 1909, when he moved to Zurich. Two years later he moved to Prague, but returned to a professorship in Zürich in 1912. In 1913 Planck and Nernst offered him a position in Berlin, which he could not refuse.

SCHWEIZERISCHE LANDESBIBLIOTHEK

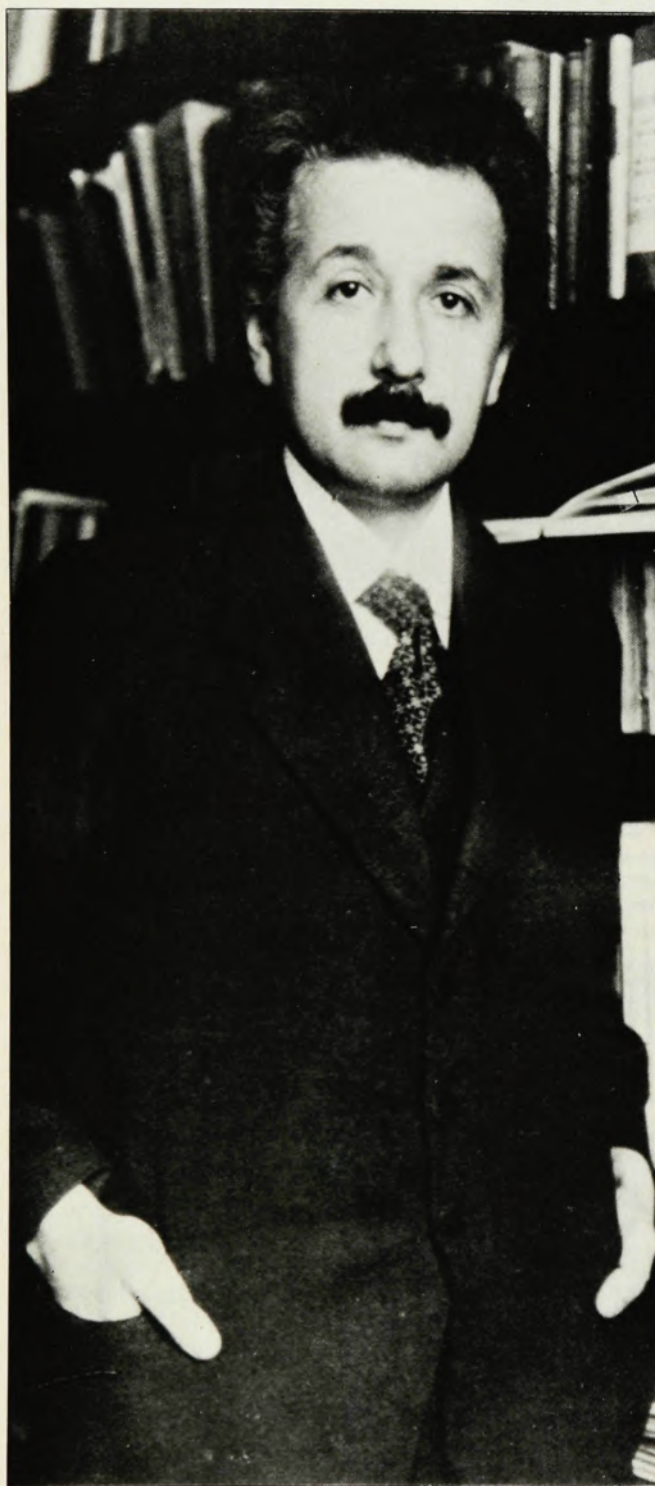


**Left**, Einstein with his sister, Maja, in 1893. **Above**, in the patent office in Bern, about 1905.

EINSTEIN ESTATE; LOTTE JACOBI



## The Berlin years



**Einstein in 1916**, two years after he moved to Berlin. His contributions to quantum theory, statistical mechanics and relativity were highly regarded, and he had just published his paper on the general theory of relativity. **The photo on the right** was taken near the end of his stay in Berlin. He is leaving the Physikalisches Institut, where Planck and others had offices. His own office was at home, where he could work undisturbed at his own pace.

EINSTEIN ESTATE; ULLSTEIN



**Walking with his second wife, Elsa**, in Berlin in 1921. Mileva did not move with Einstein to Berlin, and they were divorced, amicably, in 1919. Soon after, he married Elsa Einstein, a cousin, with whom he spent many happy years.

KEYSTONE

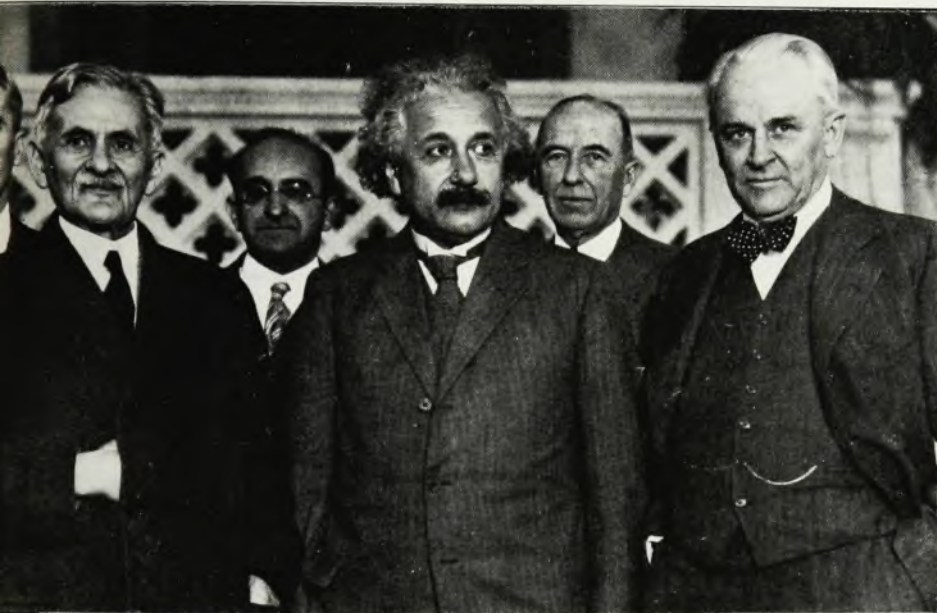






**Left**, Paul Ehrenfest, a friend from Einstein's days in Prague, became professor in Leyden. They remained friends, and Einstein often went to Leyden for lectures and discussions. This photo, taken in November 1923, shows Einstein in the doorway, Ehrenfest and Douglas Hartree to his right. Sam Goudsmit is at the far right.

AIP



**Robert A. Millikan** and Einstein became friends during one of Millikan's visits to Europe, and he invited Einstein to be a visiting professor at Cal Tech in 1931–32. Albert A. Michelson, Einstein and Millikan are in the front row; W. Adams, W. Mayer and an unidentified man in the rear.

CALIFORNIA INSTITUTE OF TECHNOLOGY ARCHIVES



**The year in Pasadena** also provided occasions for sight-seeing excursions, in this case to Palm Springs in early 1932.

CULVER PICTURES



**Ehrenfest, Einstein and Ehrenfest's son, Paul, Jr.**, at Ehrenfest's house in Leyden in 1921, during one of Einstein's visits there. They often played music together, with Ehrenfest at the piano and Einstein playing the violin. Mozart was one of Einstein's particular favorites.

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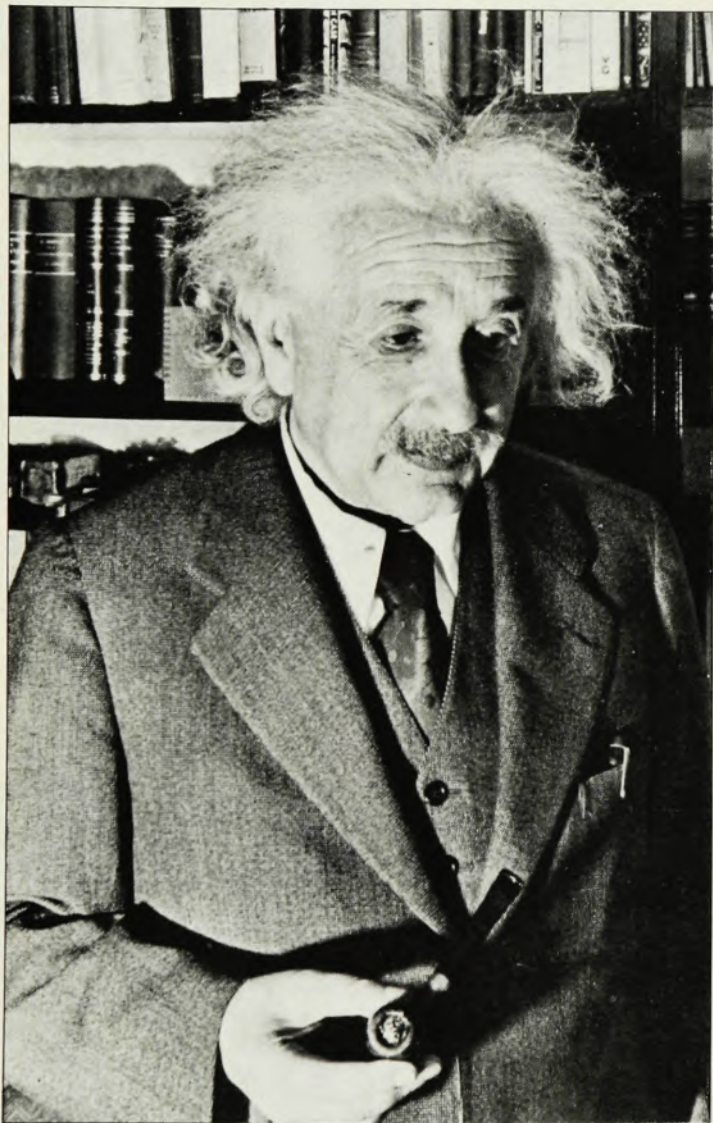


**A political discussion** in 1931 at Harnack house in Berlin. The participants are Planck, Reichsminister Gottfried Treviranus, British Prime Minister Ramsay MacDonald, Einstein, Vice-Chancellor Hermann Dietrich and Geheimrat Hermann Schmitz.

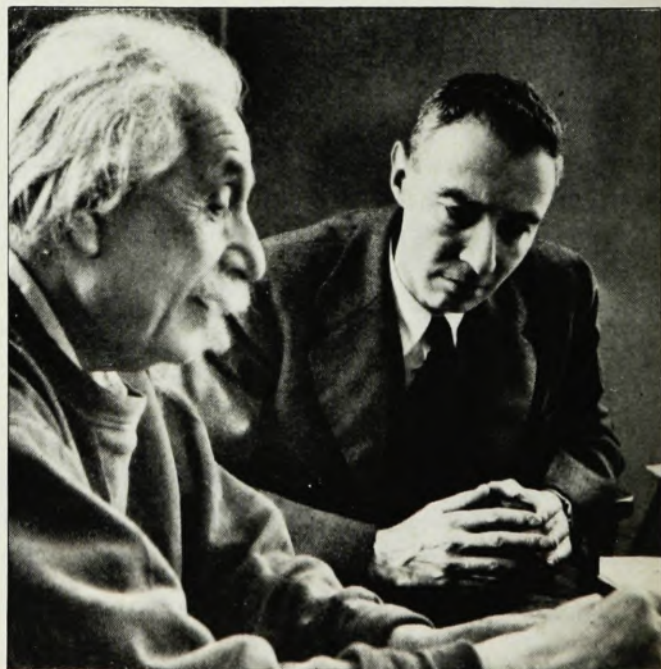
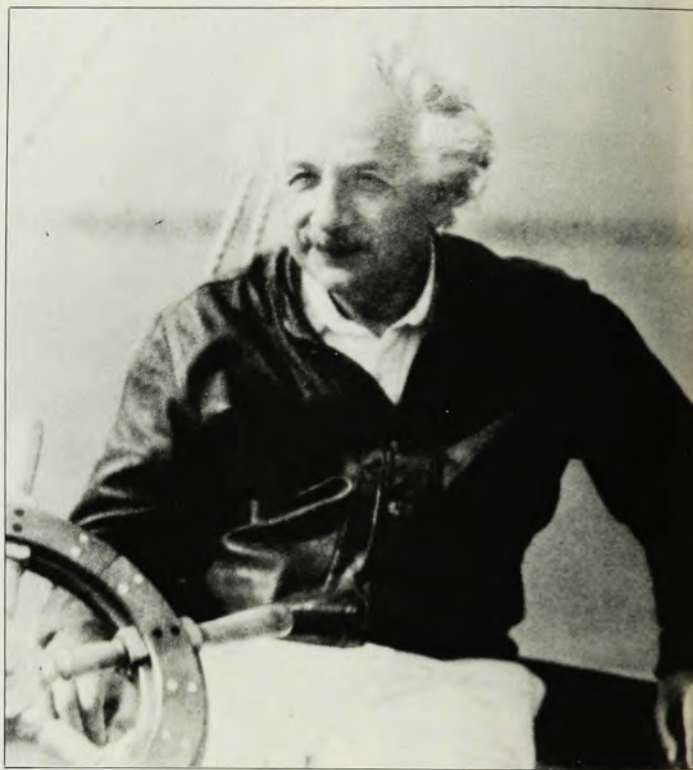
ERICH SALOMON: MAGNUM



## The Princeton years



**Above**, Einstein in his study at Princeton. When the Nazis took power in 1933, Einstein was in Pasadena. Instead of returning to Germany, he went to Belgium, as guest of the king and queen. He received numerous offers, but finally accepted one from Abraham Flexner, who was starting an Institute of Advanced Study, to be located in Princeton. The isolation from political turmoil and the complete freedom to work on what he wished appealed to him. **Above right**, One of Einstein's great pleasures was sailing. Here he is on Saranac Lake in New York, one of his favorite vacation spots, in 1936. **Right**, This picture of Einstein and J. Robert Oppenheimer was taken in 1947, when Oppenheimer became director of the Institute of Advanced Study.



CULVER PICTURES; AIP; ALFRED EISENSTAEDT-LIFE © 1947, TIME, INC.



**Left.** It was a number of years before Einstein gave any lectures at Princeton. This photo shows him giving a seminar in 1947.

ALFRED EISENSTADT-LIFE © 1947, TIME, INC.



**Above.** Einstein walking home in the winter. As he grew older he grew less and less interested in superficial matters, such as his own appearance. **Above right.** Helen Dukas became Einstein's secretary in Berlin and accompanied him to Princeton, where this photo was taken. **Right.** Helen Dukas, Einstein, and his step-daughter Margot taking their oaths for US citizenship in 1940.

ALAN RICHARDS; © LUCIEN AIGNER; AIP.





# Einstein the celebrity



**Einstein with David Ben-Gurion in 1951.** Although he disliked organized religion, Einstein identified strongly with his Jewish heritage. He gave much support to the Zionist movement. After Chaim Weizmann's death in 1952 he was offered the presidency of Israel, but declined respectfully.

ARTHUR SASSE-UPI

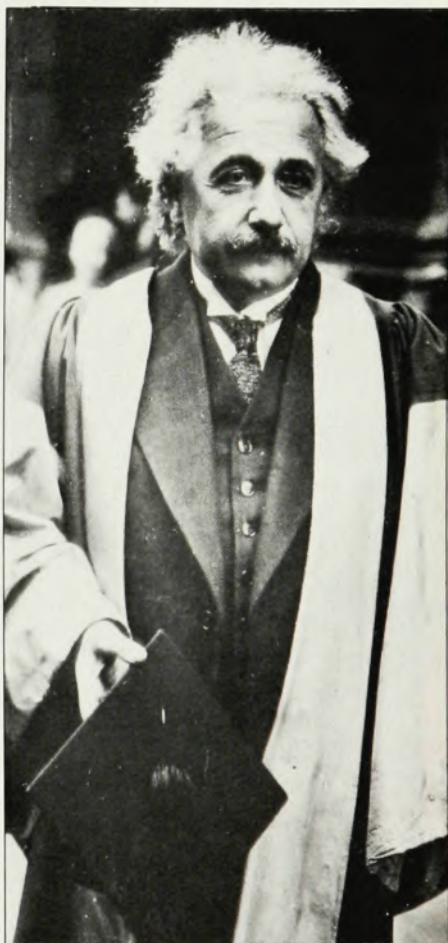
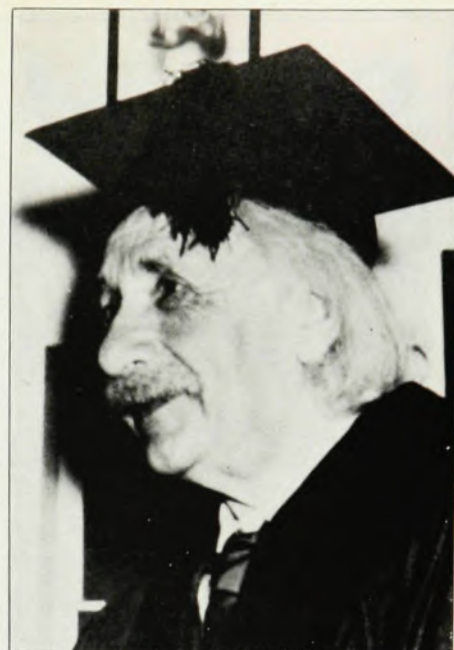


**The violin** was one of Einstein's favorite diversions. He played for himself, for his friends, and occasionally in public—usually to raise funds for a worthy cause. This photo dates from 1941.

HANSEL MIETH-LIFE © 1941, TIME, INC.

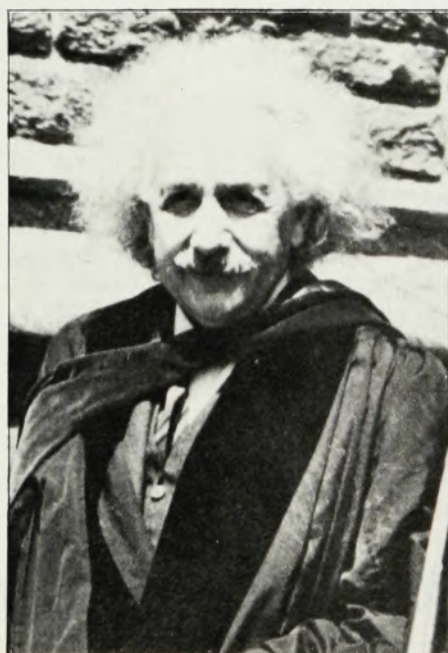






Already in 1921, Einstein was a celebrity, treated to a parade on his arrival in New York, before starting on a fund-raising campaign with Chaim Weizmann. A few years before, Eddington had confirmed Einstein's prediction of the bending of light rays in a gravitational field.

BROWN BROTHERS



He received his first honorary degree in 1921, and many more after that. Here we show him in ceremonies at (top) Lincoln University, (above) Oxford, and (left) Swarthmore College.

UPI, CULVER, UPI

Einstein was a favorite subject for photographers and other artists. Once, after he boarded a train, a fellow passenger asked what he was, that so many people were photographing his departure. "Artist's model," he replied. The sculptor shown above is Jacob Epstein. The photo at left was taken in Berlin.

ULLSTEIN, UPI