This year marks the centenary of the confirmation of Albert Einstein’s general theory of relativity by English astronomers. Andrew Robinson explores the Library’s collection of titles on the scientist.

We generally picture Albert Einstein in relation to Germany, where he was born in 1879, Switzerland, where he first became a physicist around the turn of the century, the United States, where he settled in Princeton during his last two decades until his death in 1955, or Israel, to which he willed his massive archive, kept at the Hebrew University of Jerusalem. Less often considered is Britain. Yet it would be no exaggeration to say that Britain is the country that made Einstein into the worldwide phenomenon he is today. My new book, Einstein on the Run: How Britain Saved the World’s Greatest Scientist, is the first to be devoted to his relationship with Britain.

Naturally, I (legitimately) researched at the London Library: its extensive collection of titles by and about Einstein ranks as the second-best shelf mark to Henry, Philosophy and Revelation, and even in Britain we find the physicist Alan Lightman’s novel Einstein’s Dreams (1982). Inevitably, the collection forms only a fraction of what has been published – more than 1,700 individual books on Einstein at the latest count – although most of the really significant publications are included, some of which are highly technical. Top of the list for importance – if not always for readability – is the Collected Papers of Albert Einstein, a monumental project launched in the United States in the 1980s by Princeton University Press, which in 2018 published volume 15, The Berlin Years: Writings and Correspondence, June 1925–May 1927, leaving nearly three decades of Einstein’s papers still to appear in print (and online).

Using the Library collections, one gradually comes to appreciate why Einstein is one of the most widely quoted people of all time, and probably the most quoted figure from the twentieth century. Beyond science, Einstein was an avid commentator on education, marriage, money, the nature of genius, mass-murder, politics and more. ‘To punish me for my contempt of authority, Fate has made me an authority myself’.

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The London Years: Writings and Correspondence, June 1925–May 1927, 1927, made in Einstein’s study in Berlin.

To the unforgettable words which you have written in English: ‘I, personally, thank you for your book, which I regard as a perfectly fitting gift and which is to remain with me for a long time.’ My heart is overflowing with gratitude. As Beethoven wrote: ‘To punish me for my contempt of authority, Fate has made me an authority myself’. Friedrich Nietzsche also attributed the phrase to himself.

Einstein’s personal relationship with Britain began in 1913, exactly a century ago. Until then, his name was known only to a handful of British physicists chiefly in Cambridge and Oxford, almost all of whom desultorily or openly distanced Einstein’s theory of relativity – not least because it was in conflict with the physics of Isaac Newton, which had been generally accepted since the seventeenth century. Einstein’s ‘special’ theory, published in 1905, introduced a new understanding of space and time, including the equation that linked energy, mass and the speed of light: $E=mc^2$. It was followed 10 years later by the ‘general’ theory, in which Einstein extended the concept to include accelerated motion and gravity, based on a highly sophisticated mathematical conception of ‘space-time’.

According to Newton’s theory of gravity, light rays are attracted by gravitational forces because light is made of tiny particles that Newton called ‘corpuscles’. On their journey from a distant star to our eyes on Earth, the trajectory of those particles would be very slightly curved or deflected by the gravity of the sun. Einstein agreed with Newton’s idea, but in 1915–16 he used his general theory of relativity to recalculate the deflection of light and found that it would actually be twice the amount predicted by Newton. If the magnitude of the actual deflection could be measured, it would
in, Bose's book was soon overtaken by Einstein's own account (also in Physics). Relativity: The Special and General Theory (1916), written in collaboration with a physicist (and gifted populariser), Robert W. Lawson. This book was an immediate bestseller, and remains in print.

Einstein's emigration to America was his most important decision. On the Falls of his apartment in 1922 Berlin, his brother-in-law, who had been a physicist in Oxford, Frederick Lindemann (later Lord Cherwell) commented furiously: 'In this book, in which the whole world has received only a single word, I would choose the word Einstein 7. Erika Einstein well knew Einstein's work, as a deeply religious, and remains in print.

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In England my work has received greater recognition than anywhere else in the world.

For example, in 1933, Einstein took refuge in England. ‘He was in fact the book's author – as the foreword by Bertrand Russell and an introduction by Werner Heisenberg, both of whom had known Einstein personally, or from very different angles: Russell as a philosopher and pacificist, Heisenberg as a physicist who attempted to build an atomic bomb for the Nazis.

A relatively unfamiliar fact, even to some Einstein biographers, is that in autumn 1933, before he settled in America, Einstein took refuge in England. The key text about the subject is probably The Brain Book of the Miller Trust (1933), a pioneering if now seldom mentioned volume, in H. G. Hands, & K. U. Otto Katz, using anonymous eyes-witness accounts from Germany, and illustrated with horrendous photographs of victims of Nazi terror, it was officially published by the World Committee for the Victims of German Fascism on 1 August in German, and appeared a month later in an English edition published in London by the Communist sympathiser Victor Gollancz, with an endorsement by Einstein. Although he had nothing at all to do with the book's writing, Einstein's gesture confirmed the Nazi regime that he was in fact the book's author – as openly declared by the Nazi newspaper Volkischer Beobachter, in late 1933. It commented furiously: 'In this book, in the smallest way, Einstein's incites people against Germany, appeals for a preventive war and demands that this country, from whom the whole world has received only benefits, be manured with the blood of its people.'

Immediately, Einstein became public enemy number one of the Nazi regime, as arrestingly described by the Einstein's Polish friend, Antonina Vallentin, who was present in their exiled home in Le Coq on the coast of Belgium at the time. Her book Einstein: A Biography (1986) is an eyewitness account that has been somewhat softened by later Einstein biographers. ‘Belgium was dangerously near Germany,’ recalled Vallentin after a visit to the Einstein house in August 1933. 'There was a rumour that [Heinrich] Goering's brother had come to Le Coq. Men with foreign accents asked too many questions about Einstein. Suspected individuals rounded around the house.' One such approach started with a letter from an unknown man urgently requesting an interview with Einstein and an incident related by Einstein's wife, Elsa, to an Austrian physicist, Philipp Frank, who also visited the Einsteins in Belgium, and described the story in Einstein, Eli Life and Times (1948). Elsa refused the man for fear of trouble, but when he repeatedly insisted, she agreed to see him alone without her husband. She then informed him that he was a former Nazi storm trooper who had fallen out with the Brown Shirts and was now opposed to them. He was willing to sell Einstein all the secrets of the paramilitary organisation for 50,000 francs. ‘Why do you assume that Professor Einstein is interested in the secrets of your former party?’ asked Mrs Einstein. ‘Oh, we all know very well that Professor Einstein is the leader of the opposing party throughout the entire world, and that such a purchase would therefore be very important to him, the stranger inquisitively replied, as a deeply worried Elsa reported to Frank.

Belgian policemen, on instructions from the Belgian king, protected Einstein night and day. But he was plainly at risk, especially after the murder by Nazi agents in Czechoslovakia on 30 August of an Einstein associate, the Swiss philosopher Theodor Lessing (much of whose work appears in German in the collections). On 8 September came international press announcements that a secret Nazi terror organisation, the (presumed to be inspired by the murder of Germany's foreign minister, Walther Rathenau, in 1922), had placed a price on Einstein's head – £1,000.

'Whether the story is true or not we do not know,' learned the Sunday Times on 10 September, but it was clear that ‘the Nazi hodgette’ should take fair warning and think twice of this silly before it is too late. If they should commit this crime against humanity the conscience of the whole civilized world will rise against them, and the German Government will find itself executed and isolated as no German Government has been before or since the war. By the time this comment appeared, Einstein was in England. As discussed in Ronald W. Clark's biography, Einstein, The Life and Times (1971) – a deeply researched study including many interviews with people personally involved with Einstein – Einstein had packed a bag with vital books and papers, and caught a boat and train from Brussels to London. He settled in England – but not in Oxford, whose university had welcomed him in 1911 and 1932, then shooed him as a refugee in May and June 1933, as vividly recalled by the Oxford economist Roy Harrod in The Prof: A Personal Memoir of Lord Cherwell (1955). Instead he stayed in a secret holiday hut on a remote heath in Norfolk. There, under the armed protection of Commander Oliver Locker-Lampson, a Conservative MP and First World War veteran, he could supposedly concentrate on theoretical physics, away from prying eyes.

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