

EINSTEIN IN OXFORD

Andrew Robinson *a biographer of Albert Einstein, whose father was a physics fellow at Oxford for several decades, sketches Einstein's little-known relationship with Christ Church and the University.*



Albert Einstein's greatest achievement, the general theory of relativity, was announced exactly a century ago, in four papers read to the Prussian Academy of Sciences in Berlin in late 1915. But it did not make him world famous until after the First World War, when general relativity received its first experimental confirmation from British-led astronomical observations of a solar eclipse in 1919.

When Einstein paid his first visit to England in 1921, a two-sentence news item headlined "Professor Einstein at Oxford" appeared in *The Times*. "Professor Einstein paid a private visit to Oxford University as the guest of Dr. Lindemann of Wadham College. A tour was made of the principal University buildings

and the Professor returned to London in the evening." However, a decade passed before a much-travelled Einstein returned to Oxford. In mid-1931, he delivered three lectures on relativity at Rhodes House; was awarded an honorary doctorate by the University on 23 May; and stayed at Christ Church in rooms on Tom Quad (now used for the Graduate Common Room) at the invitation of his physicist colleague, Frederick Alexander Lindemann, who was by then a Student. Shortly afterwards, Christ Church invited Einstein to accept a Research Studentship for a period of five years on an annual stipend of £400. Einstein agreed, and lived in college for some weeks during 1932 and mid-1933 – by which time he was an exile from Nazi Germany – before departing Europe forever and settling in the United States.

Left: Einstein after receiving his honorary doctorate, 23rd May 1931.

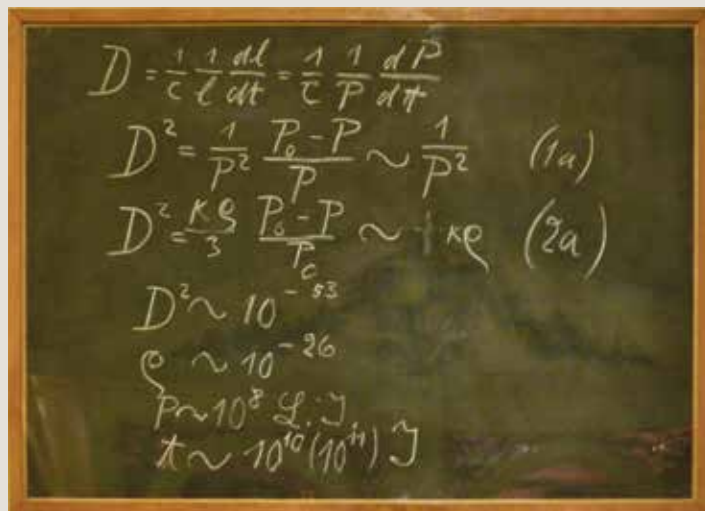
In 1934, he wrote from Princeton requesting Christ Church to use his stipend to support other distinguished scientific refugees from Nazism.

Brief though it was, Einstein's Oxford sojourn was both fruitful and enjoyable for Christ Church, the University and Einstein himself. According to Lindemann, Einstein "threw himself into all the activities of Oxford science, attended the Colloquiums and meetings for discussion and proved so stimulating and thought-provoking that I am sure his visit will leave a permanent mark on the progress of our subject." A blackboard on which Einstein had chalked some equations about relativity and the structure of the universe was whisked away after one of the 1931 lectures to the Museum of the History of Science, where it today intrigues uncomprehending visitors. While a statement from his 1933 Herbert Spencer lecture, "On the method of theoretical physics"—translated from German into English by some Christ Church colleagues—paid this piercing tribute to an Einstein hero, Galileo: "Conclusions obtained by purely rational processes are, so far as Reality is concerned, entirely empty. It was because he recognized this, and especially because he impressed it upon the scientific world, that Galileo became the father of modern physics and in fact of the whole of modern natural science."

Non-physicists, unsurprisingly, failed to grasp general relativity. At Rhodes House, Einstein's capacity audience ebbed away—baffled by his mathematics and his German—leaving only a small core of experts. But almost everyone in Oxford responded to Einstein's humane and humorous personality.

"He was a charming person, and we entered into relations of easy intimacy with him", recalled a fellow Student of Christ Church, the economist Roy Harrod, in a biography of Lindemann. Einstein "divided his time between his mathematics and playing the violin; as one crossed the quad, one was privileged to hear the strains coming from his rooms. In our Governing Body I sat next to him; we had a green baize table-cloth; under cover of this he held a wad of paper on his knee, and I observed that all through our meetings his pencil was in incessant progress, covering sheet after sheet with equations."

An undergraduate recalled a meeting in 1933 at which Einstein gave a vote of thanks after a lecture by the extrovert physicist Lord Rutherford. In comparison, Einstein appeared "a poor forlorn figure" oppressed by his recent ejection from his homeland. But the moment Einstein sat down, there was a thunderous outburst of applause. "Never in my life shall I forget the wonderful change which took place in Einstein's face at that moment. The light came back into his eyes, and his whole face seemed transfigured

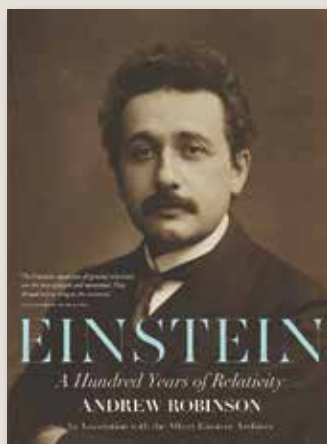


Above: Einstein blackboard in Oxford, 1931. Museum of the History of Science

with joy and delight when it came home to him in this way that, no matter how badly he had been treated by the Nazis, both he himself and his undoubted genius were at any rate greatly appreciated in Oxford."

*In our Governing Body
... he held a wad of
paper on his knee, and I
observed that all through
our meetings his pencil
was in incessant progress,
covering sheet after sheet
with equations.*

But perhaps the most evocative memory of Einstein in Oxford came from his chance encounter with William Golding, the future author of *Lord of the Flies*, who started as a science undergraduate. In 1931, Golding was on a small bridge in Magdalen Deer Park looking at the river when a "tiny mustached and hatted figure" joined him. "Professor Einstein knew no English at that time, and I knew only two words of German. I beamed at him, trying wordlessly to convey by my bearing all the affection and respect that the English felt for him." For about five minutes the two of them stood side by side. At last, "With true greatness, Professor Einstein realized that any contact was better than none." He pointed to a trout wavering in midstream. "Fisch," he said. "Desperately I sought for some sign by which I might convey that I, too, revered pure reason. I nodded vehemently. In a brilliant flash I used up half my German vocabulary: "Fisch. Ja. Ja." For another five minutes, they stood together. "Then Professor Einstein, his whole figure still conveying goodwill and amiability, drifted away out of sight." ■



Andrew Robinson is the author of *Einstein: A Hundred Years of Relativity*, Princeton University Press, 2015. He recently gave a talk on 'Einstein in Oxford' at Christ Church.