Andrew Robinson

The vagabond physicist

Briefly in Bohemia
Einstein's 15 months in Prague are commemorated by a plaque at the location of Berta Fanta's salon.

Einstein in Bohemia
Michael Gordin
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Not many people may know that the key experimental test of general relativity – the observation of the deflection of starlight by the Sun's gravity during a solar eclipse – first occurred to Albert Einstein not in Zurich or Berlin, but in Prague. The city was then the capital of Bohemia, a region of the Austro-Hungarian Empire, prior to the post-war creation of Czechoslovakia in 1918. Einstein lived in Prague as a university professor of physics for a mere 15 or so months in 1911–1912, before moving back to Switzerland and then returning to Germany in 1914, where he published his general theory of relativity in 1915–1916.

In 1923 Einstein himself described the significance of his time in Bohemia, in a revealing foreword specially written for a Czech-language edition of *Relativity: the Special and General Theory* – his well-known booklet for the general reader, first published in German in 1916. Little-known even to the majority of Einstein scholars, the foreword (printed in Einstein's German original followed by a Czech rendition by the publisher) has now been translated into English in *Einstein in Bohemia* – the deeply researched, wide-ranging and original book by historian Michael Gordin, which delves into Einstein's relationship with Prague.

To quote Einstein: "I am happy that this small booklet…now appears in the national language of that country in which I found the necessary composure to gradually give a more definite form to the fundamental thoughts of the general relativity theory, which had been gathering already since 1908. In the quiet rooms of the Institute of Theoretical Physics of the German University in Prague on Viničná ulice, I came in 1911 to the discovery that the equivalence principle required an observable degree of bending of light beams by the Sun, without knowing that more than a hundred years earlier a similar consequence had been drawn from Newtonian mechanics in connection with Newton's emission theory of light. In Prague I also discovered the result, still not definitely established, of the redshift of spectral lines."

Einstein's tribute to the German University, though factually accurate, is an indication of his complex attitude towards Prague – both when he lived there with his first wife and children, and during the rest of his life until his death in the US in 1955. Gordin calls it "odd – one might almost say tone-deaf", because it emphasizes the minority German-speaking community in Bohemia rather than the majority Czech-speaking community, which had long existed together in a state of tension. As a German-speaker appointed in Prague for his achievements in German physics, Einstein cultivated few contacts with the Czech community, and treated Prague with a degree of disdain. Indeed, Gordin's chapter focusing on Einstein's stay is titled "Anti-Prague". Only later, after the rise of Adolf Hitler, the Nazi oppression of Czech Jews and the German occupation of Czechoslovakia in 1938–1939, did Einstein become more culturally sensitive to the Czech community.

Physics, and the history of science, appear throughout Gordin's book, as do the many physicists who influenced and interacted with Einstein, including Ernst Mach, Max Abraham and, crucially, Philipp Frank. The latter, on Einstein's recommendation, took over Einstein's Prague university position in 1912. Frank later escaped from the Nazis in 1938, and went on to Harvard University in the US. In 1948 he published an influential English-language Einstein biography with a section on "Einstein at Prague".

But the dominant theme of *Einstein in Bohemia* is unquestionably biographical, set against a cultural and political background – recalling Gordin's excellent earlier study *Scientific Babel: the Language of Science from the Fall of Latin to the Rise of English*. In this latest volume, Gordin's declared intention is to fill a significant gap in existing biographies of Einstein, rather than to dwell on the history of relativity. The book's penultimate chapter deals entirely with Czech reactions to Einstein over the past century, including of course the politically contentious Soviet-dominated period from 1948 to 1989. For instance, Gordin discusses at length Frank's much-quoted assertion that the Prague-born, German-speaking, Jewish writer Max Brod (best known for his friendship with Franz Kafka) based his portrayal of Johannes Kepler on his personal observations of Einstein in Prague, in his acclaimed historical novel, *Tycho Brahe's Path to God*, published in 1915.

According to Frank, "Whether Brod did this consciously or unconsciously, it is certain that the figure of Kepler is so vividly portrayed that readers of the book who knew Einstein well recognized him as Kepler. When the famous German chemist W Nernst read this novel, he said to Einstein: 'You are this man Kepler.'" Yet as Gordin observes, Brod was "horrified" by Frank's claim – with its unsourced anecdote about Nernst and Einstein – and he worked to dispel this supposed link, both before and after Einstein's death.

As for the idea that Einstein's unconventional personal behaviour, symbolized throughout today's world by his violin playing, wild hair, rumpled sweaters and lack of socks, was at heart "bohemian" – Gordin has little truck with it. As he reasonably points out, this iconic image belongs to the Einstein of later years, not to the younger physicist in Bohemia, who was generally groomed in the way conventionally expected of a German professor in 1911. But here, perhaps, Gordin misses a trick. He does not mention that the English word "bohemian" is derived from the French *bohémien*, meaning "gypsy" – a word that Einstein often used to describe himself.

Andrew Robinson is the author of *Einstein on the Run: How Britain Saved the World's Greatest Scientist*