Book Review

Einstein Lived Here by Abraham Pais

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Reviewed by V. Adrian Parsegian, Laboratory of Structural Biology/DCRT & OIR/NIDDK, National Institutes of Health

This is Abraham Pais' other Einstein book, about the other Einstein—the person, the image, the character, the symbol. It covers the nontechnical side omitted from his masterful but difficult earlier biography, *Subtle Is the Lord*, that showed the depth and stunning consequence of the great man's work. *Einstein Lived Here* is abundantly stocked with the kind of good stories you can tell at family parties:

sad stories about broken families and broken minds; inspiring stories about triumphs of pure thought and principle;

funny stories about big and little people; scary stories about bombs and Nazis.

The author's stated purpose here is to describe the personal and the public figure. It is biographical but intentionally designed to cover the subject from many different perspectives only roughly in sequence: family, relations with other scientists, The Prize, connections with other public figures. And (half of the book) "Einstein and the Press" from 1902 to the end when Einstein's involvement with every public issue is thoroughly reviewed.

The family part is pretty rough. There was a marriage to a depressive, progressively demented first wife. Their first child was a daughter whom they deserted very early on. No trace of her has been found. One brilliant son crumbled into madness; a second son was forever judged a failure both by the father and the son. Extramarital doings. "His full, creative exertions went completely and always into science," Pais explains (p. 25), although in later pages the happy family man Niels Bohr needs no such explanation even as his creativity is described as similarly titanic.

After that, except for the record of some stilted conversations with Gandhi and Tagore, the rest of the Einstein story is all very exciting. Even today, physicists refer with reverence to the years of discovery. In 1991, I saw a poster in a Physics Department, Architects of Modern Physics, a gray-haired bunch photographed around Einstein in 1927. Pais reflects on the powerful way in which the truly great minds—Planck, Einstein, Bohr, Born, de Broglie, Pauli, Heisenberg, Sommerfeld, et al.—worked each other along. His wonderful chapter, "Reflections on Bohr and Einstein," much of it from first- or second-hand observation, is a real treat. To think that human beings could build on each other in such potent and mutually satisfying ways!

The appreciation for each other, e.g., Einstein's 1920 comment about Bohr (p. 40): "He is a highly gifted and excellent man. It is a good omen for physics that prominent physicists are mostly also splendid people."

The careful habits, e.g., Bohr's often stated admonition (p. 33): "Never express yourself more clearly than you think."

Pais takes some time out for a reader-friendly sketch of relativity before going into the reasons why Einstein got the Nobel Prize for something else. The committee was too cautious and therefore opted for the photoelectric effect, which Einstein himself thought was his only truly revolutionary idea. All of the rest he apparently considered matters of logical inference.

After 1925, Einstein was more public figure than scientist. Quoting from his remarks at a memorial, Pais gives a disconcertingly touching portrait of Helen Dukas, the faithful secretary and keeper of his house during those later years—presumably the only woman with whom there was an enduring good relationship. There is a (mostly) amusing prowl through Einstein's personal papers and a relatively lengthy stretch on Einstein's excursions into philosophy and religion.

The second half of the book is "Einstein Lived Here" all the way. The public man as seen through newspaper reports. From the mid-twenties into the fifties he was Einstein the phenomenon.

This is the man we love to quote:

"Why is it that no one understands me and everybody likes me?" (1944, p 220)

"It is nothing short of a miracle that modern methods of instruction have not yet entirely strangled the holy curiosity of inquiry." (1949, p. 227)

This is the man who says what he thinks, speaking so carefully while caring so little for the opinion of others—standing up to Nazis, anti-semites, witch hunters; honestly changing positions—from pacifism to the A-bomb—when he felt he had to do it; steering clear of religion but backing the Jewish state; arguing unsuccessfully with his scientific descendants about the consequences of his own discoveries.

It would be wrong for me to quote too much here. Much better that you read it yourself.

I suppose this book is as close as possible to an "easy read" about the difficult and complicated person we want to see as a model of saintly goodness in rumpled clothes. Still, it's a tough read. It feels like an honor to come so close to huge minds and spirits wrestling with cosmic truths. You want to feel close to them and to measure up. You want to ask yourself how they sought new order in the universe while chaotic violence destroyed so much that they cherished. You wonder, quietly, were they really more splendid people than we?

Einstein is still here: in the picture above my desk, downloaded from the Internet; in some Einstein relation or equation that we quote from time to time, feeling a little wiser and stronger for the label; in referring to our friends "at Einstein"; in the dumb jokes ("that problem's so tough, you'd have to be Zweistein"); in the name of a train from Prague to Bern.

Even better, for us biophysicists, does anyone get mentioned more in a course on biophysical methods? Einstein is here in so many of the essential ways that we think:

Brownian motion, Stokes-Einstein diffusion, light scattering, spectroscopic absorption/emission.

Buy this book for the birthday of someone you really like; but buy it early enough to read it yourself first.