

BOOKS

A Revised *Mr. Tompkins* . . . Worthy of the Original

The New World of Mr. Tompkins

George Gamow and
Russell Stannard
Cambridge U.P., New York, 1999.
258 pp. \$24.95 hc
ISBN 0-521-63009-6

Reviewed by Daniel M. Greenberger

Mr. Tompkins in Wonderland was published in 1941, followed in 1944 by *Mr. Tompkins Explores the Atom* (Cambridge). They were written by George Gamow, a famous physicist with a great gift for whimsy, and they were two of a number of books he wrote for the general public. The *Mr. Tompkins* books were very popular when I was in high school in the late 1940s; I was rather taken by them, and I went on to read his *One, Two, Three . . . Infinity* (Viking, 1947; Dover, 1988). The books probably played a minor role in my becoming a scientist. I would guess that there are a good many scientists of my generation who could say that. In 1965, the Tompkins books were updated and combined by Gamow into *Mr. Tompkins in Paperback* (Cambridge).

Back in those days, as I remember it, there were several good mathematics books for the layman (*Lancelot Hogben's Mathematics for the Millions*, (Allen & Lunwin, 1936; Norton, pb, 1993), for example), but very few physics books, and the Tompkins books filled an important need.

They involved a sort of passive fellow named Tompkins, who was interested in science and went to hear a series of popular lectures by a professor. Tompkins kept falling asleep during or after the lectures and being transported into a fantastic land where Planck's constant, the gravitational constant, and the speed of light were all such as to make the relevant phenomena of modern physics everyday occurrences. This led to a rather strange series of escapades for poor Mr. Tompkins (whose initials, by the

way, were C.G.H.). Ultimately, he met the professor and fell in love with and married the professor's daughter, Maud, providing an element of human interest to the story.

Today the situation is very different. There are many very good books for the layman on many aspects of modern physics, and there are some great science writers out there. Isaac Asimov is dead, but James Trefil and Paul Davies are going strong, and there are quite a few other good writers in this genre. Very often, on special topics, an expert in the field will write a good book for laymen. As an example, I can think of at least ten books that explain the mysteries of quantum theory to nonscientists, even delving into such exotic subjects as Bell's theorem.

So the question arises. Do we need a reworking of *Mr. Tompkins*? The original is still a fine book, but it is 35 years old and out of date. It was written when the big bang and the steady state theory were still fighting it out, and there were no quarks or black holes. Thus, if such a book is to be updated, clearly a major rewrite is in order. Is it worth it? And if it is, what's left of the original Gamow book?

On being asked to review *The New World of Mr. Tompkins*, which is a major reworking of Gamow's original by Russell Stannard, an experienced science popularizer, I decided first to reread the 1965 version. This turned out to be both a good and a bad decision. Bad, because I found myself (like Mr. T) having daydreams, remembering the days when I first read it. The naïveté of the writing and of the drawings have a certain charm, which caught me up again, and when I started reading the new version, I found the changes rather annoying. But as I kept reading, I began to realize that Stannard had actually done a remarkable job of preserving the mood and feeling of the original. There are even portions that have barely been changed, which offer an anchor to the rest of the book. But most of the book has had to undergo a fairly thorough reworking, and new adventures have been added, as well as new lectures by the professor. The good part of reread-

ing the old book is that it made me aware of how faithfully the spirit of the original has been preserved.

After all, in a task like this, one has to give the author a fairly free rein. In a sense, the task is rather like a translation, and the best one can do is to retain the feeling, rather than the substance, of the original. And I think Stannard is to be congratulated on this score. The book still has a charming naïveté, and although the illustrations have been changed, they too still have that same, almost Victorian quality. So, to my surprise, I have to pronounce the translation a success.

If newcomers who have not seen the original read the book, they will find a charming, whimsical introduction to modern physics and will have no sense that Gamow is missing from certain sections. If I have one criticism to make, it would be that, while the explanations are generally satisfactory, toward the end of the book the lectures are a little too detailed and fact-filled. (I caught a few wrong statements, but to my surprise they were also there in the original.)

Back to my earlier question: Was there any point in redoing the book? That depends. Are there other good books that cover the same material? Lots of them! Is there another book that does it so pleasantly, giving the reader a direct, sort of inside view of otherwise very remote phenomena, all within the context of a running short novel? I doubt it! *The New World* . . . is a unique book. I only wonder whether the audience is there for it. Today's kids are raised on multiple murders and high-speed chases. I wonder whether Victorian charm is still an appreciated commodity.

Little Book of Streamlines

Constantine Pozrikidis
Academic Press, San Diego, Calif.,
1999. 176 pp. \$49.95 hc
ISBN 0-12-563855-8, Diskette

Practicing fluid dynamicists use a host of visual representations of fluid flow—timelines, streaklines, velocity profiles, and the like. But, no doubt,

DANIEL GREENBERGER's specialty is in fundamental problems of quantum theory. However, he also has a keen interest in the history, culture, and lore of science.