Book Review: 'Time Traveler: A Scientist's Personal Mission to Make Time Travel a Reality'

by Bruce Lieberman

"Time Traveler: A Scientist's Personal Mission to Make Time Travel a Reality" by Ronald L. Mallett; Thunder's Mouth Press; 216 pages; $34.95.

In 1955, Ronald Mallett's father died of a heart attack. The trauma sent the heartbroken boy, then 10 years old, on a lifelong quest to see his father again.

That is the premise behind Mallett's very serious and very personal memoir, "Time Traveler: A Scientist's Personal Mission to Make Time Travel a Reality."

HANDS OF TIME - His secret dreams led Ronald L. Mallett to physics; 'Time Traveler' is a surprisingly poignant memoir. CNS Photo.Mallet, a 61-year-old physicist at the University of Connecticut, is no science-fiction writer. Some of his peers question whether it will be ever possible to build a time machine for people, but there's nothing about the laws of physics that forbids time travel. It's actually theoretically possible, and Mallet is now working on an experimental machine designed to transport neutrons into the future.

In "Time Traveler," Mallett is driven by a singular mission - from a withdrawn childhood comforted by science fiction, to an ascetic life in the military, to an intellectual blossoming in academia. Mallett doggedly pursued a life in physics, devouring books on subjects he did not yet understand, using food money for books, seeking training in the military and college, then industry, then back to a life of scholarship.

The author takes us along with him as he slowly begins to grasp the insights of Hendrik Lorentz, Albert Einstein, Erwin Schrodinger, Kurt Godel, Richard Feynman, John Wheeler, Kip Thorne, Stephen Hawking, Alan Guth and a galaxy of other scientists who influenced Mallett's life.

If you're not interested in physics, then, this isn't the book for you. The narrative of "Time Traveler" often feels like a college lecture, but, Mallett is such a great teacher that the complex ideas that shape modern physics aren't so scary under the professor's easy guidance.

Physics and Mallett's pursuit of his dream are the centerpieces of his memoir, but readers are also taken on a trip to America in the 1950s and 1960s, where a black boy and then young man encountered periodic racism. It's not insignificant that Mallett never experienced such small-mindedness in academia, where a series of teachers and colleagues supported him and opened doors.

Still, Mallett kept his dream of building a time machine - his prime motivation for studying physics in the first place - a secret to most people. As one of a handful of black physicists in the country, he didn't want to risk being labeled a crackpot and jeopardize his future.

By the late 1990s, however, Mallett found that time travel had actually become a serious theoretical field of study. It was Einstein who showed that gravity is the bending of space and time. Anything with mass or energy distorts the fabric of space and the passage of time near that distortion. That explains why a clock runs slower close to the Earth's gravitational field, and faster when it's far away.

Any mass that's spinning "drags" space and time around with it, like milk in a cup of coffee being dragged around in a circle by a spoon. Take this circular motion to an extreme, with an ever-dense mass and ever-faster spin, and theoretical physics tells you that you'll create "closed loops in time."

Mallett has postulated that rings of laser light wrapped into a cylinder can also create space-time distortions, albeit tiny ones. In 2003, he and his colleagues began building a machine that could eventually demonstrate the movement of neutrons and other tiny particles across time.

Yes, it's all hard to understand, but Mallett does an outstanding job of placing these tough subjects within a lay reader's grasp. And the book does a much better job of explaining the particulars than any book review can.

The physics concepts laid out in Mallett's memoir are progressive - that is, one idea builds on the next. In that sense, a reader can see how Mallett finally came up with his concrete idea for a time machine. If it ever sees the light of day, it will have been built on centuries of amassed theory, observation and knowledge.

As Mallett contemplates his time machine, he raises several mind-bending issues. What happens, for example, if you go back in time and kill your grandparents? Will you ever be born? Science fiction has played a lot with that idea and others like it.

Toward the end of the book, it becomes apparent that the time machine Mallett envisions will not enable him to see his father again. The time machine will only point us toward the future, and we would only be able to travel back to the time the machine was first turned on, and no further.

"I would not be able to use my time machine to see my father," Mallett writes. "The grown man and scientist I had become could now let go of the final emotional vestiges of his shattered childhood. My father was gone, and there was nothing I could do about it other than live my own life with pride and courage, and fill as many

days as I had left with valued people, times and works."

Mallett ends his memoir in the throes of work. His story, after all, is continuing. In the final pages, he speculates what he might say to Einstein if he could sit with him on a park bench. Then, coming back to his father, he tells how he revealed to his mother, only recently, that his life's work was always driven by his desire to see his father again.

It's a fitting end for this strange, interesting and ultimately touching memoir.

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