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Using the History of Physics to Enrich Your Teaching.

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As students most of us probably acquired the impression that the brilliant theories and experiments described in our texts sprang essentially fully-formed from the minds of their developers. As my own teaching career progressed, I began to explore the details of how what I was teaching - particularly in the area of modern physics - had come about. I learned that the real history was often a much more muddled and uncertain business than the polished narratives presented in texts; indeed, leading physicists themselves were often in a state of confusion not unlike that of a student encountering complex ideas for the first time. Exploring the history of our science also naturally leads to learning about the personalities and lives of its developers. In this talk, which is intended for a non-specialist audience, I will relate a few examples of how my own appreciation and teaching of physics has been enriched by exploring its roots. I will also relate some human-interest episodes from the lives of famous physicists from the time of Kepler through the twentieth century. Some of these vignettes are tragic, some are funny, and some are inspiring, but all serve as reminders that even great physicists are subject to the usual whims of human nature and the sometimes cruel circumstances of their times.