

Preface

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A few years ago I was in James Evans's pleasant home in Seattle working on a common project. We were not sure about some values regarding the Babylonian relations defining the synodic periods of the planets. Standing up, he said: "I will go to look at a very reliable book and I'll be back in a minute". A minute later, he came back with a big blue volume. To judge by his appearance, it was a book that he used very often: it was old, worn and had plenty of marks in pencil. He opened the book at the last pages, looked at the index, searched for the page indicated in the index, found the searched values, and copied them on a sheet of paper. The big blue volume was a copy of his own *The History and Practice of Ancient Astronomy* (Oxford University Press, 1998)! Of course, he overacted a bit to produce a hilarious situation, but after this first time, I saw him many times consulting his own book. The reason is clear: it is a really trustworthy book, and he knows that. Working with him over several years I realized why: he is absolutely careful with every detail he introduces in his works. He checks and double checks every datum and calculation. I must say that he is as careful as you can be without falling on the side of obsession.

And of course, he is not the only one who uses *The History and Practice*. Even if it is intended as a pedagogic introduction to its subject, it is referenced in numerous academic papers dedicated to ancient astronomy. It is a very accurate and comprehensive book, but probably his greatest virtue is its clarity and its "self-containedness". You can start reading it almost no previous knowledge about astronomy and its early history, and if you are patient, methodical, and carry out the exercises the book proposes (in the manner of a typical university textbook on modern science, for the book is the mature fruit of more than two decades of teaching an introductory course on the history of astronomy at the University of Puget Sound), at the end you will be ready to face any more technical study on virtually any topic. The volume combines classical explanations with Jim's own contributions in a natural way. Reading the book, one can easily be unaware, for example, that the lucid explanation of Ptolemy's introduction of the equant point is his own contribution. Even more: some of his personal contributions are not published independently in papers, for example his proposal for explaining the value of the lunar elongation at a dichotomy introduced by Aristarchus of Samos in his *Treatise of the Sizes and Distances of the Sun and Moon*.

This double status of the book (being both an introduction for non-specialists and a source for specialists) reflects one of the most unique and valuable characteristics of Jim as an academic scholar. There are excellent scholars, very acute and profound, but who write in such a way that only specialists can follow them (and often with a big effort); there are also very good science communicators who can write pedagogical introductions, but do not produce their own research. Jim integrates the best of both worlds: he is a very acute researcher but with a serious preoccupation for being clear and didactical. His research papers are so approachable that they could be used for communicating science to the layman, and his didactic material is so serious that can be cited by scholars. The pedagogical excellence of his writings is not just the effect of a natural talent, but the result of a deliberate effort to convey the content as clearly as possible.

I was witness in many of our coauthored works of how many times Jim goes back and forth on just one sentence just to make it clearer.

And his concern and pedagogical skill is not limited to written texts. It is really wonderful to attend his introductory courses. He manages to awaken in the students a genuine interest on the topics he explains. The most exciting class of his Ancient Astronomy course I ever attended was, again, the one in which Jim described the approach Ptolemy could have had for introducing the equant point. He first described the problem: the retrograde arcs of Mars have different lengths, and the distance between one retrogradation and the next is also variable. Then, he described the tool that Ptolemy had: the eccentric point that Ptolemy had found be very successful in the solar model. Later, Jim showed that if you move the eccentric point on one direction, you can reproduce fairly well the different length of the arcs, but the location of the retrograde loops is a disaster. On the other hand, if you move the eccentric point in the opposite direction, the prediction of the location of the loops is accurate enough but the description of the length of the arcs is really bad. At this point you can perceive in the student some kind of delusion and desperation, because it seems that there is no possible solution. He really strives to introduce the students into this atmosphere. Then he explains how Ptolemy decided to divide the functions of the eccentric into two points, making one point the center of the deferent and the other the center of uniform motion. And how, moving each center on contrary directions, the length of the arcs as well as their location is perfectly explained. The atmosphere now changed to a sense of relief and admiration. He falls silent for a few seconds and then asks for applause for Ptolemy. Or rather, he gives permission to the students to applaud, because the applause was already waiting in the hands of the enthusiastic students who had accompanied Ptolemy on his adventure to solve the problem of retrograde motion.

I think that the secret of Jim's success as a teacher (he cofounded the University of Puget Sound's program in Science, Technology, and Society, and was named Washington Professor of the Year in 2008) is not only that he really loves what he teaches. This goes without saying. His passion for astronomy can be proved with just one example: in the ceiling of his living room has drawn the exact place that the Sun illuminates at 12:00 noon on the summer solstice. The last time he painted the ceiling, he left this mark untouched. But he also loves and genuinely cares for the students whom he teaches. Again, one example: as soon as he receives each semester the list of the students, he studies their names and photos so that in the very first class he can name each student at sight! So, we can say that he has two friends: the history of astronomy and each student. Usually, you want that two very dear friends who do not know each other should meet, and Jim's introductory courses can be understood as he making two friends—history of astronomy and students—meet each other.

As a researcher I always have been impressed by his intuition for knowing where the answer lies. Jim has a deep respect for the empirical data, but also the great courage to let himself be guided by intuition even when the data seem to point in the opposite direction. In the years I worked with him, the evidence, once looked at in the right way, always ended up confirming what his intuition had pointed to. His mood is placid when things do not work out, but an unconcealed, almost childlike enthusiasm when interesting proposals emerge or the data finally fall into place.

As a research colleague and likewise as an editor Jim is extraordinarily generous, as contributors to the *Journal for the History of Astronomy* of which he is editor know very well. He does not understand scholarly research as a competition but as a collaborative job. He is always ready to teach and correct when there is need. He, along with his lovely wife, Sharon, didn't have any problem in spending one dinner helping me to distinguish the pronunciation of the words

“good” and “wood”! But he is also very delicate correcting people, and also unusually kind and modest. I remember when a neighbor of Jim asked me why I was visiting him—he simply couldn’t believe that I came all the way from Argentina just to study with him. He lived across the street, but he didn’t know that James Evans is one of the world’s leading authorities on the history of astronomy.

This collection of papers offered in Jim’s honor by his friends and colleagues is a reflection of that side of his expertise, but it deserves to be mentioned that there are other sides too. He graduated from Purdue University, Indiana in 1970 with a B.S. in electrical engineering; and he earned a Ph.D. in physics from the University of Washington in 1983. Is there anyone else today who could have published, in the same year (2006), both a translation of an ancient Greek handbook of astronomy, Geminus’s *Introduction to the Phenomena* (with J. L. Berggren), and an interdisciplinary volume on quantum mechanics (coedited with Alan Thorndike)?

Memorial note

Sadly, two contributors to this *Festschrift*, died before its publication.

Alan Stewart Thorndike (1945–2018) was James Evans’s colleague on the faculty of the University of Puget Sound, and coeditor with him of *Quantum Mechanics at the Crossroads: New Perspectives from History, Philosophy and Physics* (Springer, 2006). Later, he worked with James and with Christián Carman on the Antikythera Mechanism, a project for which his expert craftsmanship in metal and wood provided an invaluable practical control of his collaborators’ speculative reconstructions.

John Hugh Seiradakis (1948–2020), Professor Emeritus in the Aristotle University of Thessaloniki, was a founding member of the Antikythera Mechanism Research Project. He will be remembered by the many fellow scholars and students engaged in study of the Mechanism over the last decade and a half for his generous and gentlemanly encouragement, instruction, and collaboration.

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