

## ‡6 Science-History's Dark Ages Get Darker

### The Passing of B. L. van der Waerden A Mathematician's Appreciation

by Hugh Thurston<sup>1</sup>

Bartel L. van der Waerden was best known to the world as a mathematician, though perhaps he was better known to readers of *DIO* as a historian of astronomy.

His mathematical fame rests not so much on his teaching and research as on his text-books, and one text-book in particular: *Moderne Algebra*, which appeared at the end of the second world war. It was clearly in advance of any other algebra text, and students of algebra were known to learn German solely in order to use it. It was soon translated in English as *Modern Algebra*, and became so influential that university syllabuses were changed to cover precisely the material in the book, whereupon the book changed its title to simply *Algebra*.

Already by his late thirties, van der Waerden was publishing pioneering papers on the early history of astronomy, a highly specialized field to which he brought considerable mathematical skill and a gift for clear explanation. He acquired a broad and deep knowledge of Greek, Babylonian<sup>2</sup> and Indian astronomy. He was noted for his modesty and his openmindedness. (See, e.g., *DIO* volume 1 ‡1 footnote 2, ‡6 footnote 4.) His last substantial work was *Die Astronomie der Griechen* (1988) in which he (in the final page's final sentence) passed on to *DIO* the task of setting straight the early history of Greek astronomy.<sup>3</sup>

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<sup>1</sup>[Footnotes by DR.] Cantab mathematician & cryptographer Thurston's book, *Early Astronomy* (Springer-Verlag [hardback 1994, paperback 1996]) follows in the tradition of van der Waerden in bringing to bear on ancient mathematical astronomy an exceptional combine of [a] extremely high mathematical competence and [b] openmindedness.

<sup>2</sup>While van der Waerden was in Baltimore, he took out *Sternkunde und Sterndienst in Babel* Part 2 (F.X.Kugler, S.J., 1914) from Gilman Hall, where the Johns Hopkins Library then was. (This was less than a mile from where I was going to elementary school at the time. When I worked at the library in the summer of 1953, it was still in the same building.) The signature and the date (1947/12/30) on the library card (which still resides in the volume) are in a gentleman's fountain pen, like his letters. His is the only name on the card. I may have been the very next person to take it out. Four decades after. (When library cards were no longer used.) As a pure scholar (not a politician), he did not even know who the then-President of JHU was (1988/12/20 letter to DR) — but his knowledge of math & history was wonderful into his 80s, as all those who benefitted from his generous advice will recall with gratitude. Dedicated readers of *DIO* are well aware that the very name of this journal is partly due to him (*DIO* 1.1 ‡1 §D) — which is apt, since *DIO* aims at encouraging unbiassed fairness and original adventurousness, qualities he unaffectedly exemplified. The passing of such a good person is all the greater a loss to our hopes of balanced & capable modern reconstruction of ancient astronomical history, given the benighted current state of that field — locked (without the slightest hope of internal reform) in the grasping grasp of the History-of-science church. One is reminded of a better-known Dark Ages — and van der Waerden's heartfelt lament at its 6th century AD onset, as Greek mathematics “dies like a snuffed candle”. This, from the last page of his famous *Science Awakening* Part 1 (1963 ed. p.291), which has been in my library since I bought it in Harvard Square, 1/3 of a century ago.

<sup>3</sup>The paper van der Waerden here cites (his favorite among DR's mss, the preface to which he read aloud before our wives during our last visit with him: 1987/5/20) is the same paper, “Ancient Planet Tables' Long-Cycle Ancestries”, which, were it not for *DIO*'s existence, could (see *DIO* 4.3 ‡15 §11) have been submerged for another 2000 yrs. [Now finally published in 2002: *DIO* 11.2 ‡4 (revised&retitled in 2003).]