BOOK REVIEWS

CALCULATING THE BIRTH OF CHRIST


“Fifteen centuries ago, a monk from the East who was then living in Rome made a calculation which impacts today upon almost the whole world. In AD 525 Dionysius Exiguus constructed an Easter table with a sequence of years reckoned from the Incarnation of Christ. Our modern era, a dating system based on the ‘Year of our Lord’ (*Anno Domini*, or simply AD), was born.” Thus begins this compact but highly detailed account of the origins and gradual adoption of “the most successful dating system the world has ever known”.

From the millennial flurry of calendar books issued about 18 months ago, I deduced the following scenario. In what is now known as A.D. 531, the 95-year calendar table of Cyril of Alexandria was coming to an end, and one Denis the Short was charged with its continuation. The 95-year cycle was based on five sequential Metonic cycles of 19 years each, but Denis realized that the Easter dates would repeat if 19 would be multiplied by 7 (the days in a week) and 4 (the leap-year repeat pattern), yielding a 532-year cycle. He therefore noticed that such a cycle placed prior to his continuation of Cyril’s table would begin around the time of Christ’s birth, and he saw that it would provide a suitable dating system for Christians to use. The year A.D. 1 would be the first full year of Christ’s life.

And that, according to Declercq, is mostly wrong!, beginning with the translation of Dionysius Exiguus. It should be Denis the Humble, he declares, stating that there is no evidence that Denis was short. Furthermore, Declercq is convinced that Denis did not catch on that 532 years is the Easter repeat cycle, so that his adoption of that particular sequence of Metonic cycles was a coincidence based on a far more subtle attempt to pin down the time of the Resurrection and the Incarnation.

From much earlier times, scholars and Church Fathers had wrestled with finding the date and year of the first Easter as well as establishing the length of Christ’s ministry — was it one or three years? And was Jesus 31 or 33 or how old at the time of the Crucifixion? All of these issues entered into Denis’s ultimate dating of Christ’s birth in A.D 1, Declercq argues. Denis saw that, in the year 32 of his continuation of Cyril’s table, Easter fell on 25 March, the traditional Easter date for Christ’s Resurrection; he then calculated that such a combination of date and lunation would also happen on the thirty-second year of a 532-year table placed before his own extension of the Easter dates. Now since a 532-year table would fit pretty closely between the time of Christ and the beginning of Denis’s extension, it would surely be convenient simply to start counting with 1 at the beginning of the
table. But according to Declercq, this would have broken the seamless connection with the Alexandrian placement of the Metonic cycle. However, Declercq fails to consider that regnal calendars always began with the first full year, and if Christ were born on 25 December 1 B.C., that would not constitute a full year. Thus, by starting his own table with A.D. 532, Denis could have honoured both the 532-year repeat sequence and the regnal tradition; that is, the first year of the 532-year table would be 1 B.C., a nomenclature not in fact used by Denis.

Declercq’s wonderfully-well-researched account of the early history of the A.D. system makes his book the indispensable source for anyone wishing for reliable information about the history of Easter computations. Yet I find it incredible that Denis, an extraordinarily competent calculator, would not have appreciated the significance of the 532-year “Dionysian cycle” (as it is now called). For me it is just too much of a coincidence that the remarkable 532-year repeat pattern placed immediately before the new Dionysian Easter table would just happen to begin in the year of Christ’s birth as determined by a careful analysis of Christ’s age and a first Easter date. I could more easily believe that the A.D. system was a happy accident of cycles rather than a thorough but slightly erroneous deduction from the calendrical hints embedded in the New Testament.

Harvard-Smithsonian Center for Astrophysics

OWEN GINGERICH

TEACHING ANCIENT ASTRONOMY


When I first laid eyes on this extraordinary book, I was seized with the desire to base a course on it. I hope the author will forgive me for postponing this review until I had the opportunity to do so. Teaching the course has only increased my admiration, for the book is obviously the product of a master teacher and it demands not so much to be read as to be carefully worked through.

The history and practice of ancient astronomy is — unusually and quite appositely — a textbook, complete with the apparatus of problems, solved examples, and observational projects. Approaching ancient astronomy as it was practised is the core principle of this book, and one whose originality and importance cannot be overemphasized. Looking at what astronomers were actually doing yields a different and more intimate understanding of ancient astronomy than one based on a sterile recitation of theory or philosophy. The connection with actual practice is reinforced by carefully chosen and well reproduced artifacts, such as cuneiform tablets and medieval manuscripts, that are assiduously integrated into the text. Thus the reader is led from the discussion of cuneiform writing or medieval paleography to the