The Mystery of the Last Supper: Reconstructing the Final Days of Jesus. By COLIN J. HUMPHREYS. Pp. xiii + 244. Cambridge: Cambridge University Press, 2011. ISBN 978-0-521-73200-0 pb. NP.

Although he is not a professional biblical scholar, Colin Humphreys, Professor of Materials Science and Metallurgy at the University of Cambridge, is nothing if not precise on biblical matters: 'The last supper was on Wednesday, April 1, AD 33, with the crucifixion on Friday, April 3, AD 33' (p. 164). Elsewhere (in 'The Star of Bethlehem - a Comet in 5 BC - and the Date of the Birth of Christ', Quarterly Journal of the Royal Astronomical Society, 32 1991, pp. 389-407), he has argued that Jesus was born in April, 5 BC. His three and a half year public ministry, he suggests, started in the autumn of AD 29, and he was around thirty-seven, he claims, when he died (*Mystery*, p. 73). Humphreys' confidence in these dates is born of the (mistaken, in my view) belief that one can apply a knowledge of astronomy in a logical way to the biblical texts and thereby deduce from them reliable historical facts. In his *The Miracles of Exodus* (San Francisco and London: Harper San Francisco; Continuum, 2003), he applied a similar logic to the Old Testament plagues of Egypt, deducing from 'precise agricultural details' and 'a knowledge of Egyptian crops' that 'the plague of hail occurred in February-March' (pp. 130-45, cited *Mystery*, p. 114). In the case of the controversial dating of the last supper and of Jesus' crucifixion, the clue lies, he maintains, in the ancient calendrical information that should be brought to bear on it, ignorance of which, he claims, has prevented biblical scholars from unravelling the problems, contradictions or 'mysteries' that characterise the gospel accounts of Jesus' final days.

Based on the assumption of a traditional 'holy week', Humphreys' first chapter outlines four of these mysteries: firstly, the mystery of the 'missing day' (what did Jesus do on the Wednesday of that week?); secondly, the relation between the last supper and the Jewish Passover (why do the Synoptics claim it was a Passover meal while John has Jesus crucified before the Passover?); thirdly, the lack of time between the (traditional) last supper (Thursday evening) and Jesus' crucifixion (Friday morning) for all of the events, including the Sanhedrin trial, related by the evangelists, and, fourthly, the incongruity between their trial accounts and Jewish legal procedure. The second chapter begins to construct the argument, drawing on Roman and Jewish sources to deduce (uncontroversially) that Jesus died in the period AD 26-36, and on the gospel sources (more controversially) that he died on a Friday, in the Jewish month of Nisan (March/April), on Nisan 14 or 15, at 3 pm. Having summarised four main scholarly interpretations of the gospel last supper accounts (chapter 3), he goes on in chapter 4 to argue that these deductions about the dating of the crucifixion can be tested by using astronomy to reconstruct the Jewish calendar at the time of Christ (there are no actual records, he admits, of this calendar in Jerusalem for the years in question, p. 37). By asking when, during these years, Nisan 14 or 15 fell on a Friday, and by drawing on the work of the astronomer, W. G. Waddington, with whom he had collaborated in an earlier publication in 1983, he gradually reduces the number of possible years for the crucifixion (chapter 5) to AD 27, 30, 33 and 34, thence to either Friday, April 7, AD 30, or Friday, April 3, AD 33 (p. 68), and ultimately, on the basis of the three Passovers mentioned in connection with Jesus' ministry in John's Gospel, to the latter of these two dates (p. 71). This date (Nisan 14) also agrees, significantly, with John's chronology for the crucifixion, with Jesus dying, therefore, before the official Jewish Passover (Nisan 15), but at a time when the first Passover lambs were being sacrificed in the Temple (p. 94).

In his sixth chapter, Humphreys solicits support for his final decisive date (Friday, April 3, AD 33) by taking a slightly different tack. Asserting (against any such claim in the gospel accounts but in view of Peter's speech in Acts 2.20, 'the sun shall be turned into darkness and the moon into blood') that a lunar eclipse took place on the evening of the crucifixion, he enlists the aid of Waddington again to prove that the only lunar eclipse visible from Jerusalem at Passover time in the period AD 26-36 was, apparently, on Friday, April 3, AD 33 (p. 90).

If John's version of events is correct, then, are the Synoptic evangelists in error in claiming that the last supper was a Passover meal, or was Jesus using a different calendar from the official Jewish one? In his next four chapters, Humphreys takes up the question of these ancient calendars and, in a considerable tour de force, comes up with a putative solution that somehow manages to remove all of the discrepancies existing between the gospel accounts. He dismisses (in chapter 7) the view of Annie Jaubert (and of Pope Benedict XVI) that Jesus used the solar calendar of Qumran for his last supper Passover (an event which would have taken place on the Tuesday of 'Holy Week'), claiming, on the basis of the astronomical evidence, that, in AD 33, Passover in the Qumran calendar fell *after* Passover in the official Jewish calendar (p. 107). Instead, he claims, it is ancient Egypt (chapter 8) that holds the clue to solving the problem of the last supper, for, contrary to the official Jewish lunar calendar operative at the time of Christ, which had been adopted by Judean Jews when in exile in Babylon, there existed a pre-exilic calendar established by Moses on the basis of an existing Egyptian religious lunar calendar but modified so that the first month of the year (Abib later changed to Nisan) was in the spring (March-April) in line with the Exodus, which the Passover celebrated (p. 122).

Both these calendars were lunar calendars but they had essential differences. The new day in the official Jewish lunar calendar began at sunset, the new month starting in the evening with the first *visibility* of the lunar crescent. By contrast, the new day in this pre-exilic (Egyptian) lunar calendar began at sunrise, and the new month started in the morning with the first *invisibility* (at conjunction) of the lunar crescent. According to the Hebrew Bible, the Passover lambs were killed on the fourteenth day of the first month of the Jewish New Year and eaten in the evening. The calendrical difference in an evening-to-evening as opposed to a morning-to-morning day meant that, according to the official Jewish calendar, the sacrifice of the first lambs would have taken place on Nisan 14 and the Passover meal on Nisan 15, but in this 'lost calendar of ancient Israel' (chapter 9), the pre-exilic calendar, both events would have taken place on Nisan 14. It is the use of both of these calendars that explains the inconsistencies in Passover reckoning to be discerned, he claims, in Exodus and Ezekiel, on the one hand, and Leviticus and Numbers, on the other, and it is this double dating for the Passover meal, he suggests, that provides a solution to the discrepancies between the Synoptic and Johannine accounts of the last supper (p. 130).

Humphreys' alternative pre-exilic calendar was used in Israel, he maintains, at the time of Jesus, and he adduces evidence for such use among the Samaritans, at least some Essenes, the Zealots, and (possibly) some Galileans (chapter 10). More importantly, he contends (chapter 11) that 'Jesus used a calendar with a sunrise-to-sunrise day, in which the Passover meal was prepared on Nisan 14 and the meal was eaten that same night, still Nisan 14' (p. 156), and so Mark's famous contradiction (14.12) equating 'the first day of the Feast of Unleavened Bread' [Nisan 15] with the day 'when it was customary to sacrifice the Passover lamb' [Nisan 14] should be taken at face value, as should John's statements regarding the last supper. All are consistent, since the Synoptics and the Fourth Gospels are using different calendars. The Synoptic evangelists are using the pre-exilic calendar, with its sunrise-to-sunrise day, and the last supper is a genuine (if not the official) Passover meal, and John is using the official Jewish calendar, with its sunset-to-

sunset day, and the last supper, the Jewish and Roman trials, and the crucifixion of Jesus are all *before* the official Passover meal (p. 167).

If Jesus celebrated the Passover at a different time from its official Jewish celebration, when did this take place? Here Humphreys makes his most controversial suggestion: it was on the Wednesday evening, April 1, AD 33, the 'missing day' of Holy Week (p. 164). In a fresh analysis of the gospel accounts (chapter 12) he plots out the sequence of events for every day, paying particular attention to their timing, and in so doing, not only produces a new chronology that claims to reconcile their divergent elements (it could now, one notes, be 'fully consistent with the legal rules in the Mishnah', p. 173), but, not unsurprisingly, comes up with some novel contentions or even some new 'traditions'; for example, the main Sanhedrin trial started at daybreak on the Thursday morning, Jesus spent Thursday evening in prison, the Sanhedrin's confirmation of Jesus' death sentence took place at daybreak on Friday, the trial by Pilate and his crucifixion immediately thereafter. Chapter 13 sums up the argument and offers a new reconstruction of the final days of Jesus.

Humphreys' book has clearly a number of strengths. Didactic in style, it is precise and lucid, well organised in terms of its presentation and cogent in its argumentation. It sharply identifies a number of the problems connected with the gospel accounts of the last supper, trial and crucifixion of Jesus, and exposes some of the weaknesses in hitherto proffered solutions. It provides the reader with some fascinating calendrical information on the construction by ancient societies of their days, months and years, on their respective use of lunar or solar calendars, on intercalary or 'leap' months or years, or on the specific Julian or Gregorian calendars. As a biblical scholar, I was very grateful for such information.

The book, however, has some glaring weaknesses, and here I speak as a biblical scholar and not as one with astronomical or calendrical expertise. A number of the reservations that initially spring to mind with regard to the accuracy of astronomical calculations related to the Jerusalem of the past (problems created by weather and climatic conditions, the uncertainty posed by the possibility of intercalary days, months, years, etc.) as well as their application to the biblical texts, are taken up and refuted by Humphreys. Humphreys' logic may be impeccable (for the argument, he consulted an eminent London barrister, skilled in assessing evidence), but the premises on which it is based are unsound. The book reminded me, indeed, of one that I read as an theology undergraduate at Glasgow University in the 1960s, Frank Morison's *Who Moved the Stone*, first published in 1930, countlessly reprinted and much beloved by conservatives for its 'logical' arguments for the resurrection of Jesus. Like Morison's book, it accepts the New Testament accounts at face value, and uses their unexamined historicity as grist for its mill, whether it be the three different Passovers in John (2.23; 6.4; 19.4; see p. 71), the speech by Peter in Acts (2.14 ff., esp. 2.20; see chap. 6) or the death of Jesus 'at the ninth hour' by Matthew (27.46; see p. 22).

It assumes in particular the historicity of the gospels' 'Holy Week', whose separate day schema, first adumbrated in Mark's Gospel, is an artificial as well as an inconsistent construction. As I pointed out, in my first book, *The Barren Temple and the Withered Tree: A Redaction-Critical Analysis of the Cursing of the Fig-Tree Pericope in Mark's Gospel and Its Relation to the Cleansing of the Temple Tradition* (1980; reprint 2015, London: Bloomsbury), the initial three-day structure found in chapter 11 is occasioned by the purely redactional linkage of the extraneous fig-tree story with the triumphal entry and cleansing of the temple traditions, and is not a chronology upon which one can base any historical reconstructions.

In common with many conservatives, Humphreys claims, despite their manifest discrepancies, that eye-witness testimony lies behind the Gospels (e.g. pp. 29, 39), that the evangelists would have pieced together their information from reliable sources, and that Luke in particular may well have consulted Joseph of Arimathea for material on the trial(s) of Jesus (p. 170). Early traditions, too, are taken at face value, such as the second century one that Paul's conversion occurred eighteen months after the crucifixion (p. 66). Very dubious sources are claimed in support of some arguments, such as the apocryphal 'Report of Pilate' and the writings of the fifth century Bishop Cyril of Alexandria for the alleged facticity of Peter's reference (Acts 2.20) to a lunar eclipse on the evening of the crucifixion (p. 86— the moon, that evening, Humphreys notes, rose precisely at 6.20 p.m!, p. 92).

The gospel texts are the product of edited tradition, the outcome of progressive interpretation, the product of religious imagination and, in some cases, indeed, of sheer invention, hence all their discrepancies and disagreements. Humphreys shows a sovereign disregard, however, for the problems created by theology for historicity (e.g. '[J]ust because John's gospel is more theological than the synoptics, this does not mean that it is less historically factual', p. 8). In his view, Jesus, and not his Matthean interpreter, as most scholars believe, saw himself as a new Moses, hence the motivation for his adoption of the Mosaic pre-exilic calendar (pp. 160-62) and his alternative celebration of the Passover meal. He espouses, too, the somewhat old-fashioned view that the gospel writers are merely artists painting different portraits of the same historical Jesus (pp. 7, 169), and all but the most conservative biblical scholars will find his excessive tendency to harmonise their accounts obscurantist (does he really believe that Jesus cleansed the Temple more than once?, p. 77).

All that Colin Humphreys says is interesting, and his book will certainly appeal to intelligent laypersons, of a conservative bent, with an interest in both biblical and scientific matters. Biblical scholars may also find value in the calendar information presented. In reality, however, his argument does violence to the nature of the biblical texts, whose mixture of fact and fiction, tradition and redaction, history and myth all make the rigid application of the scientific tool of astronomy to their putative data a misconstrued enterprise. Biblical chronology is a tricky business, and logic exercised on false premises produces distorted results. Humphreys' distinguished predecessor, Archbishop James Ussher, who sought to establish Sunday, October 23, 4004 BC as the night preceding creation, proves the point!

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