REVIEWS

THE ANCIENT NEAR EAST

SACHA STERN: Calendars in Antiquity: Empires, States, and Societies. vi, 457 pp. Oxford: Oxford University Press, 2012. £95. ISBN 978 019958944 9. doi:10.1017/S0041977X13000098

In his classic vademecum of calendrical knowledge, first published in 1933 and last revised in 1980, Elias Bickerman could write without qualification that "[a] history of the diffusion of the Julian year has not yet been written" (Chronology of the Ancient World, revised edition, London 1980, 51). Now, with the publication of Calendars in Antiquity, Sacha Stern has made available precisely the kind of detailed history of the Julian calendar whose absence Bickerman first noted threeguarters of a century ago. In charting the history of the Julian calendar, Stern, the leader of the most important centre for research on ancient calendrics today (at University College London, where he is professor of Rabbinic Judaism) and the author of a well-received history of Jewish calendrics (Calendar and Community: A History of the Jewish Calendar, 2nd cent. BCE-10th cent. CE, Oxford, 2001), has taken on arguably the most difficult problem of synthesis in the history of calendrical research: the origin and diffusion of the Julian calendar. Instituted in 46 CE and modelled more or less explicitly on the Egyptian calendar used in the Roman province of Egypt, the Julian calendar is a 365.25 days/year calendar that served as the basis for the Gregorian calendar in use today. Stern's detailed and carefully argued description of the genesis and diffusion of the Julian calendar exhibits all the features we might hope to find in such a study: a healthy scepticism of purely numerical solutions to long-standing calendrical problems; an emphasis on the social contexts in which calendars undergo change; and an occasionally exasperating solicitude for the evidential details of well-established interpretations.

However, Stern does not frame his work as a history of the Julian calendar, but rather as a general history of ancient calendars between the middle of the first millennium BCE and the end of the late antique period c. 400 CE, arguing that the emergence of large-scale empires in the second half of the first millennium BCE necessitated "... fixed calendars [that] could be reckoned uniformly across vast empires without any risk of disruption" (p. 168). This argument is fully in tune with the current fashion in so-called Big or Deep History, although Stern does not specifically appeal to this literature (see M. Stiner, T. Earle, D. Smail and A. Shryock, "Scale", in A. Shryock and D. Smail (eds), Deep History (University of California Press, 2011), 242-72 for an overview, but supplemented with G. Algaze, Ancient Mesopotamia at the Dawn of Civilization (University of Chicago Press, 2008)). The problem with jumping into the history of calendrics in the midfirst millennium BCE, however, is that it easily gives the reader the false impression that intercalated lunar calendars (the calendrical technology that the Julian calendar would eventually replace) were generally "irregular, mismanaged and discrepant". This was the native perception of the Athenian calendar that appears in the work of Aristophanes (p. 35), but Stern himself carefully avoids any untoward judgements and states unequivocally that "social, religious, and economic life could happily be organized" (p. 63) on the basis of an intercalated lunar calendar. Moreover, the prominence that Stern gives to the political aspect of intercalations is entirely salutary, and one might only wish that he had allowed agricultural and climatic cycles (the cogs in any reasonable Deep History account) to play a more significant role in his book. Even Pritchett's modest assertion that co-ordination of the agricultural cycle may have been a central concern in the political calculus of intercalation is seen by Stern as "entirely speculative" (p. 66, n. 146), yet variability in rainfall and other climatic conditions seems to have played a crucial role in at least some Near Eastern polities (see H. Reculeau, *Climate, Environment and Agriculture in Assyria*, Wiesbaden, 2011, although Reculeau's specifically calendrical discussions should be contrasted with E. Cancik-Kirschbaum and J. Cale Johnson, "Middle Assyrian calendrics", forthcoming in *State Archives of Assyria Bulletin* XIX).

The obvious danger, given the success of the Julian and later the Gregorian calendars, is that non-Julian calendrical systems can be swept up in its wake. Without much in the way of evidence, for example, Stern argues that the 364 day/year calendar known from Qumran and the Enochic materials was based on or at least inspired by the fixed 365 day/year Egyptian calendar in the Ptolemaic period (pp. 200-02). Stern himself concedes that the 360 day/year calendar of the Aramaic Astronomical Book (the earliest stratum in 1 Enoch) is of Babylonian origin, but is unwilling to acknowledge a Babylonian model for the 364 day/year calendar (p. 198), suggesting that any link between the Babylonian astronomical compendium MUL.APIN and the Enochic-Qumran 364 day/year calendar is "extremely far-fetched" (p. 199). The MUL.APIN passage in question (II ii 11-12) may, however, be an Aramaic calendrical tradition inserted into MUL.APIN by a cuneiform scribe whose mother tongue was Aramaic, and even if there were moments of feedback like this in first millennium Aramaic-Akkadian bilingualism, it is nonetheless increasingly clear that "Aramaic" calendrics and astronomy were heavily indebted to Babylonian rather than Egyptian models: this is evident in the identification of the Lunar Three system in 4Q320, 4Q321 and 4Q321a (J. Ben-Dov and W. Horowitz, "The Babylonian Lunar Three in calendrical scrolls from Qumran", Zeitschrift für Assyriologie 95, 2005, 104-20) and the links between Enuma Anu Enlil XIV and the fragments of the Aramaic version of the Astronomical Book (H. Drawnel, "Moon computation in the Aramaic astronomical book (1)", Revue de Qumran 23, 2007, 3-41; see now The Aramaic Astronomical Book (4Q208-4Q211) from Qumran, OUP, 2011).

In spite of these few infelicities, it must be said that Stern's survey represents a tremendous moment of synthesis within calendrical studies and is an essential purchase for both research libraries and specialists in calendrics.

J. Cale Johnson Freie Universität Berlin

THE NEAR AND MIDDLE EAST

KAZUO MORIMOTO (ed.):

Sayyids and Sharifs in Muslim Societies: The Living Links to the Prophet. (Routledge New Horizons in Islamic Studies.) xii, 276 pp. London and New York: Routledge, 2012. £80. ISBN 978 0 415 51917 5. doi:10.1017/S0041977X13000104