

## Ancient Jewish Calendars: A Response

My discussion of the calendar as it appears in the Dead Sea Scrolls and the pseudepigraphic literature was not intended in any way to be a contribution to the history of science, nor should it be read nor considered in this context. *The Three Temples: On the Emergence of Jewish Mysticism* was intended to be a contribution to the history of the marginal voices of the deposed and the ousted, as well as an addition to the history of the bitter dispute about the idea of the sacred, especially as it pertains to the sources of divine authority and human hegemony. I did not propose in any way to attempt or to prove the veracity of any given calendar or to correct false perceptions inherent in any calculation regarding the laws of nature. I did strive to illuminate the depth of the argument between two opposing principles in the perception of time and to clarify the identity of the opposing factions.

I attempted to explain the profound divisions found in the dispute that broke out between two factions in the last two centuries before the Common Era and the subsequent development of this interaction, involving yet a third group, in the last century BCE and the first two centuries CE. Members of the first group were identified as the *ko-kohanim benei Šadoq* or the Zadokite priesthood, which was composed of Zadokite priests and their lay supporters, who adhered to the existing sacred biblical order and saw themselves as the proponents of freedom, truth, justice, and knowledge as inspired by divine revelation, Holy Scriptures, and the angelic calendar. The members of the second

group were identified as the *kohanim benei Hašmonaʿi*, the Hasmoneans or Maccabeans, who represented a new political-military-priestly authority and were considered by the former group to have transgressed the restrictions of the biblical priestly tradition and usurped the high priesthood after their nomination by the Seleucid rulers (1 Macc. 10:18–21, 14:39).

According to the Bible and the book of Ben Sira, the first group officiated in the Jerusalem Temple from the time of David and Solomon in the tenth century BCE until the second century BCE. The latter group officiated in the Jerusalem Temple from 152 to 37 BCE. The ousted Zadokite priesthood perceived the Hasmonean usurpers as evil transgressors, led by an evil priest known as the *kohen rešaʿ*. The Zadokite priests, who described themselves as “priests of righteousness” and “Sons of Light,” believed that time is divine. Time and its divisions were revealed from heaven and established the foundation of the angelic and priestly ritual order in heaven and earth as a holy, eternally symmetrical, and cyclical pattern reflecting a heavenly scheme of 364 days, divided symmetrically into four seasons of 91 days and into 52 weeks of seven days or into 52 “sabbaths” divided fourfold into 13 parallel sabbaths in each quarter. In this calendar, every year starts on a Wednesday (1/1 being the vernal equinox), as does every quarter. Each of the four seasons lasts for 91 days, starting on a Wednesday that is respectively the summer solstice (1/4), the autumnal equinox (1/7), and the winter solstice (1/10), according to the biblical priestly tradition that the luminaries were created on Wednesday. The first month of this biblical calendar is Nisan, the “month of the spring” (Leviticus 12). Thus the first day of any year would be always Wednesday, the first of Nisan, and the subsequent quarters would always begin on Wednesday 1 Tamuz, Wednesday 1 Tishrei, and Wednesday 1 Tevet. The first and second months of each quarter have 30 days; every third month has 31 days and ends on a Tuesday. This predetermined division—which assigned a fixed day and date to every day of the year—was perceived as

being commanded by God (Jubilees 6:23–32), transmitted to man by the angels (1 Enoch 72–82), and maintained and guarded by the 24 priestly watches (1 Chronicles 24), according to the religious ideology of the Zadokite priesthood (Scrolls of Priestly Watches).

In the wake of the Seleucid conquest in 175 BCE, the traditional priesthood was expelled from the temple precincts and the holy priestly-solar calendar of 364 days was replaced by the imperial calendar, a form of Greek-Macedonian lunar reckoning. The Hasmoneans, nominated as high priests by the Seleucids in 152 BCE, held power in the Jerusalem Temple in various forms from 152 BCE to 37 BCE.

The Hasmoneans responded to changing historical circumstances, that is, the Seleucid conquest that imposed a new lunar calendar on their expanding empire (Daniel 7:25). They asserted the royal privilege of dictating the division of time in relation to tax collection and imperial festivals rather than submitting to a local divine priestly order of time beyond the influence of human intervention.

The Zadokite priests believed in the holiness of the fixed 364-day calendar and chose this number because it is the closest to the 365¼-day solar calendar that is divisible by seven, forming a symmetrical year of 52 weeks. According to the prophetic-priestly tradition, the sevenfold division of six days of work and one day of freedom, divinely enjoined for the entire community, was the unique Jewish paradigm of time since the Creation. This calculation was associated with the sevenfold cycles of freedom (the weekly Sabbath, the sabbatical year, and the Jubilee) as a divine commandment and was perceived as an inalienable human right, safeguarded by divine law and monitored by the priestly watches.

The Sages were the third factor. They appeared in the historical arena during the same period of the Hasmonean rule, possibly as a result of the aforementioned priestly dispute. They asserted a claim of legitimacy based on a new concept: democratic meritocracy rather than a monopolistic hierocracy. They did not become a meaningful and

dominant voice in the calendrical debates, however, until after the collapse of the Hasmonean regime, starting with the Roman occupation in 63 BCE and even more so after the destruction of the Temple in 70 CE. The Sages, who consolidated their position under Roman rule, which imposed the fixed imperial solar calendar of 365¼ days, selected lunar observation as the principle for calculating the monthly divisions of the Jewish calendar.

The Sages canonized the Bible after the destruction of the Temple and chose from the former priestly-prophetic tradition those books they considered to be sacred. In this process they asserted the right to decide which texts should be included and which should be censored or excluded. A brief scrutiny of the literary legacy that is known as the Apocrypha and Pseudepigraphia, including the Dead Sea Scrolls—those Hebrew and Aramaic texts written before the Common Era by Jews of the Zadokite priestly faction and later rejected by the Sages—clearly reveals that the common denominator of the majority of these texts has to do with the priestly solar calendar of 364 days and the mythical descriptions of the priestly dynasty associated with this reckoning (Enoch, Melchizedek, Levi, Kehat, Amram, Zadok) along with its angelic-priestly counterparts, the angels of the presence and the ministering angels.

The centrality of the Temple in the biblical priestly tradition (which prevailed before the Common Era) as well as in rabbinical tradition (prevalent after the destruction of the Temple) is well known. But there is a profound dispute concerning the temple calendar among the aforementioned three parties, known in part as the dispute between the Pharisees and Sadducees or the sages and the priests. My contention is that the dispute about the understanding of time, division of time, and observation of time is the core of the disagreement among the three groups: the Zadokite priests, who perceived divine time and maintained a fixed solar calendar of 364 days; the Hasmoneans, who were forced to accept the imperial lunar calendar of the Seleucids as a precondition for

their nomination to the high priesthood and positions of sovereignty in the second century BCE; and the Sages, who had to establish a Jewish calendar after the Roman conquest, a change which included imposing the 365¼-day imperial calendar on the Roman Empire as of January 1, 45 BCE. The Sages consolidated their position during the Roman conquest and after the destruction of the Temple in 70 CE. Each Jewish group held to a different calendar and struggled against the representatives of the new or old order. The “Sons of Light” fought in writing against “Sons of Darkness”: that is, the ousted Zadokite priests against the ruling Hasmonean priests. The Pharisees wrote against the Sadducees: that is, the Sages who held to a new lunar calendar against the old solar priestly calendar of the Zadokite priests.

This threefold division is ignored by Sacha Stern, who seems to want to maintain some kind of simplistic and reductionist harmony between priests and Sages without taking into consideration the profound division within the priesthood (Zadokite and Hasmonean), which involved the fight for sacred (fixed solar) time against human (variable lunar) time, the change of imperial rule and imposition of imperial calendars (the Seleucid lunar calendar from 175 BCE until 63 BCE and the Roman solar calendar from 63 BCE), and the destruction of the Temple, as well as the editorial processes of inclusion, amendment, and exclusion associated with the canonization of the Bible, which profoundly changed the Jewish world and reversed the biblical order of Temple time and priestly rule.

Stern seems not to have fully considered or understood the essence of the solar/lunar dichotomy. I agree that there are number of passages relating to lunar observations in the Qumran texts, whose priestly writers were carefully monitoring all of the recurring permanent cycles in nature and in worship and synchronizing them; nor did I maintain otherwise. I do maintain, however, that a fundamental religious significance attaches to the differences in the principle for calculating a ritual calendar. One school maintains a fixed and preordained sacred

system, guarded by a select circle of priests and angels synchronizing the fourfold natural divisions ( $91 \times 4 = 364$ ) and sevenfold divine divisions ( $364:7=52$ ;  $91:7=13$ ;  $13 \times 4=52$ ), found in Enoch, Jubilees, and the Songs of the Sabbath Sacrifice as well as in the Temple Scroll and Qumran Psalm Scroll, *Miqṣat ma'asei ha-Torah* (MMT) and 4Q252. The other postulates a changing, unpredictable, and uncalculated system based on every man's observation, though decided by a rabbinical court, which must then intercalate in order to resolve the difference between the lunar year of 12 months (354 days) and the solar year of four seasons ( $365\frac{1}{4}$  days).

The Masoretic text of the Bible, as edited by the sages, does not refer to the number of the days in the year; nor does it contain any explicit mention of the length of the months or the principle of their calculation. The Masoretic text does not explicitly fix any date related to any particular calendar for any narrative in the Pentateuch; only indirectly can we infer the use of a solar calendar from the story of the Flood, since the five months of Noah's sojourn comprised 150 days, as stated explicitly in Genesis 7:11–8:4—a span that can be computed only according to a solar calendar, where months possess 30 or 31 days, and not according to a lunar calendar with 28- or 29-day months. Significantly, the parallel biblical traditions as found in the Qumran texts—which preceded the Sages' Masoretic redaction by three or four centuries—and the parallel pseudepigraphic tradition, similarly antecedent in time, clearly indicate a tradition of a 364-day calendar related to the Flood story (Jubilees 6; 4Q252) and the complicated system required to maintain the date. Any comparison between the flood narrative of Jubilees 6, 4Q252, and the Masoretic text of Genesis 7–8 demonstrates this clearly. No coerced attempt at harmonization can deny the depth of the dispute between the priestly faction, which held to 364-day fixed calendar, and the Sages, who upheld a changing lunar calendar with a year of wildly variable length, because of the need for intercalation. Any careful comparison of the fundamental differences concerning

both the source and maintenance of the lunar and solar calendars must reveal the overwhelming contradictions and dispute concerning the ideological foundations underpinning each system. As noted above, I did not attempt to explain the scientific differences between the different principles of calculation concerning the respective calendars nor did I attempt to make any conclusive claims concerning the respective merits or practical implications of either system. I did attempt to elucidate and elaborate the religious significance arising from the opposing world views about the profound meaning of time (heavenly domain or human autonomy), its source (divine or human), and its divisions (fixed or changing), as expressed by the two systems. I also discussed the provenance of the three different calendars and examined the connections between the opposing calendrical contentions and profoundly conflicting mystical and legal ideologies expressed in forgotten and suppressed writings.

I respect Annie Jaubert's scholarship and insight, as do many other scholars in the field.<sup>1</sup> I disagree with Ben-Zion Wacholder's unconvincing refutation and with Philip Davies' counter-argument, and prefer the persuasive historical scheme presented by James VanderKam. I chose not to elaborate on these disputes, because I was not writing a book about "the history of things as they were" according to the premise of one school or another, or a study of the history and evolution of the 364-day calendar. I choose rather to focus upon the mystical history of the calendar as perceived by the deposed priesthood, whose faction voiced great anger and expressed an overwhelming sense of injustice in numerous written traditions that linked heavenly and angelic knowledge with the human priestly library. Most of these writings were marginalized, suppressed, and forgotten as "external

<sup>1</sup> See the review by James C. Vander Kam in *Catholic Biblical Quarterly* 41 (1979): 390–411.

traditions" by the Sages or as "sectarian literature" by modern scholars. Notably, study of the texts of the priestly calendrical tradition was banned by the leader of the Sages, R. Akiva, who labeled them "external books" (M Sanhedrin 10:1) and played a central role in shaping the alternative rabbinical order based on a new perception of lunar time and human observation (M Rosh Hashanah 2:9).

Until the Dead Sea Scrolls were discovered in the middle of the twentieth century, most of this priestly mystical literature on the divine division of time was little known and the nature of the dispute was not evident. Labeling this huge library of 950 scrolls as sectarian or marginal is misleading with regard to a period during which no single central legitimacy was acknowledged, as we learn from the wars between the Hasmonians and Pharisees mentioned by Josephus and from the polemical literature in the scrolls.

No convincing explanation has ever been offered to answer the simple question about the central inconsistency of the calendrical tradition: why the biblical narrative of the year starts with the spring as the "beginning of months; it shall be the first month of the year" (Exod. 12:2) whereas the rabbinical year commences in the autumn with the festival of Rosh ha-shanah, the "beginning of the year"—a holiday not mentioned in the Pentateuch by this name? Only disputes about the calendar can illuminate this strange change in the order of counting of the months.

Stern is wrong to assert that the priestly literature never explains its preference for the fixed 364-day calendar. The priestly tradition found in the Dead Sea scrolls and in the pseudepigraphic literature is entirely based on the assertion that time is divine, predetermined, and unchangeable, because its eternal divisions were revealed by heavenly decree and are maintained and guarded by priestly watches. The variable lunar calendars (Seleucid/Hasmonean and rabbinic) depended on human observation and were based on empirical sightings of the new moon by any man and a decision by a few; they did not include any

precalculated eternal fourfold and sevenfold cycles revealed to priests or prophets by an angelic source and preserved by the Temple service. Although angels proclaiming time divisions are major heroes in the priestly literature of before the Common Era, no angels appear in the early rabbinic literature written in the early centuries of the Common Era.

The questions examined do not involve astronomical accuracy or efficiency, but rather the resolution of authority, the sociology of the availability of knowledge, and the sources of legitimacy and administration. The heavenly division of time, symmetrical, cyclical, and liturgical, which synchronizes nature and worship and is guarded by angels and priests, as demonstrated clearly in 1 Enoch 72–82 and in Jubilees 1–2 and 6, the Scroll of Priestly Watches, and the Qumran Psalms Scroll col. 27, the mythical calendar appearing in the Qumran flood story (4Q252), and the calendar of seven holidays in the Temple Scroll, the calendar mentioned at the beginning of MMT and the opening lines of each of the Songs of the Sabbath Sacrifice, noting the fixed dates of each Sabbath of every quarter, as well as the calendar in 2 Enoch: all of these were inherent to Temple worship in this priestly literature and the subject of its struggle against those who changed it. Conversely, these priestly writings were labeled "external" by the Sages who forbade reading them.

The different priestly circles in antiquity were well aware of the common knowledge that the solar year consists of  $365\frac{1}{4}$  days and the lunar year of 354 (see, for example, 2 Enoch 6:21<sup>2</sup>). Their choice of a schematic 364-day calendar was a matter of principle and not of ignorance. The synchronization between a full solar cycle of  $365\frac{1}{4}$  days

<sup>2</sup> This is the reference according to A. Cahana's Hebrew text; in the English edition it is Chapter 14; see J. Charlesworth, *The Old Testament Pseudepigrapha*, I (Garden City, 1983), p. 124.

and the priestly calendar of 364 days was an obvious necessity in a culture that set its seven appointed times for worship of the Lord in the first seven month of the year and declared a fallow year every seven years. There is no conclusive historical evidence about the practical implication of any calendar in the first millennium BCE; however, there are ample literary, legal, mythical, mystical, and liturgical traditions that elucidate the profound dispute on this matter before and after the destruction of the Temple. It cannot be a coincidence that the leading protagonist of the priestly solar-calendar tradition, Enoch son of Jared (Gen. 5:21–24), about whom three books were written with his name as their title and whose biography is summed up in Jubilees 4, later became the subject of a humiliating divine punishment in a story appearing in the rabbinic tradition, involving the deposition and dethroning of a mighty figure, as narrated in the story of four (humans) who entered the (heavenly) orchard (paradise) and their encounter with one (an angel named Enoch-Metatron) who was lashed with sixty lashes of fire (B Hagigah 14b–15a).

Stern disregards the dispute represented in numerous texts and traditions, while suggesting retrospectively that the rabbinic Jewish lunar calendar of the present is and always was the “dominant Jewish lunar calendar” and should also serve as the only correct lens for viewing the rich history of the counter-evidence. This seems to be an unscholarly approach and strangely biased position.

The study of mythical, mystical, and liturgical tradition as records of human struggle and suppressed voices may not be a familiar field of scholarship to Mr. Stern. His knowledge of astronomical calculation does not make him a suitable judge for the intricate written evidence of the human struggle for freedom and justice.