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## Enoch Son of Jared and the Solar Calendar of the Priesthood in Qumran

*Enoch was found to be perfect and walked with the Lord  
and was taken, a sign of knowledge to all generations.*  
(Ben Sira 44:16)

In the view of the authors of *The Book of the Watchers* (1 En. 1-36), *The Book of Heavenly Luminaries* (1 En. 72-82), the *Book of Jubilees*, 1 and 2 *Enoch*, the *Temple Scroll*, *MMT*, *Songs of the Sabbath Sacrifice*, *Damascus Covenant* and other Qumran works, time is not an arbitrary, man-made structure or human order, dependent on unstable observations and determinations influenced by external conditions, adjustments and errors. Rather, time is of divine origin, a cosmic pattern obeying preordained, immutable laws, a cycle that has been repeating since sacred time was imprinted on nature during the seven days of Creation and consecrated through the Sabbath day. Time was envisaged as the reflection of divine order in the universe, so designed as to perpetuate the cycle of life, blessing and fertility, an order in which time and space are sanctified and interdependent from the earliest stages of Creation, which took place in time divided into seven days and in the space formed during those seven days.

The calendar was not entrusted to man, subject to adjustment and change, or dependent upon human calculations or terrestrial considerations; for it represented the concept of a profound, comprehensive reality, a divine reality beyond the reach of the senses but reflected in the cyclic, numerical harmony revealed in the passage and changes of time. The calendar, based on a cycle of Sabbaths and seasons, embodied the eternity of the primeval order, based on the eternal cycle of the sun and the cyclic motion of the celestial bodies, which could be precisely predicted by numerical calculation. The calendar also related to the secrets of the cyclic nature of procreation and death, they too dependent on counting and calculation, purification and oath, ensuring the continuity of abundance, life and fertility. Any infringement of this sacred cyclic pattern, as expressed in the fixed numerical proportions of its component parts, any attempt to ignore the divine pattern based on number and counting, would generate impurity, bringing in its wake curse, death and oblivion.

The calendar of weeks and seasons, of Sabbaths and covenants, with its eternal cyclic, numerical pattern, was taught to human beings by divine, angelic revelation. The goal of this revelation – variously designated in Qumran literature as “wondrous mysteries”, “the secret of Your wonder” “the mystery of Your intellect”

(*Thanksgiving Scroll XII*) – was to teach the founders of the priestly dynasty the proper order of heavenly, cosmic time, and its terrestrial counterpart in a cyclic cultic-liturgical order that testified to the seven-based divine pattern of time and to its cyclic nature, in terms of Sabbaths and festivals, as well as cycles of life and fertility. This is the message of the books named for the archetypal mystical hero, *Enoch son of Jared*, who was taken up to heaven (Gen. 5:24) to observe the cosmic regularity of the laws of nature, to witness the heavenly structure of time as manifested in the *solar calendar*, and to bring heavenly time down to terrestrial space and introduce the order of Creation into the cultic order.

The aim of Enoch literature – whose hero, called a “righteous man, scribe of righteousness” (1 En. 15:1), repeatedly transcended the boundaries of time and place – was to link cosmic with ritual cyclicality, to elucidate in detail the relationship between the divine sevenfold structure of heavenly time, as reflected by sign and oath (Sabbath, sun, seven, sun of righteousness), and the pattern of Sabbaths/weeks of the cyclic earthly calendar, as reflected in the cultic calendar and attested by the priestly courses as they observed the appointed times, kept the oath and the covenant and pursued the paths of righteousness. The Enoch literature also delineated the seven-fold pattern of sabbaths of years, sabbatical years, jubilee years and ages (*qizzini*) of the deterministic, linear calendar – the calendar of years of continuous history, preordained from beginning to end in multiples of seven; this pattern is embodied in the myth recounted by the priests and angels entrusted with preserving the sequence of sabbatical and jubilee years, it too designated by the names of the priestly courses.

Enoch, son of Jared, was, the *seventh* in the list of generations from Adam to Noah, as mentioned in “the record of Adam’s line” (Gen. 5:1-33), and in the list of patriarchs of the world in a prayer found at Qumran: “Kenan was from the fourth generation and Mahalel his son was the fifth generation... and Jared his son was sixth generation and Enoch his son; *Enoch was seventh generation.*” The length of his mortal life – 365 years (Gen. 5:23) – exactly parallels the number of days in the solar year, specified sometimes as 364 and sometimes as 365 in the various calendar traditions; this is also the length of a complete solar cycle in years.

The story of Enoch is the story of a human being transported from the realm of life and death ordained for ordinary mortals: he did not die like any other mortal but was taken to God: “All the days of Enoch came to 365 years. Enoch walked with God; then he was no more, for God took him” (Gen. 5:23-24). As we learn from the four books named for Enoch, it was God’s will that he become immortal, so that he should be able to observe and study heavenly time and its structure, its regularity and continuity, and report the mutual relationship between the realms of time and creation to his sons, the founders of the priesthood, who were entrusted with preservation of the testimony and the appointed times. He became a prototype of the mystical-priestly hero who transcended the boundaries of time and place, ascending from earth to heaven by divine will; he rose above the limits differentiating man and

angel in order to learn the divine secrets of time and place. Enoch was "taken to God" to be a sign, an eternal witness, beyond the confines of time and place, to the laws of heaven and earth.

Two special numbers, of crucial significance for the solar calendar, were associated with the figure of Enoch: seven, the number of days of Creation, and 364/5, the number of days in the solar year. There may also be some significance to the numerical (*gematria*) value of his name,  $84 = 7 \times 12$ , the product of the number of days in the week and the number of months in a year. By virtue of these two numbers, and of course his signal righteousness, he alone was granted eternal life and heavenly knowledge of the mysteries of the universe and its cyclic nature; the first literate and numerate person in history, he crossed the lines from mortality to immortality, to be a sign like the Sabbath, the rainbow and the sun, permitted to move back and forth between the realms of earthly and heavenly time and space and the realms of past and future, between the realms of human knowledge and the infinity of divine knowledge – in order to learn the secrets of the solar calendar and the order of Sabbaths and festivals.

All these elements combined to make the righteous Enoch the hero of the central myth of this literature, a super-temporal witness, beyond the limits of knowledge dependent on sensory apprehension, attesting before the denizens of terrestrial space to the cyclic nature of heavenly time revealed to him by the angels, to its eternal numerical pattern and its infinite sanctity, measured in number, perpetuated in sign and book, preserved in a cultic cycle and recounted in an angelic priestly narrative. Enoch was a "sign of knowledge from generation to generation", a "scribe of righteousness", who counted the cycles of divine time, measured in hours of the day, seasons of the year, its months and weeks; who wrote books on angels, told stories about heavenly calendars and counted celestial numbers, whose salient characteristics were righteousness, knowledge and testimony, sevens and oaths; he founded the myth of the priesthood and established the cultic solar calendar of Sabbaths and appointed times, linking heaven and earth. Creation and cult, book, narrative and number. Transcending history, an immortal figure from the mythological antediluvian generation, Enoch was spared the fate of all mortals as an eternal witness in the heavens, attesting to the advance of divine time and the march of history, which was preordained from beginning to end, assuring the righteous of recompense and the wicked of retribution. Weaving together heavenly knowledge and testimony, an eternal eye-witness to the order of creation and of time, he upheld the cyclic order of laws and appointed times that link terrestrial and heavenly time.

This wondrous knowledge, the basis of the priestly cultic calendar, was concerned with several elements; 1) *te'udot* – divinely appointed times and their confirmation by heavenly testimony (Heb. *'edut* from which *'edah* community, the community of the *yahac*) something destined to exist forever and laid down in the heavenly statute of creation, like sunrise and sunset; 2) "*appointed times of His glory, testimony of His righteousness*" (= observance of cultic times of heavenly

origin and their supporting testimony), referring to the festivals and other set times in heaven and on earth, which themselves bear witness to cyclic divine time and the laws of nature; 3) *otot*, "signs" (the covenants relating to heavenly time and to "seventh" entities, such as the Sabbath and Enoch); 4) *tequfot*, literally "periods" (the cycles of the sun and the celestial bodies and their relationship to the seasons of the year, divided into four symmetric thirteen-week periods correlated with liturgy and cult); and 5) *Sabbaths*, constituting a kind of cyclic seven-based framework, the basic pattern of the solar calendar since the seven days of Creation.

Enoch was "taken up to God" in order to observe the proper sequence of Sabbaths and weeks, of years, festivals, luminaries and days, so that he would be able to understand their cosmic laws and their affinity with the laws of nature, their cyclic calculations and the arithmetical relation between time and space. The angels were to teach him the correlation between visible and invisible, between testimony and number; he would then return to earth and testify to the synchronization between the laws of nature and the numerical divine order, on the one hand, and the rules of the ritual, on the other. Thus, divine order, based on seven, four and twelve, was represented by the solar calendar: three hundred and sixty-four *days*, each counting twenty-four hours; fifty-two *weeks/Sabbaths*, each counting seven days; twelve *months*, each counting thirty days; four *intercalary days* (or *days of remembrance*) which, when added to the four three-month long *seasons*, bring the total per season to ninety-one days; while the seven-based ritual order was represented by Sabbaths grouped in four quarters or seasons of thirteen Sabbaths each entrusted to the twenty-four priestly courses ( $13 \times 7 \times 4 = 364$ ;  $52 - 4 = 13$ ). Enoch learned this synchronic relationship between nature and cult, between sevenfold cycles and quarterly seasons; he could thus attest to the heavenly appointed times and teach his priestly sons the secret of their cyclic calculation: "While he was alive in his *seventh* generation, he commanded and *bore witness* to his son and his grandsons until the day of his death" (Jub. 7:39). Enoch is mentioned as a witness both to cosmic time as divided into appointed times, and to historical time, divided into sabbaths of years, of sabbaticals and of jubilees: "... for the work of Enoch had been created as a witness to the generations of the world so that he might report every deed of each generation in the day of judgment" (ibid. 10:17).

Enoch, upon ascending to heaven and observing the divine origin of time impressed in the laws of nature, the eternal cyclic pattern of fertility and death, the synchronization between the diverse components of the cosmic calendar, and the relationship between the mysteries of the divine order and the wonders of the cyclic numerical harmony – testified at length to the heavenly solar calendar:

I saw how the stars of heaven come out; and I counted the gates out of which they exit and wrote down all their exits for each one: according to their numbers, their names, their ranks, their positions, their periods, their months, as Uriel, the holy angel who was with me, showed me. He showed me all things and wrote

them down for me – also in addition he wrote down their names, their laws and their companies (*The Book of Watchers*: 1 En. 33:3-4).

In this manner the year is completed scrupulously in three hundred sixty-four fixed stations of the cosmos. Thus the signs, the durations of time, *the* years, and the days were shown to me by the angel Uriel, whom the Lord, God of eternal glory, has appointed over all the luminaries of heaven – in heaven and the world – in order that they ... should rule in the face of the sky and be seen on the earth (*The Book of Heavenly Luminaries*: 1 En. 75:2-3).

The year is completed in 364 days. True is the matter of the exact computation of that which has been recorded; for Uriel – whom the Lord of all the creation of the world has ordered for me in order to explain the host of heaven – has revealed to me and breathed over me concerning the luminaries, the months, the festivals, the years, and the days. (*ibid.*, 82:6-7).

And the Lord summoned one of his archangels, (Vrevoil) [Uriel] by name, who was swifter in wisdom than the other archangels, and who records all the Lord's deeds. And the Lord said to [Uriel], "Bring out the books from my storehouses, and fetch a pen ... and give it to Enoch and read him the books ... And he was telling me all the things of heaven and earth and sea and all the elements and the movements and their courses, and the living thunder, the sun and the moon and the stars, their courses and their changes, and seasons and years and days and hours ... and the number of the angels and the songs of the armed troops; and every kind of human thing, and every kind of language (and) singing, ... and everything that it is appropriate to learn (2 En.[J] 22:10-23:2).

The *Damascus Covenant* explains the secret, divine nature of the appointed times revealed by angels, as well as the meaning of the observation of these testimonial times:

... for they can neither [come b]efo[r]e or after their appointed times ... and He established times of favor for those that see[k] his commandments and for those that walk on the path of integrity. [And He uncovered their eyes to hidden things and] they opened their [ e]ars and heard profundities, and they understood [all that is to be before it comes upon them] (4Q266 frg. 2, 2-6; *DJD XVIII*, p. 31).

The three hundred and sixty-four days of the year and their numerical divisions, as described above, constitute the axis that distinguishes this tradition from the conventional biblical tradition, which does not specify the number of days in a year; nor does it count a fixed number of weeks, nor explicitly refer to the number of hours, seasons or days in the month. The number 364, so prominently in all writings of the secessionist priests found at Qumran, the basis for the synchronization of the two divisions of the time continuum – four- and twelve-based, as against seven- and thirteen-based – was brought by Enoch from heaven.

Enoch, who transcended time, to whom the mysteries of the heavens, the laws of nature and the secrets of the calendar were revealed by Uriel, the archangel of the "Sons of Light" whose scrolls were discovered in the Qumran caves, was also a scribe, prophet and priest in his earthly life, the source of testimony and human knowledge concerning the eternal calendar and the heavenly secrets relating to priesthood and cult, to angelic companies and cosmic order. A tradition from the first century CE cites Enoch's detailed account of the numerical cosmic knowledge he had learned and their written transmission in book and number:

I know everything, and everything I have written down in the books, the heavens and their boundaries and their contents. And all the armies and their movements I have measured. And I have recorded the stars and the multitude of multitudes innumerable .... The lunar circle I have measured .... I appointed four seasons, and from the seasons I created four cycles, and in the cycles I appointed the year, and I appointed months, and from the months I counted days, and from the days I measured off the hours.... (2 En.[J] 40:1-6).

He is described in similar terms in an ancient tradition found in Ben Sira, written at the beginning of the 2nd century BCE by a priest who described the Temple and its rites in the time of the Zadokites: "Enoch [was found] to be perfect and walked with the Lord and was taken, a *sign of knowledge* to all generations" (Ben Sira 44:16). Ben Sira sings his praises among the patriarchs of the world and alludes to his relationship with the angels of the Presence: "Few like Enoch have been created on earth; he also was taken up to the Presence" (ibid. 49:14). In the fragments of the *Book of Jubilees* found at Qumran, the angels describe Enoch's role, linking heaven and earth with knowledge of *te'udah* (predestined history), *mo'ed* (appointed time) and *'edut* (testimony):

[And he wrote down in a book the signs of the sky according to the order of their months, so tha]t [the sons of men] would know [the cycles of the years according to the orders of all their months. He was the [fir]st [to write a *te'udah*, and he testified to the sons of man in the generations of the earth. The weeks of] the [jubilees].

Testimony and knowledge of heavenly origin, writing and counting to angelic dictation, memorialization and computation of time by divine decree – such are the characteristic traits of Enoch the scribe, who knew the laws of heaven and the history of earth and time, who saw past and future, remembered, testified and recorded in writing the laws of heaven and earth and the statute, commandment and justice founded upon those laws. The details of his testimony and his computations are set out at length in many chapters of the books of Enoch. The end of his terrestrial life, which took place beyond time and place, is recounted in the *Genesis Apocryphon* from Qumran and told by the angels in the *Book of Jubilees*:

And he was taken from among the children of men, and we led him to the garden of Eden for greatness and honor. And behold, he is there writing law and judgment forever ... for he was put there as a sign and so that he might bear witness to all of the children of men, so that he might relate all of the deeds of the generations until the day of judgment (Jub. 4:23-24).

The concept of "sign" is associated with Creation and signs in the heavens, with the order of time, with the sign of the covenant, with Sabbath and cosmic testimony, with an oath dependent on cyclic seven-based order, with heavenly knowledge and measurement of time; the root of the Hebrew word for sign, *ot*, is related to that of the Aramaic verb *ata*, "to come", alluding to Enoch, who constantly comes and goes. When Enoch ascended to heaven, the angels revealed to him divine knowledge of the laws of nature, the secrets of the heavenly signs (astronomy), the changing of the seasons (meteorology), the secrets of the computation, history and pattern of cosmic time; thus Enoch holds within himself all knowledge of the orderly march of time in the divine and human world alike. He himself is a bond between this heavenly knowledge and earthly testimony, or between knowledge, predestined history, testimony and appointed times. Like the eternal signs of the heavens, he bears witness to the relationship between heavenly and earthly time and the cultic calendar; he guarantees the realization of the march of history, just as the laws of nature, the signs of the heavens and the cycles of fertility and procreation are constantly acting, for it is he who testifies in his super-temporal life to their progress. Enoch forms a link between the eternal heavenly calendar – correlated with the laws of nature and the four seasons of the year, divided into weeks of days and attested by the cyclic calendar of the Temple, divided into sabbaths of days and appointed times in a fixed liturgical-cultic order – and the historical-eschatological terrestrial calendar, divided into sabbaths of years, of sabbaticals and of jubilees, attested by the heavenly tablets and the angelic-priestly myths. In the world of the priests of righteousness, who inherited the teaching of Enoch – the righteous scribe (1 En. 1:12:4; 2 En.[J] 33:3-36:1; Jub. 4:23), father of the eternal, infinite signs and numbers, which subdivide and recombine *ad infinitum* in a predestined, cyclic, divine order – history, past and present, as recorded in the heavenly tablets, are immutable, thus ensuring justice and proper recompense as a basic principle for those who walk in the paths of righteousness.

Diverse traditions recorded in the Enoch literature describe how Enoch transmitted the testimony concerning the knowledge and justice imprinted in the calendar of Sabbaths and seasons, in the history and laws written on the heavenly tablets, to his children, guardians of that knowledge, founders of the priestly line – Methuselah, Lamech and Noah (1 En. 79:1; 81:6; 82:1-20; 83; 92; 93; 2 En.[J] 39-55; Jub. 7:38-39; and the Enoch fragments from Qumran). Other traditions in the same works, which describe at great length the circumstances under which the angels revealed the solar calendar and the meaning of its seven-based pattern, imply

a relationship between the divine origins of time, its fixed seven-based pattern derived from the seven days of Creation and the fifty-two weeks of the solar year, divided into four symmetric seasons of thirteen Sabbaths each, on the one hand; and the eternal, cyclic laws of nature, as represented by the twenty-four hours of the day, the four seasons of the year, and the thirteen cycles of the waxing and waning moon and of human fertility ( $7 \times 4 \times 13 = 364$ ), on the other. This relationship is embodied in the unchangeable, numerically and computationally based solar calendar, which is regarded as testimony to the divine march of sacred time and scrupulously observed by the guardians of the sacred rites, divisions of angels in heaven and twenty-four priestly courses on earth. This adherence to the solar calendar, first communicated to humanity by angels who imparted it to a man who became an angel, was construed as *imitatio angelonim*, as imitation of the angelic sacred service in sacred heavenly space – the service that brought together eternal knowledge, testimony, predestined history, mission, sign and appointed time with covenant. Sabbaths and weeks, as reported by the angels who tell the mythological story of Enoch, attesting to the heavenly origins of the solar calendar, in the Book of Jubilees.

The *Book of Jubilees*, devoted entirely to the seven-fold structuring of historical and ritual time, retells the story of Enoch, seventh patriarch of the world – scribe and narrator, who learned the mysteries of the universe and the secrets of its numbers from the angles; founder of the priesthood and father of cultic terrestrial time – from the angelic viewpoint of the guardians of the seasons and appointed times in the heavens:

This one was the first who *learned writing and knowledge and wisdom*, from among the sons of men, from among those who were born upon earth. [And he wrote down in a book the signs of the sky according to the order of their months, so tha]t [the sons of men] would know [the cycles of the years according to the orders of all their months. He was the [fir]st [to write a *te'udah* and he testified to the sons of man in the generations of the earth, the weeks of] the [jubilees]. He recounted the days of the years, and the months he set in order, and the Sabbaths of the year he recounted, just as we made it known to him. And he saw what was and what will be in a vision of his sleep as it will happen among the children of men in their generations until the day of judgment. He saw and knew everything and wrote his *testimony* and deposited his *testimony* upon the earth against all the children of men in their generations (Jub. 4:17-20; passage in braces corrected as in *DJD XXIII*, 213).

The seven divisions of time – signs, months, seasons, weeks, days, Sabbaths of the year and weeks of jubilees – are associated with testimony and predestination, book and knowledge. The association with the tablets of the testimony and the order of Sabbaths and festivals immediately suggests itself; here, however, the origin of



these divisions of time is angelic, and their revelation predates the traditional historical order, which links the tablets of the testimony with the Theophany at Sinai, by about forty-nine jubilees. A fragment of Jubilees found at Qumran preserves the remnants of a similar formulation, which also indicates the angelic origin of that knowledge and Enoch's testimony thereto:

... [E]noch after we *taught him*... six jubilees of years... [[returned to]] [the e]arth among the sons of mankind. And he *testified* against all of them... and also against the Watchers. And he wrote all the [[laws of]] the sky and the paths of their host and the [mon]ths... [so] that the ri[g]hteous] should not err.... (DJD XIII, p. 173 )

The thirteen *Songs of the Sabbath Sacrifice*, which are arranged according to the thirteen Sabbaths of the quarters/seasons in the solar calendar and repeated cyclically in set order four times a year, provide numerous indications of the profound affinity between the concepts of *da'at* (knowledge), *'edut* (testimony), *te'udah* (predestined history), *mo'adim* (appointed times), *'ad* (eternity) – words with the same or similar roots in Hebrew. They clearly shows that the order of time, its cyclic pattern and its perpetual subdivision – “things which are eternally appointed” – derive from a fixed, divine order, preordained from beginning to end, and from eternal celestial lore or “wonderful mysteries” imprinted in nature and kept by the angels:

For from the God of knowledge came into being everything which exists forever. And from His knowledge and His purposes have come into existence all things which were eternally appointed. He makes the former things in their seasons and the latter things in their due time. ( Newson, Songs of Sabbat Liturgy p. 168)

Or:

When, as *ordained for them*, they come into being, it is in accord with His glorious design that they accomplish their task without change. (Community rule 3,16)

Similar formulations, associating the eternity of the laws of nature with that of the laws of time, occur in the *War Scroll* and the *Thanksgiving Hymns*:

... at every moment and at the times indicated [*mo'adei*] by your eternal edicts [=t'udot 'olamim] at the onset of day and at night at the fall of evening and at dawn. (war inscroll)

... of the sacred seasons [*mo'adei qodesh of the cycle of years [teqifot shanim] and the ages of eternity [qizzei'ad]* ... We have known these through Your knowledge...

And you will share it out among all their offspring according to the number of their eternal generations and for all years continuously... and in the wisdom of

Your knowledge You have determined their course [= *t'udatam*] before they came to exist ... These tilings I know through Your knowledge. (war scroll 10,15–16).

Heavenly knowledge of the divisions of time and its cyclic nature, the eternal, deterministic aspect of Creation, of the laws of nature and its cosmic order, divided into quarters/seasons and eternally appointed sevenfold festivals, preordained by God since the beginning of time, was inscribed in the heavenly tablets and imparted to Enoch by the angels. This knowledge, expounded, as we have already observed, in the books of Enoch and Jubilees and in Qumran literature, is the source of the testimony for the cyclic weekly worship of the twenty-four priestly courses, celebrated in a continuous, seven-based cycle of fifty-two weeks, divided into four thirteen-week seasons – “all their sevenfold predestined histories”, “holy weeks in their fixed order ... sabbatical years of the earth in their divisions” – this knowledge bears witness to the mystery of the order of divine time:

8 ... kind deeds and virtuous humility, and true kindness and eternal mercies. And wo[ndrous]mysteries  
 9 when th[ey app]ear and holy weeks in their fixed order, and divisions of months,  
 [10 beginnings of y]ears in their cycles and glorious festivals in times ordained [for them,  
 11] and the sabbatical years of the earth in [their]divi[sions and appo]inted times of liber[ty  
 12 ] eternal and generations and [  
 13 ]light and reck[onings of... [DJD XI p.13]

Such phraseology, creating an association between the division of heavenly and earthly time – “their divisions/their cycles” – and the division of set times in the sacred service – “glorious festivals in times ordained” – indicates the preordained regularity of divine time, its relationship with the eternal laws of nature, its deterministic significance, the eternity of the calendar (“everything which exists forever”) and the role of the calendar, as testimony to the divine covenant that weaves together natural and metahistorical order. This cultic temporal pattern schedule links heaven and earth in an angelic and priestly worship that describes a recurrent cycle of testimony, remembrance, observance and perpetuation, of Sabbaths and festivals, weeks and months, changes of time and cycles of years, preordained since the beginning of Creation.

The history of the earth, as recounted in sequence, from beginning to end, in terms of sabbaths of years, sabbaticals, jubilees and ages and years, and the cyclic division of time into sabbaths of days, months, appointed times and days – both are associated with the seven-based divine order and heavenly testimony. The seven-based relation between sabbatical and jubilee years ( $7 \times 7 + 1$ ) is the same as the

relation between Sabbath and festival; the Temple festivals were celebrated at intervals of seven weeks after seven Sabbaths, on the fiftieth day, as we shall see. The seventh day is the axis around which the solar calendar, measured out in Sabbaths of the year and learned from the angels of the Presence, was computed; for the seventh day, the Sabbath, is the consecrated day, observed *together* with the angels in heaven and earth, as we learn from the *Book of Jubilees* in its Qumranic version:

He gave us a great sign the Sabbath [day] on which He ceased ... and that we should keep Sabbath on the se[venth] day from [all work. For we – all the angels of the Presence and all the angels of holiness – these [two] kinds – He to[ld us to keep Sabbath with Him in heaven and on earth. He said to us: “I will now separate for Myself] a people among My nations. And [they will keep Sabbath. I will sanctify them as My people and I will bless them. They will be My people and I will be their God.] And He chose the descendants of Jacob ... [...I... have sanctified them for Myself] for all the age[s] of eternity. The [seventh] day [I will tell them so that they keep Sabbath on it from everything”, as He blessed them and sanctified them for Himself as a special people] out of all the nations and to be [keeping Sabbath] *together* [with us].

The solar calendar is portrayed in Qumran literature as a kind of window between divine time and space, on the one hand, and human time and space, on the other; or between angelic time in sacred heavenly space and priestly time in sacred terrestrial space, on the other. It reflects a preordained, cyclic schematization of time: Sabbaths, new moons and festivals, always falling on fixed, predetermined days of the week, never clashing with one another, preserving the unique sanctity of the Sabbath. The year comprises 364 days, divided into twelve gates in the heavens through which the sun enters and leaves (1 En. 72:3-33; 74:10-13), paralleling the twelve months of the year [or 365 days, where the added day, a Thursday, is not counted and was probably used to make up the discrepancy between the ritual figure of 364 and the actual figure of the earth's revolution around the sun in 365<sup>1</sup>/<sub>4</sub> days]. The year divides into two equal parts, each twenty-six weeks long, counted from the first of the first month [Nisan] and from the first of the seventh month [Tishri]; and into four annual seasons, whose computation derives from the story of the flood, which provides the calendar with a computational substrate inasmuch as it describes a 364-day year divided into four quarters (Jub. 6:23-29; Gen. 5; *Genesis Commentary*, 4Q252 each of which comprises thirteen Sabbaths; the flood story also refers to twelve months in a year, each consisting of thirty days. (The four missing days will be discussed below).

The months of the year are specified by numbers, not by names, so that the liturgical order of the thirteen Sabbaths may be repeated, and in fact on the same date, in each of the four seasons. Each month of the solar calendar is 30 days long

except for those ending the four seasons – the third, sixth, ninth and twelfth – which have an added, intercalary day, counted as the first day of the new season and called a “sign” or “day of remembrance”. Thus the year comprises 364 days, counted in cycles of thirteen Sabbaths in each of the four ninety-one-day seasons (1 En. 82:14-20; Jub. 6:23-30).

The four days of remembrance, also called *degalim* or *pega'im*, mark the division of the year according to the flood story; they are the first days of the astronomical seasons of the sun's progress through the heavens and separate the four annual seasons. In the first month [Nisan] and the seventh [Tishri], the days of remembrance mark the equinoxes, when the sun stands vertically above the earth's equator and day and night are of equal length – these days mark the beginnings of the respective half-years. In the fourth month [Tammuz] and the tenth [Tevet] the days of remembrance mark the solstices: the summer solstice, the longest day in the year; and the winter solstice, the shortest.

Each of these four seasons begins on a Wednesday – the day on which the luminaries were created, and divides, as already noted, into thirteen weeks, the basis for the cyclic liturgy of the thirteen *Songs of the Sabbath Sacrifice*. All these fourfold divisions, relating to the astronomical seasons of the suns progress through the heavens, taken together, reflect fifty-two Sabbaths, designating the weekly units of time, arranged in sevenfold cycles in an inviolable, divine, cosmic structure:

And on the first of the first month and on the first of the fourth month and on the first of the seventh month and on the first of the tenth month are the days of remembrance and they are the days of appointed times in the four parts of the year. They are written and inscribed for an eternal witness .... And they set them upon the heavenly tablets. Each one of them is thirteen weeks from one to another of the remembrances, from the first to the second, and from the second to the third, and from the third to the fourth. And all of the weeks which will be commanded will be fifty-two weeks of days, and all of them are a complete year. Thus it is engraved and ordained on the heavenly tablets, and there is no transgressing in a single year, from year to year. And you, command the children of Israel so that they shall guard the years in this number, three hundred and sixty-four days, and it will be a complete year. And no one shall corrupt its appointed time from its days or from its feasts because all (of the appointed times) will arrive in diem according to their testimony. (Jub. 6:23-32)

This calendar, based on a fixed mathematical computation of weeks, guarantees that the thirteen Sabbaths of each season will fall on fixed, identical dates every three months (ninety-one days), each three-month period constituting one of the four agricultural seasons: early harvest, summer time, sowing and grass (*Community Rule X*, 7). It also guarantees that the festivals will fall on fixed days not only in each month but also in each week; for it is based on the principle that the first day of

the new year, known as "commemoration of the horn-blowing", always falls on Wednesday, the day on which the heavenly bodies were created; and the same is true of Passover and the Festival of Booths; the Day of Atonement always falls on Friday and the Festival of Weeks on Sunday, the fifteenth of the third month, on the morrow of the Sabbath, seven weeks after the elevation of the *'Omer* – counted in this calendar from the first Sabbath after the end of the Passover festival and invariably celebrated on Sunday, 26 of the first month [Nisan]. The three pilgrimage festivals thus always fall on the fifteenth of the month, in the first month [Nisan], the third [Sivan], and the seventh [Tishri].

The first Sabbath of each quarter will always fall on the fourth of the first month, the second Sabbath on the eleventh of the first month, the third on the eighteenth, and so on, in cycles of seven days, up to the twelfth Sabbath, which will fall on the twenty-first of the third month, and the last, thirteenth Sabbath, which will always fall on the twenty-eighth of the third month. Thus the Sabbaths occur on the same dates in all four seasons, and no festival (or other "set time") will never coincide with a Sabbath. It is striking that the number of days in a season, ninety-one, obtained as a product of the thirteen weeks in each season, is also the number obtained when one adds up all the natural numbers from 1 to 13 ( $1+2+3+\dots+13=91$ ). The ninety-first day of each season is always a Tuesday, after which the new season begins, with an identical count: ninety-one further days, divided into thirteen Sabbaths, and so on. Thirteen is also a number of cardinal importance in computing the times of the new moon and its full phase, and in the computation of the cycles of feminine fertility: every four weeks, thirteen times a year, these cycles are repeated ( $13 \times 28 = 364$ ), marking the waxing and waning of the moon, on the one hand, and the peak of fertility in a woman's body, on the other, after the seven days of purification incumbent on every woman.

In this calendar, with its underlying mathematical beauty, harmonic symmetry and eternal, preordained cyclic pattern, the dates of Sabbaths, festivals and cycles of years can be calculated in advance, as can the terms of office of the priestly courses, which give their names to the weeks. The sanctity of the seven-based calendar, a divine gift to humankind from on high, observed in heaven and earth by divisions of angels and priests, week after week, is celebrated in the books of Enoch, the *Book of Jubilees*, the *Songs of the Sabbath Sacrifice*, the *Psalms Scroll*, the *Calendars of Priestly Courses*, the *War Scroll* and in fact throughout Qumran literature, the literature of the seceding priests who fought to uphold the sanctity of their solar calendar of 364 days. The Masoretic Text of the Bible makes no explicit reference to the number of days or weeks in the year; as told in *Jubilees*, the story of the flood, the basis for computations of the structure of the year, differs in certain numerical respects from the biblical account: In Genesis the story extends over 364 days, from the 17th of the second month to the 27th of the second month in the next year, comprising one (lunar) year plus ten days ( $364 = 354 + 10$ ); the *Book of Jubilees*, in contrast, counts 364 days beginning and ending on the same date, the 17th of the

second month, and counted as a full year ( $12 \times 30 + 4 = 364$ ), a subdivision confirmed in Qumran traditions as well.

For the authors of this literature – the members of the Community, known in Hebrew as *theyahad*, literally “together”, who pictured angels and priests as joint custodians of the calendrical order – any violation of the sequence of properly dated Sabbaths in each season, or of any other aspect of calendrical regularity, constituted a sin. It would be a breach of cosmic order and divine law, a desecration of the cult, of the oaths and, covenants concluded between heaven and earth, which are celebrated by predetermined priestly courses on special festivals – always falling on the same, preordained days of the week and of the month. Their liturgy assigned the *Songs of the Sabbath Sacrifice* and the Psalms of David to fixed days in a seven- and fourfold cyclic order: the *Songs of the Sabbath Sacrifice* are correlated with one quarter of the years’ Sabbaths and are recited four times in a fixed cyclic order. In addition, the Psalms may also stand in some such cyclic relationship to one quarter of the year’s days; thus, in combination with the songs for new moons, festivals and the days of remembrance, mentioned previously, the members of the Community envisaged a complete liturgical calendar, prescribing a regular, permanent cycle of songs over each season, repeated four times a year. Violation of this all-embracing, fixed ritual order would be punished by a parallel, divinely wrought disturbance of nature, bringing doom and destruction on earth.

Diverse problems relating to this calendar – historical, ritual, mathematical and practical – have been dealt with in the scholarly literature. What still awaits discussion, however, is its mystical significance: a seven-based pattern or prototype linking heavenly with earthly, buttressing the correlation between the divine origin of time and its cosmic heavenly prototype, dependent on the seasonal solar cycle, on the one hand, and its cultic representation, repeated every seven days in a cycle of thirteen Sabbaths in all four seasons of the solar year. This eternal order was maintained by priestly courses, each serving a particular week and changing over on the Sabbath, and by septuples of angels in heaven; priests and angels together sang their sacred songs in a cycle of thirteen Sabbaths. The seven-based solar calendar, demonstrating the continuity of the structure of divine time in a cyclic, horizontal sequence, was a crux of mythical and mystical identification, a major bone of halakhic and cultic contention between the secessionist priesthood, who held fast to their fixed solar calendar of Sabbaths, and the official priests of the Temple, faithful to their variable lunar calendar.

The literature of the secessionist priesthood waged war, both directly and indirectly, against the lunar calendar – an arbitrary calendar of days based on changeable human discretion, dependent on the senses; instead, they championed the solar calendar – a sacred calendar of Sabbaths based on a fixed seven-based computation of divine origin, an abstract numerical principle confirmed by angelic testimony. In this context a central role was assigned to the figure of Enoch, who himself, in his admonition to his sons the priests, declares his “sabbatical” and

seven-fold identity: "I was born the *seventh* during the first week, during which time justice and righteousness continued to endure" (1 En. 93:3), and then goes on to describe how he acquired angelic knowledge of the solar calendar and imparted that knowledge to his sons (ibid. 79-82; 92-93). Enoch is referred to in Jubilees (4:23-24) as a *sign*, a term normally reserved for the Sabbath (Ex. 31:13; Ezek. 20:12), the sun, the covenant and the eternity of natural laws.

What was at stake was not the calendar *per se*, but the very foundations of the perception of sacred time, place and cult. It was a struggle *against* an unstable time concept, based on arbitrary human determination, on unreliable human observation of the new moon; on erroneous, fluctuating calculations of the set times of the calendar, deriving from human consecration of time and adjustment of time to changing realities. It *advocated* a time concept founded on the laws of nature, on divine revelation, reflected in the cosmic order of annual seasons and hours of light; a cyclic time measured out in Sabbaths, featuring an eternal, immutable, mathematical structure, whose liturgical and cultic cycles were witnessed, celebrated and preserved by priests and angels in concert, *together*. Priests and angels alike consecrated this heavenly time, maintaining an eternal, unbroken continuity in a prescribed order, through a system of covenants, through an immutable, harmonic, symmetric mathematical calculation, to which they bore witness in the words of their cyclic liturgy. The priests, perpetuating the continuum of weeks through the designations of the twenty-four courses, in cyclic sequences recurring every seventh year, offered up the Sabbath sacrifice once every seven days, as well as the sacrifices prescribed for the Temple festivals, celebrating first fruits and agricultural yields, which fell once every seven weeks on fixed dates in the first seven months of the year; in parallel, the angels performed their heavenly worship, observing the Sabbaths and the set times in the supernal worlds.

The lunar calendar of antiquity was not a fixed calendar; neither months nor years were of fixed length, and festivals did not fall on fixed days, for the month was consecrated on the basis of visual observations. The calendar was calculated each time anew, depending on the astronomical situation, relying on recurrent sightings of the moon and hence on human eyesight, earthly discretion and the decision of a human court which had to make allowance for various circumstances when determining the new moon and hence the festivals. The struggle between the lunar and solar calendars was a struggle between a flexible, human calendar, not bound by a fixed, cyclic, numerical pattern but dependent on the inconstant, unpredictable human reading of nature and subordinate to changing earthly needs; and a mythological calendar, at one with the laws of nature, dependent on the divine reading of nature, predetermined from beginning to end, eternally correlated with the four seasons, the solstices and the equinoxes. Put differently, it was between a *changeable* calendar based on malleable human observation and eyewitness reports, on variable calculations and sanctification by human beings, and an *unchangeable* calendar of sacred origin, based on a fixed mathematical calculation of the eternal

cyclic pattern of the cyclic motions of the sun, relying on consecration by angels and priests.

The solar calendar, representing an immutable relationship between Sabbaths and festivals in heaven and on earth, was agriculturally based, marking such events as the first produce of barley, grain, wine and olive oil, the harvesting and ingathering of crops; it bound together nature and ritual, being founded on the postulate that time and its divisions were divine, that the Sabbath had been imprinted upon nature since the seven days of Creation. The adherents of the solar calendar argued that the *festivals fell on days prearranged by divine decree*, in keeping with the biblical verse, "These are the set times of the Lord, the sacred occasions, which you shall celebrate each at its appointed time" (Lev. 23:4); "appointed time", they argued, implied an eternally fixed date, dependent on the cyclic movements of the sun and observed in heaven and on earth. Whereas the believers in the sanctity of the lunar calendar stressed the second person plural, "*you shall celebrate*" implying human determination of the times of the festivals, as expressed by consecration of the new moon on the basis of human sightings of the crescent moon, which was not subject to any priestly-angelic pattern of cyclic recurrence. It was a human court that heard the human witnesses and on that basis, by consecration of the new moon, established the dates of the festivals:

These are the appointed times of the Lord, holy convocations, which ye shall proclaim at their appointed times, [which means to say that] whether they are proclaimed at their proper time or not at their proper time, I have no appointed times save these. (Mishnah, R. H. 2:9).

According to some authorities, the author of this statement, R. Akiva, made the inference from the defective spelling of the Hebrew word *otam*, "them", referring to the "set times", which could also be read as *atem*, "you". This is the gist of a *barayta* (tannaitic teaching) cited in the Babylonian Talmud (R.H. 25a):

The text says, "you" "you", "you" three times [i.e., the word *otam* (them) in Lev. 22:31, 23:2 and 23:4 is read *a fern* (you) for homiletical purposes], to indicate that "you" [may set the appointed times] even if you err inadvertently, "you", even if you err deliberately, "you", even if you are misled.

And a similar exposition is offered in the Halakhic Midrash *Sifra*: "If you proclaim them, they are my set times; if not, they are not my set times" (*Sifra* Emor, 10:2). In other words: there are no appointed times (*mo'adim*) other than those announced and celebrated by the sages of the court, regardless of whether they have been set for the "proper" time.

The cardinal religious importance that the Rabbis attached to the consecration of the appointed times by the court – a human agency – emerges from many traditions and is in direct contrast to the priestly position. Sages in the Land of Israel fought



for centuries to maintain this exclusive right. Vestiges of the controversy echo in the well-known polemics between the Pharisees and the Sadducees (or between the Rabbis and the Boethusians) as to the meaning of the expression "the day after the Sabbath" (Lev. 23:11, 15), which determines when the counting of the 'Omer begins and hence when the Festival of Weeks is to be celebrated (BT Men. 55b-56a): The Sadducees [= Zadokites!] count from the day after the first Sabbath after Passover, i.e., from 26 Nisan, and the Festival of Weeks is celebrated seven weeks later, on Sunday, 15 Nisan. It is also reflected in disagreements as to the date of the Day of Atonement, mentioned in the Mishnah in relation to the reliability of witnesses, and in the Qumranic work *Pesher Habakkuk* in relation to persecution of the secessionist priesthood and calendrical controversy.

All these manifestations of the controversy may be summarized as follows. On the one hand was a deterministic perception of time, of heavenly origin, bound up with the cyclic laws of nature as reflected in a fixed solar calendar whose festivals fell not only on fixed dates of the month but also on fixed days of the week, a calendar maintained unchanged by angels and priests who attested to its divine origin, recording its heavenly character in their written documents and declaring, as it were, "It is in heaven." On the other was a perception of time dependent on variable, human decisions, governed by observations made by ordinary mortals, as reflected in a changeable, lunar calendar, maintained by leaders who derived their authority from the people as a whole, by a court which heard testimony from any witness, took terrestrial interests and the good of the community into consideration and invoked, as a crucial principle, "It is not in the heavens" (Deut. 30:12).

The primeval roots of the conflict lie in two myths: one describing the establishment of the laws of nature and the founding of the cycles of creation on opposites and their separation; and the other concerned with the violation of the proper natural order by failure to recognize and separate those opposites. These myths recount the spiritual cooperation between angels and human beings, the separation of unlike and incomparable entities; they tell the story of creation and flood, order and chaos, righteousness versus evil, sanctity and purity as against impurity and corruption. The first element in each of these pairs is based on delimitation, on the recognition of boundaries, on the precise measurement of quantities and numbers upon which life itself depends; while the second represents confusion and disorder, blurring of boundaries and disregard of measurement and number, leading to death. These are myths of life and fertility, of cyclic recurrence and eternity adhering to a divine order based on separation, division and counting, on differentiation between permissible and forbidden (calendar and law, set time and testimony, sanctity and purity); but they are also concerned with death and oblivion due to infringement of that divine order, anarchy and chaos, violation of boundaries, corrupt counting, defiance of authority and disregard of prohibition (false calendar, arbitrariness, impurity and corruption). These myths, relating to priests and angels, are set in the context of the first chapters of the book of Genesis,

which describe a time when the passageways between heaven and earth were still open. They aim to explicate the establishment of the basic patterns of sanctity and purity, on the one hand, and sin and impurity, on the other; they describe the formation and violation of the divine order and discuss the holy origin of the solar calendar, representing the existence and maintenance of divine order, and the sinful origin of the lunar calendar, representing the violation and corruption of that order.