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Aspects of the Calendar of the Hebrew Bible and its Theological Significance

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ASPECTS OF THE CALENDAR OF THE HEBREW BIBLE AND ITS THEOLOGICAL SIGNIFICANCE

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by

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My parents, Ira and Lucille Blanco, are due my constant love and devotion for their unflagging support of my education, including great

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non tam studiosi quam otiosi hominis

St. Jerome, Ad Vitalem

INTRODUCTION

The aspects of the calendar of the Hebrew Bible considered in this thesis are three. First, we will appraise the evidence regarding the nature of the calendar, whether a lunar, solar, or luni-solar calendar is most likely to have been in use in Old Testament Israel. Second, we will weigh the evidence regarding the structure of the Hebrew calendar, focussing on the beginning and ending points of the year. Did the year begin in the fall or the spring in the Old Testament? Or, were there two points of reckoning for the year? Third, we will assess the evidence regarding the control and understanding of the calendar in Israel. Did the priests have complete authority over the calendar? Was the average Israelite layman uninformed about the calendar's operation? What was the connection of the calendar to Israel's faith life?

Throughout the thesis we will pay attention to the theological ramifications of calendar studies. Lack of data is a curse upon our topic; many questions are unanswerable because the evidence simply is not present. Yet, because of the lack of data, the theological importance of one's hermeneutical standing becomes highly significant. Our thesis becomes a case study of how differing hermeneutical presuppositions can affect the outcome of texts whose basic meanings are generally beyond dispute. In addition to citing the theological significance of one's hermeneutical stance for the study of the Hebrew calendar, we will also assess the implications of certain calendar suggestions that may

assist the exegete in understanding troublesome portions of interpretation.[1] Finally, we will seek to relate the Hebrew calendar to the purpose of all Christian theology, the work of redemption in Jesus Christ.

Our thesis is limited to the Hebrew Bible. In placing this limitation, we are aware that pertinent evidence from the Septuagint and the Qumran manuscripts resides outside our scope of investigation. We believe this is necessary for two reasons. First, a practical consideration of space is involved. The material within the Hebrew Bible itself is more than enough to occupy a researcher. Both the Septuagint and the Qumran materials present areas of evidence that are massive and significant enough as to warrant their separate treatment. Second, there is some debate respecting the application of these two areas of study to a study of the Old Testament. The variant readings of the Septuagint call into question what Hebrew text this translation has utilized. Further, the time of the Septuagint's translation is far enough removed from the time of the bulk of our evidence as to call into question its usefulness in helping us understand the Old Testament calendar. Perhaps influenced by the calendar of its own day, the Septuagint may have little real information about Old Testament usage. Likewise with the applicable Qumran materials, especially the calendar presented in the Book of Jubilees. While we will consider the calendar of Jubilees insofar as it is suggested by some scholars as one used in the Old Testament, we will not immerse ourselves into the mass of data Qumran studies have produced.

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[1]Indeed, it is this area that first piqued our curiosity about the calendar of the Hebrew Bible. A class assignment introduced us to Sidney Hoenig's hypothesis about intercalation and the Jubilee year (see Chapters 2 and 4). We wondered if a study of the calendar might produce insights into other perplexing areas as well.

Our study, limited to the Hebrew Bible, is meant to provide a basis for understanding the calendar therein contained. This foundation is a first step toward better understanding the calendars of the Septuagint and the Qumran materials.

Neither will we be investigating in any detail the nature of the festivals of Israel's calendar. This, too, is an area of separate research. Our activity has to do with the nature, structure, and use of the calendar itself.

In restricting our topic to the Hebrew Bible, we are not intending to enter the current debate on the implications of that term. "Hebrew Bible" is one of the suggested alternatives to "Old Testament" (as is "Hebrew Scriptures"), its purpose being to avoid any connotation that these texts are inferior to the New Testament. Judaism and parts of Christendom object that "Old Testament" slurs the Jewish faith, implying its incompleteness. Our ecumenical age strives to refrain from offending anyone. Consequently, in many academic circles, "Old Testament" is becoming a usage of the past. While we are not seeking to slur anyone's religious conviction, neither will we surrender our own. We will use the term "Hebrew Bible" as a synonym for the Old Testament. Proceeding from the tenets of confessional Lutheranism, we attest to the Old Testament as fully God's Word, but a word spoken in anticipation of the fulfillment of its covenant in the appearance and work of the Messiah, Jesus Christ. Thus, Hebrew Bible and Old Testament are used interchangeably in this thesis.

The purpose of the thesis is twofold. We endeavor to provide the exegetical base for the understanding of the calendar used by God's

people in the Old Testament. There is, of course, a certain heuristic value to our topic for Old Testament studies at large. Beyond that, we find our study to be unique in its approach. Apart from the confessional position outlined above, we came to the texts without any preconceived notions about the nature, structure, and use of the Hebrew calendar. Conversely, the vast majority of works on the calendar are undertaken to prove a particular point of view. As such, these works may or may not consider evidence that is contrary to their position, and virtually none of these works will consider a position apart from their own hermeneutical stance. Our conclusions will certainly flow from our own hermeneutics, but in presenting the evidence we have sought to be as objective as possible. Rather than seeking to prove a particular calendar's use in the Old Testament, we have tried to draw from the evidence the calendar that was most probably used.

A second purpose of our topic is to discover the practical implications of Israel's calendar. A calendar is a part of life so ingrained in daily affairs that one is not surprised when calendar reckoning does not receive formal treatment in a society's literature. How did this intimate part of Israel's life effect its religious celebrations? Further, was the calendar complementary to Israel's faith, and if so, in what way? That is, did the calendar assist Israel in understanding its place before God in salvation history? Or, was the calendar simply a tool with no salvific significance at all?

We deem our study useful, then, because it gathers together in one place the calendar hypotheses that have been proposed in the modern era. This thesis is useful, too, because it performs this study from the

unique attitude of confessional Lutheranism, an attitude concerned with relating all of exegesis and theology to the cross of Christ. We hold that an understanding of the workings of the calendar in the Hebrew Bible will assist us in that task of glorifying the crucified and risen Savior.

It is said of Winston Churchill, with some irony, that he hated verbosity. Presented at a cabinet meeting with a lengthy analysis by a middle-level civil servant, Churchill responded, "This paper, by its very length, defends itself against the risk of being read."[2] While our thesis is lengthy, we hope the reader will find it worth the risk of reading.

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[2]Quoted in William Manchester, The Last Lion, Winston Spencer Churchill: Visions of Glory (New York: Dell Publishing, 1983), 31.

PART I

NATURE OF THE CALENDAR

CHAPTER 1

EVIDENCE FOR A PRIMARILY LUNAR RECKONING

Only a few scholars maintain that the calendar of the Old Testament was based on a purely lunar or solar reckoning, but many scholars do find evidence that the calendar was primarily based on a lunar reckoning. That is, many scholars argue for a lunar calendar that has been modified to incorporate solar calendar features. In this chapter we will examine the evidence typically adduced for a primarily lunar calendar and several unique arguments for a primarily lunar reckoning. In addition, since we deal in this chapter most fully with the Hebrew month, we will examine the validity of dating a text on the basis of the naming and numbering of the months in the Old Testament.

Typical Arguments for a Primarily Lunar Reckoning

The evidence that is normally brought to bear in support of a lunar reckoning may be divided into two categories: biblical evidence and historical/cultural evidence.

That a lunar reckoning was primary in the Old Testament may be deduced from the Hebrew words for "month." Two roots are used, √חדש and √ירח. The former is manifested in two forms, חֹדֶשׁ and חֹדֶשׁ, meaning "moon" and "month," respectively.[1] Further, the more common

[1]Ludwig Koehler and Walter Baumgartner, Lexicon In Veteris Testamenti Libros (Leiden: E. J. Brill, 1951), 404.

word for month, חֹדֶשׁ, is derived from the root meaning "renew, repair." The adjective חָדָשׁ means "new, fresh." In its nominal form, חֹדֶשׁ, the word means the renewing of the moon, its new beginning, and hence, "new moon." From this meaning, it is but a short step for חֹדֶשׁ to mean "month" as well as "new moon."[2] Since both Hebrew words for month are linked to words referring to the moon, it is apparent that at least for month reckoning, the Hebrew calendar relied upon the cycle of the moon.

Another indication that the moon played a special role in Israel's calendar reckoning is the observation of the new moon in the cult. Numbers 28:11 stipulates the burnt offerings that are to be made at the beginning of the months. Numbers 10:10 specifies the blowing of the trumpet at the beginning of the month, an act done according to Yahweh's statute and ordinance (חֹק and מִשְׁפָּט; Ps. 81:5 [H]). The new moon is connected to the sabbath and the three appointed feast days in 2 Chronicles 8:13. These texts show that the new moon day was a special day of observance in Israel, playing a prominent role in Israel's observance of the passage of time.

Further, the full moon played a special part in Israel's cult.[3] Passover is observed at the full moon of the first month (Ex. 12:6; Lev. 23:5-6; Num. 28:16-17); Tabernacles begins at the full moon of the

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[2]Ibid., 279.

[3]As we shall see below, there is some debate as to when the month began, whether with the new moon (unseen) or with the first appearance of the first crescent of the moon (seen). If the month does not begin with the new moon, then the full moon will not fall on the 14/15th day of the month, calling in to question what follows in the above text. For the sake of simplicity at this point, however, we will assume the full moon falls at mid-month.

seventh month (Lev. 23:34; Num. 29:12); Purim is observed at the full moon of the twelfth month (Esther 9:21-22); Jeroboam's feast is observed at the full moon of the eighth month (1 Kings 12:32).[4] Although we find no statute for sacrifices at the full moon (as we do regarding the new moon), it would appear likely from the above citations that the full moon was of cultic importance to the Israelites.

The last item of the typical arguments for a primarily lunar reckoning based on biblical evidence is the reckoning of time in the flood account. Noah entered the ark in his 600th year, in the second month, on the seventeenth day[5] (Gen. 7:11). In his 601st year Noah exited on II/27 (Gen. 8:14), one year and eleven days after embarking. A lunar year (twelve months of 29.5 days) totals 354 days, approximately eleven days short of a solar year. That the flood is calculated as lasting one year plus eleven days has led to the supposition that the "year" mentioned in the text is a lunar year, but that the flood itself lasted for one solar year. Another aspect of the flood account that may point to a lunar reckoning is that the 150 days of the water prevailing upon the earth are set in apposition to a period of five months, from II/17 (beginning of the flood) to VII/17 (ark comes to rest on the mountains of Ararat). If exact figures are meant, then each month would consist of thirty days, the approximate length of a lunar month, and thus indicat-

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[4]The "full moon" is mentioned rarely (Ps. 81:4[H], בְּכֵסֶה ; Prov. 7:20, לְיוֹם הַכֵּסֶא). In the Psalm occurrence, the apparent reference is to the feast of Tabernacles. In Proverbs, the reference is to the time when the husband of the wayward woman will return home. In both instances, the full moon is used as a way of measuring time.

[5]Hereafter we follow the convention of month/day citation according to this form: month in Roman numeral/day in Arabic numeral, e.g., II/17.

ing the use of a lunar reckoning.[6]

From this biblical evidence of the Hebrew words for month, the festival character of the new moon and the full moon, and the dating of the flood, many scholars conclude that a primarily lunar reckoning of the calendar was utilized in the Old Testament.

Additional support for a primarily lunar reckoning is adduced from the historical/cultural context of the Old Testament. For an ancient culture observance of the moon's complete cycle would be much easier than observance of the of the sun's complete cycle for the simple fact that the moon's cycle is approximately one-twelfth the length of the solar cycle. Counting twelve lunar cycles to form a year would seem more likely to have happened in ancient times with a semi-nomadic people than keeping track of the sun's equinoxes and solstices. Further, the month provides a convenient subdivision of the year, readily observable, while a solar year would require constant record keeping to provide for its subdivisions.

Lunar calendars were prevalent among many of Israel's ancient near east neighbors, including Egypt (at some times in its history) and the

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[6]However, as we shall see when discussing arguments for a primarily solar reckoning of the year, the flood account is also brought forward to support that calendar type. It will be noted that a lunar month is not thirty days, but upon observation, alternately twenty-nine and thirty days, five months of which would equal either 147 or 148 days. However, the Egyptian solar calendar did follow a month of thirty days, suggesting its use in the flood account. A further complication arises when one considers that the Septuagint begins the flood not on II/17, but on II/27, making the flood last exactly one year. Whether this is a translation of a differing Hebrew text tradition no longer extant, or a scribal error, or a scribal correction of a perceived error in the Massoretic text, is open to conjecture. More on this topic is included in Chapter 2.

Mesopotamian nations.[7] It seems reasonable to assume that Israel would use a calendar similar to those used around her, especially as Israel advanced as a nation in terms of international trade during the monarchy.

One additional historical note concerns the calendar used by later Judaism. As the Babylonian Talmud shows, the calendar of the rabbis was primarily lunar, calculating all its years by reference to the new moon.[8] Of course, the evidence of later Judaism is marginal in our assessment of the calendar of the Hebrew Bible, for it is far removed from time period of the Old Testament. Nevertheless, Judaism's traditions had their beginnings somewhere, and one could argue that its lunar calendar reckoning is rooted in the Old Testament.

The foregoing arguments, as we have stated, are typical of a vast array of scholars, including individuals from widely differing theological perspectives (references cited in the footnote).[9] Hence, the evi-

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[7]Jack Finegan, Handbook of Biblical Calendars (Princeton: Princeton University Press, 1964), 23 and 29-32, respectively. Finegan concludes that Egypt did at one time use a lunar calendar, but later followed a primarily solar reckoning. See also Richard A. Parker, The Calendar of Ancient Egypt (Chicago: University of Chicago Press, 1950).

[8]I. Epstein, ed., The Babylonian Talmud, vol. 13: Rosh Hashanah, trans. Maurice Simon (London: Soncino Press, 1938), 1.

[9]Georges A. Barrois, "Chronology, Metrology, Etc.," in The Interpreter's Bible, ed. George A. Buttrick.

T. K. Cheyne and J. Sutherland Black, eds., Encyclopedia Biblica, 1899 ed., s.v. "Month."

John D. Davis, A Dictionary of the Bible, 4th ed. rev. (Grand Rapids: Baker Book House, 1954), 824.

Noele M. Denis-Boulet, "The Christian Calendar," trans. P. Hepburne-Scott in The Nineteenth Century Encyclopedia of Catholicism, 1960.

Roland de Vaux, Ancient Israel, 2 vols., trans. John McHugh (New York: McGraw-Hill Book Co., 1961), 1:179-80, 183-84.

Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

dence for a primarily lunar calendar reckoning is not dependent upon one particular hermeneutical approach.

Unique Arguments for a Primarily Lunar Reckoning

While many scholars hold to these typical arguments for a primarily lunar calendar, other scholars put forward unique positions in support of the same view. Umberto Cassuto cites the regulation that the lamb for the Passover sacrifice be chosen on the tenth day after the new moon of the first month (Ex. 12:3). This is "a distinguished day

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M. J. Dresden, "Science," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

Eerdman's Family Encyclopedia of the Bible, 1978 ed., s.v. "Time."

Lewis A. Foster, "The Chronology of the New Testament," in The Expositor's Bible Commentary, ed. Frank E. Gaebelein, 1:594.

Horace D. Hummel, The Word Becoming Flesh (St. Louis: Concordia Publishing House, 1979), 152.

Arthur W. Klink, Home Life in Bible Times (St. Louis: Concordia Publishing House, 1947), 111-12.

William Sanford LaSor, David Allan Hubbard, and Frederic Bush, Old Testament Survey (Grand Rapids: William B. Eerdmans Publishing Co., 1982), 289-90.

Gerhard Lisowsky, Kultur- und Geistesgeschichte des jüdischen Volkes (Stuttgart: W. Kohlhammer Verlag, 1968).

W. Lotz, "Year, The Hebrew," in The New Schaff-Herzog Encyclopedia of Religious Knowledge, ed. S. M. Jackson, 1912.

Madeleine S. Miller and J. Lane Miller, eds., Harper's Bible Dictionary, s.v. "Time."

W. O. E. Oesterly and Theodor H. Robinson, A History of Israel, 2 vols., (Oxford: Clarendon Press, 1938) 2:19.

James Orr, ed., International Standard Bible Encyclopedia, s.v. "Calendar" and "Time."

Frank Parise, ed., The Book of Calendars (New York: Facts on File, 1982), 12-13.

J. Coert Rylaarsdam, "New Moon," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

J. B. Segal, "Intercalation and the Hebrew Calendar," Vetus Testamentum 7 (1957): 253-54.

John Skinner, A Critical and Exegetical Commentary on Genesis, International Critical Commentary (New York: Charles Scribner's Sons, 1910), 167.

Elmer B. Smick, "Calendar," in Wycliffe Bible Encyclopedia, ed. Charles F. Pfeiffer, Howard F. Vos, and John Rea, 1975.

according to the ancient division of the month into three parts, comprising ten days each."[10] While Cassuto offers no evidence for this "ancient division" (and in our research it appears that such a division is only supposition), nevertheless, from Cassuto's view, the basis for daily time reckoning would be the new moon; all other dates of the month would flow from it, demonstrating the moon's preeminence in calendar reckoning.

On the basis of Judges 19:2, which specifies as four months the period of time the concubine resides with her father in Bethlehem, Francis North finds support for the year being divided into three four-month seasons. Conceding that "climatically the year of the Hebrew Bible is divided into two seasons, the hot and the cold (Gn vii 22), summer and winter (Gn viii 22; Zc xiv 8; Ps lxxiv 17),"[11] North suggests that since the harvest season (hot, summer) was twice as long as the season of seedtime (cold, winter), what actually obtained in the Hebrew calendar were not two, but three seasons, each consisting of four months. His evidence is that the Hebrew יָמִים, "days," can sometimes mean not only a plurality of days, but an actual season of the year.[12]

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[10]Umberto Cassuto, A Commentary on the Book of Exodus, trans. Israel Abrahams (Jerusalem: Magnes Press, Hebrew University, 1974), 137.

[11]Francis Sparling North, "Four-Month Seasons of the Hebrew Bible," Vetus Testamentum 11 (1961): 447.

[12]Representative of his evidence, North cites Gen. 24:55 as a case where יָמִים should not be translated "days," but rather "season," according to the apposition "ten [weeks]," making reference to a season. That "season" is correct is indicated by Abraham's servant's reaction: a delay of ten "days" would not seem severe, but ten "weeks," a season, would be a hardship. He cites also Lev. 25:29 as a case where יָמִים should not be translated "year" (as RSV), but "at least a season" as the time a man has the right of redemption for a house sold in a walled city. No doubt North makes a point in reference to יָמִים, that it of-

Regardless of one's full acceptance of North's thesis, he does open the possibility that a reckoning by months may be utilized in the Hebrew Bible where it is not clearly evident. We recall that calendar reckoning is a part of the infrastructure of life, evident to the society in which it is used, but invisible to those outside of the society. There may be calendar reckonings in the Scriptures that we cannot detect. North may have discovered one such item.

Norman Snaith asserts that the term for month, חֹדֶשׁ, was a fluid term that did not always refer to the new moon day, as the etymology might suggest. From Snaith's contentions about the beginning and ending of the year (see Part II), he concludes that before the exile חֹדֶשׁ meant "new month day" reckoned from the full moon, but that after the exile חֹדֶשׁ came to mean "new month day" reckoned from the observance of the first crescent of the new moon.[13] Snaith offers little direct evidence for the change in reckoning of the "new month day," and his contention is drawn as a conclusion from his own ideas on the time of the new year; nevertheless his point on the fluid meaning of חֹדֶשׁ is well-taken. That the root was adapted to calendar reckoning in both its adjectival and nominal forms to refer to lunar events shows how pervasive the moon's influence was in Israel's life.

Several scholars find the roots of the sabbath cycle in the ob-

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ten means more than a plurality of days, and his citation of Gen. 24:55 does make better sense if translated as a season, but he goes beyond his meager evidence to conclude that חֹדֶשׁ יָמִים makes reference to a four-month season. (Ibid., 448.)

[13]Norman H. Snaith, The Jewish New Year Festival (London: Society for Promoting Christian Knowledge, 1947), 96.

servable phases of the moon.[14] There is no general consensus on the origin of the sabbath cycle, and a discussion of the various positions is beyond our scope, but it may well have been the case that the sabbath cycle was rooted in the lunar cycle, attesting even more to the importance of the moon in Hebrew time reckoning.

Beyond the above arguments for a primarily lunar calendar, some scholars hold to the view that the Hebrew calendar was solely lunar, with no concessions made to the solar year. Typical of such scholars are Hayyim Schauss and Solomon Gandz, who baldly state the fact as an obvious matter, working primarily by an argument from silence (the moon is mentioned in time reckoning throughout the Old Testament, but there is relative silence regarding the sun in this respect, and absolute silence regarding an intercalary month).[15] Solomon Zeitlin supports the

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[14]J. C. Rylaarsdam, "New Moon": "Though it is impossible to document this fully, it seems probable that the sabbath was originally also part of this natural cycle of time, related to the phases of the moon" (p. 544).

De Vaux, Ancient Israel. "It is possible that the idea of the week arose from rough observation of the moon's phases, but it became the element of a cycle of its own, overriding those of the months and the years" (1:187-88).

James Hastings, ed., A Dictionary of the Bible (Edinburgh: T. & T. Clark, 1931), s.v. "Time." The week is declared "an obvious derivative of the lunar month" (p. 765).

Stephen H. Langdon, Babylonian Menologies and Semitic Calendars (London: Oxford University Press, 1935). Referring to the Babylonian practice, he states: "Here the weeks do not continue in a regular cycle regardless of the new moon. Each month has four weeks, beginning with the new moon. Days 29 and 30, or in case of a 29-day month, day 29, are simply thrown out of the four-week system. I have no doubt but that this was the old Hebrew scheme also. . . . Is then the Hebrew Sabbath of Babylonian origin? . . . The Babylonian word šabattu is probably the Hebrew word, šabbat, Sabbath, the 7th day of each lunar week" (pp. 89-92).

[15]Hayyim Schauss, The Jewish Festivals: History and Observance, trans. Samuel Jaffe (New York: Schocken Books, 1938), 114.

Solomon Gandz, "Studies in the Hebrew Calendar," Jewish Quar-

concept of a purely lunar calendar on the basis that "people in ancient days could not know of the revolution of the earth about the sun, but they noticed the changes of the moon and its phases"[16] and that the "moon's phases are more easily observed by primitive peoples than the position of the stars, or the still more difficult observations of the equinoxes and solstices."[17] Surely, as we have stated above, the lunar cycle is more easily observed than the solar cycle, but this does not necessarily mean that the solar cycle was beyond measure for the ancients. In fact, as Finegan informs us, in Egypt the length of the year was recognized as early as the third millennium B.C. as being 365 days, and in Babylon, by the eighth century B.C., astronomers knew that the insertion of seven intercalary lunar months in a nineteen year period brought the lunar and solar years into very near approximation.[18] Regardless, however, of Israel's ability to reckon the length of the solar year, Zeitlin is correct in assuming the certainty of Israel's ability to reckon the lunar month. Even the most primitive of peoples can determine this celestial measurement.

Thus, we see that many scholars find in the Old Testament a variety of reasons, some typically adduced and some uniquely adduced, for concluding that the Israelite calendar was reckoned according to a pri-

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terly Review 40 (1949-50): 275. See also by Gandz, "The Calendar of the Seder Olam," Jewish Quarterly Review 43 (1952-53): 177-92, 249-70.

[16]Solomon Zeitlin, The Rise and Fall of the Judaean State, 3 vols. (Philadelphia: Jewish Publication Society of America, 1968), 1:213.

[17]Solomon Zeitlin, Studies in the Early History of Judaism, 4 vols. (New York: Ktav Publishing House, 1973), 1:183.

[18]Finegan, Handbook, 19 and 30, respectively.

marily, if not solely, lunar basis. The last category of evidence we will examine in this chapter is the way in which the months are named or numbered in the Old Testament.

Arguments from Names and Numbers of Months

A cursory examination of the Hebrew Bible reveals three methods of referring to the month: by Canaanite names, by Babylonian names, and by ordinal numbers. Some debate exists regarding the time and order in which these methods were adopted in Israel's history. All scholars agree that the Babylonian names were not adopted until the time of the late monarchy. Only four of the Canaanite names are attested in the Old Testament: Abib, the month of the ears of corn (Ex. 13:4, 23:15, 34:18; Deut. 16:1); Ziv, the month of flowers (1 Kings 6:1, 37); Ethanim, the month of flowing streams (1 Kings 8:2); Bul, the month of great rains (1 Kings 6:38).[19] The Babylonian names are: Nisan, Iyyar, Sivan, Tammuz, Ab, Elul, Tishri, Marcheshvan, Kislev, Tebeth, Shebat, and Adar.[20]

The majority opinion is that the Canaanite names were the earliest used by Israel, followed by the numbering system under Solomon's administrative structuring of Israel, concluding with the use of the Babylonian names, adopted during the late monarchy or during the exile.[21] A

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[19]De Vaux, Ancient Israel, 1:183.

[20]Iyyar, Tammuz, Ab, Tishri, and Marcheshvan are not mentioned by name in the Old Testament, although they are referred to by their corresponding numbers.

[21]Among those holding to this view are:
Barrois, "Chronology," 152.
De Vaux, Ancient Israel, 1:183-84.
S. R. Driver, The Book of Exodus (Cambridge: Cambridge University Press, 1911), 87.
W. H. Franzmann, Bible History Commentary: Old Testament

small minority disagrees, asserting that the system of numbering preceded the use of the Canaanite names.[22] Another small minority places the system of numbering last of all, coming into use only after the exile.[23]

Of significance here is that some commentators use the type of month-designation system as a way to date a text. J. R. Porter, for example, dates the festival calendar of Leviticus 23 to the late monarchy of the southern kingdom, concluding so because the months in this text are referred to by number, which he feels came into use not before this time.[24] Gerhard von Rad concludes that the festival calendar of Deuteronomy 16 is an early text since it refers to the Passover month as Abib, and not with a number.[25] S. R. Driver assigns to the sources of the documentary hypothesis different methods of month designation; for example, Driver states that P never refers to the months by Canaanite

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(Milwaukee: Board for Parish Education, Wisconsin Ev. Lutheran Synod, 1980), 578.

Cyrus H. Gordon, The World of the Old Testament, (Garden City, NY: Doubleday & Co., 1958), 186.

Miller, s.v. "Time."

Gerhard von Rad, Deuteronomy: A Commentary, Old Testament Library (London: SCM, 1966), 111.

[22]Klink, Home Life, 111.

John L. McKenzie, Dictionary of the Bible (Milwaukee: Bruce Publishing Co., 1965), 114.

[23]Philip J. Hyatt, A Commentary on Exodus, New Century Bible (London: Oliphants, 1971), 131.

Julius Wellhausen, Prolegomena to the History of Ancient Israel, trans. J. Sutherland Black and Allan Menzies (New York: Meridian Books, 1957), 108-9.

[24]J. R. Porter, Leviticus (Cambridge: Cambridge University Press, 1976), 178.

[25]Von Rad, Deuteronomy, 111.

names, but always by numbers.[26]

One must ask if this is a valid basis for dating texts. The biblical evidence would suggest some validity to this procedure. In the account of the building of Solomon's temple, the Canaanite names are used, but are immediately defined by their numerical equivalent (1 Kings 6:37, 38; 8:2), suggesting that the Canaanite names were falling out of use at the time of the writing of the text, while the method of numbering was readily understood. Similarly, in Esther 3:7, the reference is to the first month, which is then defined as the month of Nisan, suggesting that the system of numbering was falling into disuse, being replaced by the system of Babylonian names. Further, in the festal calendars of Exodus 23 and Deuteronomy 16, the Passover month is called Abib, and the remainder of the calendar is dated in reference to it, leaving the months of the following festivals unnamed. However, in the festal calendars of Leviticus 23 and Numbers 28, the months are referred to solely by the numerical system. These four calendars indicate that discrete systems of month naming were in use. As well, none of the Babylonian names are used in any book before the exile, appearing only in Ezra, Nehemiah, Esther, and Zechariah.

What conclusions may be drawn from such data? Most assuredly, one can conclude that the Babylonian names came into use no earlier than the late monarchy or in the exile, or even after the exile. Beyond this conclusion, however, the data will support very little. To date a text by its use of Canaanite names or the system of numbering is a conclusion based not upon the evidence of the texts, but upon one's hermeneutical

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[26]Driver, Exodus, 87.

presuppositions. If one assumes that entire biblical books are redactions of discrete sources (often contradictory) from different time periods, then one might find in the various ways of naming the months evidence of wide-sweeping editorial revision, combining texts from different time periods as though they were written all at once.

However, if one assumes the basic genuineness of the books, then a different set of conclusions is reached. For instance, the four festal calendars of the Pentateuch following two systems of month designations might be simple variation, describing the feasts either by numbered month (Leviticus 23 and Numbers 28) or by their content (Exodus 23 and Deuteronomy 16). One might suggest that the calendars of Leviticus and Numbers use the numbering system because they are more complete and detailed than the calendars of Exodus and Deuteronomy, the former set coming in technical texts, the latter in hortatory texts. There is no need to date one text pre-exilic and another post-exilic on the basis the month designations.

One should not rule out, either, the practice of "updating" a text by a later scribe to make it sensible to a current generation, a practice that could have been accomplished without the wholesale redaction and reshaping that critics often propose. The practice of "updating" would explain the cross-designation of months offered in a particular text (e.g., 1 Kings 6 and Esther 3, cited above).

What can be said with certainty is that the data are too few to draw any firm conclusions on the date of a text from the way it refers to a month. The study of the calendar of the Hebrew Bible is fraught with enough difficulties and complexities; one need not be faced with

the further complication of dating a text on the basis of the month designation used within it.

Summary

In this chapter we have brought forward the evidence for a primarily lunar reckoning of the calendar of the Hebrew Bible. Examined in isolation, the evidence would seem conclusive, and the majority of scholars have accepted the position outlined above. Particularly persuasive are the Hebrew words for month, יָרֵחַ and חֹדֶשׁ, because of their relationship to the words for moon and new moon, respectively. As well, the flood account would seem to indicate a lunar year; why else would the text be so specific about the extra eleven days beyond the year? The unique arguments for a primarily lunar reckoning are generally based more on hypothesis than biblical evidence, and few are fully convincing. North's position on the meaning of תְּקוּפַת, however, illustrates how little we do know about "hidden" calendar references within the Hebrew language, references which would have registered immediately to the ancient hearer, but are lost on modern ears. For this reason, students of the Hebrew calendar must be careful in drawing any sweeping conclusions about biblical calendar reckoning.

What we may reject most confidently is the concept of a purely lunar reckoning, a position we will indict also in the next chapter. Here we may state that the purely lunar thesis is based on two flawed arguments: one from silence (no mention of intercalary months; no explicit mention of solar year) and one from arrogance (ancient people were unable to measure the movements of the sun). The argument from silence will be shown false in the next chapter, and we have shown the

ability of the ancients to make calendar computations in this chapter.

Last, the dating of a text by the method it employs for naming months is suspect. Conclusions drawn from such a practice are inherently more dependent upon one's hermeneutical stance than upon the nature of the calendar itself. A stable understanding of the calendar used by Israel in the Old Testament may be attained only as we seek to deal with the most solid evidence available. The proposed understandings of the methodologies employed to designate the months do not qualify.

CHAPTER 2

EVIDENCE FOR A PRIMARILY SOLAR RECKONING

While many scholars are content with the evidence supporting a primarily lunar reckoning of the Hebrew calendar, there is a body of evidence and scholarship that suggests the calendar was reckoned on a primarily solar basis, that is, the calendar was first solar and then concessions were made toward lunar months. Following the pattern of our previous chapter, we will examine the typical arguments for this position, as well as several unique arguments put forward by individual scholars. Further, we will weigh two special situations in the Old Testament that impinge upon our discussion.

Typical Arguments for a Primarily Solar Reckoning

As the flood account was brought into the fray to support a primarily lunar reckoning, so may we appeal to it in support of a primarily solar reckoning. The duration of the flood is exactly one year and eleven days, the extra eleven days being the approximate difference between a lunar and a solar year. Genesis thus records the flood's length as one solar year. John Skinner accepts this position, noting that the Septuagint places the beginning of the flood on II/27, not II/17 as in the Massoretic text, a change which makes the flood end exactly one year later.[1] Solomon Zeitlin also points out that according to the calcula-

[1]John Skinner, A Critical and Exegetical Commentary on Genesis,

tion of Genesis 8:3-4, a 150 day period of time is specified as five months, resulting in a month of thirty days. Such a year would have 360 days in it, representing not a lunar year, but the typical Egyptian solar year of 360 days with an additional five epagomenal days.[2]

Since the flood account is appealed to in support of both a lunar and a solar reckoning, one is faced with seeking to determine what the original text is, that of the Massoretic tradition or that of the Septuagint. To such a query there is no conclusive answer. Skinner finds much here to indicate a redaction of two different flood accounts, one following a lunar reckoning and the other a solar reckoning. He finds more probable the 150 day reckoning comes from P, a late solar redating of the earlier lunar calendar.[3] A conclusion such as this is drawn more from one's hermeneutical position than from clear textual evidence, of which there are no variants for this Hebrew text. One is more inclined to think that the Septuagint changed the Massoretic date to bring it into agreement with its own solar reckoning (a plausible explanation if the tradition about the Septuagint's Alexandrian origin is true). To further complicate the evidence from the flood account, Parker points out that, because of a number of variables in the sighting of the first crescent of the new moon, it is possible to have five thirty-day lunar months in a row, calling in to question whether the five month/150 day

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International Critical Commentary (New York: Charles Scribner's Sons, 1910), 167.

[2]Solomon Zeitlin, Rise and Fall of the Judaean State, 3 vols. (Philadelphia: Jewish Publication Society of America, 1968), 1:214. For the Egyptian solar year, see Richard A. Parker, The Calendars of Ancient Egypt (Chicago: University of Chicago Press, 1950), 7.

[3]Skinner, Genesis, 168.

period is proof of a solar reckoning.[4] Thus, the flood account, at least for its use in determining the nature of the calendar, is far from clear.

More solid footing for a solar reckoning is found at Exodus 23:16: "You shall keep the feast of ingathering at the end of the year, when you gather in from the field the fruit of your labor." Ingathering, or Tabernacles, occurred in the seventh month. The phrase that is intriguing is "at the end of the year [בְּצֵאת הַשָּׁנָה]," literally, "in the going out of the year." If the phrase refers to the end of the calendar year, then the text suggests a solar reckoning, with the year coming to an end at the end of a season, not a month. The phrase, however, may not refer to the calendar per se, but instead to a shift in the year, the change from the dry season to the wet season, a meaning that would not provide evidence for either a solar or lunar reckoning. While the prepositional form of the infinitive is quite common (some forty occurrences with בְּ), its appearance with שָׁנָה is unique to this verse.

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[4]Parker, Calendars of Ancient Egypt: "Since conjunction [when the sun, moon, and earth are in line] is invisible, the lunar month began for most primitive people with the reappearance of the moon as a crescent. The time that must elapse after conjunction for visibility to be possible is variable. At Babylon (lat. 32.5 d.), it varies from a minimum of 16.5 hours to a maximum of about 42. The factors which control this are three: the anomaly of the moon (its distance from the earth), the obliquity of the ecliptic (its angle from the celestial equator), and the latitude of the moon (its distance north or south of the ecliptic). . . .

Since . . . the length of the synodic month varies and the time required for crescent visibility also varies, it is quite possible to have two 30-day months or two 29-day months in a row. When the synodic month is below average length and the time required for visibility is small, it is possible to have three 29-day months in a row. Conversely, when the synodic month is lengthening beyond the average and the time required for visibility is also lengthening, it is possible to have three, at times four, and very rarely five 30-day months in a row" (pp. 4-6).

Hence, it is not likely that we will be able to discover the precise meaning of the phrase in this context.

Exodus 34:22 presents a similar situation: "And you shall observe . . . the feast of ingathering at the year's end [תְּקוּפַת הַשָּׁנָה]." The noun תְּקוּפָה, "coming around, circuit,"[5] takes on a technical meaning of "solstice, equinox" in later Judaism, but Roland de Vaux is surely correct in warning against placing this precise meaning into the Old Testament.[6] The word can also be combined with יָמִים (1 Sam. 1:20), translated by RSV as "in due time," which would seem to capture the sense of "in the circuit of days." In 2 Chronicles 24:23 our exact phrase occurs to designate the time of the Aramaean army invasion of Judah during the time of Joash, apparently an extended campaign from the information in 2 Kings 12. In Psalm 19:7[H] the reference is to the circuit of the sun, תְּקוּפָה being in contrast to מוֹצָא, referring to the setting of the sun, either the end of its circuit or the turning of its circuit to return to its "tent" (v. 5[H]).

If the "circuit of the year" refers to the end of the calendar year, then it would seem to indicate a solar reckoning, not a lunar, since the year would end at the middle of the month. However, as with Exodus 23:16, the phrase is ambiguous. If the phrase makes reference to the sun's course, it would be the autumnal equinox, the midway point of its "journey" from arcing high overhead to arcing low on the horizon. This would be somewhat difficult to detect precisely. More probable is

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[5]Brown-Driver-Briggs-Gesenius Hebrew and English Lexicon, 1980 ed., s.v. תְּקוּפָה.

[6]Roland de Vaux, Ancient Israel, 2 vols., trans. John McHugh (New York: McGraw-Hill Book Co., 1965), 1:190-91.

that the reference is to a change of seasons, from dry to wet. Such an understanding would fit in well with the reference in 2 Chronicles 23, placing the time of Hazael's invasion in the spring change of seasons, from wet to dry, when an extended campaign would be practical.

In the same vein as Exodus 23:16 and 34:22 is the phrase "return of the year [תְּשׁוּבַת הַשָּׁנָה]," found in 2 Samuel 11:1; 1 Kings 20:22, 26; and 1 Chronicles 20:1 in reference to the time when kings go out to war, and in 2 Chronicles 36:10 in reference to the time when it is practical to make long journeys. Almost surely this phrase refers to the spring. De Vaux concludes this from 2 Chronicles 36:10, the time of the capture of Jerusalem in Jehoiachin's time, which he cross-references to the Babylonian sources as having taken place in March, 597.[7] Since the base meaning of תְּשׁוּבָה is "return," what the phrase seems to refer to is the return of the year to its beginning point, that is, the year has completed half its circuit and now returns to its start. If this phrase refers to a method of formal calendar reckoning, then it would seem to be influenced by the journey of the sun on the horizon through the course of a year. However, the reference may simply be to the change of seasons, turning from wet to dry, and in that case it would have no bearing on whether the calendar was primarily lunar or solar.

While the above biblical evidence is inconclusive, a stronger argument for a primarily solar reckoning exists in the historical and cultural context of the Old Testament. One of Israel's most influential neighbors, Egypt, followed a solar calendar of 365 days, consisting of twelve months, each containing thirty days, followed by a five day epa-

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[7]Ibid., 1:191.

gomenal period. Might not Israel have once used such a calendar? Bruce and Davis affirm such a possibility.[8] De Vaux grants that Egypt may have had such an influence over Israel, but only temporarily.[9] If indeed Moses was educated while being raised in the house of Pharaoh, might he not have learned calendar reckoning according to the solar system? The possibility must at least be admitted.

Another argument from the cultural context of the Old Testament has to do with Israel's agricultural setting. It is much more likely for an agricultural people to follow a calendar that accounts for the seasons than it is for them to follow a lunar calendar that, if left uncorrected, would wander about among the agricultural seasons. Such a seasonal calendar would, by nature, be a primarily solar calendar. Encyclopedia Biblica states the case forthrightly:

> With the ancient Israelites, as probably at the outset with all peoples, the year was a solar one, that is to say, a natural year which was sufficiently defined for practical purposes by the regular recurrence of the seasons. . . . The solar character of the Hebrew year, however, is demonstrated beyond all doubt by the ancient determinations of time according to the seasons of the year and the agricultural operations dependent on these. . . . It is proved also

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[8]F. F. Bruce, "Calendar," in The New Bible Dictionary, ed. J. D. Douglas; John D. Davis, A Dictionary of the Bible, 4th ed. (Grand Rapids: Baker Book House, 1954), 513. See also Eerdman's Family Encyclopedia, s.v. "Time."

[9]De Vaux, Ancient Israel: "There is no proof that a real solar calendar was used, apart from the superficial and temporary influence of the Egyptian system" (1:180). De Vaux interestingly provides this possible proof for a one-time solar reckoning in Israel's history on the basis of its knowledge of the 365 day year: "According to Gn 5:23, the patriarch Henoch lived 365 years. If we remember that according to later tradition Henoch was favoured with revelations on astronomy and the calculation of time, we realize that 365 represents a perfect number, that of the days in a solar year" (1:188). Yet, in reference to the flood account and its 365 day year, he says it is a late redaction: "Apart from these scholarly calculations and abortive attempts, there is no proof that a truly solar year ever prevailed in Israel."

> by indications which clearly show that state religious or political actions--dependent in fact on the period of the year--always occurred at the same time of the year [cites the autumnal feast].[10]

Jack Finegan, The Jerome Biblical Commentary, and William LaSor are all in agreement with this position.[11]

Of the biblical and cultural arguments put forward in support of a primarily solar reckoning for the Old Testament calendar, it must be conceded that they are far from conclusive. At best, when taken together, they suggest that a solar reckoning may have been used in Israel. The best of these arguments is the last, based upon Israel's agricultural pursuits. A certain segment of scholarship, however, holds to a primarily solar reckoning not on the basis of the above evidence, but from more unique proofs.

Unique Arguments for a Primarily Solar Reckoning

Julian Morgenstern has written voluminously on the history of the calendar in the Old Testament. Although his writings are highly speculative, and although he has not gained a large following, nevertheless he does carry a certain amount of influence in the field because his articles on the calendar appear in modern reference works (e.g, The Interpreter's Dictionary of the Bible). In his first work in this area, Morgenstern concluded that three calendars were used at different periods of time in Israel's history. Calendar I was borrowed from the

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[10]T. K. Cheyne and J. Sutherland Black, eds., Encyclopedia Biblica, s.v. "Year."

[11]Finegan, Handbook, 36; Raymond E. Brown, Joseph A. Fitzmyer, and Roland E. Murphy, eds., The Jerome Biblical Commentary, s.v. "Religious Institutions of Israel"; William Sanford LaSor, David Allan Hubbard, and Frederic Wm. Bush, Old Testament Survey (Grand Rapids: William B. Eerdmans Publishing Co., 1982), 289-90.

Phoenicians, as is indicated by the month names, Abib, Ziv, Ethanim, and Bul. These were months not in the normal sense, controlled by the phases of the moon, but rather a month only as an indication of a period of time. The true nature of this calendar was solar, and each month consisted of thirty days. Equinox days were critical, and Israel celebrated them both, with one festival in the spring and one in the fall. Calendar II appeared in the sixth century under Babylonian influence. Luni-solar in nature, Calendar II used true lunar months (now numbered, not named), but it carried over the equinoctial celebrations. Calendar III, a post-exilic calendar, refined Calendar II in its intercalary techniques and adopted the Babylonian month names.[12]

Morgenstern modified his position under the influence of an article by Hildegard Lewy and Julius Lewy, "The Origin of the Week and the Oldest West Asiatic Calendar."[13] Lewy and Lewy contend that the first day measurement came not from an observance of the sun, but from an observance of the diurnal winds of the area. Concluding that the ancients counted seven winds and seven directions, Lewy and Lewy find the basis of a week in the counting of seven such days. A period of seven weeks gave rise to a round period of fifty days, a pentacontad. Seven pentacontads equaled 350 days, and the year was rounded out by an additional period of fifteen days in order to balance with the solar year. In pre-exilic times, say Lewy and Lewy, this intercalary period

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[12]Julian Morgenstern, "The Three Calendars of Ancient Israel," Hebrew Union College Annual 1 (1924): 13-78.

[13]Hildegard Lewy and Julius Lewy, "The Origin of the Week and the Oldest West Asiatic Calendar," Hebrew Union College Annual 17 (1942-1943): 1-152.

was divided into two parts, a seven day period kept in the spring (Unleavened Bread) and an eight day period kept in the fall (Tabernacles). Little evidence is brought forward for the actual existence of such a pentacontad calendar, other than the fact that certain peoples did observe fifty day periods. In the Israelite feast of Weeks Lewy and Lewy find a remnant of this original pentacontad calendar. However, for other biblical evidence they must resort to supposed "original" texts that are no longer extant. For example, they suggest Leviticus 23:3 originally referred to a fifteen day intercalary period, although there is no textual evidence for this whatsoever. They argue that Ezra was trying to restore the two week intercalary period in Nehemiah 8:14, although, again, there is no textual basis for this at all. The reader may also question the validity of an ancient people reckoning the day on the basis of the winds, which, while frequent, may also be absent for days at a time. Surely, the sun is the more obvious measure of a day, not the changing winds.

In spite of the rather fanciful nature of the article by Lewy and Lewy, Morgenstern accepted their thesis and modified his own views accordingly. Still maintaining the existence of three calendars in Israel's history, Morgenstern altered his Calendar I so as to agree with the pentacontad calendar put forward by Lewy and Lewy, which he concluded to be a solar calendar because of its agricultural base (a conclusion open to criticism, for a period of fifty days is connected no more closely to a solar reckoning than to a lunar reckoning). Furthermore, this pentacontad calendar was the original calendar of Yahwism, proved, contends Morgenstern, by the feast of Weeks and the two week-

long festivals of the cult. With the rise of the monarchy and the increase of international trade, asserts Morgenstern, Israel was pressured to change its calendar, adopting in place of the pentacontad calendar a luni-solar calendar (Calendar II), reflected in the erection of Solomon's temple and its eastern, sunward orientation. Yahweh was replaced by the Phoenician god El in the pantheon. Such a move, relates Morgenstern, was unpopular with the people, leading to the divided kingdom, with ten tribes following Jeroboam's promised reform of the pentacontad calendar. Morgenstern maintains that a series of shifts back and forth between the luni-solar Calendar II and the orthodox pentacontad Calendar I took place during the monarchy. During the exile, the remnant adopted the pentacontad calendar, but upon return from exile, the priests instituted Calendar III, the Babylonian luni-solar calendar, uniting the sun-god El with Yahweh to form the Jewish priestly religion.[14]

In subsequent articles Morgenstern asserted that the pentacontad calendar was the basis for the calendar of the Book of Jubilees, developed in protest to the syncretistic luni-solar Calendar III.[15] The same general program is presented in a series of articles by Morgenstern in The Interpreter's Dictionary of the Bible.[16]

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[14]Julian Morgenstern, "The Chanukkah Festival and the Calendar of Ancient Israel," Hebrew Union College Annual 21 (1948): 365-496.

[15]Julian Morgenstern, "The Calendar of the Book of Jubilees: It's Origin and Its Character," Vetus Testamentum 5 (1955): 34-76.

[16]The Interpreter's Dictionary of the Bible, ed. George A. Buttrick, s.v. "Jubilee, Year of," "Sabbatical Year," and "Year." One follower of the Morgenstern's early three calendar thesis is W. A. Heidel. Heidel suggests that a purely solar calendar was briefly adopted under Egyptian influence "at a date not long subsequent to the reform of Josiah. We do not know just when it was made; but it seems reasonable to assume that this measure was adopted by the priesthood." See

Morgenstern's theses are too speculative to require a point by point refutation. What is of importance is the fact that he contends along with Lewy and Lewy for an original solar calendar in Israel's history, but can adduce no positive evidence in support of their thesis. In fact, Morgenstern's arguments for this solar calendar may be more destructive to such a calendar's existence than supportive, for they point to the dearth of evidence that leads to such conjecture.

A more substantive case for a solar calendar in Israel's history is made by Sidney Hoenig. The genesis for Hoenig's proof is the Jubilee year of Leviticus 25. Translating literally, Hoenig renders Leviticus 25:8 thus: "And thou shalt number for thyself seven Sabbaths of years; seven years seven times, and the days of the seven Sabbaths of years--forty-nine--shall be for thee a year."[17] Although "the days of the seven Sabbaths of years" is literal, most translators render it as "the time of the seven. . . ." Hoenig maintains this typical rendering is a mistranslation, that the Jubilee year was in fact a "year" of just forty-nine days (more in Chapter 4). From this he suggests an ancient calendar that was solar in nature, divided into four quarters, each of three months, having thirty, thirty, and thirty-one days, resulting in a quarter of ninety-one days, and a year of 364 days. Since this is one day short of a solar year, Hoenig argues that this one day was carried over for forty-nine years, to the time of the Jubilee, and then the

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Heidel's work, The Calendar of Ancient Israel, Proceedings of the American Academy of Arts and Sciences, vol. 61, no. 2 (N.p., 1925), 39. Heidel presents no substantiating evidence for his proposition.

[17]Sidney B. Hoenig, "A Jewish Reaction to Calendar Reform," Tradition 7 (1964-1965): 23. See also Hoenig's "Sabbatical Years and the Year of Jubilee," Jewish Quarterly Review 59 (1968-1969): 222-36.

forty-nine day "carry-over" period was inserted to rectify the calendar with the sun. Ingenious as Hoenig's plan is, it unfortunately takes no account of the biblical evidence for lunar reckoning. Nor is there other positive evidence from the Hebrew Bible in support of the calendar that would be required for his thesis to be true. However, his plan would help "solve" some of the problems of the Jubilee, and for that reason his solar proposition merits the attention we have given it.

Solomon Zeitlin shares Hoenig's solar calendar of four quarters, each having ninety-one days, as well as the theory regarding the Jubilee year.[18] Zeitlin argues that this solar calendar is peculiar to the Pentateuch, for in the remainder of the biblical books he finds nothing but a rectified luni-solar calendar. He states, "The calendar used in the Pentateuch was solar. . . . In the Pentateuch the word 'morning' always preceded the word 'evening,' as in Gen. 8.22; Lev. 8.35; Deut. 28.67."[19] Zeitlin's premise is that in a solar calendar, the day will precede the night, while in a lunar calendar the night will precede the day. This premise is beyond testing, for the data are so few regarding how the ancients referred to the passing of one day to the next. Is Zeitlin's contention about the Pentateuch correct? One thinks immediately of Genesis 1, where evening precedes morning in verses 5, 8, 13, 19, 23, and 31. Zeitlin contends these verses should be translated thus:

> . . . when the sun set and when the sun rose constituted the first day, i.e. the time from sunrise to sunrise completed one day. . . . When the light which God created went down, and it became dark, and

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[18]Solomon Zeitlin, "The Judaean Calendar During the Second Commonwealth and the Scrolls," Jewish Quarterly Review 57 (1966-1967): 28-45.

[19]Solomon Zeitlin, "The Beginning of the Jewish Day During the Second Commonwealth," Jewish Quarterly Review 38 (1945-1946): 404.

> then the dawn rose, a full day was completed. Thus, the day really began with the light and lasted until the following dawn.[20]

Such a translation is certainly not natural, and it has found no support elsewhere. Further, while Zeitlin is surely correct in that the normal idiom is "day and night" (as in "forty days and forty nights"), there are instances in the Pentateuch where night precedes day (Num. 9:21; Deut. 28:66) and inferences of the night being the end of the day (night is the time when a ritually defiled person is no longer considered unclean; see Leviticus 15). As well, the idiom, "day and night," is not limited to the Pentateuch, but is found in other books of the Old Testament (e.g., Joshua 1:8; 2 Sam. 21:10; Ps. 1:2; Neh. 1:6), with some of these references coming when a solar calendar would be a most improbable reality (e.g., Neh. 1:6). This evidence suggests that the Scriptures have no one way of speaking of the beginning of the day. Instead, what we see are several idioms that may be selected depending upon the purposes of the author. Hence, the basis for Zeitlin's solar calendar is not strong. If the Hebrews did use a solar calendar, one must find more substantial evidence.

J. W. McKay makes an interesting case when he posits that the Passover was not kept at the full moon, since the Israelites would have begun counting the days of the month at the first crescent of the moon, not the new moon itself, which would be invisible. Since the first crescent would show itself approximately one to one and one-half days after the new moon, McKay holds that by the evening of the fourteenth, the full moon would already have passed. McKay contends that the feast

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[20]Ibid.

was not held at the full moon, but rather was dated to coincide with the spring equinox, a dating Israel acquired, says McKay, under Babylonian influence.[21] Regardless of whether one accepts McKay's thesis that this method of dating was acquired from the Babylonians, one must consider his point about the full moon. It is normally assumed that the Passover and the feast of Booths are kept in the middle of the month at the full moon, but if the month began with the sighting of the first crescent, this would not be the case. Is there another possible way that the Israelites could have noted the beginning of the month? It is not beyond reason to conjecture that the Israelites were sophisticated enough to know that the new moon was present a certain number of days after the last crescent of the preceding month disappeared from the sky. Hence, even though the new moon was not visible, the Israelites could still have known when it was present, and could have begun counting the days of a new month accordingly. In this way, the Passover would have been kept at the full moon.

Is there any evidence to support McKay's position that the Passover was kept at the equinox date? If so, a solar calendar would surely be the basis for such a reckoning. The position, however, has no foundation when McKay's premise is removed. The biblical data indicate that the Passover was kept not at the same time of each solar year, but at the same time of every first month of the year. Thus, McKay provides little tangible evidence for a solar reckoning in the Old Testament.

Other conjectures are that the early Hebrews utilized a solar cal-

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[21]J. W. McKay, "The Date of Passover and Its Significance," Zeitschrift für die alttestamentliche Wissenschaft 84 (1972): 435-47.

endar like one used in Tyre,[22] and that the early Israelites divided their calendar into four parts, using the sun's position at its equinox and solstice points for calendar regulation.[23] Neither position, however, can muster supporting evidence from the Scriptures.

Two events in the Bible merit our attention with respect to arguments for a solar reckoning of the Hebrew calendar. The first is Solomon's administrative structure. In 1 Kings 4 we are told that Solomon appointed twelve officials over Israel, each having the responsibility of providing food for the king's household for one month during the year. On first reading, the choice of twelve officials would seem automatic, parallelling the twelve tribes. However, the districts established are not along tribal lines, but apparently on a division according to the different regions' abilities to provide the necessary provisions for the king. Dillmann has suggested that this text indicates a solar calendar with twelve months. To the charge that a twelve month division could just as easily indicate a lunar or luni-solar calendar, Dillmann responds by pointing out that no provision is made for a thirteenth, intercalated, month, which would be a necessity for a lunar or luni-solar calendar. Since Solomon would have needed supplies for such a thirteenth month if it existed, and since there is no mention of it made in his administrative structure, Dillmann concludes from this silence that there was no thirteenth month; hence, the calendar must

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[22]Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

[23]Harry M. Buck, People of the Land (New York: Macmillan Co., 1966), 114.

have been solar.[24] While this proposition is intriguing in light of the detailed administration described for Solomon's reign, it is still an argument from silence, producing no positive evidence for a solar calendar, leaving us with only speculation. As W. Lotz points out, the text from 1 Kings 4 simply lists twelve officers, giving each the duty for a month, without specifying that the officers carried out their duties on the same month each year. In a year with an intercalated month, the officers would simply follow in turn, adding the extra month without difficulty.[25] Hence, a solar reckoning is not required.

A second biblical event called upon as proof for a solar reckoning is Jeroboam's feast in the eighth month, recorded in 1 Kings 12. That Jeroboam held the feast of Tabernacles in the eighth month is not disputed; the question is why he did it. The biblical explanation that Jeroboam was trying to prevent pilgrims from travelling to Jerusalem for the feast is not accepted by all. Some commentators have suggested that he was intercalating a month (see Chapter 4). Others have suggested that Jeroboam kept the feast in the eighth month because that is when the seasonal factors forced him to keep it. Jeroboam could not have kept a vintage feast before the vintage was ready, says this theory. As to why the feast was observed in the seventh month in Judah and not in Israel, a varying climate is offered for explanation. In the southern, more mild climate, the vintage was ready; in the northern climate, the vintage was delayed a month. If Jeroboam were, indeed, following the

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[24]Dillmann's thesis is stated by W. Lotz, "Year, The Hebrew," in The New Schaff-Herzog Encyclopedia of Religious Knowledge, ed. S. M. Jackson.

[25]Ibid.

seasons in precedence to the months, he would have been following a primarily solar reckoning.[26] Again, however, the argument is from silence, ignoring the stated reasons in the text. Further, the climatic differences between Jerusalem and Shechem with respect to harvest time are not that great, since the two cities are both in the central mountain spine of the land and are only separated by approximately thirty miles.[27] Thus, there is no real proof of a solar reckoning from Jeroboam's festival in the eighth month.

Summary

From the above survey, it should be readily apparent that support for a primarily solar calendar reckoning in Israel is lacking. We have shown that positions taken in support of this thesis are essentially based on conjecture and arguments from silence. While Israel may have been familiar with a purely solar year from the nation's stay in Egypt, there is no concrete evidence that Israel ever utilized this calendar. What may be said, however, is that there is evidence Israel did utilize the sun in determining the duration of a year. The reckoning of the flood account, the references to the times of year ("going out," "cir-

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[26]John Gray, I & II Kings, 2d ed. rev., The Old Testament Library (London: SCM Press, 1970), 208-9. The explanation of the varying climatic conditions between Judah and Israel is put forward by S. Talmon, "Divergences in Calendar-Reckoning in Ephraim and Judah," Vetus Testamentum 8 (1958): 48-74. See also Kittel, cited in James A. Montgomery, The Books of Kings, International Critical Commentary (Edinburgh: T & T Clark, 1951), 259-60. Morgenstern agrees in part that Jeroboam moved the festival for seasonal purposes, but he contends that the underlying reason was to return to the festivals of the pentacontad calendar; see his article, "The Festival of Jerobeam I," Journal of Biblical Literature 83 (1964): 109-18.

[27]This point is made by Montgomery, Kings, 259-60, and is readily observed by anyone who has visited the land.

cuit," "return"), and the agricultural nature of the people of Israel point toward this state of affairs, although they do not prove it conclusively. Such a solar year was not a "pure" solar reckoning, for there is no proof for a solar "month" in the texts. Nevertheless, the evidence for a year based on the sun's movement prevents one from ignoring solar reckoning altogether. We are left, then, to proceed to the position most scholars have taken with regard to the Old Testament calendar, a combined luni-solar reckoning.

CHAPTER 3

EVIDENCE FOR A LUNI-SOLAR RECKONING

In the previous chapters we examined evidence for primarily lunar and primarily solar reckonings. The evidence for either position to the exclusion of the other is inconclusive. This being the case, exegetes from broad variety of hermeneutical approaches have concluded that the calendar in the Old Testament was luni-solar in nature. In such a model, neither the moon nor the sun is given priority in the reckoning of time passage. Instead, the celestial movements of both bodies are used, at times for different purposes. The moon is used primarily to reckon the passage of months (although not exclusively); the sun is used primarily to reckon the passage of years (although not exclusively). Since there is a difference of eleven days between the two reckonings, a reconciliation was effected from time to time.

Following the pattern established in the prior chapters, we will here examine evidence for a luni-solar reckoning from the biblical texts themselves, as well as evidence gained from Israel's historical/cultural context. In addition, we will survey the opinions of various scholars who are in partial agreement with a luni-solar reckoning, noting their reservations for the same, and evaluating their positions.

Biblical Evidence for a Luni-Solar Reckoning

Surprisingly enough, when considering the basis for calendar reck-

oning in the Hebrew Bible, Genesis 1:14-18 is seldom appealed to in support of any position. In the critical understanding of the Old Testament, one can at least understand why, since Genesis 1 is often thought to be of later origin, thus providing less historical information on Hebrew life than other parts of the Bible. Less easily understood is why conservative exegetes do not appeal to this passage, for if one considers the text to be truly genuine, to be truly reflective of ancient Hebrew thought in the time of Moses, then the text would be most instructive as to how Israel worked its calendar.

In the familiar passage God sets lights in the firmament for the purpose of dividing, or separating (לְהַבְדִּיל), the light from the darkness. The lights serve as signs (לְאֹתֹת) and for appointed times (וּלְמוֹעֲדִים) and for days (וְלִימִים) and years (וְשָׁנִים). These lights include the sun (to rule, לִמְשֹׁל הַיּוֹם, the day), the moon (to rule, וְלִמְשֹׁל הַלַּיְלָה, the night), and the stars (no specification for their purpose is given). In verses 17 and 18 the purposes of the heavenly lights are given again: to give light on the earth, to rule (לִמְשֹׁל) the day and the night, and to separate (לְהַבְדִּיל) the light from the darkness.

Two aspects of these verses enlighten us to the basis for Old Testament calendar reckoning. First, against any who would propose a purely mathematical calendar (for example, the pentacontad calendar proposed by Lewy and Lewy), the text designates the sun, moon, and stars as signs, as indicators, as "measurements," for the passage of time. Not only does this proposition seem self-evident from natural observation, but in the Hebrew faith the use of these heavenly lights was divinely

ordained. As Israel established signs indicating the monumental events of its history (Joshua 4:6) and of Yahweh's covenantal pledges (Gen. 17:11; Judges 6:17), so the celestial lights, not mathematical constructions, served as signs of God's monumental created order and the passage of time.

Second, the lights serve as signs for three types of calendar measurements: appointed times, days, and years.[1] The Hebrew word מוֹעֵד refers to an appointed or designated time or place, generally for the purpose of meeting another or meeting together. For example, 1 Samuel 9:24 uses מוֹעֵד to describe the special time for which a part of a meal had been reserved. Well over half of the occurrences of the word appear in the phrase אֹהֶל מוֹעֵד, the tent of meeting, illustrating the basic meaning of the word. More than half of the remaining instances are used to refer to an appointed feast (e.g., Ex. 23:15; Num. 28:2) or an appointed time of year (e.g., Joshua 8:14; Hag. 2:3), with the majority of these occurrences being to festal calendar reckoning. The verse in Genesis finds only one parallel in its generic mention of the sun and moon serving as calendar signs, Psalm 104:19. Here, the moon makes, or constitutes, the appointed times, and the sun knows its going (or perhaps its ending). The implication of the evidence cited for the Genesis text is clear enough: since מוֹעֵד can mean a specific day, an indeterminate

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[1]One might suggest that only two types of measurements are listed: appointed times, on the one hand, and days and years, on the other. In the last phrase, the preposition is used only with days, not with years. This might indicate a linking together of the two categories as one. More likely, however, is that the preposition services both words, a feature common in the Hebrew language. Moreover, it is difficult to see what sense could be made of linking days and years together in one category. We will proceed on the supposition that the preposition does "double duty" in this case.

period of time, or a season, the celestial lights serve as markers for a variety of calendar events. To limit מוֹעֵד to mean only a festival day or only a season in the Genesis text goes beyond the wider usage of the rest of the Old Testament.[2]

The sun, moon, and stars also serve as signs for days. As we have indicated previously (see F. S. North's position, p. 13), יוֹם can take on a wide meaning. In the singular it can mean day as opposed to night, a full day of evening and morning, one day in distinction from another, a specific day in a month or in one's life, a future day of indeterminate arrival ("day of Yahweh"), et cetera. In the plural we find references to two or more days, to the period of one's life, to a finite period of time determined by circumstance (e.g., the time of a nursing child, Is. 65:20), to historical times, to future times, to a period of one year (see Ex. 13:10: מִיָּמִים יָמִימָה), to a time of perpetuity (the time Israel should keep Yahweh's statutes, כָּל־הַיָּמִים, Deut. 11:1), et cetera.[3] Can we isolate one meaning in our Genesis text? It would be difficult to do so. The safest course would be to allow יָמִים in this text to have its full range of possible meanings. The sun, moon, and stars are given as signs not only for the measuring of single days, but for many measurements of time involving days: weeks, months, seasons, years, et cetera.

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[2]Brown-Driver-Briggs, for example, states: "It is most probable that in Gn 1:14 . . . , the reference is to the sacred seasons as fixed by the moon's appearance . . . , although many Lexx. & Comm. refer these to the seasons of the year" (p. 417b). It is our position that one need not have to choose between these meanings; both meanings (as well as other specified times, e.g., new moon day) may be inferred from the one vocable.

[3]Brown-Driver-Briggs, s.v. יוֹם.

The same general point applies to שָׁנָה in the Genesis text. Although the range of meanings of שָׁנָה is more limited than that of יוֹם, still, the word can refer to more than a 365 day period of time. References to indefinite periods of time are common for שָׁנִים in the Old Testament (1 Sam. 29:3; Ezek. 38:17; Dan. 11:6). Hence, it is possible that this verse in Genesis refers to the measurement of not only one year at a time, but groupings of years, such as in the Sabbath and Jubilee cycles.

Since we have no specific limitations on the meanings of these three time periods in Genesis 1:14, we should not be surprised that no one particular calendar reckoning method can be adduced from the evidence of the Hebrew Bible. The terms used are fluid in meaning. We find no clearly defined calendar reckoning because the purpose of the celestial lights is practical in nature, not technical. These heavenly orbs are useful for the full complement of time measurement, and they overlap with one another. As the sun provides easy measurement for days, so the moon can also provide measurement for groups of days. As the seasons are determined by the sun, so the seasons can also be measured by the moon. As the year can be measured by the sun, so can it also be measured by the moon. Thus, the verb, שׁוּט, rather broad in its meaning, is used to designate the actions of the sun, moon, and stars; they have dominion over all aspects of time reckoning (the same verb is used of the rule of the sun, moon, and stars in Ps. 136:8-9).

What we find in Genesis 1:14-17, then, is a broad-based, practical foundation for calendar reckoning in the Bible. That method or reckoning which is most useful for a specific purpose is the one that will be

used, even if this means a "tidy" calendar (lunar or solar alone) will not be in use. These verses would seem to indicate that a luni-solar calendar reckoning method is the one employed in the Old Testament.

Before leaving these verses from Genesis, we will examine one more point. It is beyond dispute that the moon and the sun were used to measure time in the calendar, but what can be said of the stars? Did the Israelites use the stars for the measurement of time? The Israelites may have been familiar with the Egyptian method of measuring the year by the appearance of Sirius on the horizon before dawn, a method used in Egypt as early as the First Dynasty.[4] There is, however, no evidence from the Hebrew texts to indicate this method was ever in use. Certainly, the Israelites were familiar with the constellations (see Job 9:9; 38:31-32; Amos 5:8). Were they familiar with the movements of the stars? One of the earliest texts of the Old Testament, the Song of Deborah (Judges 5), would indicate they were. Deborah describes the battle against Sisera in cosmic terms, including the stars in the offensive forces (v. 20). "From their highways (מִסִּלֹּתָם)" the stars fought against Sisera. A מְסִלָּה is a well-travelled road, a raised highway, established for public use.[5] From such a word applied to the stars, we may safely conclude that the Israelites at an early time were able to follow the paths arced by the constellations in the sky. Whether or not they used this capability for calendar reckoning is a matter for speculation, for the evidence of the Bible is lacking. How-

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[4]Jack Finegan, Handbook of Biblical Chronology (Princeton: Princeton University Press, 1964), 21-23.

[5]Brown-Driver-Briggs, s.v. מְסִלָּה.

ever, the Israelites did seem to possess the capability to do so.

Genesis 1:14-18 is not the only item of biblical evidence supporting a luni-solar calendar reckoning. The flood account, discussed fully previously, would also support a luni-solar reckoning. The flood is dated according to both a lunar and a solar year. If the text is genuine, not a later redaction of two different texts following two different calendar reckoning methods, then what we have is a calendar reckoned according to both the moon and the sun.

Further biblical evidence for a luni-solar calendar is found in the festal calendars, where the feast days are designated both according to the month and according to the season. The former would indicate lunar reckoning, the latter solar. For example, the Feast of Weeks was dependent upon the state of the crops; one could not keep this feast if there were no crops for harvest. Therefore, this feast was kept according to a seasonal reference, one that fits more easily into a solar reckoning than a lunar. Passover, however, is placed within a particular month, indicating a lunar reckoning. That the same festal calendar would include both such reckonings indicates that neither a lunar nor a solar was its sole basis, but a luni-solar reckoning, instead.

Here is the fundamental argument for a luni-solar reckoning: neither a primarily lunar calendar nor a primarily solar calendar can be effectively established from the evidence of the Hebrew Bible. To maintain either calendar to the exclusion of the other requires a reconstruction or redating of the texts. Such endeavors are subjective. Many scholars, therefore, have adopted the luni-solar reckoning as the one used throughout the Hebrew Bible, even though a definite delineation

of such a calendar is not itself available in any discrete text.[6]

Historical/Cultural Evidence for a Luni-Solar Reckoning

While direct and clear statements of the employment of a luni-solar reckoning are lacking in the Old Testament, its use is strongly implied. Further substantiating the indirect biblical evidence is the

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[6]Among those scholars who accept the luni-solar method of reckoning, we can list:

F. F. Bruce, "Calendar," in The New Bible Dictionary, ed. J. D. Douglas.

Henry M. Buck, People of the Land (New York: Macmillan Co., 1966), 114.

T. K. Cheyne and J. Sutherland Black, eds., Encyclopedia Biblica, 1899 ed., s.v. "Year."

John D. Davis, A Dictionary of the Bible, 4th ed., 824.

Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick, and De Vries' book, 1 Kings, Word Biblical Commentary (Waco, TX: Word Books, 1985), 163.

M. J. Dresden, "Science," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

Alfred Edersheim, History of the Jewish Nation (Grand Rapids: Baker Book House, 1954; reprint of 1856 publication), 269-70.

Finegan, Handbook, 36.

Werner H. Franzmann, Bible History Commentary: Old Testament (Milwaukee: Board for Parish Education, Wisconsin Ev. Lutheran Synod, 1980), 578.

Solomon Gandz, "The Calendar of the Seder Olam," Jewish Quarterly Review 43 (1952-1953): 177-92, 249-70.

George Buchannan Gray, Sacrifice in the Old Testament (Oxford: Clarendon Press, 1925), 298.

Henry H. Halley, Halley's Bible Handbook, 24th ed. (Grand Rapids: Zondervan Publishing House, 1965), 148.

James A. Hastings, ed., A Dictionary of the Bible, 1931 ed., s.v. "Time."

Franz Xavier Kugler, Von Moses bis Paulus (Munster in Westf.: Verlag der Aschendorffschen Verlagsbüchhandlung, 1922).

J. Lilley, "Calendar," in The Zondervan Pictorial Encyclopedia of the Bible, ed. Merrill C. Tenney.

John L. McKenzie, Dictionary of the Bible, 1965 ed., s.v. "Calendar."

Hayyim Schauss, The Jewish Festivals: History and Observance, trans. Samuel Jaffe (New York: Schocken Books, 1938), 114.

J. B. Segal, The Hebrew Passover: From the Earliest Times to A.D. 70 (London: Oxford University Press, 1963), 127.

Elmer B. Smick, "Calendar," in Wycliffe Bible Encyclopedia, ed. Charles F. Pfeiffer, Howard F. Vos, and John Rea.

fact that Israel's Mesopotamian neighbors used a luni-solar method of calendar calculation. Jack Finegan notes that a fully developed luni-solar calendar was used by the Sumerians and the Babylonians, and later by the Assyrians (probably adopted at the time of Tiglath-pileser in the eleventh century).[7] Assuming the historical legitimacy of the patriarchal narratives and their Mesopotamian setting, it is reasonable to suggest that Abraham and his descendants may have used the calendar of their homeland during their sojourns. In fact, there is no evidence to suggest anything to the contrary.

In addition is the evidence of Judaism's later use of the luni-solar calendar. While one may surely argue that this calendar was adopted for use in the exile under direct Babylonian influence, nevertheless, since there are no conclusive proofs for any other calendar ever being utilized in the Old Testament, there is no reason why the luni-solar reckoning was not also the calendar Israel took with itself into exile.

To be sure, these are essentially arguments from silence. However, against both a primarily lunar and a primarily solar reckoning, positive evidence can be adduced showing their inability to explain the biblical texts. As well, several of the supporting planks for these positions are also based on arguments from silence. With the luni-solar calendar, there is no evidence which this reckoning method cannot explain, so the arguments from silence are more substantiating here than would normally be the case. In short, the cumulative arguments for a luni-solar reckoning are more convincing than the cumulative arguments

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[7]Finegan, Handbook, 30.

for the other calendar reckoning methods examined. With a topic such as our own, when we lack explicit statements regarding the calendar's nature, cumulative, if not conclusive, proof is the best we may hope for.

Scholars in Partial Agreement Regarding a Luni-Solar Reckoning

Among the students of the Hebrew calendar a majority agrees that a luni-solar reckoning explains the biblical data in the most satisfying way. Several scholars, however, while in basic agreement with the luni-solar methodology, maintain reservations on its use.

The most common reservation regarding the claim that the calendar of the Old Testament was luni-solar in nature is that this calendar is of late origin. Typical is this statement found in Harper's Bible Dictionary, with no supporting evidence supplied: "The year among the early Hebrews was lunar, the first day of each month being set at the new moon . . . . Later the Hebrews used a solar year, based on revolutions of the sun, but the old lunar month . . . was retained."[8] In Julian Morgenstern's speculative theory, the luni-solar calendar is not adopted for use until the time of Babylonian influence in the late monarchy of Judah (see above, pp. 29-33). On the extreme end of granting late usage to the luni-solar calendar is James Vanderkam, who states that in the second temple period the 364 day (solar) calendar of the book of Jubilees was used, not to be supplanted by the luni-solar calendar until the persecution of Antiochus IV in 167 B.C.[9] Such a position would require

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[8]Madeleine S. Miller and J. Lane Miller, eds., Harper's Bible Dictionary, 1973 ed., s.v. "Time."

[9]James C. Vanderkam, "The Origin, Character, and Early History of the 364-Day Calendar: A Reassessment of Jaubert's Hypothesis," Catholic Biblical Quarterly 41 (1979): 390-411.

a very late reshaping of the biblical texts to include the luni-solar reckonings found therein. In light of the essential textual stability indicated in the Qumran texts, serious doubts are cast upon Vanderkam's thesis.

B. Kedar-Kopfstein, in the Theological Dictionary of the Old Testament, contends that the luni-solar reckoning was late in Israel's history on the basis of the supposed original meaning of חג. Asserting that in early times חג referred only to agricultural festivals, festivals whose celebrations were determined by the state of the crops and not the date of the calendar (hence implying a solar, seasonal, calendar reckoning), Kedar-Kopfstein concludes that in any text where a feast is tied to a particular calendar day, it must be a late text. Since he agrees that these late texts use the luni-solar method of reckoning, the luni-solar method must have been adopted later in Israel's history.[10] This is, of course, a circular argument, for if every text that connects חג to a calendar date is by definition late, then there can be no instances of חג connected to a calendar date in any early texts. The argument proves nothing since the conclusion is assumed in the premise. In fact, Kedar-Kopfstein presents contradictory evidence, noting that in Mesopotamia, the ב"חג were connected with the solstice dates.[11] This itself is more a calendar dating than an agricultural dating, for, as any frustrated farmer knows, crops often follow a schedule of their own

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[10]B. Kedar-Kopfstein, "chag," Theological Dictionary of the Old Testament, ed. G. Johannes Botterweck and Helmer Ringgren, trans. David E. Green (Grand Rapids: William B. Eerdmans Publishing Co., 1980), 4:206-12.

[11]Ibid., 4:204.

regardless of the season or position of the sun. If the festivals were truly kept in Mesopotamia on equinox and solstice days, then the state of the crops would become a secondary consideration, and the association of אָבִיב with a calendar date need not be considered late.

S. Talmon objects to any early adoption of a luni-solar calendar on the basis of climate differences between northern and southern Israel. He argues, as we noted above (see Chapter 2, note 26), that the festivals would have had to have been celebrated seasonally, not according to the calendar, for the harvest time in the north would have been later than the harvest time in the south. Farmers would have observed a seasonal, solar, calendar, if left to their own devices. Only when a strong central government would arise to impose the luni-solar calendar upon the people would its use throughout Israel be possible. Hence, the earliest time for the adoption of the luni-solar method would be the monarchy.[12] However, the climate differences are not as great as Talmon maintains. Further, if Israel's origin was as one people with a unified history coming out of Egypt (and not a confederation of tribes with many histories), then it is not inconceivable for farmers to follow a luni-solar reckoning with the rest of their kinsmen, even though for their vocation they would follow the solar seasons. In fact, farmers today live precisely in this manner.

Not all scholars who have reservations about the employment of the luni-solar calendar proceed on the basis that such a methodology must have been adopted late in Israel's history. W. A. Heidel, for example,

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[12]S. Talmon, "Divergences in Calendar-Reckoning in Ephraim and Judah," Vetus Testamentum 8 (1958): 54-55.

states, "The calendar of Israel thus experienced several changes; but it was essentially based on a lunisolar year. For a brief time only did it rest on a solar year, when it adopted some of the forms of the Egyptian [calendar]."[13] Offering no concrete evidence to support his thesis, Heidel admits, "Many details there are which still remain obscure,"[14] and we would have to agree, at least as far as the proof of this parenthesis in the use of luni-solar reckoning in the Old Testament is concerned.

Working from his thesis of the short, forty-nine day Jubilee year, Sidney Hoenig suggests that at some time in Israel's history, the original solar calendar was supplanted by a luni-solar calendar because its way had been paved by beginning the Jubilee in the fall. Under the assumption that in any luni-solar calendar the new year must occur in the fall (see Part II), Hoenig asserts that the fall beginning of the Jubilee year accustomed the Israelites to think it natural to begin the year at this time, rather in the spring. Hence, when the luni-solar reckoning presented itself (at a time not specified by Hoenig), the Israelites were primed to accept it. Hoenig's qualified acceptance of the presence of the luni-solar calendar in the Old Testament rests on three shaky assumptions. First, his own thesis rests on the acceptance of an original solar calendar. Second, it is questionable whether a luni-solar calendar must begin in the fall. Third, since the Jubilee year arrived only once every forty-nine or fifty years, it is difficult to see how

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[13]W. A. Heidel, The Calendar of Ancient Israel, Proceedings of the American Academy of Arts and Sciences, vol. 61, no. 2 (N.p., 1925), 55.

[14]Ibid., 56.

its presence could have prepared Israel to begin its year in the fall.

Thus, while these scholars do agree that the luni-solar method was used for calendar reckoning in the Old Testament, their reservations as to when and how it was used are not sufficient to deter one from accepting its virtual use throughout the history of Israel.

Summary

We have shown that the evidence for a primarily lunar reckoning and the evidence for a primarily solar reckoning in the Old Testament is not sufficient to support either position. Neither reckoning can explain all the calendar information given in the Hebrew Bible. If the calendar were purely or primarily solar, then why do we have the obvious importance of the moon indicated in the texts? If the calendar were purely or primarily lunar, how would it be useful for the agricultural nature of the Israelite people and their agriculturally connected feasts?

Unless one is willing to accept a thoroughgoing rewriting of the biblical texts at a later time, a rewriting that overlaid a luni-solar reckoning upon a previous lunar or solar reckoning, then one is led to accept the original use of a luni-solar calendar that does, in fact, offer explanation and understanding of the evidence at hand. Many higher critics are willing to agree to just such a rewriting of the texts, but as we have argued, this is a highly speculative adventure. If there is no textual support to indicate a textual variation, then one will best assume that the original text is present.

While taking this position, we do admit that the precise workings of the luni-solar calendar may have undergone changes at different

points in Israel's history. The method of intercalation may have changed. The time of the new year may have shifted from the fall to the spring or vice versa. The relative importance of the sun or the moon may have increased or decreased, at times making the moon the major factor in calendar reckoning, and at times making the sun the major factor. However, these are all minor variations of the same basic method, a method laid out in principle in the first chapter of Genesis, and nowhere convincingly contradicted by any other method in the rest of the Old Testament. For these reasons, intriguing arguments to the contrary, we hold the nature of the calendar in the Hebrew Bible to be luni-solar, a position based on the texts and data available, not on supposition and speculation.

CHAPTER 4

EVIDENCE FOR POSSIBLE METHODS OF INTERCALATION

If, as we concluded in the previous chapter, the calendar of the Old Testament was indeed based upon a luni-solar reckoning, then some type of intercalation must also have taken place. Since the lunar year of 354 days (twelve months with an average of 29.5 days per month) is slightly more than eleven days shorter than the solar year of 365.25 days, after a span of three years the lunar year would have receded more than a month in relation to the solar year. That is, assuming the months were reckoned according to the moon and the year was reckoned according to the sun, after three years the end of thirty-six lunar months would arrive more than one month prior to the end of the third solar cycle. Without correction the lunar recession would continue, and after approximately sixteen solar years, the lunar months which had occurred in the summer would then arrive in the winter. In this case, Passover would be celebrated in the fall, not the spring; Weeks, the feast of the harvest, would be celebrated in the dead of winter when there were no crops; Tabernacles, the feast of the vintage, would be celebrated when the vines were just coming out of their dormancy. Of course, such a situation would be intolerable, for it would take thirty-three solar years before the lunar months would again be in their "proper" position.

Unless one is willing to believe that the Old Testament Israelites were willing to live with a year of "wandering" months, some form of

correction must have taken place. The least disrupting form of correction is intercalation, the adding of a lunar month, or months, at an appropriate time to bring the lunar and solar calendars into a rough equilibrium.

It must be granted at the outset that there is no formal explanation of how this was done in Old Testament times, but certainly, if a luni-solar calendar were in use, intercalation must have been carried out in some way. In this chapter we will consider various proposals for how the intercalating process took place, determining if there is any biblical evidence in support of one or more of the proposals. In order, we shall examine the eventually accepted method of intercalation, two unlikely methods, and several methods that conceivably could have been employed by the Israelites.

The Metonic Cycle

In the earliest luni-solar calendars, intercalation may have transpired by simple observation: when the months no longer fell in their appropriate seasons, an extra month was added, probably at or near the time of the spring or fall equinox, until an approximate alignment was achieved. This methodology may have sufficed for a time in a small nation, but as a culture grew more complex and began to relate to peoples other than itself, a more precise and predictable method of intercalation became necessary.

At least by the time of the eleventh century B.C., the Sumerians, the Babylonians, and the Assyrians were intercalating a month at the time of the vernal equinox. By the time of the eighth century B.C., it was recognized in Babylon that 235 lunar months very nearly equaled

nineteen solar years (6,939.688 and 6,939.601 days, respectively), with these lunar months totaling only 2 hours, 4 minutes, 25.22 seconds longer than the solar years.[1] Two hundred thirty-five lunar months represent nineteen lunar years (of twelve months each), plus an additional seven months. It made the most sense to add these additional months at different points during the nineteen year cycle (instead of all at once), and by the fourth century B.C. specified times during the cycle were adopted for the intercalating of the extra months.[2] Hence, by the end of the nineteenth solar year, the lunar months and the solar seasons were in very close approximation with one another. This nineteen year cycle is known as the Metonic cycle, so called after Meton, the fifth century B.C. Athenian astronomer who made it known in Greek culture.

At least by the end of the Christian apostolic period a similar, if not identical, intercalating method was in use within Judaism. The Sanhedrin was given charge of deciding when an extra twelfth month (Adar) was necessary in order to keep the months and the seasons in alignment. According to Maimonides' account of how this necessity was calculated, seven intercalated months were inserted within a period of nineteen years.[3] Whether this method was adopted from the Babylonian or Hellenistic practice is a matter of conjecture. Nevertheless, with a

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[1]Naturally, this discrepancy would also show itself after a number of years, but it would take nearly 360 years before a difference of one full month would show itself, and nearly a millennium before a wide variance with the season would be manifested. Thus, although not a perfect reconciliation, these measurements are at least workable.

[2]Jack Finegan, Handbook of Biblical Chronology (Princeton: Princeton University Press, 1964), 31-32.

[3]Ibid., 44.

terminus ad quo of the New Testament era, we are confident that a Metonic-like cycle was used to rectify the luni-solar calendar in Israel. What was the method used in Old Testament times?

Unlikely Methods of Intercalation

Two suggested methods for intercalation in the Old Testament we may classify as highly unlikely. We briefly summarize them here as an indication of the kind of speculation that can be found in the area of calendar studies.

Wm. Georgi believes the Hebrews measured the passage of time according to moon biennia, the length of time of two consecutive lunar years, 708 days (two 354 day lunar years). Following a moon biennium, Georgi theorizes, the Hebrews lengthened the next lunar year by adding an intercalary "month" of thirty-four days at the end of the year, as a "second" Adar. A three year cycle would render a total of 1,096 days (354 plus 354 plus 388). In the space of twelve solar years (365.25 days each), four of these three year lunar cycles would occur. The total number of days in twelve solar years is 4,383; the total number of days in four three-year intercalated lunar cycles is 4,384, an overlap of one day. Within the range of eighty-four years (seven twelve-year lunar cycles), Georgi concludes, each day of the week would be dropped from the lunar calendar once, so that at the end of the eighty-four year period, the lunar and solar years would begin on the same day.

Georgi finds proof that the Hebrews measured time by moon biennia in phrases such as שְׁנָה שְׁנָה, found in Deuteronomy 14:22, concluding that the phrase refers to a two year lunar period. He also points to the dual, שְׁנַתַיִם (Gen. 41:1; 45:6), as evidence that the Hebrews

measured time in biennia. The first year of a moon biennium Georgi finds in the dual, שְׁנָתָיִם , in Genesis 11:10, and the second year of a moon biennium he finds in the phrase בַּשָּׁנָה הָאַחֶרֶת , "in the following year," in Genesis 17:21. Georgi finds the lengthened intercalated lunar year (388 days) referred to by the phrase יָמִים רַבִּים in such places as Genesis 21:34 (the length of time Abraham journeyed in the land of the Philistines) and Joshua 24:7 (the length of time Israel lived in the wilderness after the exodus). The time of the three year lunar cycle Georgi refers to as a leap year, and concludes that the Israelites measured their time from leap year to leap year. In the cited Joshua 24:7 passage, Georgi finds reference to fourteen such leap year periods comprising the wilderness wanderings.[4]

The improbability of Georgi's construct is apparent. The generic phrases, "many days," "year by year," and "two years," provide evidence for a moon biennium or a leap year of lunar years only if one already assumes such a method of reckoning existed. Further, why would the Israelites intercalate a month of thirty-four days? Such a time period is not naturally occurring in the lunar cycle, nor would it fit at all in the seven-day sabbatical cycle. Georgi's intercalation method would, in fact, greatly disrupt the sabbatical cycle, eliminating one day of the week each twelve years. In Georgi's system do we find a prime example of how one ought not approach the study of the Hebrew calendar, imposing a system on the meager biblical evidence rather than drawing from it some type of reasonable method of time reckoning.

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[4]Wm. E. Georgi, Facts of Biblical Chronology (Columbus, IN: O. O. Pentzer & Sons, Printers, 1940), 45-47.

Another approach to intercalation that we may classify as unlikely to have ever been in use is the system proposed by J. B. Segal. He begins by questioning the origin of the importance of the tenth day in the first and seventh months, the day of selecting the Passover lamb and the Day of Atonement/beginning of the Jubilee year, respectively. Segal offers the following explanation:

> At a certain period the Hebrews, I suggest, regarded the first nine days of the spring and autumn months as days of uncertainty. If a particular event had not taken place before the tenth day, then it was necessary to intercalate a month. It was only on the tenth day of the spring month, not on the first day, that it was known whether it was permissible to begin preparations for Passover. It was only on the tenth day of the autumn month that it became certain whether the Jubilee year--with all its complex scheme of economic and social adjustment--could be regarded as having begun, or whether it must be postponed to the following month.
>
> The event whose occurrence before the tenth day indicated that it would be necessary to intercalate a month is likely to have been the heliacal rising or setting of a fixed star.[5]

Segal suggests that the rising of the Pleiades was the event that was most likely used to determine if intercalation were necessary.

Intriguing though Segal's suggestion might be, it is beset with an internal inconsistency and a sociological enigma. It is hard to imagine a time in Israel's history when it would have had the skills to follow Segal's intercalation method, but still be unsophisticated enough to be faced with nine days of uncertainty concerning the condition of the calendar. A culture advanced enough to understand the need for intercalation and adjust its calendar accurately by the tracking of a constellation would be a paradox, indeed, if it also lived in limbo for nine or eighteen days every year. Israel in the Old Testament was not

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[5]J. B. Segal, "Intercalation and the Hebrew Bible," Vetus Testamentum 7 (1957): 270.

such a nation. As Segal admits, Israel was sophisticated enough to make the adjustments prescribed in the Jubilee year; surely the nation would not have lived year after year with the uncertainty of the first days of the first and seventh months. Further, it is hard to imagine an organized society waiting until the last moment before it would begin preparations for two of its major festivals. In Segal's proposition, arrangements for the Passover would have to be completed in four days, while the arrangements for the Day of Atonement and the Jubilee year would be on hold until the day of the feast itself! Lacking any concrete textual evidence for his proposal, Segal's intercalary method is too improbable ever to have been in practice in Israelite society.

Conceivable Methods of Intercalation

The most commonly held understanding of how intercalation took place in the Old Testament is that of observing the state of the crops. If the crops were in a premature stage of development and would not be ripe for the festivals associated with them, then it was known that the lunar year was falling too far behind the solar year, and an intercalary month was necessary. This was, in fact, the method under use in the decades before the destruction of the second temple. At this time Simeon, son of Gamaliel I, was head of the Sanhedrin, the body having ultimate authority on calendar matters. To his colleagues Simeon wrote, "We beg to inform you that the doves are still tender and the lambs still young, and the grain has not yet ripened. I have considered the matter and thought it advisable to add thirty days to the year."[6]

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[6]Quoted in Finegan, Handbook, 43.

Simplicity and directness commend this method, and it would accomplish its purpose practically, if not scientifically.[7] Since it was a matter of judgment whether the crops or animals were too immature, errors could be made, but by no more than one month, and the error would reveal itself the following year. It may have occurred that two years in a row would present themselves for intercalation, but a rough alignment of the lunar and solar years would take place.

By reckoning the time for intercalation in this way, a relatively uninterrupted flow of the calendar would be preserved. The intercalated month was added to the end of the previous year, thus avoiding the frantic preparations for Passover that Segal's plan entails. One may reasonably assume that Simeon's reference to adding thirty days is not to be taken that thirty new days be added from that point, but that the signal of the next new moon would indicate the time for the beginning of the next year to begin.

Nevertheless, this method is not without its problems. Intercalating on the basis of the state of the crops presupposes that the year began in the spring, when the crops were observable. However, as we shall see in Part II, there are many reasons to believe that the year

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[7]Segal rejects this method for determining the intercalary month because it is so imprecise: "It is in the highest degree improbable that the priests could, by looking at the green ears of corn, forecast exactly when they would ripen, and, by relating this to the state of the moon, decide whether an additional month should be inserted or not" ("Intercalation," 266). In searching for precision, Segal misses the point; it is precisely the simplicity of the method which commends it. When it was so obvious that even the priest could tell that the crops were not sufficiently mature, then it was truly time for intercalation. While it is true that one cannot always determine the exact time of harvest by the early appearance of the crops, farmers with the advanced technology of our own day still speak of crops being ahead or behind where they should be.

began in the fall. How would intercalation be accomplished when a fall new year obtained in Israel's history? One may also wonder how this method would have been practical when there was no central authority in Israel, for example, during the time of the judges. Problematic, but not insurmountable are these questions. Regarding the time of the new year, it may have been that Israel observed two new year times in the calendar, each for different purposes (more in Part II). A lack of central authority would not necessarily prevent the tribes from using this method, although two tribes may have judged differently as to whether the state of the crops warranted an intercalary month.

In spite of these problematic areas, and in spite of the fact that we have no textual evidence to support the use of this method in the Old Testament, most scholars who broach the topic of intercalation accept it as the most probable of methods to have been used in Israel.[8]

Another conceivable and rather simple method of intercalation is that proposed by Norman Snaith. Snaith suggests that in Old Testament times the Israelites did not deliberately intercalate a month. Rather,

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[8]Roland de Vaux, Ancient Israel, 2 vols., trans. John McHugh (New York: McGraw-Hill Book Co., 1965), 1:189.

Alfred Edersheim, History of the Jewish Nation (Grand Rapids: Baker Book House, 1954), 270.

T. K. Cheyne and J. Sutherland Black, eds., Encyclopedia Biblica, 1899 ed., s.v. "Year."

Finegan, Handbook, 42-44.

Lewis A. Foster, "The Chronology of the New Testament," in The Expositor's Bible Commentary, ed. Frank E. Gaebelein (Grand Rapids: Zondervan Publishing House, 1979), 594.

William Sanford LaSor, David Allan Hubbard, Frederic Wm. Bush, Old Testament Survey (Grand Rapids: William B. Eerdmans Publishing Co., 1982), 290.

Jacob Z. Lauterbach, trans., Mekilta, (Philadelphia: Jewish Publication Society of America, 1949), 19-20.

Elmer B. Smick, "Time, Divisions of," in Wycliffe Bible Encyclopedia, ed. Charles F. Pfeiffer, Howard F. Vos, and John Rea.

they simply accepted the month after their fall harvest as the beginning of their new year. Without particularly knowing it, says Snaith, the Israelites would intercalate an extra month every two or three years. If the harvest, a matter determined by the solar seasons, were late, the people would simply wait for their new year until the harvest was ready.

Snaith complicates his proposition as he maintains the month began not with the new moon, but with the full moon. Hence, he insists that the new year began with the full moon after the harvest, that is, the Harvest Moon would begin the year. We have seen the weaknesses of Snaith's full moon theory, but his intercalation method would work just as well if the Israelites kept to the new moon just after their harvest.[9]

While the simplicity of Snaith's method is attractive, one must also note that Snaith presents a people that live not by a calendar (an understanding of the passage of time in a scheduled and predictable way), but a people who live wholly in wait for the appearance of the moon. Snaith would have Israel unconcerned about the number of months in the year, for they would simply follow the seasons and the lunar cycles without much concern toward understanding the relation between the sun and moon. The Old Testament, however, does not present Israel in this light, but, from the time of Moses at least, presents the nation with a developed understanding of the workings of the calendar. Thus, Snaith's system is conceivable, but it does not fit well into the calendar information presented in the Old Testament.

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[9]Norman Snaith, The Jewish New Year Festival (London: Society for Promoting Christian Knowledge, 1947), 93-94.

James Vanderkam, in an article in support of the calendar of the book of Jubilees,[10] offers a method of intercalation based on a twenty-eight year cycle. The solar calendar of Jubilees contains 364 days (twelve months, divided into four quarters of three months having thirty, thirty, and thirty-one days, respectively), roughly one and one-quarter days less than the true solar year. In twenty-eight years, the cumulative loss would be thirty-five days. Vanderkam offers that at the end of the twenty-eight year period, the Israelites inserted five weeks into the calendar to bring it back into alignment with the true solar year. The advantage of such a methodology is that it preserves the weekly sabbatical cycle uninterrupted. Another advantage is that the insertion of five weeks would not require an intricate system of record keeping. A severe disadvantage is that this method of intercalation works only with the type of solar calendar suggested in the book of Jubilees, a calendar type which takes no account of the lunar cycle. In Chapter 2 we discussed the shortcomings of such a calendar. Since Vanderkam can offer no positive evidence for this method of intercalation ever being employed by the Israelites in the Old Testament, its advantages are outweighed by its disadvantages.

In a similar vein, Sidney Hoenig and Solomon Zeitlin have proposed a forty-nine day intercalary period inserted every forty-nine years as a non-literal Jubilee year. As we described this thesis above (pp. 33-35), it is based on the type of solar calendar mentioned in the book of Jubilees. In distinction to Vanderkam's proposal for a thirty-five day

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[10]James C. Vanderkam, "The Origin, Character, and Early History of the 364-Day Calendar: A Reassessment of Jaubert's Hypothesis," Catholic Biblical Quarterly 41 (1979): 390-411.

intercalary period, Hoenig and Zeitlin count the difference between this calendar and the true solar year as one day, not one and one-quarter days. Thus, in a period of forty-nine years, the calendar would have fallen forty-nine days behind the sun. On the basis of a literal translation of Leviticus 25:8, Hoenig and Zeitlin contend that the Jubilee year was a short "year" of forty-nine days, which functioned as an intercalary period.

It is true that a literal translation of this verse would appear to specify the Jubilee period as forty-nine days, not forty-nine years. However, as we have seen, the plural of יוֹם can have a multiplicity of meanings, and virtually all translators understand the verse from Leviticus as speaking of forty-nine years, not days. Further, Hoenig and Zeitlin's translation turns on the grammatical purpose of the last word of the verse, שָׁנָה. Hoenig and Zeitlin regard שָׁנָה as the unmodified object of the verb, וְהָיָה, rendering, "the days of the seven Sabbaticals of years, forty-nine, shall be for thee a year".[11] Commonly, translations take שָׁנָה as the object modified by וְאַרְבָּעִים וְתִשַׁע, that is, "forty-nine years." On the surface, Hoenig and Zeitlin's translation would seem to be the more accurate, since שָׁנָה is singular, not the plural one might expect to find with "forty-nine." Yet, this is a deceptive argument, for the singular שָׁנָה has a plural meaning when it follows denominations of tens and hundreds (see the many examples in Gen. 5:17, 20, 23, and passim).[12] Thus, since שָׁנָה fol-

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[11]Sidney B. Hoenig, "Sabbatical Years and the Year of Jubilee," Jewish Quarterly Review 59 (1968-1969): 222.

[12]Brown-Driver-Briggs, s.v. שָׁנָה.

lows "forty," one would expect it to be singular, and by the word order of the verse, it would seem most likely that שָׁנָה is not the unmodified object of וְהָיָה, but the object that is modified by "forty-nine." Which translation, then, is correct? It would appear that the common translation, referring to forty-nine years, has the weight of normal usage behind it, but one is not able to dismiss Hoenig and Zeitlin's translation out of hand. The possibility of their rendering must be granted.

Is there anything else to commend Hoenig and Zeitlin's thesis? A very attractive part of their intercalary proposal is the effect it has upon the understanding of the Jubilee year itself. An initial reading of Leviticus 25 suggests that following the forty-ninth year, itself a sabbatical year of rest for the land, no crops were to be planted or harvested in the fiftieth year either. This would indicate two successive years where crops were not planted, and a three year span before a crop would be ready for harvest. The biblical promises of the Lord's provision in previous years for this "rest" period notwithstanding, a three-year harvest hiatus is difficult to comprehend in a society anchored in its agricultural pursuits. Thus, it is not uncommon to find commentators regarding the Jubilee year as a provision that was never put into practice, and perhaps not even prescribed until the late redaction of P.

Hoenig, however, contends that the three-year harvest hiatus is a misunderstanding of the plain sense of the text. Verse 3 declares that for six years the Israelites may sow, prune, and gather their crops, a "calendar" that begins and ends in the fall. Hoenig (and Zeitlin), how-

ever, contends that the normal calendar of Israel (being solar according to his construction) began and ended in the spring. The crops planted in the fall of the sixth year would be ready for harvest during the first half of the seventh year. Arguing that the sabbatical prohibition of harvest would not come into effect until the fall of the seventh year, Hoenig maintains that the crops sown in the fall of the sixth year would be harvested in the spring of the seventh, and not left to rot in the fields. Following the harvest in the spring of the seventh year, no crops would be planted in the fall of that year, and there would be no harvest in the spring of the next year, the first of the new cycle. In the fall of that year, the eighth, crops would be planted for the harvest of the following spring and summer.

In the case of the Jubilee year, Hoenig follows the above pattern, but in the fall of the forty-ninth year, the intercalary period of seven weeks is inserted as the fiftieth "year," the non-literal Jubilee year. Following the elongated forty-ninth year, a year which included within it the fiftieth "year" of forty-nine days, a new cycle would begin. There would be no crops to harvest in the spring of the first year (the eighth year in the preceding paragraph), but in the fall of that year crops would be planted for harvest in the succeeding year.

A graphic portrayal of the argument makes matters clear. In the following chart, "a" refers to the first half of the solar year, the spring and summer months, and "b" refers to the second half of the solar year, the fall and winter months. The forty-eighth year of the Jubilee cycle would be parallel to the sixth year of the Sabbath cycle.[13]

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[13]The following chart is a modified and clarified version of the

Year	Activity
48b/6b	Fall season; planting of last crops.
49a/7a	Spring season; harvest of old crops.
49b/7b	Fall season; Sabbath year begins; no planting. On VII/10, a Jubilee "year" of 49 days (the "50th year,") is inserted (not counted in our chart as a full year), in which period there is no planting.
50a/8a/1a	Spring season; no harvest; new cycle begins.
50b/8b/1b	Fall season; planting of first crops of new cycle.
51a/9a/2a	Spring season; harvest of first crops of new cycle.

According to this schedule, the crops harvested in the spring of the forty-ninth year would need to preserve the Israelites only until the spring of the fifty-first year. Since those crops would normally suffice through the spring of the fiftieth year, the extraordinary provision would be only one year plus the seven-week intercalary period. Hence, we would find not a two-year fallow period and a three-year harvest hiatus, but an elongated one-year fallow period and an elongated two-year harvest hiatus.

Hoenig asserts that such an interpretation best fits the plain meaning of Leviticus 25:20-22:

> And if you say, "What shall we eat in the seventh year, if we may not sow or gather in our crop?" I will command my blessing upon you in the sixth year, so that it will bring forth fruit for three years. When you sow in the eighth year, you will be eating old produce; until the ninth year, when its produce comes in, you shall eat the old (RSV).

The three-year period mentioned in these verses, says Hoenig, refers to the time from the sowing of crops in the sixth year until the harvest of the crops in the spring of the ninth year (crops sown in the fall of the eighth), or, in our chart above, the three years would span from 48b to 51a. When sowing would take place in eighth year (the first year of the

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one Hoenig presents in his article, "Sabbatical Years and the Year of Jubilee," Jewish Quarterly Review 59 (1969): 222-36.

new cycle), the Israelites would still be eating from crops sown in the fall of the sixth year, the "old produce" mentioned in Leviticus 25:22. In fact, old crops would be utilized until the new crops came in during the harvest in the spring of the ninth year (the second year of the new cycle). In our chart above, the old crops are those planted in 48b, harvested in 49a, consumed throughout the period of 49a to 51a, thus sufficing, from the time of sowing to the time of harvesting, for three years. From this understanding, Hoenig draws the following conclusion:

> It should be pointed out that the blessing of "three years" is not recorded in the section dealing with Shemittah (verses 1-8), but rather in that pertaining to the Jubilee year (verses 18-22). According to the traditional notion, that there was also a full Jubilee year after the seventh Shemittah year, i.e., two successive fallow years, it should be a blessing of four years! This is because the new planting in such post-Jubilee year presumably the 51st, could be only in the ninth year (9b), since the Shemittah year is the seventh in the cycle and the Jubilee (50) is the eighth year. Planting then would occur in the next year, the ninth (9b), and the crops thereof ready only in the spring of the tenth (10a). But verse 22 mentions definitely the activity of planting in the eighth (8b) and eating the new produce in the ninth (9a)![14]

This rather intricate proposal is attractive on two grounds. First, it provides an intercalary method that does not disturb the flow of weeks in the Hebrew culture. Second, it alleviates the "problem" of the normal understanding of the Jubilee year (a two-year fallow period), reducing the time of no new crops to just one solar year plus forty-nine days. The proposal's virtue is its literal adherence to the words of the text.

Nevertheless, Hoenig and Zeitlin's proposal is not without its drawbacks. Chief among these is its reliance upon the solar calendar of the book of Jubilees. The deficiencies of a solar calendar in handling

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[14]Ibid., 227.

all the calendar data of the Old Testament have been cited in Chapter 2. There are simply too many texts of the Hebrew Bible based on lunar reckonings to conclude that the Hebrews used this purely solar calendar. A second deficiency is the length of time in between intercalations. Could the Israelites allow their calendar months to stray from their appropriate seasons by a period of seven weeks, nearly two full months? In the latter part of the Jubilee cycle, the Israelites would live for years with their months having little or no relation with the season. How could the Israelites celebrate First-fruits in Abib, when the barley harvest was still five to seven weeks in the future?[15] Third, Hoenig's arguments are based on the counting of the Sabbath and Jubilee years from the fall, not the spring. While this is surely a possibility, and may have the weight of the order of events mentioned in Leviticus 25 behind it (sowing, pruning, harvesting), nevertheless, if the Israelites also counted the Sabbath and Jubilee years from the spring, the entire proposal falls flat. Hence, while the thesis of a short Jubilee "year" serving as an intercalary period is interesting, its inadequacies are

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[15]Hoenig responds unconvincingly to this argument: "It has been asserted that the loss of a day every year for forty-nine years would naturally shift annually the true season of observance of a festival and especially so in the time of the Jubilee. This is not correct, for even with the shifting of the days, the biblical festivals annually would still be within the period of their proper season (or Tekufah of 91 days). Passover would always be within the spring season (Abib) (cf. Ex 20.15 and Deut 16.1), i.e., in the period between the vernal and summer equinoxes, and Sukkot between the autumn and winter equinoxes. In the forty-ninth year the addition of the forty-nine days in the seventh month would bring again the proper adjustments--the conformity of the seasons to the natural time of the observance of the festivals" (Hoenig, "Sabbatical Years," 234).

This explanation, however, still fails to take into account the biblical emphasis on the months, not the seasons, in which the festivals occur.

too great for us to receive it as the accepted method of intercalation in the Old Testament.

Such a conclusion notwithstanding, one might conjecture that at some point in its history Israel may have inserted its intercalary month in the fall as the short Jubilee "year." Hoenig's reading of the three years stated in Leviticus 25:20-22 is persuasive. If the traditional understanding of two fallow years requires too great a leap of faith, Hoenig's understanding of the text, combined with the more acceptable luni-solar calendar described in Chapter 3, might suggest a fallow period of one year and one intercalated month (the month considered as the "fiftieth" year). Of course, one must admit that there is no evidence for such a method ever being in use. One must also admit that the tenor of Leviticus 25 would seem to speak against the Jubilee year as being a "little" year, and not a standard year of twelve months. Intriguing, nonetheless, are the possibilities Hoenig and Zeitlin's proposals bring to the fore.

Robert G. North approaches intercalation and the Jubilee year from a different perspective. North entertains a calculation suggested by Johann G. Franke, that forty-nine solar years is exactly equal to fifty lunar years plus six lunar months.[16] (Actually, forty-nine solar years is equal to fifty lunar years plus six lunar months plus eight days.) Franke postulated that at the outset of the forty-ninth solar year, the fiftieth lunar year was just beginning its second half. By the end of the forty-ninth solar year, twelve months later, the lunar year would be

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[16]Johann G. Franke, Novum systema chronologiae fundamentalis (Gottingen, 778), cited in Robert G. North, Sociology of the Biblical Jubilee (Rome: Pontifical Biblical Institute, 1954), 127.

in its seventh month. Franke proposed that the next six lunar months amounted to the Jubilee year, inserted in the lunar reckoning while the solar calendar remained on "hold." At the end of those six months, the lunar and solar calendars would again be in alignment.

North finds in Franke's theory a possible solution to the question of whether the Jubilee year coincided with the forty-ninth year of the sabbatical cycle and then the new cycle began to be counted on the fiftieth, or whether the Jubilee year was the fiftieth year, and then the new cycle began with the fifty-first year. Leviticus 25 is not altogether clear on the subject. Verse 8 plainly states that forty-nine years are to be counted, and then the Jubilee is declared on VII/10. But does this mean that the forty-ninth year ended on VII/10? Counting this day as a new year's day is a possibility, as we shall discuss in Part II, but it is by no means a certainty in biblical times. Further, were Jubilee periods counted in periods of multiples of seven, or were they counted in multiples of fifty? Franz Kugler, among others, asserts that as the Sabbath year is the seventh in the cycle, and not the eighth, so also the Jubilee, the Sabbath of Sabbaths, would be the forty-ninth year of the cycle, and not the fiftieth.[17] (A similar ambiguity exists with the celebration of Pentecost, referred to as the fiftieth day in Lev. 23:16, but also referred to as seven weeks, counting from the morrow after the Sabbath to the morrow after the Sabbath. Is this, then, the forty-ninth or the fiftieth day?)

North responds that rather than entertaining "abstruse chronologi-

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[17]Franz Xaver Kugler, Von Moses bis Paulus (Munster in Westf.: Verlag der Aschendorffschen Verlagsbüchhandlung, 1922), 5; cited as well in North, Sociology, 130.

cal theories," it is better to join with exegetes who are content to call the imprecision of the text a "vagary of language."[18] In seeming to refer to the same year as both the forty-ninth and the fiftieth, says North, the text does not contradict itself, nor should we assume that the author was unaware of the difficulty. Instead, North concludes the following:

> It may be considered virtually certain that the basis for the jubilee solemnity was its identity with the forty-ninth year. But this year could in a certain sense be called the fiftieth. This was most probably for the convenient practical reason of fitting it into the decimal system. But a special mystical symbolism of the number fifty may have been partially considered. And even the correction of the lunisolar year may have exerted some influence. It is sufficient to retain that the jubilee was a super-sabbath year forced into a decimal pattern for extrinsic reasons.
>
> As for calling the jubilee year both fiftieth and forty-ninth, there is no reason to doubt that the original Levitical lawgiver himself took this step, without in any sense thinking of a fiftieth year as distinct from the forty-ninth.[19]

What interests us in this debate is that perhaps the Jubilee year was the six month lunar intercalation. The forty-ninth year would refer to the last solar year in the cycle, and the fiftieth year would refer to the extra six lunar months needed to reconcile the solar and lunar calendars. As North admits, this would explain how the Jubilee year could be considered a separate year without being an additional year in the solar Jubilee cycle.

Such a proposition has the advantage of helping us understand the ambiguity of the Jubilee texts, but it has several shortcomings as well. Primary is the fact that six lunar months added to fifty lunar years do not equal forty-nine solar years. The difference of eight days is too

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[18]North, Sociology, 129.

[19]Ibid., 133.

large a discrepancy to simply disregard. Closer to the truth, as August Klostermann points out,[20] is that fifty solar years equal fifty-one lunar years plus six months, but such a calculation would have little significance with regard to the Jubilee cycle. If the six lunar months would not serve to align the lunar and solar years, then there would be no point in intercalating them as the Jubilee year. A second shortcoming was brought forward in discussing Hoenig and Zeitlin's thesis, namely, could the Israelites have waited to intercalate for forty-nine or fifty years? The discrepancy between the months and the seasons would be much too great toward the end of the cycle. In short, although the suggestion entertained by North would help understand part of the nature of the Jubilee year, it is not likely that it could ever have been implemented in the Israelite calendar, for it would create more difficulties than it would solve.

Jeroboam's feast in the eighth month provides some scholars with evidence for a possible method of intercalation. The narrative of 1 Kings 12 makes it clear that the reason Jeroboam established the feast in the eighth month was to discourage the people of the northern tribes from travelling to Jerusalem for Tabernacles in the seventh month: "And Jeroboam appointed a feast on the fifteenth day of the eighth month like the feast [חַג] that was in Judah" (v. 32; RSV). Simon De Vries, however, is not convinced that Jeroboam was acting in a heterodox manner. Instead, he feels the act

> can be best explained as referring to a unilateral act on the part of Jeroboam in decreeing an extra month after the first autumnal equinox of his reign. This is an indication that in early periods

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[20]Cited in North, Sociology, 127.

> intercalation was generally made whenever the authorities thought it to be needed.[21]

Hence, De Vries sees in this event an arbitrary act that would have no binding force on the feast in the following year; the feast would return to the seventh month until such time as intercalation were again necessary. The reason the month is called the eighth, and not the seventh (in which the feast would normally be contained), is that the records are kept from the perspective of Judah. In the year that Jeroboam intercalated a month, probably after the sixth month (so as to avoid disrupting the holy seventh month), Judah did not intercalate. From Judah's perspective, De Vries suggests, the festival was kept in the eighth month; but from Jeroboam's point of view, there was no alteration of the festival calendar.[22]

Within the realm of possibility is De Vries' suggestion, but of course it cannot be proven. The weight of the biblical evidence explaining why Jeroboam set up the feast, as well as why he established alternative worship sites in the north, would argue against it. Too, De Vries believes he finds traces of intercalation at Numbers 9:9-11 and 2 Chronicles 30:2-3. The latter passage records how the Passover was kept in the second month during the reign of Hezekiah because the priests were not sanctified in sufficient numbers and the people had not all gathered to Jerusalem. The former passage sets divine precedent for delaying the Passover in the case of ceremonial uncleanness. De Vries,

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[21]Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

[22]Simon J. De Vries, 1 Kings, Word Biblical Commentary (Waco, TX: Word Books, 1985), 163.

however, thinks that these two texts provide evidence of an intercalary month, moving the festival month of Passover from the first month in the calendar to the second. Yet, since the plain statement of the Numbers text can explain why the Passover might be kept in the second month, De Vries' suggestion is needless speculation. De Vries' inclination to find evidence for intercalation wherever a festival is put back one month, an inclination that persists in the face of contrary textual evidence, argues against his assertion that Jeroboam's feast is in fact an instance of intercalation.

Also working from Jeroboam's feast is S. Talmon, whose position we mentioned earlier (p. 52). Talmon assumes Jeroboam kept the feast in the eighth month because of climatic conditions: the harvest in the northern climes of Israel was later than the harvest in Judah. Commenting on the differences climate can make in harvest times, Talmon states:

> Especially is this so in Palestine, where climatic differences between the valleys and the mountainous parts, between the subtropical south and the moderate north, are greatly accentuated. As a result of these conditions, which favour an earlier ripening in the south, the average Judaean farmer would have completed the harvest of his main crops when the harvest in the north was yet at its height.[23]

According to Talmon, the reason Jeroboam moved the feast to the eighth month was that the crops dictated he do so. He could not celebrate Tabernacles until the vines were ready for the harvest, approximately one month later than they were in the southern kingdom.

Talmon errs in two points. First, the climatic differences are not as great as he supposes between north and south. The southern king-

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[23]S. Talmon, "Divergences in Calendar-Reckoning in Ephraim and Judah," Vetus Testamentum 8 (1958): 54-55.

dom encompassed mountainous areas at virtually the same latitude as the region of the northern kingdom. Roland de Vaux agrees:

> We must object that there is no difference in the time of harvest between Bethel and Jerusalem, that there is no noticeable difference between Ephraim and Judah, and that, if there was any difference, Ephraim would be rather in advance of Judah: at the present day, the cereals, olives and grapes around Nablus ripen earlier than those around Bethlehem and Hebron.[24]

Second, supposing that Talmon is correct, the kingdom of Judah itself would have had the same climatic difficulty, for the farmers in Judah's lower elevations would be celebrating Tabernacles at the very time the farmers of the mountainous elevations were still waiting for the vines to mature. Clearly, Judah did not have several dates for the celebration of Tabernacles in spite of its slight variations in the time of the harvest. There is no reason to think that the minor variation in harvest times between the north and the south, if there was any variation at all, would have been sufficient to warrant the intercalation of an entire month. Unless other textual evidence can be adduced offering a different explanation for Jeroboam moving the feast to the eighth month, the reasoning offered in 1 Kings is preferred. Jeroboam was not intercalating, but was seeking to stem the tide of pilgrims journeying to Jerusalem.

Several theories of intercalation in the Hebrew Bible revolve around the idea that the intercalated days were epagomenal days. In typical structures of intercalation, the added days are counted as part of a month, as part of the calendar year. Epagomenal days, however, are days that are added to the calendar but are not counted as part of the

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[24]De Vaux, Ancient Israel, 2:499.

year. These days stand outside of the calendar structure and are not counted in the flow of the week or the month.

Julian Morgenstern is one who thinks the Israelites originally accomplished intercalation by using epagomenal days. Working with the pentacontad calendar of seven periods of fifty days each (see above, pp. 29-33), Morgenstern acknowledges that some type of intercalation would be necessary to bring the pentacontad year of 350 days in alignment with the solar year of 365 1/4 days. Morgenstern describes the intercalation below:

> In Assyria . . . sixteen days, and in Babylonia fifteen days, were added to the seven fifty-day periods, thus making the actual calendar year in Assyria total three hundred and sixty-six days, and in Babylonia three hundred sixty-five days. This period of sixteen or fifteen days respectively was known as šapattum. In both countries this šapattum seems to have been incorporated into the calendar year between the end of the winter "fifty" and the beginning of the "fifty" of the grain harvest. . . .
>
> The Palestinian pentacontad calendar year consisted of three hundred and sixty-five days, i.e. the seven fifty-day periods plus the šapattum of fifteen days. But, unlike the Babylonian and Assyrian practice, this fifteen days supplement to the seven "fifties" was divided into two periods, one of eight and one of seven days, each in itself known as a šapattum.[25]

In Morgenstern's scheme, the eight day epagomenal period was the Passover and First-fruits festivals in the spring, and the seven day epagomenal period was the Feast of Tabernacles in the fall. Neither of these festival times were included in the counting of the "fifties," but were outside of the pentacontad structure.

Naturally, this theory of intercalation is only acceptable if Israel at one time truly operated according to the pentacontad system, a system we have evaluated negatively. With the textual evidence we pos-

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[25]Julian Morgenstern, "The Chanukkah Festival and the Calendar of Ancient Israel," Hebrew Union College Annual 21 (1948): 370-71.

sess for these two festival times, it is clear that they are counted as part of the months in which they occur, making Morgenstern's argument pure speculation.

E. R. Leach proposes a more plausible plan utilizing the idea of epagomenal days. Leach assumes the use of the 364 day calendar described in the book of Jubilees, and, like Hoenig and Zeitlin, looks to the Sabbath and Jubilee years as the most appropriate times for intercalation to have taken place:

> [The] evidence suggests to me a fairly straight-forward way in which the Jubilee/Enoch Calendar may have been intercalated to make it appear as a "practical" Calendar "as good as" the Metonic cycle:--
>
> 7 [sic] days are intercalated at the Feast of Tabernacles once every 7 years, making 42 days in 42 years. These 7 day intercalary periods, when they occur, are referred to as a "Sabbath." They are periods of total taboo and do not count as days of the month.
>
> In the 49th year when the 10th day of the VIIth month is reached, Jubilee is declared. These first 10 days of the month are then simply cancelled out. The 7 day intercalary period which immediately follows is the Jubilee Sabbath and is described as "the fiftieth year" (Leviticus xxv 11). At the end of this brief "year," the VIIth month of the 49th year will start again. The XIIth month of the 49th year is then followed by the Ist month of 1st year of the new 49 year cycle. . . .
>
> The time cycle, as a whole, would then consist of sequences of 49 years of 364 days each, with intercalary periods inserted into the middle of each 7th year. The length of these intercalations would be 7, 7, 7, 7, 7, 7, and 17 days respectively, 59 days in all.[26]

Leach's argument is interesting, but it does not take into account that in the texts themselves, the days of Tabernacles are counted as part of the year. Although the Bible surely presents these days as holy, they are not taboo. Solemn assemblies are called for the first and eighth days of the feast, but apparently the Israelites were quite active during the other days. More damaging to Leach's theory is that

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[26]E. R. Leach, "A Possible Method of Intercalation for the Calendars of the Book of Jubilees," Vetus Testamentum 7 (1957): 395-96.

the erasure of the first ten days of the seventh month in the forty-ninth year would greatly disrupt the weekly sabbath cycle, which the calendar of Jubilees protects with all vigor. As well, as we have commented on Hoenig and Zeitlin's "short year" approach to the Jubilee year, the tenor of Leviticus 25 seems to point toward a true year. It would be hard to conceive why, if the period of the Jubilee were only seventeen days total (including the erased first ten days of the seventh month), the texts would refer to this time as a year. Even more difficult to comprehend for such a brief period of time are the regulations that are given: why would so much legislation be issued and why would there be questions about surviving with the old crops if the year were indeed only a fortnight? These difficulties make Leach's system of intercalation practically untenable, even within the book of Jubilees' calendar.

J. Van Goudoever also seeks to use the first ten days of the seventh month as a time of intercalation. Because VII/10 is the beginning of the Jubilee year, and because Ezekiel refers to this day as רֹאשׁ הַשָּׁנָה, van Goudoever argues that this day is the true beginning of the year. He claims that the first ten days of this month were added as intercalary, epagomenal days to balance the excess of the solar year with the lunar year. Each year, then, the Israelites would have intercalated these ten days and adjusted their calendars.[27]

The chief problem with this suggestion is that the excess of the solar year beyond the lunar year is not ten days, but slightly more than

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[27]J. Van Goudoever, Biblical Calendars, 2nd rev. ed. (Leiden: E. J. Brill, 1961), 36.

eleven. After a period of just twenty-five years, following van Goudoever's intercalary method, the calendar would be a bit more than a month askew from the seasons! One may question, too, van Goudoever's premise that VII/10 was originally a new year day on the basis of his cited evidence. That VII/10 began the Jubilee year is no proof that it was the beginning of the regular calendar year. That Ezekiel uses a phrase which is later adopted as the name of the Jewish new year day is no proof that in Ezekiel's time it had the same meaning. Van Goudoever's assumptions are weak and his solution proves to be no solution at all. As well, his position suffers the same weakness as Leach's: by adding ten days that are outside of the calendar, the weekly sabbath cycle is disrupted. Would the Israelites have celebrated the Sabbath during the ten epagomenal days? Would they have continued their counting of the seven days of the Sabbath from the end of the sixth to the beginning of the seventh month? Would they have continued their counting from this ten day period into the following "new year"? The weaknesses of van Goudoever's intercalary thesis make it untenable, as are all the attempts to root the intercalary period in a theory of epagomenal days.

Summary

After the above survey of proposed methods of intercalation, the reader may conclude that there is no proof of any acceptable form of intercalation in the Scriptures. If so, the reader would not be alone. Both Dillmann and Zeitlin contend that the lack of a direct explanation of the intercalary process is sufficient proof that there was in fact no intercalation; rather, the Israelites originally followed a purely solar

calendar, with the months having no relation to the moon whatsoever.[28] This contention is, however, an argument from silence, and the proofs for a purely solar calendar are no more convincing than the proposals for intercalation discussed in this chapter.

While it is true that we can find no irrefutable instance of intercalation in the Old Testament, the majority of scholars attribute this lack of information to a quirk of the Scriptural testimony. That intercalation is not specifically described does not mean it was not a part of Israelite calendar operations. If the Israelites used a lunisolar calendar, then they must have intercalated.[29]

Certainly, the Metonic cycle was adopted near the time of the New

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[28]Dillmann's position is stated in W. Lotz, "Year, The Hebrew," in The New Schaff-Herzog Encyclopedia of Religious Knowledge, ed. S. M. Jackson, 1973 ed. Zeitlin's position is stated in his work, Studies in the Early History of Judaism, 4 vols. (New York: Ktav Publishing House, 1973), 1:184.

[29]Scholars of this view point include:
George A. Barrois, "Chronology, Metrology, Etc.," in The Interpreter's Bible, ed. George A. Buttrick.
F. F. Bruce, "Calendar," in The New Bible Dictionary, ed. J. D. Douglas, 1962 ed.
Henry M. Buck, People of the Land (New York: Macmillan Co., 1966), 114.
John D. Davis, A Dictionary of the Bible, 4th ed., 824.
De Vaux, Ancient Israel, 1:189.
De Vries, "Calendar," 486-87.
Edersheim, History, 270.
Foster, "Chronology," 594.
James Hastings, ed., A Dictionary of the Bible, 1931 ed., 763.
Hans-Joachim Kraus, Worship in Israel, trans. Geoffrey Buswell (Richmond, VA: John Knox Press, 1966), 84.
LaSor, Survey, 290.
John L. McKenzie, Dictionary of the Bible, 1965 ed., 114.
James Orr, ed., The International Standard Bible Encyclopedia, 1915 ed., s.v. "Calendar" and "Time."
Frank Parise, ed., The Book of Calendars (New York: Facts on File, 1982), 12-13.
Hayyim Schauss, The Jewish Festivals: History and Observance, trans. Samuel Jaffe (New York: Schocken Books, 1938), 114.

Testament. It is reasonable to assume that some similar method was in use before the Metonic cycle was officially adopted, if for no other reason than the method works so well in avoiding gross discrepancies between the months and the seasons. In earlier times there is no one method that clearly holds the field against all others. One cannot rule out the simplest method, that of observation: when the months began to stray from the season, an additional month was intercalated. Surely this was done at an opportune time, avoiding a disruption of the major festivals. Neither, however, can one rule out a more intricate method, for the calendar reckoning skills of the ancients were by no means primitive. What can be said with certainty is that whatever method was used, it did not leave its imprint upon the biblical record. Every proposal that seeks to fill this void contains major deficiencies, or requires a calendar type that was not likely used in the Old Testament. Thus, the method, although not the fact, of intercalation will remain a mystery.

In Part I we have examined the evidence brought forward for a primarily lunar calendar, a primarily solar calendar, a rectified lunisolar calendar, and evidence for possible methods of intercalation in the Old Testament. The conclusions we draw follow.

First, there can be no doubt, on the basis of the text of the Hebrew Bible, that both the moon and the sun were used in reckoning the passage of time. Neither sun nor moon may be said to have primacy over the other. The lunar cycle influenced the months, cultic observations, and perhaps even the week. The solar cycle influenced Israel's agrarian pursuits and its festivals. To seek a calendar in the Old Testament

that ignores the influence of either the moon or the sun is folly. Such an expedition requires vast reworking of the texts, as well as a great amount of speculation for which there is no evidence at all. The most serious indictment against both the primarily lunar and the primarily solar calendars is that neither one can adequately explain all the evidence of calendar reckoning contained in the Scriptures.

Second, while a full explanation of the rectified luni-solar calendar is nowhere found in the Old Testament, the process of deduction and elimination leaves us with this calendar as a virtual certainty. Yet, we arrive at this conclusion not merely on the basis of deduction. The forthright statements of Genesis 1:14-18, the apparent lunar and solar reckoning of the length of the flood, the lunar and solar reckonings included in the festal calendars, and the luni-solar calendars employed by Israel's neighbors provide formidable substantiation for our conclusion.

Third, if indeed a luni-solar calendar was employed in Israel, then it must have undergone some type of periodic intercalation. Many of the proposals we have entertained are intriguing, not only for how they handle intercalation, but also for how they can offer new understandings of difficulties in other parts of Israel's life. We assume, however, that any method of intercalation must be accurate and timely if it is to be used productively in a society. Methods that allow the months and the seasons to stray far from one another do not achieve the intended purpose of intercalation. No one can be certain of the method used in the Old Testament, but we suppose it was one based on both the observation of the state of the crops and some method of calculation.

That is, after observing the need for intercalation approximately once every three years, it would not take long for the Israelites to develop an anticipation of when the next intercalary month would be needed, even before observation would prove it necessary. Eventually, we suppose, this observation/calculation method led to the formal adoption of the Metonic cycle in Israel, although it is impossible to determine when the change in methodology took place.

Thus far our treatment of the nature of the calendar in the Hebrew Bible. We turn next to an important topic in understanding the workings of the Hebrew calendar, its structure respecting the date of the new year.

PART II

STRUCTURE OF THE CALENDAR: ITS NEW YEAR

CHAPTER 5

EVIDENCE FOR AN AUTUMNAL NEW YEAR

The date of the new year is one of the more controverted topics in the study of the Hebrew calendar. In modern Hebrew accounting the new year is firmly fixed at Rosh Hashanah, on the first of Tishri, the seventh month. This dating is, itself, anomalous, for it sets the beginning of the year in the middle of the enumerated months! Does the year truly begin with the first of the counted months (in the spring), or does the year truly begin with Rosh Hashanah (in the fall)? In the following chapters we will examine evidence adduced for both positions, as well as evidence that would suggest there were two new year dates in Israel's calendar.

We will follow in this chapter the method utilized in previous chapters, first hearing the typical biblical arguments for an autumnal new year date, then unique arguments for a fall new year, and finally an assessment of the autumnal position.

Biblical Arguments for an Autumnal New Year

The biblical evidence supporting a new year date in the fall comes from nine different texts. The first is Exodus 23:16: "You shall keep the feast of ingathering [Tabernacles, Booths, סֻכּוֹת] at the end of the year [תְּקוּפַת הַשָּׁנָה בְּצֵאת , the going out of the year], when you gather in from the field the fruit of your labor" (RSV). For many scholars, this

verse both begins and ends the debate on the time of the new year. Tabernacles, the vintage harvest, is clearly in the fall, a time designated as the "end of the year." If it is the end of one year, it must also mark the beginning of the next year. Typical of the scholars who find this text unambiguous is Brevard Childs, who acknowledges the debate between spring and fall datings but nevertheless concludes: "However interpreted, Ex. 23.16 clearly sets the new year in the fall."[1]

A second text appealed to in support of a fall new year is Exodus

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[1]Brevard S. Childs, Exodus: A Commentary, The Old Testament Library (London: SCM Press, 1974), 485. We list here several commentators who believe the text conclusive on this issue:

F. F. Bruce, "Calendar," in The New Bible Dictionary, ed. J. D. Douglas, 1962 ed.

Umberto Cassuto, A Commentary on the Book of Exodus, trans. Israel Abrahams (Jerusalem: Magnes Press, Hebrew University, 1974), 137, 303.

Roland de Vaux, Ancient Israel, 2 vols., trans. John McHugh (New York: McGraw-Hill Book Co., 1965), 1:190.

Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick. De Vries, however, feels that prior to the keeping of the fall new year, the Israelites had earlier celebrated a spring new year.

S. R. Driver, The Book of Exodus (Cambridge: Cambridge University Press, 1911), 87-88.

Baruch Halpern, The Constitution of the Monarchy in Israel, Harvard Semitic Monographs, No. 25, (Chico, CA: Scholars Press, 1981), 95.

Paul Heinisch, History of the Old Testament, trans. William Heidt (Collegeville, MN: Liturgical Press, 1952), 220.

Phillip J. Hyatt, Commentary on Exodus, New Century Bible (London: Oliphants, 1971), 248.

Martin Noth, Exodus: A Commentary, The Old Testament Library, trans. J. S. Bowden (London: SCM Press, 1962), 94.

J. Coert Rylaarsdam, "The Book of Exodus: Introduction and Exegesis," The Interpreter's Bible, 12 vols., ed. George A. Buttrick et al. (Nashville: Abingdon Press, 1952), 1:916.

Elihu Schatz, Proof of the Accuracy of the Bible: Based on Chronological, Organizational, Prophetic and Legal Analyses (Middle Village, NY: Jonathan David Publishers, 1973), 66-70.

Hayyim Schauss, The Jewish Festivals: History and Observance, trans. Samuel Jaffe (New York: Schocken Books, 1938), 116.

Julius Wellhausen, Prolegomena to the History of Ancient Israel, trans. J. Sutherland Black and Allan Menzies (New York: Meridian Books, 1957), 108-9.

34:22: "You shall observe . . . the feast of ingathering at the year's end [תְּקוּפַת הַשָּׁנָה , the circuit, or the coming around, of the year]" (RSV). Apparently derived from a supposed root √קוף (having the same meaning as √נקף, "to go around"), תְּקוּפָה refers to the completion of a cycle, for example, the cycles run by the year and the sun in their journeys.[2] That the completion, not the beginning, of the circuit is implied is made clear from the parallelism in Psalm 19:5-6 [H:6-7], which describes the sun's place in the heavens: "which comes forth like a bridegroom leaving [יֹצֵא] his chamber, and like a strong man runs its course with joy. Its rising [מֹוצָאוֹ] is from the end of the heavens, and its circuit [וּתְקוּפָתוֹ] to the end of them [literally, 'unto/upon their end']" (RSV). The Psalm text indicates that the sun goes out from its house in the east in the morning, and then sets in the west, having run the course through the heavens. The Hebrew תְּקוּפָה refers here to the end of the sun's visible journey. In the Exodus text תְּקוּפַת would imply the end of the year's journey, and consequently, its preparation for a new journey in the new year. All the scholars who were cited in support of the previous passage from Exodus agree that this text also proves that the new year was in the fall, near the time of the vintage. Noth summarizes for all in this camp: "The term 'turn of the year' is used instead of 'beginning of the year' [as in Ex. 23:16] to define the time of the autumn festival, although both mean the same thing."[3] Thus, the earlier Exodus text may refer to the coming out of the new year, while the current Exodus text may refer to the comple-

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[2]Brown-Driver-Briggs, s.v. תְּקוּפָה .

[3]Noth, Exodus, 264.

tion of the old year, both events taking place in the fall.

A third text in support of an autumnal new year is Leviticus 25:1-7. In this section dealing with the Sabbath year cycle, the counting of the years is reckoned from the time of sowing: "Six years you shall sow your field, and six years you shall prune your vineyard, and gather in its fruits" (RSV, v. 3). Since crops were sown in the fall, vines pruned in the spring and summer, and the vintage gathered during the autumn months, the cycle of the year here presented begins and ends in the fall. Further, the Jubilee year, described as well in Leviticus 25, begins in the fall. If these two years had their beginnings in the autumn, the argument states, then it is reasonable to assume that the regular new year also came at this time. If not, then the Sabbath and Jubilee years would be composed of parts of two regular calendar years, which the texts do not seem to imply. (Sidney Hoenig [see pp. 69-71] has maintained precisely this point, that the Jubilee year did overlap two calendar years. A. Noordtzij agrees that Lev. 25:20-22 presuppose a spring new year reckoning in contrast to the fall new year stated in 25:1-7, but he attributes this to a redactor operating at a later time when the spring reckoning was in use.[4])

A fourth text in the autumnal new year arsenal is 2 Samuel 11:1: "In the spring of the year [לְתְשׁוּבַת הַשָּׁנָה], the time when kings go

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[4]A. Noordtzij, Leviticus, Bible Student's Commentary (Grand Rapids: Zondervan Publishing House, 1982). On these verses Noordtzij comments: "This change in chronology indicates that verses 20-22 must date from a later time than 1-7, for the shifting of New Year's Day from autumn to spring--the latter system also influenced the festival calendar in chapter 23--took place some time in the future (perhaps under Solomon). These verses must therefore have been inserted at a time when this transfer of the beginning of the year to the spring created great difficulties with respect to the sabbatical year" (p. 255).

forth to battle . . ." (RSV). It would seem evident that the spring of the year is meant in this verse. Due to the precarious travel conditions of the fall and winter, a commander would be foolish to begin a campaign at any other time, particularly if that campaign were an extended one. From the verb √שוב, "to turn back, return," תְּשׁוּבָה is used to mean an answer in Job 34:36, and it refers to Samuel returning to Ramah, his home, following his circuit of justice in 1 Samuel 7:17. It is used three other times in the sense of our verse from 2 Samuel (aside from the parallel in 1 Chron. 20:1), at 1 Kings 20:22 and 26, and 2 Chronicles 36:10, each time referring to a military procedure. Working from the concept that the point where one begins a return journey is by definition the midpoint of the entire journey, some scholars argue that the spring of the year is thus the midpoint of a year that has its beginning in the fall. In this scenario, the year would go out in autumn, reach its midpoint in the spring, and then begin a return to its starting point of the fall. Commenting in this vein on the occurrence of תְּשׁוּבָה in 1 Kings 20, Roland de Vaux writes:

> According to repeated indications in the Assyrian annals, this [time for military expeditions] was usually in the spring. This "return" of the year would be the time when the year was half over, and beginning to return from winter to summer, when the days began to equal the nights, our spring equinox. This again presumes an autumnal year. The expression continued to be attached to this time of the year after the change of the calendar [to a spring new year reckoning], and in 2 Ch 36:10 it again refers to the spring: from other sources we are able to date the event referred to, the capture of Jerusalem, in March 597.[5]

Norman Snaith contends that it would be societal suicide for a nation to go out to war in the spring of the year when crops were still in the

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[5]De Vaux, Ancient Israel, 1:191. Schatz utilizes the same line of argumentation (Proof of Accuracy, 69-70).

field. He holds that לִתְשׁוּבַת הַשָּׁנָה must refer to mid or late summer, after the harvest was in. To deplete the number of men who could work in the harvest for the sake of winning a battle would be folly, asserts Snaith.[6] On the other hand, it would be folly to leave one's troops in the field while another nation attacked. Against Snaith, it is not difficult to suppose that sufficient manpower could be garnered to both bring in the harvest and stage a war. If לִתְשׁוּבַת הַשָּׁנָה does mean the return of the year from its midpoint, then these texts would indicate an autumnal new year.

More evidence is advanced in support of a fall new year from a fifth passage, 1 Kings 6:1 and 6:37-38. The former text places the beginning of the construction of Solomon's temple in his fourth year, in the month of Ziv, defined in the text as the second month. The latter text records that the temple was completed in the eleventh year of Solomon's reign, in the month of Bul, defined in verse 38 as the eighth month, with the notation that the temple was seven years in construction. Edwin Thiele claims this reckoning demands a fall new year:

> In the Hebrew scriptures the months are numbered from Nisan, regardless of whether the reckoning of the year was from the spring or fall. And reckoning was according to the inclusive system, whereby the first and last units or fractions of units of a group were included as full units in the total of the group. If Solomon's regnal year began in Nisan, then, according to the above method of counting, the construction of the temple would have occupied eight years instead of seven.[7]

Thiele's argument is this: If the temple was completed in the eleventh

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[6]Norman Snaith, The Jewish New Year Festival (London: Society for Promoting Christian Knowledge, 1974), 33-34.

[7]Edwin R. Thiele, The Mysterious Numbers of the Hebrew Kings (Grand Rapids: William B. Eerdmans Publishing Co., 1965), 28.

year of Solomon's reign, and his regnal years were counted from Nisan, then the temple would have been eight years in the building, not seven. But if Solomon's reign was counted from Tishri in the fall, while the year of the temple construction record was counted from Nisan in the spring, then the record is correct: the temple would have been completed in seven Nisan-reckoned years and in the eleventh Tishri-reckoned year of his reign. While Thiele's suggestion includes the use of a spring new year, it demonstrates nonetheless that during Solomon's reign there was an autumnal reckoning, limited as it may have been to the reckoning of regnal years. Thiele does not state this, but it is possible that the numbering of the months according to the spring reckoning was part of a later updating of the texts according to a spring new year method. If so, then an earlier autumnal new year would have been in place up to that time. Simon De Vries intimates just this position in agreeing with Thiele.[8]

A similar type of deductive approach is at work in the sixth passage supporting a fall new year, 2 Kings 22:3 and 23:23. The former verse informs us that Josiah's temple reform began in his eighteenth year. The latter verse relates how the reform allowed the Israelites to celebrate Passover, also specified as occurring in Josiah's eighteenth year. In between these two texts is a description of the extent of the reform work accomplished: an audit of the temple funds, the finding of

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[8]De Vries, "Calendar," 484. De Vries maintains that any type of spring reckoning cannot have come until after the exile. Thus, since a Nisan year for months is at work in Kings, there must have been some editorial work done to the texts after that time. This is, of course, a circular argument, assuming that any text dated from the spring is post-exilic.

the book of the law, the gathering of the elders of Judah and Jerusalem, the purifying of the temple, the demolition of the heterodox altars in Jerusalem, and the destruction of the shrines and high places in Bethel and Samaria. Supposing a spring new year, all of these events would have had to have taken place within a span of two weeks from I/1 to I/14, if both were to fall within Josiah's eighteenth year. This is an enormous amount of activity for two weeks. However, if Josiah's reign is reckoned from the fall, from the seventh month of Tishri, then these events could have been accomplished within a time span of six and one-half months, a period more easily fathomed for the activity described. Hence, some type of fall reckoning is apparent from the text, even if it may have been limited to regnal reckoning.[9]

Careful attention to our seventh passage, Jeremiah 36:1 and 36:9, elicits evidence for an autumnal new year. It was sometime during the fourth year of Jehoiakim, according to 36:1, that Jeremiah received the revelation which Baruch wrote on the scroll. By the time Baruch read the scroll to Jehoiakim, however, it was the fifth year of his reign, at this point specified as the ninth month. This ninth month is clearly a winter month, since Jeremiah 36:22 reports that the king sat near the brazier to keep warm. If Jehoiakim's regnal year began in the spring, then a full nine months (and perhaps as many as twenty-one months) would have passed between the writing of the scroll and its reading, since in

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[9]Commentators arriving at a fall new year from this incident include:

William Emery Barnes, The Second Book of Kings, The Cambridge Bible (Cambridge: Cambridge University Press, 1908), 133.

De Vries, "Calendar," 484.

Wellhausen, Prolegomena, 108.

a spring calendar the first and ninth months are in the same year, while in our text, the writing of the scroll was done in a year prior to the reading of the scroll. However, if Jehoiakim's regnal year began in the fall, in the seventh month, then the writing of the scroll could have taken place, for example, in the sixth month (which would still be a part of the fourth year according to a fall reckoning), and the reading of the scroll in the ninth month of the new year (the fifth year, begun in the seventh month). While the texts from Jeremiah do not specify the length of time that elapsed between the writing and reading of the scroll, it does not seem to have been nine months or more. In fact, considering the dire straits of Jerusalem at this time, it would seem odd for Jeremiah to have received the revelation and then done nothing with it for nine months. The impression of the passage is that a brief period of time elapsed between the writing and the reading, thus indicating a fall regnal reckoning.[10]

A text that evokes a great deal of discussion is Ezekiel 40:1, the eighth in our examination. The text reads, "In the twenty-fifth year of our exile, at the beginning of the year [בְּרֹאשׁ הַשָּׁנָה], on the tenth day of the month . . ." (RSV). Several scholars advance the opinion that the month spoken of in the verse is the seventh month. They do so because of the importance of the tenth day of the seventh month in

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[10]So concludes even Alfred Jeremias, who contends that before this time Israel employed a spring new year; see The Old Testament in the Light of the Ancient East (New York: G. P. Putnam's Sons, 1911), 45. In support of a fall new year from the Jeremiah passage is Morgenstern in his work, "The New Year for Kings," in Occident and Orient: Gaster Anniversary Volume, ed. Bruno Schindler (London: Taylor's Foreign Press, 1936), 442-43. See also Norman C. Habel, Concordia Commentary: Jeremiah, Lamentations (St. Louis: Concordia Publishing House, 1968), 279.

Leviticus, which is the Day of Atonement as well as the day of the beginning of the year of Jubilee. Another indication to these scholars that the seventh month is meant comes from the use of the phrase רֹאשׁ הַשָּׁנָה, which in later Judaism is the name for New Year's Day, the first of Tishri. The argument is laid out as follows. Ezekiel here observes an old date for the time of the new year, the one reflected in that part of Leviticus 25 designated as H (from the Holiness Code), in distinction from those parts labeled P (from the Priestly editor). P has moved the date of the new year from H's VII/10 to VII/1, leaving VII/10 as the holy day of expiation. Thus, with this proof that VII/10 in Ezekiel 40 refers to an older date for the new year, the beginning of the year must be in the fall.[11]

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[11]Accepting this line of argumentation are:

G. A. Cook, The Book of Ezekiel, International Critical Commentary (New York: Charles Scribner's Sons, 1937), 429.

S. Fisch, Ezekiel (London: Soncino Press, 1950), 266. Utilizing a Talmudic reckoning, Fisch calculates that the year of Ezekiel's vision was a Jubilee year, thus adding greater weight to the conclusion that the month involved was the seventh month, since the Jubilee year began on VII/10. Called the "head of the year" by Ezekiel, this date must be the beginning of the Jubilee, Fisch contends. He finds this day of liberation an especially fitting day for Ezekiel's vision portraying the redemption of Israel and the rebuilding of the temple.

Halpern, Constitution of the Monarchy of Israel, 95. Halpern uses this verse to help substantiate this conclusion: "From an early period, the autumn New Year now normative in Judaism was in force."

Walther Zimmerli, Ezekiel 2, trans. James D. Martin, Hermeneia Series, ed. Paul D. Hanson with Leonard Jay Greenspoon (Philadelphia: Fortress Press, 1983), 345-47. Zimmerli admits that it is obscure why the tenth day of a month should be the date for a new year rather than the first day. He notes Begrich's proposal that the ten days were used for some type of intercalation, a theory we discussed from van Goudoever on pages 82-83. Zimmerli seems to agree with Fisch that the Jubilee cycle is important for understanding the date of the text, but in contrast to Fisch, Zimmerli feels the date of Ezekiel's vision is the midpoint between Jubilee years. Nevertheless, in spite of the uncertainty, Zimmerli and the others mentioned here are sure that the seventh month is the reference, and thus they believe we are working with an autumnal new year.

The ninth, and last, text used to support a fall new year is Nehemiah 1:1 and 2:1. The first citation records the visit from Hanani, bringing distressing news of Jerusalem's plight. This visit occurs in Chislev, the ninth month of an unspecified twentieth year. Chapter 2 is specific: "In the month of Nisan, in the twentieth year of King Artaxerxes . . ." (RSV). Nehemiah, reporting his woe to the king, receives permission to travel to Jerusalem. Although the texts are not clear, if Nehemiah 1:1 refers to the same twentieth year of Artaxerxes as Nehemiah 2:1, then we find Chislev and Nisan in the same year. This can only happen when the new year is in the fall. Particularly impressive is this bit of evidence, for one would expect Nehemiah, serving in Mesopotamia, to use the standard spring reckoning of that culture. Persisting in his use of a fall new year, Nehemiah illustrates how ingrained the tradition must have been. Acknowledging the ambiguity of Nehemiah 1:1, L. H. Brockington nevertheless finds here proof for a fall new year:

> Some think that instead of twentieth in 1.1 we should read nineteenth and assume a scribal error, but it is not easy to see how a scribe could so misread. An alternative way is to suppose that there is here a revival of the practice from Solomon onwards until the exile of celebrating the new year in the seventh month (Tishri), using a sacred calendar alongside the secular one.[12]

Thus far we have examined the biblical evidence adduced in support of a fall new year in the Old Testament. Although some of these proofs

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[12]L. H. Brockington, ed., Ezra, Nehemiah, and Esther, The Century Bible (London: Thomas Nelson and Sons, 1969), 127. Others in basic agreement with Brockington are:

De Vries, "Calendar," 484.

F. Charles Fensham, The Books of Ezra and Nehemiah, New International Commentary on the Old Testament (Grand Rapids: William B. Eerdmans Publishing Co., 1982), 150.

W. Lotz, "Year, The Hebrew," in The New Schaff-Herzog Encyclopedia of Religious Knowledge, ed. S. M. Jackson.

are of a deductive sort, the evidence comes directly from the biblical texts themselves. We next consider other evidence for a fall new year, some biblical and some not, but all of which is indirect in nature.

Indirect Evidence for an Autumnal New Year

For extra-biblical, yet still contextual, evidence in support of a fall new year in Old Testament Israel, several students of Hebrew time reckoning point to the Gezer calendar. A soft limestone tablet discovered by Macalister in 1908, the Gezer calendar contains a "poem" of sorts listing the agricultural activities of the months of the year. Dated to the tenth century B.C., the Gezer calendar might seem to preserve critical information on Hebrew calendar reckoning. It does not utilize the names of the months found in the Hebrew Bible, but rather assigns names that are associated with the agricultural task undertaken in that month. The text begins with two months of olive harvest, then two months of grain planting, followed by two months of late planting, a month of hoeing up the flax, a month of barley harvest, a month of harvest and feasting, then two months of vine tending, and concluding with a month of summer fruit.[13] Since this calendar begins with activities associated with the autumn months and concludes with an activity of a late summer month, it would appear to support an autumnal new year as far back as the early divided monarchy in Israel's history. Roland de Vaux is one who finds calendar import in the Gezer tablet:

> This is not a memorandum of tasks to be carried out in the different months of the year, but a concordance table between the twelve lunations (the months of the official year, listed here without their

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[13]Translation from W. F. Albright, "The Gezer Calendar," Bulletin of the American Schools of Oriental Research 92 (1943): 16-26.

> proper names) and the periods of the agricultural year, which the peasants called after the tasks they performed in them.[14]

If nothing else, the Gezer tablet illustrates that in the common understanding of the agricultural year, the calendar began with the fall.

Along the same line, Solomon Zeitlin implies that since the Israelites were primarily an agrarian people, the fall would be the most reasonable time for their new year to be found, after the full harvest had been gathered, rather than in the spring in the middle of their agricultural pursuits.[15] We may also point out that the feast of Tabernacles kept in the seventh month was the festival of festivals for the Israelites, sometimes referred to not by its proper name, but simply as "the feast" (see, e.g., Lev. 23:9; 1 Kings 8:2; 12:32; Hosea 9:5; 2 Chron. 7:8). It would seem appropriate for the feast of feasts to be at the head of the new year. Perhaps the same may be said for the Day of Atonement; having this solemn day of purification of the tabernacle and the people at the juncture of one year departing and another year arriving makes a certain amount of spiritual sense. One would leave the sins of the old year in the past, driven into the wilderness with the scapegoat, and one would begin the new year in the consolation of reconciliation with the Lord.

The ubiquitous flood account may also have something to bring to the time of the new year. W. Lotz notes that the year in the flood

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[14]De Vaux, Ancient Israel, 1:183-84.

[15]Zeitlin makes this point about the Israelites after the exile, but his argument holds for any point in Israel's history, as they would have pursued agriculture from the moment of the conquest. See Solomon Zeitlin, The Rise and Fall of the Judaean State, 3 vols. (Philadelphia: Jewish Publication Society of America, 1968), 1:218.

account (attributed to the Priestly source) begins with the fall, for that is the time of rain, not the spring.[16] John Skinner concurs, but he notes the intrinsic difficulty in suggesting that the second autumn month is meant in Genesis 7:11: "If the second autumn month (Marcheswan) is a suitable time for the commencement of the Flood, because it inaugurates the rainy season in Palestine and Babylonia, it is for the same reason eminently unsuitable for its [i.e., the flood's] close."[17]

Exodus 12:2, designating the month of Abib as the first month, would initially seem to categorically refute an autumnal new year. Several commentators, however, point out that this very designation in the text marks a change in Israel's calendar reckoning. Formerly, these commentators contend, the year began in the fall, henceforward it will begin in the spring. If the context of the actual exodus itself is not accepted as the date of this command, and if one embraces the historical critical method of text dating (which would reckon this text to P), one could cite this text in support of the practice of celebrating an autumnal new year until a time after the exile.[18]

Thiele asserts that a new year in the fall is most likely to have been observed in Judah because the Tishri new year makes his chronological system "work." The chronology of the Old Testament is indeed a

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[16]Lotz, "Year, The Hebrew," 473-74.

[17]John Skinner, A Critical and Exegetical Commentary on Genesis, Interpreter's Critical Commentary (New York: Charles Scribner's Sons, 1910), 167-68.

[18]S. R. Driver does just this; see his commentary, The Book of Exodus, 87-88. Agreeing with the idea that a change from an autumn to a spring new year is indicated in the text are F. Davidson, ed., The New Bible Commentary (Grand Rapids: Wm. B. Eerdmans Publishing Co., 1953), 114, and Martin Noth, Exodus, 94-95.

matter that can lead one to despair. If all it takes to make Thiele's system work is a Tishri new year for Judah, then many friends of the Old Testament would heartily espouse the autumnal new year.[19]

Providing evidence from a the Jewish community in Elephantine in the fifth century B.C., S. H. Horn and L. H. Wood find further support for a fall new year among the Hebrews. They find in one of the Elephantine papyri a system of double dating, using both Egyptian and Persian methods. Through an analysis of these double dates, Horn and Wood have concluded the following:

> One important aspect of these papyri is the proof which Kraeling 6 gives of the existence of the civil fall-to-fall calendar among the fifth-century Jews at Elephantine. Since the papyrus supports statements made in Neh. 1:1 and 2:1, implying the existence of just such a calendar among post-Exilic Jewry, there is no reason left for doubt concerning the correctness of the date line of Kraeling 6, and the alternative assumption that a scribal error is involved must be rejected.[20]

If Horn and Wood are correct, then in combination with the implication

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[19]Thiele's chronology is not nearly as simple as we have made it appear for the sake of argument. His chronology requires a Tishri new year in Judah, a Nisan new year for Israel, several coregencies and interregna, along with felicitous changes from the accession year method of counting a king's reign to the non-accession year method and back again. One plus of Theile's outcome is that he manages to achieve a great level of harmony among the various datings that are given throughout the period of the monarchy, and he does so without having to suppose a large number of scribal errors in the Massoretic text. In sum, his case is simple: "The best argument for the correctness of the above outline of chronological procedure among the Hebrews is that it works, giving us a chronological scheme of the kings of Israel and Judah in which there is internal consistency and which harmonizes with the chronological pattern of neighboring states" (Mysterious Numbers, 38).

[20]S. H. Horn and L. H. Wood, "The Fifth-Century Jewish Calendar at Elephantine," Journal of Near Eastern Studies 13 (1954): 1-20. In another article Horn and Wood agree with Thiele in supporting a Tishri new year throughout the monarchy in Judah, enduring through the time of Nehemiah. See "The Babylonian Chronicle and the Ancient Calendar of the Kingdom of Judah," Andrews University Semitic Studies 5 (1967): 12-27.

of the Nehemiah texts discussed above, it would seem that a fall new year was still in use after the exile. Since the Babylonians used a spring reckoning, the use of a fall reckoning after the exile, when Israel was still under Babylonian domination, would indicate a deep-seated tradition in Israel for the practice of an autumnal new year.

The last piece of supporting evidence for a new year in the fall comes from the Babylonian Talmud and the Mekilta, both of which agree that Tishri is the new year for the counting of years, the Sabbath year, the Jubilee year, planting, and the tithe of vegetation.[21] Both sources are preservers of tradition, and traditions must begin at some point. How old the tradition preserved in the Talmud and Mekilta is, no one can tell, but that it need not be seen as an innovation of rabbinic thought is clear from the evidence cited in this chapter for the possibility of a fall new year in the Old Testament. It may well be that the rabbis were preserving a practice that dated back to the wilderness.

Having presented this mass of evidence for an autumnal new year, we are left to assess its validity.

Evidence for an Autumnal New Year Assessed

We begin our assessment by considering the linguistic evidence appealed to in Exodus 23:16 (בְּצֵאת הַשָּׁנָה), Exodus 34:22 (תְּקוּפַת הַשָּׁנָה), and 2 Samuel 11:1 (תְּשׁוּבַת הַשָּׁנָה). While none of this linguistic evidence can be said to conclusively prove the existence of a fall new year, nevertheless, the phraseology strongly implies such a

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[21] I. Epstein, ed., The Babylonian Talmud, vol 13: Rosh Hashanah, trans. Maurice Simon (London: The Soncino Press, 1938), 1; Jacob Z. Lauterbach, trans., Mekilta (Philadelphia: Jewish Publication Society of America, 1949), 18.

reckoning. The root of תְּצֵאת is a common word used to describe Israel's exit from Egypt in the exodus, its going out. Parallel to calendar usage, תְּצֵאת would strongly imply either the exit of the previous year or the beginning of the new year, even as the exodus can be described as Israel's exit from Egypt or the beginning of its national freedom. In opposition, D. J. A. Clines maintains that תְּצֵאת means exit in the sense that the agricultural part of the year is exiting, only to begin again in the spring, at the תְּשׁוּבַת הַשָּׁנָה. In this understanding, the fall would be the midpoint of the year, when it exits, goes into dormancy, before beginning afresh in the spring.[22] Clines' proposed understanding is a possible understanding of the text, but it does not explain the full range of √יצא as well as the previous explanation does. In what sense would Clines' explanation fit the exodus? How could the Israelite departure from Egypt be considered not the end, but the midpoint of an event? That יְצִיאת can refer to the definite end of a period of time is shown clearly at 2 Chronicles 21:19, where it is defined by חֵקֶץ (the end). Elsewhere the verb is used to describe children coming forth from their fathers (Gen. 35:11; 2 Sam. 7:12), a usage that cannot be understood as a midpoint event, but in the sense of an end, a completion (to the father's procreative forces) or a beginning (to the new life). Clines' understanding of תְּצֵאת הַשָּׁנָה points out a certain ambiguity in the phrase, but his alternative suggestion is equally ambiguous, with the added weakness that it does not easily fit into the general scope of the verb's meaning, and thus does not ade-

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[22]D. J. A. Clines, "The Evidence for an Autumnal New Year in Pre-exilic Israel Reconsidered," Journal of Biblical Literature 93 (1974): 26-29.

quately militate against the autumnal new year reckoning.

The phrase תְּקוּפַת הַשָּׁנָה implies a year whose circuit is completed in the fall. The text from Psalm 19 seemingly makes certain that תְּקוּפַת refers to the completion of the cycle. Yet, the evidence is not monolithic in support of this conclusion. In 2 Chronicles 24:23, תְּקוּפַת הַשָּׁנָה is used to describe the movement of the Syrian army under Hazael against Jerusalem, governed at this time by Joash. If the time when armies went out to war was the spring of the year (see pp. 92-94), then this verse from Chronicles would muddy the waters considerably. Either this verse implies a fall campaign by Hazael, or it implies that תְּקוּפָה can refer to other parts of the year than the fall. Perhaps, then, תְּקוּפָה here refers to a year completing its circuit in the spring, and thus a spring new year. A possible explanation for this anomaly may be found in the parallel account of 2 Kings 12, where we are told that Jerusalem was not the sole target of Hazael's campaign. Verse 17 informs us that the Syrian army first attacked Gath; only later did the army turn its attention to Jerusalem, perhaps late in the campaign in the fall. Opposing a fall <u>terminus</u> for תְּקוּפָה , Clines argues that the summer season is the object which comes to an end. That is, תְּקוּפָה has nothing to say with respect to the new year, but merely reports that the summer had ended and the fall was beginning.[23] In such an understanding, תְּקוּפַת הַשָּׁנָה would apparently refer to the circuit of the summer months coming to a close. Since the word appears only four times in the Hebrew Bible, we are unable to determine with certainty whether it provides a calendar or seasonal reference, but in speaking for the

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[23]Ibid., 27-28.

former is its use in Exodus 34:22, where it appears in the midst of a calendar of festivals, not a listing of seasons. Again, Clines' objections are not unreasonable, but neither are they persuasive against the fall reckoning.

The third item of linguistic evidence is the phrase תְּשׁוּבַת הַשָּׁנָה, "the turn of the year." It has been argued that this must refer to the spring of the year, since the phrase is defined in several occurrences as the time when kings go out to war. Thus, if the spring is the turn, or return, of the year, then the fall must be that point from which it has come and that point toward which it goes. Synchronizing the Babylonian accounts of Jehoiachin's exile and the appointment of the new king, Zedekiah, with the Israelite account of 2 Chronicles 36:10 (which designates the time as לִתְשׁוּבַת הַשָּׁנָה), it is definitely proved that this was the spring of the year, since the Babylonian records place the new king's appointment in the month of Adar. Even Clines, who opposes a fall new year reckoning, accepts that תְּשׁוּבַת הַשָּׁנָה refers unmistakably to the time of the spring. However, he argues that the reference is not to new year accounting, but to the change in seasons, from winter to spring.[24] While granting the possibility of Clines' suggestion, one wonders why the Hebrew authors linked תְּשׁוּבַת (and בְּצֵאת and תְּקוּפַת) to שָׁנָה and not to מוֹעֵד, the more precise term for "season," if that is what they truly wished to convey.

The arguments against the linguistic evidence must be placed in the area of the conceivable, but improbable. The plain sense of the

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[24]Ibid., 30.

terms indicates a fall new year, and only limitations to the general sense of the words can yield evidence against such a conclusion.

The second area of evidence to assess for an autumnal new year is that adduced by deduction: the time of Solomon's temple construction, the length of time needed for Josiah's reformation, and the time between the writing and reading of Jeremiah's scroll. In each of these instances it was argued that only a fall new year would provide sufficient time for the events accomplished or an acceptable understanding of what is described. The most persuasive of these items is the time needed for Josiah's reformation, for it is nearly inconceivable that the actions reported in the text could have happened in a span of two weeks.[25] With reference to Solomon's temple, the deduction of a Tishri reckoning comes more from Thiele's chronological system than from the texts themselves. A Tishri reckoning accounts for the seven year construction only when one counts Solomon's reign from the fall and the years of construction from the spring. If the year of construction is counted on the same basis as the king's reign, then eight years are required for the building, not seven. Of course, there is no proof for how the construction

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[25]Clines cavils when he states: "There are, indeed, too many events to fit not only into a fortnight, but even into six months (the period between an autumn new year and passover)" ("Evidence," 32). He admits that this is a weak objection when he proceeds to argue for a reconstruction of the text: "So on the grounds of historical plausibility, further supported by the evidence of 2 Chronicles 34 which attributes some of the events of 2 Kings 22-23 to the twelfth year of Josiah, and by studies of the literary pre-history [emphasis added] of the narratives of 2 Kings 22-23, it can be justifiably claimed that not all the events recounted between 2 Kgs [sic] 22:3 and 23:23 took place in the eighteenth year of Josiah, and that therefore no inference about the month in which that year began can be drawn" ("Evidence," 33). Just what this "pre-history" may be is anyone's guess, so long as it serves Clines' position!

years were counted, other than the deduction provided in Thiele's system. Too, one must consider the possibility that seven is not intended to provide an exact time frame for the temple construction, but is instead a round number indicating the approximate time for the temple work. Having said this, Thiele's Tishri reckoning retains its appeal for the simple reason that it makes sense of the text as it stands.

Clines objects to the deduction of a fall new year from the Jeremiah scroll incident on the grounds that it makes just as little sense for Jeremiah to have delayed the reading of the scroll three months (the least time required from a writing in the fourth year to a reading in ninth month of the fifth year on a fall reckoning, assuming the revelation came in the sixth month, the last of the fourth year) as to have delayed it nine months. "Why did he not have Baruch read it at one of the assemblies during the seventh month?" asks Clines.[26] Such an objection points out the inherent weakness in any deductive proof, namely, that unless all the data behind the premises are known, the deductions will always be in doubt. Perhaps with the calendar as no other area of Old Testament studies, all the data are far from known. We cannot know why Jeremiah waited three, nine, or perhaps even twenty-one months before the scroll was read. Conjectures on the event that may have prompted the reading are just that, conjectures, and thus give us no real help in discovering the time of writing.

Deductive proofs are by nature less convincing than those provided with direct evidence, but the deductions cited above are not implausible. Clines' point of view in the above areas cannot be disregarded,

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[26]Ibid., 34.

but neither does he offer conclusive proof disallowing the deductions that have been drawn.

A third category of evidence is made up of ambiguous witnesses. We include here the evidence from Ezekiel 40:1; Nehemiah 1:1 and 2:1; Leviticus 25; the Gezer calendar; and the remainder of the indirect evidence presented. In each of the textual cases there is not enough data to support a conclusion for or against a fall new year. Walther Eichrodt is most probably correct when he warns about taking Ezekiel's בְּרֹאשׁ הַשָּׁנָה in the technical sense of "New Year's Day," for there is no precise definition for this term provided in Ezekiel or the rest of the Scriptures.[27] In fact, the text from Ezekiel says nothing about a day; the time is simply the "head of the year," without giving a clue as to how the year was reckoned.

Similarly, the texts from Nehemiah are incomplete. Nehemiah 1:1 does not specify the point from which the twentieth year is measured. It is an unprovable assumption (although not an irrational one) to consider the reference is to Artaxerxes' reign, as in 2:1. Are we dealing with a corrupted text? Was a scribe confused? There is no way of knowing; the texts remain ambiguous for our purposes.

So also the calendar of Leviticus 25, which dates the beginning of the Sabbath and Jubilee years to the seventh month. While this text is informative for these special years, we may not draw the conclusion that it speaks as well about the regular year. Perhaps the Sabbath and Jubilee years followed a calendar distinctly their own. We cannot know from

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[27]Walther Eichrodt, Ezekiel, Old Testament Library (SCM Press, 1970), 540-41: "The terminology of the Mishnah on this subject is better ignored in the interpretation of the Ezekiel text."

the evidence available.

As Albright correctly contends, the Gezer calendar provides no substantive information on Israel's calendar calculations. Albright's judgment, accepted by most scholars in the field, is that the Gezer tablet is a school exercise and a mnemonic device, akin to our "thirty days hath September."[28] As later generations would be in error to think we once began our calendar in September, so we should be cautious about concluding a fall reckoning on the basis of the Gezer calendar.

Finally, the remaining indirect evidence cited is equally ambiguous. The flood account, as we have seen, can be brought forward to support virtually any position regarding the Hebrew calendar. Exodus 12:2 may be turned on its head to support a prior fall new year, but the text itself supports a spring new year; the date of the text itself becomes the key question, leading us more into the realm of hermeneutics than calendars. Further, can one conclude from the reference to Tabernacles as "the feast" that the seventh month was therefore the most important month, and hence the beginning of the year? Hardly; how would that line of reasoning play out in our current calendar of holidays? Zeitlin's argument that an agricultural society would begin its year in the seventh month is a sword that cuts both ways; could not an equal argument be made for Nisan, when the first harvest was taken and the society saw its labors begin to come to fruition? The information from the Elephantine papyri is interesting, but what it can tell us about authentic usage in the Old Testament is limited. Likewise, the evidence of the Talmud and Mekilta is far removed from the Old Testament, restricting

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[28]Albright, "Gezer Calendar," 16-26.

its usefulness in our endeavor. In all these cases, the information is too ambiguous and nebulous to draw credible conclusions with respect to the time of the new year.

Summary

In assessing the evidence presented for an autumnal new year in the Old Testament, the most persuasive arguments come from the linguistic proofs. Taken together, this evidence provides a three-prong proof that the new year began in the fall. It is true that these texts do not spell out this procedure as clearly as we might desire, but then, the alternative understanding proposed by Clines leads us away from the most basic understandings of the texts. Further, some of the deductive evidence is quite persuasive, for example, the time needed for Josiah's reform. In addition, the agricultural nature of Israelite society does suggest that the fall would be an appropriate time to end and begin a year, when the harvest was complete and preparation for the new farming year had begun.

In its entirety, the above evidence presents a strong case for a fall new year in the Hebrew Bible. However, the case cannot be considered closed as long as there are texts plainly indicating a spring new year, such as Exodus 12:2. Is there any other evidence that would speak against a fall new year and for a spring reckoning? To that end we turn to the next chapter.

CHAPTER 6

EVIDENCE FOR A SPRING NEW YEAR

The evidence of the previous chapter may have seemed overwhelming in favor of an autumnal new year. Most students of the Hebrew calendar would agree with that proposition. Nevertheless, there is a significant body of evidence that would support a spring reckoning for the new year. In this chapter we shall present that evidence, assess it, and draw some conclusions on the possibility of an Israelite spring new year.

Biblical Evidence for a Spring New Year

The foundation for proposing a spring new year in Israel in Old Testament times is Exodus 12:2, in which Yahweh speaks to Moses prior to the exodus in the month of Abib, "This month shall be for you the beginning of months [רֹאשׁ חֳדָשִׁים , the head of months]; it shall be the first month of the year for you [רִאשׁוֹן הוּא לָכֶם לְחָדְשֵׁי הַשָּׁנָה , the first it is for you for months of the year]" (RSV). The month of the exodus (there is no doubt that the spring month of Abib/Nisan is the month in question) is clearly designated the first month of the year. This would seem to settle the question of the time of the new year.

Nothing having to do with the Hebrew calendar, however, is simple or beyond dispute. No commentator to our knowledge challenges the implication of the text, that Abib is designated the first month, but a number of scholars do challenge the date of the text. Several argue

that the text is not from the time of Moses, but is an addition from the time of Josiah's death or later, when a spring new year supplanted the fall celebration under Babylonian influence. S. R. Driver, for example, dates the text to P's redaction, during or shortly after the exile, and concludes that the earliest time a spring new year could have been adopted in Judah is the time of Jehoiakim, or less likely, Hezekiah.[1] Roland de Vaux sees the text emphasizing that a change has occurred, a change he places at the time of Jehoiakim, when Judah became a vassal of Nebuchadnezzer.[2] George B. Gray agrees that the point of the text is to emphasize the change from the fall reckoning to the spring, a matter he lays at the feet of the priests.[3] J. Coert Rylaarsdam places the terminus a quo at the exile, and not before.[4] Hence, while the text certainly calls for a spring new year, if the text is post-exilic, then it would have nothing to say of any practice before the exile.

Other commentators disagree on such a late date. F. F. Bruce concurs with an early Israelite use of a fall new year, but he dates the time of the change to a spring new year to Israel's stay in Egypt:

> The year . . . was at first reckoned to begin with the autumn (seventh) month of Tishri (Ex. xxiii.16, xxxiv.22), the time also of the commencement of the sabbatical year (Lev. xxv.8-10). While in Egypt the Hebrews may have conformed to the solar years . . . , but if so

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[1]S. R. Driver, The Book of Exodus (Cambridge: Cambridge University Press, 1911), 87.

[2]Roland de Vaux, Ancient Israel, 2 vols., trans. John McHugh (New York: McGraw-Hill Book Co., 1965), 1:192.

[3]George B. Gray, Sacrifice in the Old Testament (Oxford: Clarendon Press, 1925), 300.

[4]J. Coert Rylaarsdam, "The Book of Exodus: Introduction and Exegesis," The Interpreter's Bible, 12 vols., ed. George A. Buttrick, et al. (Nashville: Abingdon Press, 1962), 1:916.

> a change was made thereafter and the "beginning of months" or first month of the year was fixed in the spring (Ex. xii.2; Deut. xvi.1, 6).[5]

Simon J. De Vries makes a strong case for an early date for this text, noting that "the importance of Abib as the 'month to remember' persists in several passages of admittedly earlier date (Exod. 13:3-4; 23:15; 34:18; Deut. 16:1)."[6] Indeed, to escape such a conclusion, one would have to see the hand of the spring-inclined editor in many places, skillfully updating texts to coincide with his new year.

Umberto Cassuto argues for an early date for Exodus 12:2 from the grammar of the text:

> According to the plain meaning of the text, this is not a positive precept to commence the year with the month Nisan; for if that had been the intention, the Bible would have written יִהְיֶה yih ye ["it shall be"], or יְהִי y hi ["let it be"], לָכֶם lakhem ["for you"] (instead of הוּא לָכֶם hu' lakehm ["it is for you"]). We have here a statement of existing fact, serving as a prefatory note to what follows. In the ancient East there existed two different systems relative to the commencement of the year. According to one system, the year began in spring, in the month of Nisan, and according to the other it began in autumn, in the month of Tishri (this word actually means, beginning). Here it is assumed that the Israelites in Egypt started to count the months of the year from Nisan, and the sense of the verse is: you are now beginning to count a new year; now the new year will bring you a change of destiny.[7]

Is Cassuto correct in declaring that the text dates itself to a time when the Israelites were already following a spring new year? Not necessarily. According to Gesenius, the time of a subject and predicate noun clause without the copula must be inferred from the context. That

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[5]F. F. Bruce, "Calendar," in The New Bible Dictionary, ed. J. D. Douglas.

[6]Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

[7]Umberto Cassuto, A Commentary on the Book of Exodus, trans. Israel Abrahams (Jerusalem: Magnes Press, Hebrew University, 1974), 137.

is, the present tense is not the only possibility. Since a jussive (וְיִקְחוּ, "let them take") describes the principal action in verse 3, it would appear that a jussive should be supplied in verse 2, a citation Gesenius uses to illustrate his principle.[8] In this case, then, the lack of copula would not designate a present state of affairs, but rather, from the jussive, what the Israelites are to do from this point on. The grammatical point aside, Cassuto can still be claimed as one who gives an early date to the text, which he would do on the basis of Israel's stay in Egypt and its acquaintanceship with the calendar there.

What remains, therefore, is a divided scholarly community on the date of the text. As with all such questions, the determining factor here is one based more on hermeneutics than on the data presented in the text. Since the hermeneutical circle involves suppositions accepted before one approaches a text, one cannot maintain that the text is late beyond dispute. A differing set of hermeneutics will result in a different set of conclusions. Therefore, the celebration of a new year in the spring at an early date must be reckoned as a possibility, if not a certainty, on the basis of Exodus 12:2.

Another text with a similar vocabulary is Leviticus 23:5, part of one of the Pentateuch's several festival calendars. Describing the time for the Passover celebration, the text states: "In the first month [בַּחֹדֶשׁ הָרִאשׁוֹן], on the fourteenth day of the month . . ." (RSV). We find here a clear reference that the month of the Passover is the first of the months, the chief or head month of all the others. As with

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[8]E. Kautzsch, ed., with A. E. Cowley, Gesenius' Hebrew Grammar, 2nd English ed. rev. (Oxford: Clarendon Press, 1910), 453.

the Exodus text, there is no debating the meaning of this passage, but there is a debate regarding its date. Leviticus is commonly seen as the work of P. Any text dealing with the cult of Israel in the wilderness is understood by critics to be a reading back into history of the current cultic state of affairs in Jerusalem just before the exile.[9] If this setting obtained in the book of Leviticus, then the reference to the Passover month as the first of the months (and thus the month of the new year) says nothing about Israel's earlier practice. Y. Kaufmann, however, presents a three-pronged defense of the historical dating of Leviticus. He first notes that the language, laws, and institutions ascribed to P do not fit well with what is known of the post-exilic age from Chronicles, Ezra, and Nehemiah (e.g., the Urim and Thummim do not exist in the second temple period, but are given much space in the work of P). Second, he points out that Deuteronomy and Joshua quote from Leviticus, but not vice versa, implying that Leviticus was written prior to either of these books. Third, he maintains that the book's notion of holiness and war and its laws on sacrifice and blood closely resemble those contained in Judges and Samuel, suggesting a certain currency of usage.[10] As we have encountered several times previously, one's hermeneutics play a central role in one's understanding of the Old Testament calendar. Presuming the book of Leviticus to be genuinely Mosaic in

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[9]See, for example, J. R. Porter on Leviticus 23: "Probably, then, we have here the festal calendar of the Jerusalem temple" (Leviticus [Cambridge: Cambridge University Press, 1976], 178).

[10]Kaufmann's position is nicely summed up in Gordon J. Wenham, The Book of Leviticus, New International Commentary on the Old Testament (Grand Rapids: William B. Eerdmans Publishing Co., 1979), 12-13, whence we have taken our summary.

authorship and setting, one finds proof of a spring new year in the period just after the exodus. Presuming the book of Leviticus to be a product of P, the text says nothing about how the Israelites at this time reckoned their calendar.

We find a similar situation with Numbers 28:16, another of the Pentateuch's festal calendars. The vocabulary to describe the Passover month is בַּחֹדֶשׁ הָרִאשׁוֹן , "in the first month." We will comment on it here only to the extent of saying that hermeneutics again play the key role in determining the usefulness of this text regarding the calendar of pre-exilic times. If the text is genuinely a part of the wilderness experience, then we find evidence for a spring beginning of the year.

Another argument from the Pentateuch for a spring new year, an argument from the Talmud, is the synchronizing of events dated by Numbers 33:38 and Deuteronomy 1:3. The former tells of the death of Aaron in the fortieth year of the exodus on V/1. The latter reports an address by Moses to the Israelites in the fortieth year on XI/1. The only calendar in which the first and eleventh month can be found in the same year is a calendar beginning in the spring. A fall new year reckoning would require the year to have changed, but the texts do not support this. One might object that the text from Deuteronomy does not specify which fortieth year is meant. The objection is well taken, but in the absence of another dating scheme for the exodus and wilderness wanderings, it is not irrational to suppose Deuteronomy dates this year from the exodus in the same way Numbers does.[11] This bit of evidence for a

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[11]I. Epstein, The Babylonian Talmud, vol. 13: Rosh Hashanah, trans. Maurice Simon (London: Soncino Press, 1938), 4.

spring new year reckoning is especially persuasive because it carries with it a certain innocence. One could possibly imagine the editor P laying his spring reckoning over the various festal calendars elsewhere in the Pentateuch, but he would have had to have been a true master of minutia to have manipulated these two texts to come into alignment with his calendar system.

Before leaving the Pentateuch for other biblical evidence in support of a spring reckoning, we offer the observation that all the liturgical calendars therein contained begin in the spring (Exodus 12, 23, 34; Leviticus 23; Numbers 28-29; and Deuteronomy 16).[12] We have here an argument of sheer numbers for the possibility of a spring new year within the Pentateuch. If the autumnal new year were dominant in pre-exilic times, it did not dominate the festal calendars, intimating another explanation is needed. Of course, such an argument is inconclusive, but it does show that the Israelites were quite comfortable in beginning their calendars with the spring month.

The rabbis devised a proof for spring reckoning in the Old Testament from 1 Kings 6:1, where the initial construction of Solomon's temple is dated to the 480th year after the exodus, and the exodus dating is from Nisan.[13] Great debate has come to this verse because of its use in dating the exodus. The exodus debate focuses on the nature of the number 480. Is it a precise dating or is it a round number? Perhaps it is even a stylized number for twelve generations of Israelites (twelve

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[12]J. Pedersen, Israel: Its Life and Culture (London: Oxford University Press, 1953), 445.

[13]Epstein, Talmud, 3-4; Jacob Z. Lauterbach, trans., Mekilta (Philadelphia: Jewish Publication Society of America, 1949), 17.

times forty). In one sense, that debate has no bearing on the rabbinical argument; regardless of the accuracy of the number, it is calculated from the exodus, which took place in the spring. However, if the number is stylized or rounded, if it is not meant to be understood in a mechanically precise way, then perhaps the reference to the exodus is not to its month, but to its general time period. In this case, the rabbinical position would carry no weight. As with so many matters of the calendar, there is no way we can decide this issue.

What can be stated with certainty is that in the time of the exile, and most probably for the time just preceding it, the new year was calculated from the spring. The narratives of the fall of Jerusalem are reckoned from the spring without any doubt (2 Kings 25 and Jeremiah 39, 52).[14] The naming and numbering of the months in the post-exilic books demonstrate beyond cavil a spring reckoning. Zechariah 1:7 refers to the eleventh month as Shebat; Zechariah 7:1 refers to the ninth month as Chislev. The use of these Mesopotamian names displays the adoption of that calendar, which definitely began in the spring. Likewise are the dates in Esther reckoned by the Babylonian names along with their numbers (2:16; 3:7, 13; 8:9; 9:1, etc.). The only question here is whether this spring calendar is an innovation or a continuation of a calendar used earlier in Israel's history. Most scholars assume the former, but we have seen some evidence to support the latter.

We may point out here, as well, that wherever the texts are numbered, the beginning point is in the spring. This fact requires those

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[14]John Bright, Jeremiah, Anchor Bible (Garden City, NY: Doubleday & Co., 1965), 242, 366.

who will accept a spring reckoning only from a point near the exile to posit an editorial hand reworking all the texts with numbered months. On the other hand, if a spring reckoning did have a history in Israel, then it is easily understood why the months are numbered from Nisan.[15]

In his chronology Edwin Thiele posits a spring reckoning for the ten northern tribes. He grants that for Israel "there seems to be no scriptural evidence as to the time of the beginning of the regnal year,"[16] but he maintains nevertheless that when a northern spring reckoning is placed alongside a southern fall reckoning, discrepancies disappear. As we stated in the previous chapter, Thiele's system is not quite that simple, but he may provide a supporting argument for a spring calendar being familiar to the tribes.

C. F. Keil and F. Delitzsch consider Ezekiel 40:1, with its reference of בְּרֹאשׁ הַשָּׁנָה, as evidence for a spring reckoning in Israel. Discounting the theory that the phrase could refer to a fall new year (accepting, instead, the Jewish tradition that a fall reckoning was not accepted until the time of the Seleucid era[17]), Keil and Delitzsch adhere to the view that the phrase "is a contracted repetition of the definition contained in Ex. xii 2 . . . , and signifies the opening

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[15]D. J. A. Clines states the case negatively: "It is most improbable, however, that the months should be numbered from spring by a society that not only still used an autumn calendar but had always had an autumn calendar" ("The Evidence for an Autumnal New Year in Pre-exilic Israel Reconsidered," Journal of Biblical Literature 93 [1974]: 40).

[16]Edwin R. Thiele, The Mysterious Numbers of the Hebrew Kings (Grand Rapids: William B. Eerdmans Publishing Co., 1965), 30.

[17]A tradition noted in Herbert Edward Ryle, The Books of Ezra and Nehemiah, The Cambridge Bible for Schools and Colleges (Cambridge: Cambridge University Press, 1897), 147.

month of the year, i.e., the month Abib (Nisan)."[18] Ralph Alexander and Walther Eichrodt agree with this reference, adopting the dual calendar concept described in the next chapter.[19] We have already dealt with the problems of this text and its ambiguity. The opinions cited here only heighten this state of affairs. Still, if one worked from a purely linguistic basis, the similarity of vocabulary is striking, but this could simply be a chance occurrence, proving nothing.

Finally, we consider the material from Nehemiah 1:1 and 2:1. In the previous chapter these texts were used to support a fall new year, provided that the unidentified twentieth year of chapter 1 is the same twentieth year of Artaxerxes specified in chapter 2. This provision is far from certain. The incomplete dating formula in 1:1 may suggest a corrupted text. In support of such a view is the high improbability of a civil servant utilizing a method of calendar reckoning different from his government's. Thus Derek Kidner concludes:

> An alternative explanation is that "twentieth" in 1:1 is an editorial or scribal error. The omission of the king's name may indicate some textual abnormality in the verse. This seems to involve fewer difficulties than the autumn-to-autumn hypothesis, since the other dates in Ne. are based on the normal calendar which started the year with the Passover month Nisan (formerly known as Abib) and held the feast of Tabernacles in the 7th month (Lv. 23:34; Ne. 8:2, 14).[20]

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[18]C. F. Keil and F. Delitzsch, Commentary on the Old Testament, vol. 9: Ezekiel, Daniel (Grand Rapids: William B. Eerdmans Publishing Co., 1975), 184.

[19]Ralph Alexander, Ezekiel (Chicago: Moody Press, 1976), 136; Walther Eichrodt, Ezekiel, Old Testament Library (London: SCM Press, 1970), 540-41.

[20]Derek Kidner, Ezra and Nehemiah, Tyndale Old Testament Commentaries (London: InterVarsity Press, 1979), 78. De Vaux agrees: "The text must be corrupt, and the likeliest explanation is that originally it did not contain, or it accidentally lost, the mention of the year, which was later supplied mechanically from Ne 2:1; it was really the

Reacting to S. H. Horn and L. H. Wood's postulation of a fall Jewish new year contemporary with Nehemiah on the basis of a dating in the Elephantine papyri (see pp. 103-104), Richard Parker states that the Kraeling 6 text cited by Horn and Wood is surely corrupt. As a Persian military garrison in a Persian satrapy, the area certainly would have employed the spring system. Further, in every other case where double dates are given, the only system that makes sense is one involving a spring new year. The only support from the Elephantine papyri for Horn and Wood's thesis is the one they cite. Thus Parker concludes:

> An easy emendation would keep this date [Kraeling 6, offered by Horn and Wood] with its fellows, all explicable by a Persian year. Let the reader judge if Horn's and Wood's conclusion . . . be not, in the light of these considerations, much too strong.[21]

Therefore, while at face value the Nehemiah texts would seem to require a fall new year, upon further study, such a new year reckoning would seem quite improbable. The textual irregularity of 1:1 leads one away from the unlikely conclusion of a fall new year to the more contextually compatible spring reckoning.

Evidence for a Spring New Year Assessed

Our assessment of the evidence presented in support of a spring new year will consist of two points. First, the linguistic evidence of the texts is beyond dispute: certain texts clearly call the spring month

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nineteenth year of Artaxerxes" (Ancient Israel, 1:192). Ryle thinks we are witnessing the work of a confused scribe, who simply did not understand the difficulty of the months, a position we take as a distinct possibility after sorting through the maze of different calendar calculations that have been offered (Books of Ezra and Nehemiah, 147-48).

[21]Richard A. Parker, "Some Considerations on the Nature of the Fifth-Century Jewish Calendar at Elephantine," Journal of Near Eastern Studies 14 (1955): 274.

Nisan the head, the first of the months (רֹאשׁ, רִאשׁוֹן). There is no academic debate as to the meaning of these texts.

Second, since the meaning of most of the texts cited for a spring new year is beyond dispute (save 1 Kings 6:1, Ezek. 40:1, and Neh. 1:1 and 2:1, evaluated above), the real issue rests with the date one assigns to these texts. A fundamental presupposition of many scholars is that a spring new year reflects a Babylonian calendar influence and must, therefore, be dated no earlier than the time of Josiah. Any text suggesting a spring new year must, summarily, be given a relatively late date. Conversely, any text offering the use of a fall new year is given an earlier, and thus more authentic, date. Such a line of reasoning is based on the prior presupposition that texts giving detailed analyses of the calendar must be from the hands of priests, and thus come to us in final form through the editorial work of P. A priori, then, in this construction, any spring dating and any involved calendar must be late, regardless of the setting in which the text places itself.

Can these principles be demonstrated? Only if one first accepts some form of the documentary hypothesis and rejects the authenticity of vast portions of the Old Testament. Here, of course, the hermeneutical circle comes into play. How one approaches the texts will ultimately influence how one will judge the texts. Is the documentary hypothesis the only concept with which one may intelligently consider the texts under discussion? By no means.

Israel's acquaintance with a spring new year need not be limited to the Babylonian influence of the sixth century. Israelite thinking in this regard may have been influenced long before this time, during their

enslavement in Egypt. Without a doubt Egypt used a solar year at this time beginning in the spring. While the tribes may have operated their internal matters according to a different calendar, at least respecting their Egyptian duties they must have followed this spring accounting. J. B. Segal and John L. McKenzie place Israelite familiarity with a spring new year even further in the nation's past, to its patriarchal beginnings in Mesopotamia. McKenzie states:

> The Nisan new year is attributed to Moses (Ex. 12:20), but it could easily have been traditional before the time of Moses, especially since the patriarchs were of Mesopotamian origin, and Canaan was under Mesopotamian cultural influence during much of the early 2nd millennium B.C.[22]

Naturally, however, if one does not lend any historical credence to the patriarchal history of the Bible or to the account of all twelve tribes dwelling together in Egypt, these arguments fall on deaf ears. If the exodus, wilderness, and conquest accounts are largely etiological in contrast to historically accurate, then one may regard the technical matters of life therein described (such as the calendar) as reflective of the generation during which the account was actually written. While most conservative scholars would allow that there has been some later "updating" of the texts to bring incomprehensible references to the understanding of later generations, the higher critical understandings of the texts would require a massive reworking of the texts. This editorial accomplishment would have been at the same time sublime in its success (see above on Num. 33:38 and Deut. 1:3) and oafish in its failures

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[22]John L. McKenzie, Dictionary of the Bible (Milwaukee: Bruce Publishing Co., 1965), 115. Segal agrees, holding to the view that the patriarchs would have been familiar with the tropic year, being from Mesopotamia. See Segal's article, "The Hebrew Festivals and the Calendar," Journal of Semitic Studies 6 (1961): 76.

(e.g., the linguistic evidence for a fall new year). The crux of the matter, then, is who decides what is a success and what is a failure? The subjectivity of this task is enormous; the splintered opinions in the critical community bear witness to this. The text itself becomes but a malleable alloy whose shape is determined by the commentator. In such a case, we can have no hope of finding anything of value about Old Testament Israel, much less obtain information on the working of the calendar, for all we have is our opinion concerning what a later editor has "foisted" upon an earlier age.

If, however, one approaches the Old Testament as a source of accurate information for those periods of history it describes, and if one agrees that whatever later "updating" of the text was rather minimal in its impact, then one must grant that a high degree of probability remains for the existence of a spring new year from at least the time of the exodus onward in Israel's history. Clear textual evidence has been cited for this position. Even if one were to reject these texts as containing true history, still one is left with the beginning of the liturgical year in the spring in admittedly early texts (e.g., Exodus 23 and 34). One must ask where this practice originated if not in the early reckoning of a spring new year as the texts present.

Summary

That a spring new year was observed in Judah from the late monarchy on is not seriously debated (Horn and Wood's thesis aside). The textual evidence for a spring reckoning before this time is at least as strong as the evidence cited for an autumnal new year. In fact, the evidence for a spring new year is directly stated, not derived (as is

the case with much of the evidence for a fall new year). Too, as with the evidence for a fall reckoning, the evidence for a spring new year is often tenuous and ambiguous. The decisive questions in choosing between the two positions are hermeneutical, outlined above. The hermeneutics of the Reformation and confessional scholarship since that time have operated on the basis of the genuineness of the texts. Assuming their basic genuineness and authenticity (and no insurmountable arguments have been advanced to the contrary), one will conclude that the Israelites did observe some type of new year reckoning in the spring from at least the time of the exodus, and perhaps even from the patriarchal era.

CHAPTER 7

EVIDENCE FOR DUAL CALENDARS

Since neither of the positions of the previous two chapters, that of a fall new year and that of a spring new year, can hold the field against the other exclusively, it has often been proposed that Israel actually followed two times of the year as a "new year," each time serving a different purpose. Two new year days would, of course, mean two calendars. In the traditional presentation of the theory, the two calendars are for civil and sacral reckoning. The sacral calendar begins in the spring, for that is the beginning of Israel's cycle of feasts. The civil calendar begins in the fall, for that is the time the agricultural cycle begins and ends. Thus, the reader of the Old Testament should not be surprised that two different calendar beginnings can be adduced, for, in fact, Israel reckoned in this precise fashion.

This approach to Israel's calendar we will refer to as the traditional position, for so it was until the time of the Enlightenment and the birth of critical exegesis. In this chapter we will consider the reasoning in support of the traditional position and some variations of its theme. We will also present the varying views of some scholars who lend credence to the concept that Israel may have observed two calendars at once in its history. Consideration of the viewpoints of those who reject the use of two calendars in Israel will lead us, ultimately, to the drawing of our own conclusions on the validity of the two calendar

approach and the likelihood of it being practiced throughout the period of the Old Testament.

Arguments in Support of Dual Calendars

The most basic, and ultimately the most persuasive of arguments for a system of dual calendars is, as we stated above, that no one calendar system beginning in either the spring or fall alone can explain all the evidence the Scriptures present. Neither the evidence for a fall new year nor the evidence for a spring new year is contrived or strained. Both calendars can be supported mightily from the texts. Exodus 12 clearly indicates that the spring month Abib is the head of the months. On the other hand, Exodus 23 just as clearly calls the fall the going out, the exit of the year. In Chapters 5 and 6 we examined the strengths and weaknesses of both positions and found that neither could exclude the practice of the other. Instead, the evidence would indicate that both had an equal footing in Israel's history.

Supporting this testimony of the Old Testament is the witness delivered by the tradition of Judaism. In the Talmud we find not one or two, but four new year days. Nisan 1 is the new year for kings and festivals; Elul 1 (the fourth month) is the new year for cattle (although understood to stem from rabbinic, not biblical, tradition); Tishri 1 is the new year for years, Sabbath and Jubilee years, planting, and vegetable tithe; Shebat 1 (the eleventh month) is the new year for trees.[1] The Mekilta speaks of two years. The new year of the spring is for the beginning of counting of months, of years of kings, and of festivals.

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[1]I. Epstein, The Babylonian Talmud, vol. 13: Rosh Hashanah trans. Maurice Simon (London: Soncino Press, 1938), 1.

The new year in the fall is for the reckoning of years, Sabbaths and Jubilees, plants and vegetables.[2] As traditional and conserving as these rabbinic sources are, it is reasonable to assume that they are not innovating when they operate according to a multiple calendar scheme. Indeed, if one of the two calendars of the traditional thesis had existed by itself in Israel for a lengthy period of time, the debate over the change to two calendars would most surely be reflected in the rabbinic literature. Yet, it is not; at least as far as multiple new years are concerned, and therefore, on the use of multiple calendars, the rabbis are in accord. Hence, the traditional position has a very large weight of tradition behind it.

The supporters of the traditional position are aware that their system is nowhere spelled out precisely in the Scriptures, yet they are confident of its existence for the above reasons. Most supporters concur with J. Lilley, who states, "Both spring and fall new years are recognized in the Pentateuch (e.g., Exod 12:2; 34:22), and implied in the historical books."[3] C. F. Keil and F. Delitzsch agree, but they hold that the true calendar was the one beginning in the spring, while the fall reckoning was loose, with no fixed beginning or end, for that depended upon the harvest:

> The year referred to here [Ex. 23:16, the fall year] was the so-called civil year, which began with the preparation of the ground for the harvest sowing and ended when all the fruits of the field and garden had been gathered in. No particular day was fixed for its commencement, nor was there any new year's festival; and even

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[2]Jacob Z. Lauterbach, trans., Mekilta (Philadelphia: Jewish Publication Society of America, 1949), 18.

[3]J. Lilley, "Calendar," in The Zondervan Pictorial Encyclopedia of the Bible, ed. Merrill C. Tenney.

> after the beginning of the earing month had been fixed upon for the commencement of the year (chap. xii.2), this still remained in force, so far as all civil matters connected with the sowing and harvest were concerned; though there is no evidence that a double reckoning was carried on at the same time, or that a civil reckoning existed side by side with the religious.[4]

Other supporters of the traditional position are listed below.[5] Albright adds his considerable scholarly weight to the traditional view, supplying a twist all his own:

> Since our dates are only approximate in most cases, and since there is as yet no decisive evidence bearing on the old question whether an autumn (Tishri) or spring (Nisan) beginning prevailed in Israel and Judah, it is safer to leave the matter sub judice. I am myself of the opinion that the Tishri beginning is likely to have been in use for civil purposes throughout the period in both lands. I also believe that the original designation of months according to the

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[4]C. F. Keil and F. Delitzsch, Commentary on the Old Testament, vol. 1: The Pentateuch (Grand Rapids: William B. Eerdmans Co., 1975), 148.

[5]Ralph Alexander, Ezekiel (Chicago: Moody Press, 1976), 136.

George A. Barrois, "Chronology, Metrology, Etc.," in The Interpreter's Bible, 12 vols., ed. George A. Buttrick, et al. (Nashville: Abingdon Press, 1952), 1:152.

F. Davidson, ed., The New Bible Commentary (Grand Rapids: Wm. B. Eerdmans Publishing Co., 1953), 114.

John J. Davis, Moses and the Gods of Egypt (Grand Rapids: Baker Book House, 1975), 137.

Alfred Edersheim, History of the Jewish Nation (Grand Rapids: Baker Book House, 1954), 269-70.

Lewis A. Foster, "The Chronology of the New Testament," in The Expositor's Bible Commentary, ed. Frank E. Gaebelein (Grand Rapids: Zondervan Publishing House, 1979), 594.

W. H. Gispen, Exodus, trans. Ed van der Maas, Bible Students Commentary (Grand Rapids: Zondervan Publishing House, 1982), 116, 316.

Henry H. Halley, Halley's Bible Handbook, 24th ed. (Grand Rapids: Zondervan Publishing House, 1965), 148.

James Hastings, ed., A Dictionary of the Bible, s.v. "Time."

Arthur W. Klink, Home Life in Bible Times (St. Louis: Concordia Publishing House, 1947), 112.

James Orr, gen. ed., The International Standard Bible Encyclopedia, s.v. "Calendar" and "Time."

Walter R. Roehrs and Martin H. Franzmann, Concordia Self-Study Commentary (St. Louis: Concordia Publishing House, 1979), 68. The notes on the Old Testament are written by Roehrs.

A. H. Sayce, The Early History of the Hebrews (New York: Macmillan Co., 1897), 178.

> spring beginning of the year, which undoubtedly coexisted for part, at least, of our period with a civil New Year in Tishri, goes back to very early times in Israel, antedating the introduction of the Canaanite (Phoenician) civil calendar and being thus an archaistic survival in later times.[6]

Some other scholars agree with the dual calendar approach, but they regard the spring as the beginning of the civil year and the fall as the beginning of the sacral. They take this position because of the holy days in the seventh month: the day of solemn rest and blowing of the trumpet (VII/1), the Day of Atonement, Tabernacles, and the beginnings of the Sabbath and Jubilee years. Too, the first month has civil affairs associated with it: the Talmud calls Nisan the new year for kings, a civil reckoning; the months are numbered from the spring, another civil reckoning. For example, Hans-Joachim Kraus makes the following statement concerning the adoption of a spring calendar in the late monarchy of Judah:

> We can now see emerging alongside each other a secular calendar and a sacral calendar. Whilst the year officially begins with the "first month" in spring, the cultic community in Jerusalem celebrates the turn of the year according to tradition in autumn--in the "seventh month."[7]

Nathaniel Micklem agrees, but he dates the separation to an earlier time in Israel's history:

> The festival of trumpets [Lev. 23:23-25, on VII/1] came to mark the civil, as distinct from the ecclesiastical new year. Moreover, there is some evidence that the Hebrew ecclesiastical year originally began in the autumn. Thus in Exod. 23:16 we read that the

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[6]W. F. Albright, "The Chronology of the Divided Monarchy of Israel," Bulletin of the American Schools of Oriental Research 100 (1945): 20. Albright does not state his reasons for this opinion, but one might think of the abiding impact the spring had on the liturgical calendars that seem to be dated from the fall.

[7]Hans-Joachim Kraus, Worship in Israel, trans. Geoffrey Buswell (Richmond, VA: John Knox Press, 1966), 45.

> festival of the ingathering of the harvest fell "in the end of the year." This is really presupposed also in 25:8-9, where obviously the opening of the "year of jubilee" was heralded with trumpets, though the later dating places this date in the seventh month.[8]

Julius Wellhausen also places the beginning of the civil year in the spring and the beginning of the sacral in the fall. He believes this sacral year is a relic of the original calendar of the older monarchy that has survived through the change of the new year from the fall to the spring, a change he sees as the result of Babylonian influence.[9] Finally, Walther Eichrodt and D. M. G. Stalker, commenting on Ezekiel 40:1, join in declaring this reference to be the beginning of the civil year in the first month.[10]

This minority opinion, however, cannot adequately explain why all the festal calendars begin in the spring, not the fall. Nevertheless, their viewpoint does warn against any absolute bifurcation of the Israelite year into civil and sacral. As a holy nation, the civil and sacred are intimately intertwined in Israel. Surely the seventh month is most holy in the liturgical calendar of the Old Testament, but this fact does not necessarily mean that month began the liturgical calendar.

Additional Support for Dual Calendars

Several other scholars support the concept of dual calendars oper-

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[8]Nathaniel Micklem, "The Book of Leviticus," The Interpreter's Bible, 12 vols., ed. George A. Buttrick et al., (Nashville: Abingdon Press, 1952), 2:114.

[9]Julius Wellhausen, Prolegomena to the History of Ancient Israel, trans. J. Sutherland Black and Allan Menzies (New York: Meridian Books, 1957), 108-9.

[10]Walther Eichrodt, Ezekiel, Old Testament Library (London: SCM Press, 1970), 540-41; D. M. G. Stalker, Ezekiel (London: SCM Press, 1968), 271.

ating in Israel's history, but they do so for different reasons than those stated above. W. A. Heidel asserts that Passover was originally a spring new year festival held on I/10, paralleling a supposed fall new year day on VII/10. Both these dates, claims Heidel, were equinox days, and both were so important to Israel that relics of them remained long after Israel no longer followed such a calendar scheme: I/10 became the day for choosing the Passover lamb; VII/10 became the Day of Atonement and the new year for Sabbath and Jubilee years. Heidel, however, is unable to present any evidence for these two calendars, aside from his presupposition that Israel must have observed the equinox days.[11]

J. B. Segal also asserts that Israel at a very early time celebrated two equinoctial festivals, on fixed dates in the spring and fall. One of these festivals was considered the new year, and the other was its "shadow," but not a new year in the strict sense. During Israel's history, Segal believes, the relative importance of the spring and fall festivals shifted back and forth. He notes that in Leviticus 23, only two festivals, Passover and Tabernacles, have the term חג assigned to them, setting them apart from the other holy days. The importance of these dates, in Segal's view, is that they gave Israel a fixed and reliable calendar, with a beginning, middle, and end. These two equinox dates became the basis for the later distinction between the civil and sacral year, the former in the spring and the latter in the fall.[12] The

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[11]W. A. Heidel, The Calendar of Ancient Egypt, Proceedings of the American Academy of Arts and Sciences, vol. 61, no. 2 (N.p.: December 1925), 42-43.

[12]J. B. Segal, "The Hebrew Festivals and the Calendar," Journal of Semitic Studies 6 (1961): 79-80; see also Segal's, "Intercalation and the Hebrew Calendar," Vetus Testamentum 7 (1957): 281.

weakness in Segal's approach is that he is more interested in fitting an equinoctial celebration into Israel's calendar than he is making sense of the calendar described in the Old Testament. As far as the biblical data are concerned, the Israelite holy days are not celebrated because they fall near an equinox, but because of the action of Yahweh on Israel's behalf.

As we outlined in Chapter 5, Edwin Thiele's chronological system operates on the basis of dual calendars. His accounting of the chronology of the kings of Judah "works" only if the regnal years are counted from Tishri and the calendar years are counted from Nisan. This method of accounting does not designate either year as sacral; rather, both new year months would serve a civil function. Nevertheless, if Thiele's method is correct, it would demonstrate that in Judah, at least, the people were adept at working with two different years at the same time.

Norman Snaith attributes the dual importance of the first and seventh months to the vestiges of earlier calendars. He grants the bare possibility that the pastoral patriarchs may have observed their new year in the spring. He grants, too, that the Israelites may have observed this new year in the wilderness. However, with the conquest, Israel adopted the autumnal new year indigenous to the Canaanite people:

> If the Hebrews did indeed keep a spring new year in the desert, either in the period between Egypt and Canaan or in the earlier days of the patriarchs, then, as has often happened, the customs of the land survived against the customs of the conquerors and the Palestinian autumnal new year survived. The necessities of the agricultural life would ensure this.[13]

Having a tradition in its history that the spring month was special

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[13]Norman H. Snaith, The Jewish New Year Festival (London: Society for Promoting Christian Knowledge, 1947), 28.

(which led them to continue observing it in the Passover festival), the nation had no difficulty, says Snaith, in accepting under Babylonian influence the change of the new year from Tishri to Nisan, although Tishri still retained prominence as the religious new year in distinction from the civil new year of Nisan.[14] Snaith makes several points we feel are useful, for instance, that the Patriarchs may have been aware of a spring new year, and thus we should not be surprised to find references to it early in Israel's history. However, Snaith's entire thesis on the new year is bound up with his unacceptable theories about the full moon marking the beginning of the month and the first ten days of Tishri serving as the intercalary period aligning the lunar and solar years. While Snaith lends credence to the biblical accounts testifying to the antiquity of a spring new year in Israel, he stops short of accepting the biblical accounts for why the first and seventh months were important to the Israelites, namely, these were the months that celebrated God's great saving acts. Snaith's explanation of why the first and seventh months were both observed in Israel's history is unnecessary, although by such an explanation he indicates that he, too, agrees Israel was capable of keeping two months with new year import.

Opposition to a Dual Calendar Approach

The most basic argument against the utilization of two calendars in Israel's history is that there is no text which provides a double dating for any event. Thus we read in Encyclopedia Biblica:

> It is wholly unwarranted, however, to regard the autumn as marking the change of the economic year, and to set over against this, as

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[14]Ibid., 141.

> the ordinary calendar year, a civil year that had its commencement in spring. There is absolutely no evidence for any such system of double accounts before the exile.[15]

To the question of whether two calendars existed side by side in Israel, Robert North answers that most scholars assume so on the basis of texts such as Exodus 23:16 and Exodus 12:2. He does, however, address the objection:

> It is true that no biblical passage dates any event with these two systems concurrently; whence Begrich asserts that such a double calendar never coexisted. . . . Most chronologists assume some sort of double civil-religious calendar to explain, among other things, how a year begins in the seventh month![16]

Of course, nothing is really proved in that no text gives a date in both spring and fall reckoning. The purpose of the Scriptures is not to provide such information; we should not be surprised when it is not found. Further, while no single text does date an event by both calendars, the existence of fall and spring calendars in one book does drive one to suggest such a calendar arrangement.

John J. Durham directs us to the fact that in Exodus 12:2 the name of the month kept as the head of months is not mentioned. He finds the following significance in the want of a month name:

> The Passover month is the "head" of the months not primarily as the first month of the year in a calendar, either a "civil" calendar or a "religious" calendar, but because it is the month during which the Israelites remembered and so actualized their redemption.[17]

In Durham's scheme, then, there is only one new year, in the fall. The

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[15]T. K. Cheyne and J. Sutherland Black, eds., Encyclopedia Biblica, s.v. "Year."

[16]Robert G. North, Sociology of the Biblical Jubilee (Rome: Pontifical Biblical Institute, 1954), 124.

[17]John J. Durham, Exodus, Word Biblical Commentary (Waco, TX: Word Books, 1987), 153.

Passover month is the head of the sacramental festivals, but not actually the head of the year. Ramban (Nachmanides), in a commentary on Exodus, agrees:

> This order of the counting of the months is not in regard to the years, for the beginning of our years is from Tishri. . . . This then is the intent of the expression, it shall be the first month to you, meaning that it is not the first in regard to the year but it is the first "to you," i.e., that it be called "the first" for the purpose of remembering our redemption.[18]

Both arguments are specious. Although Exodus 12:2 does not specify the month by name, Deuteronomy 16:1 does, calling the month Abib. Further, Exodus 12:2 does specify the Passover month as not only the first of the months (רֹאשׁ חֳדָשִׁים), but also as the first of the months of the year (רִאשׁוֹן הוּא לָכֶם לְחֳדְשֵׁי הַשָּׁנָה). While surely this month is the first for the purposes of remembering Yahweh's redeeming acts, it is just as surely designated the first month of the year.

More significant than these objections, however, is the objection raised by higher criticism. Critics, to be sure, accept the use of two calendars in Israel's history, but they do so with the proviso that these calendars operated consecutively, one after the other, and not concurrently. The reason given for the apparent two calendar system found in the Scriptures is clumsy editorial work. The "true" new year in the Old Testament fell in the fall. In later times, after the exile, when a spring new year was adopted, the redactors did not fully expunge their source materials of this old new year reckoning. Thus, while both seem to exist side by side, the references to a spring reckoning are in fact from a much later date. Archaizing scribes, seeking to legitimate

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[18]Ramban (Nachmanides), Commentary on the Torah: Exodus, trans. Charles B. Chavel (New York: Shilo Publishing House, 1973), 117.

the current practice of a spring new year, reworked their traditions to include such a reckoning in Mosaic times.

The clumsiness and ignorance attributed to such scribes is described, for example, by Max Vogelstein. He asserts that the year of calendar reform, the change from a fall to a spring reckoning, came during the reign of Hezekiah. According to Vogelstein, the year of reform would have been excessively long, approximately eighteen months in length, for such a year, normally ending in the fall, was extended to include the next six months until the new beginning in the spring. It would have contained two new year days, the original one in the fall and the new one in the spring. According to 2 Chronicles 29:3, Hezekiah began his temple reform in the first month. Vogelstein contends this was the first month of the fall reckoning, hence in Tishri, giving Hezekiah six months to achieve the restoration. When a scribe accustomed only to a spring reckoning began to put his sources in their final shape, he came upon one source that dated the beginning of the temple reform in the first month and the celebration of the reform at the Passover also in the first month. Not understanding, says Vogelstein, that the first first month was actually in the fall, six months prior to the Passover, the scribe assumed something to be amiss, for he knew the entire reform could not have been completed in the two weeks of Nisan prior to Passover. "Thus he created the 'revised' version of our present Bible text," that the Passover was delayed until the second month.[19] In fact, contends Vogelstein, no such delayed Passover ever occurred; it was purely the fiction of a scribe who did not understand the calendar's

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[19]Max Vogelstein, Biblical Chronology (Cincinnati: n.p., 1944), 5.

history. The other explanation, that the scribe knew more about his calendar than any modern would, is not considered by Vogelstein.

We are to assume, however, in the arguments of the critics, that scribal ignorance is the reason why the calendar of the Old Testament is in such a state of confusion. Two calendars, yes; but two calendars from different epochs indelicately laid one on top of the other.

Summary

It is true that the dual calendar theory cannot be supported by specific textual evidence, but is, instead, a deduction based on the plain occurrence of both spring and fall new year reckoning found independent of one another in the Old Testament. Since neither new year reckoning can be established to the exclusion of the other, we conclude that both calendars existed side by side, each calculating the years for different purposes. It would seem that the fall new year was the more civil-oriented of the two, coming at the end of one agricultural year and the beginning of the next. Further, Thiele's chronology, even with its shortcomings, is persuasive in leading us to accept the fall as the new year for kings in Judah, the Talmudic statements to the contrary notwithstanding. The spring month of Nisan would thus mark the beginning of the more sacral year, since it inaugurated the new cycle of festivals. We use comparative terms when speaking of these years because it is difficult to truly separate the civil from the sacral in the Old Testament; such a distinction is more for our convenience than one that existed in the mind of the Israelite.

Although the rabbinic sources would disagree in some details with these conclusions, they do support our basic contention of dual calen-

dars existing side by side. History and current usage testify that such an arrangement is not extraordinary. For centuries within Christendom a liturgical calendar has been used alongside whatever civil calendar was popular. In our own time we have no difficulty operating according to a school calendar, which "begins" in the ninth month, while still understanding that the year for other purposes begins in January, and functioning just as well with perhaps a third calendar, a fiscal one, beginning at some other point in the year.

It is not necessary to assume that the presence of two calendars indicates different time periods forced together. The ancients were not so ignorant as to be unable to comprehend different "years" for different purposes. Accepting the dual calendar theory yields the further benefit of working with the texts as they come to us, instead of having to reconstruct them to meet our criteria for "what really happened." In short, the negatives of the dual calendar approach are minimal (i.e., requiring the Israelites to work with two new year reckonings), but the positives are maximal (i.e., understanding the texts as they are). The existence of dual calendars operating side by side explains the full biblical data; other proposals do not.

PART III

USE OF THE CALENDAR

CHAPTER 8

CONTROL AND UNDERSTANDING OF THE CALENDAR

Parts I and II of this thesis have examined the nature and structure of the calendar of the Old Testament. In Part III we will delve into how the calendar may have been used and understood by the people of Israel. A second topic for consideration will be the origin and transmittal of the calendar from generation to generation. A concluding chapter will examine the sublimity of the calendar in its message to finite man.

In this chapter on the control and understanding of the calendar, we will present several points of view regarding priestly and lay awareness of the workings of the calendar. First, we consider the arguments for priestly control, and second, the position for lay understanding of basic calendar calculations.

Priestly Control of the Calendar

The topic of this section has been broached several times in the preceding chapters, namely, that the calendar was under the full auspices and authority of the priests. Regulating the sacred times of the year, the calendar would, of course, be a matter of chief concern for the priests in Israel. Although there is some disagreement regarding when Israel began to use a calendar based on calculation rather than observation, it is generally agreed that whenever observation was used, it

was the priests who were responsible for announcing the time of the new moon or the appropriate time for intercalation. Speaking for this point of view, Solomon Gandz states:

> Most probably it was the responsibility and privilege of the priestly authorities to determine the date of the new moon day, and the priests were always in a position to know the date in advance so that they were able to make their preparations for the specific sacrifices and the festival in good time and to announce its arrival to the people.[1]

We have documented how this was done in New Testament times for the purposes of intercalation under the care of the Sanhedrin (pp. 62-63). James Orr assumes the priests were given charge of calendar reckoning in pre-exilic times.[2] J. Coert Rylaarsdam, on the other hand, dates the formal power of calendar reckoning to the time after the destruction of the temple, when it was given to the supreme rabbinic council.[3]

While this practice of priestly control may have been simply a practical matter (somebody had to have charge over the calendar), some scholars believe that the matter was more than mere administration. To qualify for the task of overseeing the calendar, more than a certain amount of technical knowledge was required; initiation into a holy order was also a necessity. So maintains J. B. Segal, specifically regarding the method and practice of intercalation:

> Let us remark in the first place that the absence in the Bible of any direct allusion to the methods of intercalation should cause no surprise. . . . The secrets of the calendar, like the secrets of

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[1]Solomon Gandz, "Studies in the Hebrew Calendar," Jewish Quarterly Review 39 (1948-49): 275-76.

[2]James Orr, gen. ed., The International Standard Bible Encyclopedia, s.v. "Calendar" and "Time."

[3]J. Coert Rylaarsdam, "New Moon," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

> priestly divination, must have been guarded by the priests with jealous care. . . . The secrets of intercalation were handed down by the Nas'im from father to son. . . . The reason for this secrecy lies in the supreme importance of the calendar for the regular order of religious life. . . . The methods of calendar adjustment were known only to a small body of priests and were not divulged to the public."[4]

Segal offers a viable explanation for the sparsity of calendar information presented in the Bible. On the other hand, this minimal data may have to do with the purpose of the Old Testament, which certainly is not to present a formal treatise on calendar computation. Neither in the Old Testament are we given a full explanation of the units of weights and measures, as helpful as that would be. Yet, surely weights and measures were not "classified" in Israelite society; these units were simply so well understood that no explanation in Israel's records was necessary. The same may apply to the lack of information on calendar reckoning.

The virtual master of the art on hypothesizing about a secret understanding and control of the calendar in the Old Testament is Knut Stenring. In his book, The Enclosed Garden, Stenring proposes a baroque system of calendar secrets understood only by the initiated and kept hidden from the masses. We allow Stenring to summarize his own position:

> The chronological data given in the Old Testament seem to exhibit a multitude of contradictions, which it has not been possible to reconcile. Some of these contradictions are obvious, indeed markedly so (cf. II Kings 25, 8 and 25, with Jer. 52, 12 and 31, with their strikingly similar wording but with different dates). However, they do not usually appear until the text has been analysed [sic]. . . .

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[4]J. B. Segal, "Intercalation and the Hebrew Calendar," Vetus Testamentum 7 (1957): 259-61. See also Segal's book, The Hebrew Passover: From the Earliest Times to A.D. 70 (London: Oxford University Press, 1963), 127.

> As a rule, these contradictions are explained by saying that the books of the Bible were compiled from different sources or that misinterpretations and scribal errors may have occurred, both in the original sources and in the redactions of these sources, as well as in the later copying of the various books. However, the discoveries of the Qumran MSS. especially have shown with what meticulous care the books were handed down through the centuries.
>
> In this book a completely different explanation of these mysterious contradictions is proposed. They are shown to be the result of a uniform but deliberately concealed chronological system, which investigation has proved to underlie most of the Old Testament historical writings. This system would seem to have been incorporated in the final editing of these parts of the Bible. The object was probably to increase the sacredness and the secret character of the writings. Only the reader who had the key could comprehend the truth of what seemed to be full of contradictions.[5]

Stenring explains that he has found three calendar systems at work in the Old Testament. First, a lunar year of 354 days, consisting of twelve months alternating between thirty and twenty-nine days was employed. Although such a calendar would require intercalation to keep it in alignment with the solar year, intercalation was not employed in the secret chronological system of the original Old Testament, says Stenring. Second, the Egyptian solar year of 365 days was utilized, consisting of twelve months, each having thirty days, with the twelfth month followed by five intercalary days. Third, the Scriptures used a "standard" year of 365 days plus an additional intercalary day every four years.[6]

Every dated event in the Old Testament was so designated according to one of these three calendars, asserts Stenring. To keep the system known only to the initiated, a variation in the calendars was implemented. Although the casual reader would have no way of discerning it, a

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[5]Knut Stenring, The Enclosed Garden (Stockholm: Almquist & Wiksell, 1965), 7-8.

[6]Ibid., 8.

general pattern of calendar use nevertheless developed:

> Information as to years, however, normally referred to lunar years until the period of the Kings (though with important exceptions in connections with the Exodus and the Wandering in the Wilderness); and to (Egyptian) solar years in the following period until the division of the Kingdom, after which standard years were used until the Return from Captivity, when the chronological system came to an end. Ezekiel, however, uses the lunar year as a rule.[7]

Emphasizing that this system is a construct imposed on the actual historical records, Stenring writes, "The chronological information is to be read exactly as it stands in the text. Thus, if 5 years is [sic] mentioned, this means 5 years to the day. Naturally this may not be in agreement with historical fact."[8]

Stenring's chief disciple is Gerhard Larsson. Larsson posits the following motivation for imposing such a system on the original Old Testament records:

> Perhaps also the designers of the system thought of the canon as something dangerous for the ordinary man. There is a common idea in many ancient religions that too much knowledge of holy things may be dangerous to men. . . . Was it not then dangerous to reveal the canon in full to the people? . . . So it may have been considered prudent to take some precautions and conceal some of the holy things.[9]

What instrument is better suited to conceal the canon from the people than the calendar, a vehicle already cloaked in secrecy according to the general consensus of scholarship?

There exists in Stenring's secret system a major methodological fallacy. By the nature of his system, there can be no external checks

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[7]Ibid.

[8]Ibid.

[9]Gerhard Larsson, The Secret System: A Study in the Chronology of the Old Testament (Leiden: E. J. Brill, 1973), 81-82.

with historical dates to see whether the construct actually is working or not. Any agreement in historical datings must be considered purely a coincidence. Simon J. De Vries offers a succinct critique: "One is justified in questioning how aimless arbitrariness can be avoided in reconstructing what was theoretically an arbitrary and 'secret' picking of dates from three calendars."[10]

While Stenring and Larsson are out of the mainstream of scholarship with their esoteric system of chronology, they are in midstream in assuming that the calendar was one of those items in Israel's culture whose workings were "hidden" from the laity by the priests. A common critical supposition is that any text dealing with specifically liturgical matters (including a liturgical calendar) is by nature suspected of a late date. The more intricate the liturgical information, the later the dating. This supposition follows from the higher critical bias against the priests, who are often viewed as those who "institutionalized" Israel's once free pursuit of the worship of Yahweh. Insisting on worship only in Jerusalem and only according to the prescribed days of the calendar, the priests gathered all control of matters religious into their own hands. To maintain this control, the priests kept the secrets of calendar manipulation to themselves. In the critical reconstruction of Israel's history that we have outlined in previous chapters, the original fall new year of Yahwism, an agriculturally based religion, was altered to the spring new year of the Jerusalem cult under the influence of Babylonian teachings. The pejorative terminology of

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[10]Simon J. De Vries, "Chronology, OT," in The Interpreter's Dictionary of the Bible: Supplementary Volume, ed. Keith Crim.

class struggle is sometimes cast at the priests, who supposedly did all in their power to keep their wisdom hidden among the initiates, lest it be exposed and the masses return to their former religious practices. While not always presented in such a negative way, the implication is nearly always the same: the priests are the orchestrators of the calendar, and the laity follow as sheep.[11]

Other commentators on the Hebrew calendar are more circumspect in attributing to special groups the control of the calendar, readily admitting that not enough information about the subject is available upon which to base a judgment.[12]

Lay Understanding of the Calendar

Is the above view on the control and understanding of the calendar the only viable option? One would think so on the basis of its accep-

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[11]For a moderate presentation of this view, see W. A. Heidel, The Calendar of Ancient Israel, Proceedings of the American Academy of Arts and Sciences, vol. 61, no. 2 (N.p.: December 1925), 39-40.

[12]We note the comments of the following men:

Roland de Vaux: ". . . the ancient history of the calendar is very complicated" (Ancient Israel, 2 vols., trans. John McHugh [McGraw-Hill Book Co., 1965], 1:178).

Simon J. De Vries: "Although it is obvious from numerous OT passages that the ancient Hebrews possessed at least a roughly calculated calendar (or calendars), they have nowhere given us a complete account of their system. The precise determination of this system remains one of the major problems of biblical research" ("Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick).

Baruch Halpern: "The precise calendrical vicissitudes of the Israelite cult are unfortunately obscure" (The Constitution of the Monarchy of Israel, Harvard Semitic Monographs, No. 25 [Chico, CA: Scholars Press, 1981], 95).

Paul Heinisch: "A solution that covers all the data and satisfies everyone has not as yet been advanced. St. Jerome believe it impossible to arrive at such a solution and judged that extensive work upon this problem was non tam studiosi quam otiosi hominis [Ad Vitalem ep. 72, 5 (ML 22:676)]" (History of the Old Testament, trans. William Heidt [Collegeville, MN: Liturgical Press, 1952], 220-21).

tance by the majority of commentators on the calendar. On the contrary, we suggest, along with a few other voices, that a case may be made for lay understanding of the workings of the calendar in the Old Testament.

What evidence may be presented for such a case? To begin with, if William F. Albright is correct in his view of the Gezer Calendar (that it was a mnemonic device and a school exercise), then this tablet would indicate that the common man was familiar with a twelve month calendar in association with the agricultural cycle. To be sure, this says nothing about how much the average man understood the workings of the calendar, but it does show that he was not fully in the dark.

The calendar of the Book of Jubilees, supported by some as a calendar used in Old Testament times (see above on Hoenig and Zeitlin), is a calendar designed, apparently, with lay understanding in mind. For a lay audience, the attractive aspect of the Jubilees calendar is its consistency and regularity. In the Jubilees calendar, the dates of the months always fall on the same day of the week from quarter to quarter. That is, in the first month of each quarter, the first day will always fall on the fourth day of the week (Wednesday); in the second month of each quarter, the first day will always fall on the fifth day of the week (Friday); in the third month of each quarter, the first day will always fall on the first day of the week (Sunday). The reason the first month begins on the fourth day instead of the first is that Genesis records the creation of the heavenly lights on the fourth day, and it is from this point that time reckoning may begin.[13]

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[13]For a concise summary of the workings of the calendar of the Book of Jubilees, see Jack Finegan, Handbook of Biblical Chronology (Princeton: Princeton University Press, 1964), 54-56.

The boon to the average Israelite in this calendar is that he need not follow the phases of the moon to determine a feast day. In the Jubilees calendar, Passover always falls on the second Tuesday of the first month and Unleavened Bread always begins on the next Wednesday. Of course, this consistency would never obtain in a luni-solar calendar.

Annie Jaubert contends that the calendar described in the Book of Jubilees is an old calendar of the priestly tradition. When the Jubilees calendar is applied to the dates of the Old Testament, a preponderance of first, fourth, and sixth days of the week appear. Jaubert suggests that the first day of the week, Sunday, was the day of departure for a journey, thus giving one maximum time before having to stop for the Sabbath. Friday, the sixth day of the week, was the day of arrival, in time for the Sabbath rest. The fourth day of the week was a special day,[14] and on it holy events are likely to take place. It is striking how such a pattern does fall into place when the dates of the earlier books of the Hebrew Bible are thus analyzed. Jaubert admits that a later luni-solar dating has been utilized for some texts, but that care has been taken to preserve the sanctity of these three special days:

> The harmony as regards the calendar is too striking to permit rejection of the evidence supplied by the texts themselves that they preserve an ancient calendar of Israel. We are thus led to conclude that there exists a <u>continuity of calendar</u>. This does not mean that

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[14]Jaubert posits the special force of this day on the basis of four witnesses: First, four is the number of mystique in the Orient (four corners of the earth, of the compass, rivers in Eden, etc.). Second, the heavenly lights were created on the fourth day. Third, the fourth day is the midpoint in the week. Fourth, in the Babylonian calendar, the fourth day is the day of propitious or unpropitious happenings. See Annie Jaubert, <u>The Date of the Last Supper</u>, trans. Isaac Rafferty (Staten Island, NY: Alba House, 1965), 39.

> there could not have been a certain evolution or that additions or new interpretations could not have been introduced. . . . But on one side and on the other is found the same distribution of days of the week with respect to days of the month; there is the same care to give special significance to certain liturgical days, in every case the same ones. The Jubilees-Qumran calendar is thus substantially the same as that of the priestly school.[15]

If this is the case, then the ancient Israelite layman would have had a simple system with which to keep track of the calendar.[16] He would not have needed to depend upon the priests or the observation of the moon's phases to know the proper times for the feasts. Further, in the calendar of Jubilees, a certain cosmic character surrounds the calendar. The days are not simply days of the week, but the three special days serve continually to remind the Israelites of their heritage in God's grace. In this sense, the calendar is not just a mechanical device to keep track of the passage of time, but a sacramental "re-presentation" of Yahweh's acts of might and mercy in history.

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[15]Ibid., 38.

[16]Wenham comments on the benefits of this type of calendar: "The simplicity of the Jubilees calendar is obvious. If the major festivals did always begin on Wednesdays, it would have been a great boon to ordinary people, who would not have possessed calendars. If the festivals began on Wednesday, those who lived a long way from Jerusalem would not have needed to journey on the sabbath to go up to the temple" (The Book of Leviticus, New International Commentary on the Old Testament [Grand Rapids: William B. Eerdmans Publishing Co., 1979], 302). The argument from travel is not as strong as it might first appear. If the calendar of Jubilees was in use in Old Testament times, then pilgrims would be journeying from the northernmost reaches of the land, requiring more than the four days the Jubilees calendar would allow. In such a case, it mattered little upon what day of the week a feast would fall, for it would generally require travel to be interrupted by a sabbath rest. If, however, the calendar was in use only in the time after the exile, when most worshippers lived in the general vicinity of Jerusalem, within which travel could be accomplished in two or three days, then would this calendar have travel value. This point aside, the Jubilees calendar would allow the average Israelite to know with certainty upon what days of the week his holy days would fall.

Is Jaubert's thesis tenable? The repeated occurrence of the first, fourth, and sixth days of the week might suggest so. However, there are some dates in the Pentateuch that do not fall into the pattern. Moses is commanded on II/1 to conduct a census of Israel, which is a Friday in the Jubilees calendar, a day when no work was to be started (Num. 1:1). In Numbers 10:11 the pillar of cloud over the tabernacle begins to move on II/20, a Wednesday, not a Sunday, the day Jaubert gives as the time for beginning journeys. Israel arrives in the wilderness of Sinai on III/1, a Sunday, and thus concludes a journey when it should be beginning one (Ex. 19:1). Solomon, on VII/23, sends home the people who have congregated for the temple dedication, although he is urging them to travel on a Thursday, shortly before the Sabbath (2 Chron. 7:10). At Ezra 10:9, the people of Judah and Benjamin gather on IX/20 in Jerusalem concerning the matter of divorce; this day of gathering is a Friday, the day of the end of gatherings, not the beginning. To be sure, more often than not Jaubert's thesis is borne out by the days of the weeks, but the above testify that certain dates do not fit.

Another problem with accepting the Jubilees calendar as the one used in the Old Testament is its essential solar character. The Book of Jubilees itself contains a tirade (beginning at 6:36) against the use of the lunar calendar, for such a calendar allows the feasts to fall on unholy days. We have already examined the strengths and weaknesses of such a solar proposition and have found the weaknesses outweighing the strengths. Chief among those weaknesses is its inability to account for the emphasis on the moon in the Hebrew Bible. Under Jaubert's thesis, every text speaking of the importance of the moon in the Old Testament

would have to be considered a later interpolation from the rabbinic period. Jaubert is no doubt correct in assuming the use of the Jubilees calendar in the Qumran community, but we find little evidence for its predominant use in the Old Testament beyond the perhaps coincidental emphasis on certain days of the week.

Hence, while a calendar of the type described in the Book of Jubilees would certainly have been easy for the average Israelite to follow, and would therefore argue against priestly domination of the calendar's secrets, we cannot accept its use in Old Testament times.

Are there any hints in the Old Testament itself that the laity did understand the workings of the calendar? Exodus 23:17 and its parallels would suggest that the laity could and did keep track of the passage of time according to a calendar. In this text Yahweh commands all Israelite males to appear before him three times each year, at the time of the appointed feasts. In order to keep this command, the Israelite males would need to keep track of the passage of months and days. By observing the phases of the moon, and by understanding the mysterious (to us) method of intercalation, and with timely synchronization with the priestly authorities, the average Israelite could surely have kept track of the time of year, and, hence, the festivals. Even if one were to argue that the laity depended upon the priests to "remind" them of the feasts' approach, still the laity would have retained some responsibility for keeping track of time, for there could not possibly have been enough priests to notify every Israelite male. Especially would this have been true for the time following the conquest but prior to Solomon's administrative structure. In this period there was no central

authority; the priests certainly do not seem to be under direct orders from the tabernacle authorities during the time of the Judges. If the cultus of Israel survived at this time among the laity (and the piety of people such as Samson's parents and Hannah would indicate that it did), then surely part of the praise would belong to the average Israelite worshipper, who continued to follow the festival calendars even when all other structure in Israel had vanished.

This brings us to the more crucial argument in favor of lay understanding of Israel's calendar, namely, lay understanding of the relationship of the festal calendar to the nature of Israel's faith. In Israel, the calendar was not only a tool to measure the passage of time for the benefit of national order and commerce. We would argue that this purpose of the calendar was, in fact, of secondary importance to Israel. The calendar's primary importance lay in its "re-presentation" of Yahweh's saving acts in history to the successive generations of Israelites who observed that calendar. This assertion is bolstered by the type of information we have of the calendar in the Old Testament: virtually every text that deals with the nature and structure of the calendar as it proceeds throughout the year has to do with Israel's festivals. Festal calendars appear frequently in the Pentateuch, some in great detail. In contrast, when Solomon's administrative structure is announced, we simply discover it is divided into twelve sections, but with no formal explanation of how such a structure dovetailed with the twelve months of the calendar.[17]

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[17]Possible exceptions may be the texts referring to the "time when kings go out to war." Our argument, however, is not that the calendar served only religious purposes, but primarily religious purposes.

Apart from the calendar of feast days, the average Israelite had no formal structure for presenting the foundation of his faith to succeeding generations. How important the transmission of the faith was in Israel's religion is demonstrated by the "to you" and "to us" that are stated over and over again in Deuteronomy, emphasizing that the feast days are not just historical remembrances, but "re-actualizations" of God's saving acts in the lives of the current celebrants. Thus, Moses speaks to the people, apparently nonsensically: "The LORD our God made a covenant with us in Horeb. Not with our fathers did the LORD make this covenant, but with us, who are all of us here alive this day. The LORD spoke with you face to face at the mountain . . ." (Deut. 5:2-4; RSV). In one sense, Yahweh did make the covenant with that generation's fathers, but the covenant was not only for that generation. It is alive and becomes present for successive generations as it is received with thankful faith. This was God's very intention in instituting the feasts as "remembrance" days in perpetuity:

> And when in time to come your son asks you, "What does this mean?" you shall say to him, "By strength of hand the LORD brought us out of Egypt, from the house of bondage. For when Pharaoh stubbornly refused to let us go, the LORD slew all the first-born in the land of Egypt, both the first-born of man and the first-born of cattle. Therefore I sacrifice to the LORD all the males that first open the womb; but all the first-born of my sons I redeem" (Ex. 13:14-15; RSV).

Israel's faith was not a matter for the priests and temple precincts alone; it was celebrated and taught at home, within families. The "catechism" parents used to instruct their children was the succession of events celebrated in the calendar. To imagine that the priests alone held the secrets to calendar reckoning in Israel is to neuter the educational frame of Israel's religion. Not only did the Israelite par-

ent know the meaning of the events celebrated in the calendar, but they knew their historical setting and why they were commemorated, actualized, in their current settings in the calendar. A part of the essence of the faith was understanding the passage of time and the calendar, essential because it was the means of passing on the faith and the covenant until the time was filled full by the appearance of the Messiah.

Proposals that would have the calendar of Israel change from a lunar to solar reckoning, from a fall to a spring reckoning, from a pentacontad to a luni-solar reckoning, must reckon also with the intimacy of the calendar in the faith life of the laity. A calendar constantly in flux would make the propagation of the faith according to the plan outlined in Exodus and Deuteronomy extremely difficult. A calendar whose structure changed from lunar to solar would disrupt the flow of months. Intercalation suggestions that do not preserve the Sabbath week would do harm to the observance of the faith. It is our opinion that scholars who propose sweeping changes in Israel's calendar reckoning do so without understanding the consequent ramifications upon Israel's faith. We would argue that a consistent calendar method from the time of the exodus onward was a constituent element in Israel's historical faith. Without a consistent way to determine the time of the Passover, the feast itself would not be observed, and the redemption by Yahweh's gracious hand would not be made present to successive generations.

This is not to say that there was not a priestly authority that decided issues of calendar reckoning. For the purposes of intercalation it is hard to imagine otherwise. Too, a priestly authority would require a certain amount of communication between the tribes and the tab-

ernacle, and no doubt a certain amount of confusion as well. Yet, in granting this much priestly authority, we are not thereby asserting lay ignorance on the workings of the calendar. That state of affairs would have been inconsistent with the historical nature of Israel's faith.

We have accepted the rectified luni-solar calendar as the one used by Israel in the Old Testament. Would such a calendar be too complex for the laity to follow? Not necessarily. The time of the new moon and full moon are obvious enough, especially the latter. For many in our generations, following the course of the sun in relation to its rising and setting on the horizon is an incomprehensible system of calculating the time of year. This would not have been the case in ancient times; if the sun were the primary means of calculating the time of year, then surely the majority of people at that time, not just the priests, would be aware of the implications of its place in the sky. All the more would this be so in an agricultural community.

Even with the method of intercalation, the lay farmer may have known more precisely when it was time to intercalate a second Adar than the priest at the temple. For the sake of uniformity in the land, surely one authoritative body established the time of intercalation, but it would not have come as a shock to many Israelite farmers who were observing the early state of the crops in misaligned months.

As for the complexity of two calendars operating side by side, neither would this be an inordinate burden upon the Israelite layman. As we have argued above, we moderns are capable of keeping track of more than one calendar at any one time; societies have been doing so for centuries. There is no reason to suppose it would have been any different

in ancient Israel. In accordance with our thesis concerning the intimate connection of the calendar and everyday Israelite faith, we would maintain that the festal calendar (apparently beginning in the spring), would be the primary calendar observed by the laity. Certainly, they would know as well the fall (civil) calendar for their agrarian vocation, but an even more important vocation was the one from Yahweh to be for him a kingdom of priests.

In this very phrase from Exodus 19:6 (better known to Christians from Peter's quotation in his first epistle) rests the heart of our proposal. To suggest that the priests in Israel were a special caste with privileged secrets of the cult too holy for the profane layman is to misunderstand grossly the communal aspect of Israel's faith. A community is made up of individuals bonded together by a common belief or purpose. What bound the individuals of Israel together was their common redemption by Yahweh in keeping with the covenant made to their common ancestor Abraham. This faith was not entrusted to the priests, but to the people. Of course, the priests did have a special calling in service to Yahweh, but keeping the secrets of the faith away from the laity was not part of that calling. While priests in other religions in other cultures may have functioned in this way, such an adverse relationship between priest and lay is not envisioned in the faith of Scriptures.

As a "priest" the Israelite layman had the responsibility to oversee the service of the Lord in his own home and family. Part of this responsibility is explicitly mentioned in the Old Testament as instruction. We would maintain that another part of this "priestly" responsibility would have been following the calendar for the sake of keeping

the feasts. A similar function is fulfilled when Christian families instruct their children regarding the reasons for celebrating Christmas and Easter. If Christ is secondary or tertiary in home celebrations of these feast days, no amount of preaching in church and Sunday school will supplant such a notion. Likewise, if church authorities succumb to the fads of the day and celebrate these festivals by the world's agenda, then the instruction in the home may come to naught. However, when the two arenas work in unison, then the festival is kept for the glory of God and the edification of the kingdom. We propose a similar unity of purpose in Israel, not a division of knowledge and holiness along priest/lay lines.

A further indication of this is the instruction given to the Israelites in Deuteronomy 4:19:

> And beware lest you lift up your eyes to heaven, and when you see the sun and the moon and the stars, all the host of heaven, you be drawn away and worship them and serve them, things which the LORD your God has allotted to all the peoples under the whole heaven (RSV).

Here, Israel is not commanded to disregard the sun, moon, and stars, for they have their proper purpose as signs for calendar reckoning, a function these heavenly lights hold not just for Israel but for all creation (under God's providence). What Israel is warned of is worshipping the created order as if it were the Creator, to use Paul's summary from Romans 1.

Such a warning indicates Israel was aware of the proper use of the sun, moon, and stars. According to this proper use Israel observed the celestial bodies to calculate the passage of time, as did the other nations. Yet, for Israel, the sun, moon, and stars had been "baptized"

to provide a more holy service. Part of that holy service was to provide a festal calendar for the purposes described above, the propagation and "re-presentation" of the faith. Another part of this holy service was to render praise and honor to Yahweh. Psalm 148:3 states this cosmic glory plainly: "Praise him, sun and moon, praise him, all you shining stars!" The sun served as a reminder to the Israelites that their entire lives were to be praise for Yahweh: "From the rising of the sun to its setting, the name of the LORD is to be praised!" (Ps. 113:3, a thought carried over by Paul in Rom. 12:1-2). The appearance of the sun and moon were to remind each generation of Israelites after David of the perpetuity of his throne: "His line shall endure for ever, his throne as long as the sun before me. Like the moon it shall be established for ever" (Ps. 89:36-37; see also Jer. 31:35-36 for the sun, moon, and stars serving as a confirmation of God's abiding support of Israel). Only to the "eyes of faith" did the celestial lights provide this testimony of God's glory. To worship those objects which were provided to give honor to Yahweh would be terribly blasphemous, hence the warning.

Of course, the context of the warning from Deuteronomy is the time just before the conquest. Israel is warned not to become involved in the pagan practices of the current inhabitants of the land, which did include the worship of sun and moon deities. Under God's revelation, however, Israel had been instructed that also these heavenly bodies were under God's direction, and should not be worshipped as if they were gods themselves.

As this revelation from Yahweh continued to unfold to the people

of Israel, another reason for not worshipping the sun, moon, and stars was unveiled. In the prophets, the darkening of the sun, moon, and stars was given as a sign of the appearing of the day of Yahweh (Joel 2:10; 3:31 [H]; 4:15 [H]; Amos 8:9; Nahum 3:17; Hab. 3:11). By observing the movements of the sun, moon, and stars for calendar purposes, the Israelites were constantly reminded that history was not a monotonous cycle, but rather a spiral of months, seasons, and years advancing to a fixed end. In so far as the Israelites were redeemed through faith, the day of Yahweh was a day to look forward to. Yet, insofar as the day of Yahweh was a day of harsh judgment, its delay was a sign of God's continued forbearance. Each day the sun, moon, and stars shone was another day for the sinner to repent. Again, it would be a great blasphemy to worship as an idol that which God had set as a sign of his coming and a sign of his grace.

Summary

The preceding paragraphs are summarized thus: the very nature of Israel's faith compelled its adherents to be individually involved in the proper use of the sun, moon, and stars, namely, to observe them as signs for the passage of time and for the purpose of keeping the festivals that "re-presented" the saving acts of Yahweh to current generations. In short, the calendar's purpose was multivalent, serving not only a time function, but also a function within the everyday faith of the Israelites. To imply that the calendar was a possession of the priests, who kept its secrets among a group of initiates, is to reveal a misunderstanding of Israel's faith. To imply that the calendar was a matter that could be overhauled in Israel, perhaps several times, is to

reveal a misunderstanding of the importance of the calendar in Israel's faith. On the contrary, having a faith that was historically rooted, Israel used its calendar not only as a time measuring tool, but also as a vehicle for proclaiming the faith. Because Israel's faith was individually relevant, its calendar was not a matter of priestly secrets, but a means of personal piety, indicating the time for celebrating God's saving acts through means of the festivals.

On the basis of the sparse biblical evidence, and more so on the basis of the historical, personal, and communal nature of Israel's faith, we therefore conclude that the calendar was understood and used by the Israelite laity.

CHAPTER 9

ORIGIN AND TRANSMITTAL OF THE CALENDAR

In this brief chapter we will broach two topics. First, what was the origin of Israel's calendar? Second, as Israel's calendar was handed down from generation to generation, what kind of changes may it have undergone in order to remain current?

Origin of the Calendar

Virtually all serious work on the calendar in Israel assumes the origin of its calendar from one of three places. Those who believe Israel initially used a primarily lunar calendar maintain Israel appropriated this calendar from the Canaanites when the tribes first became powerful in Palestine. Those who believe Israel initially used a primarily solar calendar maintain Israel adopted the Egyptian solar year while enslaved there (except for Julian Morgenstern, who promotes the pentacontad calendar, supposedly indigenous to Canaan). Finally, those who believe Israel adopted the luni-solar calendar under Babylonian influence near the time of the exile maintain this luni-solar calendar is of Mesopotamian origin. (We could possibly list a fourth category, those who believe the patriarchs brought with them the luni-solar calendar when they sojourned in Palestine. However, this position still posits a Mesopotamian origin, which we classify under the third position above.)

What evidence is there for each position? Admittedly, there is little. In favor of a Canaanite origin is the fact that the name for month, חֹדֶשׁ, is also one of the names used in Hebrew. Second, four of the month names used in some biblical texts are of Canaanite origin (Abib, Ziv, Ethanim, and Bul).[1] In favor of Egyptian origin is the use of the solar year beginning in the spring. Assuming the historicity of Exodus 12:2, it would not be unreasonable to assume that the Israelites were prepared for this beginning of the year by their stay in Egypt.[2] As well, since the Israelites numbered their months, an argument can be made that they learned to do so from Egypt, which numbered the months of its seasons one through four.[3] In favor of a Mesopotamian origin of the calendar is the similarity of the luni-solar calendar found there with the one we have described as used in the Old Testament. As well, as no one doubts, the month names used in the later books of the Old Testament are of Mesopotamian origin.[4]

Because of the sparsity of information, the key issue becomes one's view of Israel's history. If one accepts the biblical view of Israel's patriarchal origins and the national beginning with the exodus and conquest, then any of the above possibilities may have influenced

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[1]Roland de Vaux, Ancient Israel, 2 vols., trans. John McHugh (New York: McGraw-Hill, 1965), 1:183.

[2]Umberto Cassuto, A Commentary on the Book of Exodus, trans. Israel Abrahams (Jerusalem: Magnes Press, Hebrew University, 1974), 137.

[3]De Vaux, Ancient Israel, 1:184. Although de Vaux mentions this argument, he also mentions that the numbering of months was a practice of Mesopotamia as well.

[4]Simon J. De Vries, "Calendar," in The Interpreter's Dictionary of the Bible, ed. George A. Buttrick.

the development of Israel's calendar. The patriarchs may well have been accustomed to a luni-solar calendar from Mesopotamia. This calendar was possibly refined to begin in the spring under Egyptian influence, and was further modified by Canaanite month names following the conquest. With Solomon's twelvefold administrative structure, the months could possibly have been referred to numerically, and then finally called by the Mesopotamian names under Babylonian influence. There is nothing inconceivable about such a reconstruction.

Yet, if one holds a different view of Israel's history, then some of the possibilities we have cited are no longer possible. For instance, if the tribes of Israel slowly infiltrated the land of Canaan (as opposed to the Blitzkrieg described in Joshua), then the lunar Canaanite calendar would be the favored origin of Israel's calendar. If, however, there is a grain of truth in the patriarchal narratives (but not necessarily a national origin in the exodus), then it could well be that the luni-solar was Israel's original calendar. Still, if there is a grain of truth in the Egyptian enslavement and exodus (if not for all the tribes, at least for some), then it could be that Israel did bring with it into Canaan a solar calendar, and then modified it to be used with the Canaanite lunar calendar.

Here, again, the article upon which one's position on the origin of the calendar stands or falls is hermeneutical. The evidence regarding the origin of the calendar in Old Testament Israel is so slight, one's hermeneutical stance will greatly affect how one reads what little evidence there is.

One item in discussing the origin of Israel's calendar which

rarely is raised is the possibility of divine intervention in the particular shape of Israel's calendar. Divine influence on Israel's opinion of the calendar is supported in the Scriptures. From the creation account, Israel is to understand the signs for calendar reckoning as coming from God's creative act, and, therefore, for service to him. From Exodus 12:2 Israel is to understand that the nation begins its months not when it wishes, but when Yahweh wills. The stipulations for sacrifices celebrating the new moon suggest Israel was instructed to begin its month at this time. While the human history of the Sabbath is all but clear, the Scriptures give divine ordinance as the reason for Israel's keeping it holy.

As we argued in the previous chapter, the calendar was more than a mere timepiece for Israel. Since the calendar led Israel each year through the commemoration of Yahweh's great saving acts, it was a vehicle of divine operation. While surely Israel's calendar was not so unique that it fell from heaven in complete form, still its shape was of such significance that it will not do to simply say Israel "borrowed" it from her neighbors. Israel was instructed to use this calendar, for it was one regulated by God's creation and it was one that bore witness to God's saving acts. Whence its original shape came remains a matter of historical research. By the nature of the calendar in a society (i.e., a society so well understands its calendar, it fails to describe its operation), one doubts if satisfactory answers on origins will ever come to light. What we maintain here is that whatever its source, the calendar utilized for Israel was "baptized" by Yahweh, and thus made new. We might draw a parallel with the Christian adoption of "Easter" as the

church's highest feast day. Regardless of its origin, once "baptized" by God through the church, it is a new creation. With the calendar, the "baptism" is at the hands not of Israel, but of God himself (Exodus 12).

Transmittal of the Calendar

While the origin of Israel's calendar in the Old Testament may be obscure, we may suppose from the Scriptures that by the time of the wilderness wanderings, Israel was operating by a calendar sufficient for its civil and religious needs. Over a millennium would pass, however, between that time and the time of the formation of the canon. What may be said of Israel's calendar during this time? In what shape was it transmitted from one generation to the next? Did it undergo any changes of nature and structure?

Many scholars would answer with a hearty, "Yes!" We have examined their theories of the calendar's change from lunar to solar, from fall to spring reckoning, from agriculturally based to temple based. Much of this change is predicated on the operative assumptions of higher critical methods. We have contended that it would have been extremely difficult for Israel to survive in daily practice or piety with a calendar in the constant state of flux some have proposed. Yet, it is unlikely that the calendar underwent no changes throughout Israel's change from wandering tribes to conquering tribes, from the time of the judges to the time of the united monarchy, from the time of the divided kingdom to the time of the exile and return. What changes might have occurred in Israel's calendar throughout these metamorphoses in the nation?

The evidence is scant. A hermeneutical basis of the reliability of the texts leads one away from the concept of a calendar with multiple

changes in structure after the exodus, for there we find evidence for the twelve month calendar beginning in the spring under divine command. Further, the texts in Exodus and Leviticus supporting a fall new year are contemporary with the spring calendar, supposing the same hermeneutical base. From this starting point then, it is difficult to imagine a great deal of change in the nature and structure of the calendar.

This view would receive support from the practical uses of the calendar. Since the calendar served both religious and civil needs, it would not be in the best interests of Israel to change its method of calendar reckoning. Keeping continuity with the past was Israel's way of uniting the tribes together around those events that made them a chosen people.

The only clear evidence we have of changes in Israel's calendar comes regarding the naming of the months. Clearly, three methods have been employed: the Canaanite names, the numbers, and the Babylonian names. Since the first two methods are employed together in the texts, and the last two methods are employed together in the texts (but never the first and third together), and since the Babylonian names arise only in the later books, most scholars have concluded that the order of use was the one we have listed in this paragraph (see p. 17). Is it possible that at one time the Canaanite names received more widespread use than the texts now indicate?

Theoretically, there is no reason to suppose why not. We would grant the possibility that in earlier manuscripts of the books up to the time of the monarchy, the Canaanite names may have been the standard month names. However, sometime during the monarchy, perhaps with Solo-

mon's administrative reform, the method of numbering the months was adopted. For the sake of current understanding at that time, a scribe may have updated the existing Scriptures, replacing the Canaanite names with the corresponding numbers. Confessionally, we would encompass this scribe's activity under the wider scope of inspiration. Such updating has apparently occurred with some place names in the Old Testament (e.g., Gen. 14:2, 3, 7). Minor writing and editorial work was certainly done (e.g., the account of Moses' death in a book written by Moses!). Yet, this is far from granting the wholesale reworking of texts that higher criticism employs.

Confessionally and conceivably, then, such a renaming of the months is a possibility. If this were done (and it is by no means certain), then why were several texts left unchanged? The texts containing Abib might be understood because of this month's association with Passover; a certain pious reluctance to change archaic but accepted language operates also in our day with our hymnody.

Somewhat harder to explain are the four occurrences of three other Canaanite names in the book of 1 Kings. All four occurrences are associated with the construction and dedication of the temple, and that may have something to do with their remaining unchanged. In each instance the Hebrew word for month is חֹדֶשׁ, whereas earlier in the book (4:7), יָרֵחַ is used. Since חֹדֶשׁ is relatively rare in the Scriptures, it may indicate that one source was used for the temple texts by the author of Kings, while a different source was used for other parts of the book. We might suppose a source from the temple's own archive was consulted. If so, we are left with two possibilities. Either the temple source was

written at a time when the Canaanite names were still in common use, or the temple source used archaizing language. The former would indicate that the naming of months with numbers did not come during the time of Solomon's administrative changes, but at some later time. The latter would indicate a conservative view toward the change to numbering the months, a change apparently made in the not too distant past (since the Canaanite names were still fresh in the temple source's mind). While we cannot prove it, our sympathies lie with this last explanation.

Why, then, did not the "updater" simply alter these dates instead of explaining them? Perhaps it was out of reverence to the temple source itself; the later scribe did not feel he had permission to alter such a text. We cannot know. At any rate, there is no consistency of usage to assist us, for when the Canaanite name Abib occurs in Exodus 34:18, it is used with חֹדֶשׁ, not חֳדָשִׁים (likewise at Deut. 16:1).

Some updating may have taken place in the flood account, where we have seen some evidence of a dual dating, according to a lunar and a solar year. Since we have no information on how the calendar may have worked in Noah's day or how the flood chronology was passed on to the time of the writing of Genesis, we are in the realm of pure speculation. It may very well have been that the flood took not one lunar year or one solar year, but one luni-solar year plus eleven days. In this case, the only updating that would be necessary is the nomenclature used for the months themselves.

Aside from these cases, we find little reliable evidence that any other updating, much less large-scale changes, in the calendar took place in the texts of the Old Testament. We find that in the transmit-

tal of the calendar from generation to generation in Israel, the essential nature and structure of the calendar remained unchanged.

Summary

The origin of the calendar-type employed by Israel remains a mystery. One's hermeneutical stance will determine what possibilities are open for suggestion. Whatever the origin of Israel's calendar, once it was adopted by Israel for use under Yahweh's command, the calendar took on a new character of service in the holy work of the Lord.

The transmittal of the calendar remains a mystery as well. Our hermeneutics (and our reason) will not accept the full-blown changes in the calendar suggested in the higher critical methods. Instead, we find a calendar that remains essentially unchanged from the time of the exodus onward, with the exception of the possible updating of the names of the months to bring them into contemporary usage. The intimate intertwining of Israel's calendar with her faith would compel the nation to keep its tool for time reckoning as unchanged as possible to ensure the transmission of the faith to later generations.

CHAPTER 10

CONCLUSIONS

On the subject of time, St. Augustine offered this reflection: "What, then, is time? If no one asks me I know what it is. If I wish to explain it to him who asks me, I do not know."[1] A study of the nature, structure, and use of the calendar in the Old Testament leaves one with the same impression. When perusing the Hebrew Scriptures, the reader is virtually unaware of any calendar difficulties; the calendar of the Old Testament seems eminently workable and trouble-free. When asked to study the inner operation of the calendar, the student suddenly finds there is little that arises apart from trouble. Each time the student ventures to feel a sense of comprehension of the subject, a new piece of the puzzle appears that is the wrong shape, color, and size, as if it belongs to a different puzzle altogether.

The conclusions we draw in this chapter are, in the main, judgments of what cannot be, and, therefore, what else must be. Such deduced judgments do not gratify the researcher's soul, but in the area of the calendar, these types of conclusions are all one may achieve.

Regarding the nature of the calendar, strong evidence demonstrates the place of the moon in Israel's time reckoning scheme. The linguistic

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[1]St. Augustine, Confessions, trans. and ed. A. C. Outler, vol. 7 of The Library of Christian Classics, ed. John Baillie, (Philadelphia: Westminster Press, 1955), 254.

connection of the Hebrew words for moon and month, the measurement of time by months, the special sacrifices offered at the new moon, the apparent correlation of the two great festivals with the full moon, and the cultural milieu of Israel combine together to prevent any serious consideration that the calendar in the Old Testament was not in some way lunar.

Nevertheless, there is not enough evidence to convince one that the calendar was wholly lunar. Alongside this obvious lunar reckoning is a solar reckoning. While the amount of evidence for a solar calendar is not as great as that present for a lunar year, neither can the solar year evidence be disregarded as inconsequential. The linguistic evidence of תְּצֵאת , תְּקוּפָה , and תְּשׁוּבָה point toward the tracking of a body in motion. Since the first two words refer to the end of a cycle, and are used to refer to times in the middle of a month, the body in motion is not likely the moon, but the sun. Egyptian calendar reckoning, based on the solar year, may have influenced the Israelites to utilize a solar calculation. Solomon's administration divided the year into twelve service units; if a lunar calendar was in use, Solomon would have needed a thirteenth unit for the intercalary month. Since one is not recorded, the implication is a solar year of twelve months with a few intercalated days. Further, the solar calendar of the Book of Jubilees has the benefits of ease of use and the possibility of helping us understand the difficult year of Jubilee. To be sure, there is not enough evidence here to firmly establish a solar calendar in Israel, but there is just enough to keep the scales from tipping in favor of a wholly lunar reckoning.

This being the case, one is left to conclude that a luni-solar reckoning was the basis for Israel's calendar. In such a calendar, the length of the year is measured by the sun, while the length of the month is measured by the moon. Since the sum of the twelve lunar months would be eleven days short of the solar year, a rectifying month was necessary, an intercalary insertion of thirty days added approximately once every three years. This practice kept the two different systems of reckoning in rough alignment. The benefits of this calendar are manifold: it allows for an obvious beginning and ending of the months; it provides a clear sign for the midpoint of the month; it keeps the lunar year in phase with the solar seasons; it allowed Israel to preserve and enlarge its commerce with its neighbors, many of whom utilized a calendar of this nature. Positive biblical support for the luni-solar calendar comes from the purpose stated for the sun, moon, and stars in Genesis 1. Too, the flood account seems to be dated according to both a lunar and a solar year, illustrating Israel's knowledge in rectifying these two years. Finally, each of the festal calendars of Israel deals with both the solar year and the lunar month, treating them as one measuring device.

In a luni-solar calendar, intercalation must have taken place in order to keep the lunar months within their appropriate seasons. While many methods of intercalation have been proposed (some requiring a specific calendar type unlikely to have been in use in the Old Testament period), no one method can claim a biblical pedigree. The evidence for intercalation in the Scriptures simply is not present. To conclude, as some do, that the absence of proof is itself proof against a luni-solar

calendar is to argue from silence. The most probable of all proposed methods is a like-minded predecessor of the Metonic cycle that was finally adopted in Judaism. In Old Testament times, we judge, a intercalation was ruled necessary by observing the state of the crops near the spring equinox. If the crops seemed too immature to be ready for the harvest in the ordinary month of harvest, then an extra lunar month was inserted, giving the crops more time to ripen. It would not have taken too many years of observation to determine that intercalation was necessary approximately once every three years.

Hence, we find that the evidence in the Old Testament respecting the nature of the calendar yields a rectified luni-solar calendar, intercalated as necessary. Such a calendar is nowhere spelled out in its entirety, but it does explain the evidence at hand, a strength no other calendar theory can boast.

The structure of the calendar, its keystone being the date of the new year, is as large a conundrum as the nature of the calendar. Evidence for a fall new year, when considered alone, seems conclusive. The linguistic evidence seems clearly to call for a year that had its end (and consequently its beginning) in the fall and its midpoint in the spring. Several texts provide support for a fall new year because such a year is the only reckoning that allows the data given to make sense (e.g., Josiah's temple reform). Edwin Thiele's chronological system "works" only if a fall new year operated in Judah. Cultural evidence would seem to support a fall beginning (e.g., the Gezer Calendar).

Nevertheless, there are texts that clearly present a spring reckoning for the new year, chief among them Exodus 12:2. In addition,

every festal calendar of Israel begins in the spring. Without a doubt, by the time of the return from exile, Israel did reckon by a spring calendar.

Scholars operating according to the precepts of higher criticism explain the spring new year texts as being of late origin. They argue that Israel originally followed a fall new year, but later redactors inserted the post-exilic spring reckoning into the time of Moses to lend credence to its later use. Since the evidence attendant in the matter is conflicting, the influence one's hermeneutic plays is great, indeed. A hermeneutic based upon a critical approach to the Scriptures and Israel's history will yield a scenario similar to the one stated in this paragraph. A hermeneutic based upon the reliability and authenticity of the Scriptures will assess the same evidence in a different way.

Coming to the texts from the background of confessional Lutheranism, we find not two calendars from different time periods roughly commingled by an insecure redactor looking to substantiate his position, but we find two calendars operating together in the same historical period for different purposes. One calendar began in the spring, keeping track primarily of the festival year; the other calendar began in the fall, keeping track primarily of the agricultural year. Multiple calendars within a culture are not beyond the realm of the plausible, as our own culture illustrates abundantly. Later Judaism operated by just such a calendar; we can find no compelling evidence to believe Old Testament Israel operated any differently.

Concerning the control and understanding of the calendar, hermeneutics again play a considerable role. If one assumes a conflict

between the interests of the priests (seeking to establish their authority after the exile, with Jerusalem's temple as the focus of that authority) and the laity (seeking to retain the "free" Yahwism of the past which allowed them to worship in many places), then the critical explanation of the calendar in the Old Testament fits well. The priests are those who know the secrets of calendar reckoning and jealously guard them so as to keep the laity dependent upon them for the practice of their religion.

From a position that grants more integrity to the Scriptures, we find that no such dichotomy in Israelite religion need be posited. Surely the priests were the "keepers" of the calendar in the sense that they dealt with the festivals more intimately than the typical Israelite. Yet, the picture of religious life in Israel is not one of priestly domination and lay ignorance. The religious instruction of Moses is directed to the people. The responsibility for presenting oneself to Yahweh three times a year is an individual matter. It was incumbent upon the Israelite who sought faithfully to follow his Lord's precepts to have an understanding of the workings of the calendar so that he could know when to appear.

Further, the nature of Israel's religion, being historically based in the acts of Yahweh at specific times during the calendar year, would have moved the laity of Israel to take a special interest in their calendar. The festivals celebrated each year were not mere memorials of past events, but means by which Yahweh's saving grace was made known to the current generation in preparation for that grace made manifest in flesh. To disregard the time of the event of Yahweh's merciful act

would be tantamount to disregarding its reality. Yahweh had commanded the Israelites to observe specific times in their faith. We conclude that the typical Israelite would have been interested in following the cycle of grace presented in the calendar.

Throughout the entire study of the calendar in the Hebrew Bible, one is stymied because of the lack of evidence. Those of a conspiratorial bent (e.g., Knut Stenring) will attribute this to priestly insecurity, keeping the calendar concealed so as not to be profaned by the uninitiated. A more reasonable approach is to attribute the lack of evidence to Israel's contentment with its calendar method. The Israelites felt no need to explain its usage, for it worked well for them. (From a confessionally Lutheran vantage point, we would say the lack of information about the calendar in the Scriptures is a result of the purpose of the Bible; the Testaments are provided not to give a socio-religious treatise on Israel or the Christian church, but to bear witness to Israel-reduced-to-one, Jesus, who died on a specific day in a specific calendar, and was raised again three days later according a specific method of calendar reckoning.)

However, there may be another factor at work in the minimal amount of information we have on Israel's calendar. We take our cue from the book of Ecclesiastes, that book concerned with the futile nature of so much of life "under the sun" (that is, life measured by the passage of time, life that is measured by the tearing of calendar pages). The Preacher muses, "He [God] has made everything beautiful in its time; also he has put eternity into man's mind, yet so that he cannot find out what God has done from the beginning to the end" (3:11; RSV). While we

finite humans are capable of grasping the concept of eternity, we are unable to comprehend its true nature. To be able to conceive of an idea, but be not able to master it, this too is vanity and a striving after wind.

We venture to suggest a similar situation obtains with man's attempt to measure the passage of time. Mankind has never had a particular problem observing nature to discern the passage of time. The phases of the moon, the place of the sun on the horizon, the rising of constellations in the zodiac, these all confirmed the passage of time to our forebears, as they do for us. However, when man seeks to master these measuring tools, when he seeks to bring them all under one system comprehensible to his finite mind, he gets a headache! Obtuse methods of intercalation are developed to make "sense" out of the movements of the heavenly bodies. Years are developed that have no relation to the rhythms of life (e.g., the pentacontad calendar). Our current calendar is slowly moving out of alignment with the seasons, for the one day we add every four years is not the precise amount needed. We know what needs to be done to unite all these calendar measuring devices, but as soon as we achieve unity, our measuring instruments grow more sophisticated and we find out that our unity is really a divergency. In the year of the writing of this thesis the most accurate of time measuring devices known to mankind, the atomic clock, was put on "hold" for one second as the new year chimed. The reason was not that man had discovered an error in his calculations; man had done everything correctly under the sun. The problem had to do with something beyond man's control, the nearly imperceptible slowing of the earth's revolution around

the sun. After all of mankind's efforts to measure the passage of time precisely, still he cannot find out what God has done from the beginning to the end.

In mathematics the problem is squaring the circle. In calendar studies, the problem is achieving unity of instrument with natural experience. Perhaps in their own way the writers of the Scriptures understood this problem and its unflattering implication. Finite man striving for infinite understanding finds instead vanity. Mortal man yearning for immortality finds instead the impermanence of breath. Limited man trying to capture that which limits him captures only the wind. In the meantime, however, he who keeps Israel neither slumbers nor sleeps. The Triune God who made the sun to rule the day and the moon the night, who is not haunted by their passing each day (a passing that reminds man of his march to the grave), has graciously freed man from the bondage of his mortality. He has done so not by ridding man's life of every perplexity under the sun, but by coming to live, and die, under the sun. Experiencing human limitation, the long awaited Messiah lived his life of piety according to the festival calendar of Israel. On the first of the festivals he offered himself as the sacrifice that redeemed man from the futility of his position under the sun. Through the work of the Christ, mankind now is comforted with the knowledge that although he cannot comprehend eternity, nevertheless, the God who is eternal has comprehended him according to the covenant made in time with the Patriarchs.

Man will still strive to subdue the calendar, to have dominion over it as a way of taking charge of his life. This striving is bound

to result in futility until man is reconciled with the Master of time by faith in Christ. Living by faith in the promise of the coming Messiah, the authors of the Scriptures may have been content to allow the control of time to remain in God's hands. Mastering the calendar and the intricacies of its operation may not have been an agenda item for the prophets because they were gratified to receive the sun and moon and stars as gifts from their Father in heaven, rather than to behold them as enigmas demanding their solutions.

We therefore conclude that the key to understanding the nature and use of the calendar in Israel is a theological one. The theology of the covenant in Israel allowed the people to accept a certain détente toward the perplexities of time measurement and calendar making, for they knew their God to be the one who was greater than time, greater than the sun, moon, and stars. Related by the covenant to such a God, Israel had no need to calculate fully the movements of the heavens and discern precisely an absolutely accurate calendar, for the people's destiny was not controlled by the orbs of heaven but the God of the heavens. We need not be surprised or nonplused that little of the workings of the calendar appear in Israel's holy books; what is present is consistent with Israel's theological understanding of the universal kingship of Yahweh.

The theology of the covenant in Israel also allowed the people a sense of mastery over time, for in the mystery of faith they awaited Messiah's appearance when time would be full, when the calendar would serve its ultimate purpose, witnessing to the time when Life and Light walked upon the earth. The passing of each calendar day testified to the Israelites of his approach. The passing of each calendar day since

his ascension testifies to the time of his second coming, when he will rule over his saints, "and night shall be no more; they need no light of lamp or sun, for the Lord God will be their light, and they shall reign for ever and ever" (Rev. 22:5).

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