The Hail Plague and the First Biblical Month

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[1] Introduction to the Plague of Hail

Ex 9:22-34 gives the account of the plague of hail upon Egypt, and this mentions the Hebrew word ABIB, Strong's number 24, in verse 31. The context will help to clarify the meaning of ABIB.

In Ex 9:22 Moses is given the instruction [NRSV] "Stretch out your hand toward heaven so that hail may fall on the whole land of Egypt, on humans and animals and all the plants of the field in

the land of Egypt." By examining the Hebrew text for this it will be noted that the Hebrew word KOL, Strong's number 3605, occurs twice in this verse, first as "whole" (whole land of Egypt) and second as "all" (all the plants). Notice that it does not say "all" pertaining to humans and animals because they may take shelter within man made structures, but plants of the field can not take shelter and "all the plants of the field in the land of Egypt" are mentioned. This verse provides a purpose for the hail, namely that it reach exposed humans and animals and all outdoor plants. Verse 26 gives an exception [NRSV], "Only in the land of Goshen, where the Israelites were, there was no hail."

In Ex 9:24 a further aspect of this miracle is shown [NASB], "So there was hail, and fire flashing continually in the midst of the hail, very severe, such as had not been in all the land of Egypt since it became a nation." Here again the Hebrew word KOL occurs for "all" (all the land of Egypt since it became a nation). The severity was miraculous, so that one can not discuss its damaging effect in terms of normal sized hail. Another interesting point here is that it describes Egypt as having become a nation some time in the past, and what happened pertains to all of that nation. Verse 25 is especially emphatic because it mentions the Hebrew word KOL four times [NASB], "And the hail struck all [KOL] that was in the field through all [KOL] the land of Egypt, both man and beast; the hail also struck every [KOL] plant of the field and shattered every [KOL] tree of the field." What is amazing here is that the Hebrew word for shatter is SHEBAR, Strong's number 7665, and it does mean to break. It was such miraculous hail that it broke every tree of the field, certainly not any normal or isolated hail, but especially severe everywhere that trees grew in Egypt.

In the above verses from Ex 9:22, 24-25 the Hebrew word KOL (= all) occurs seven times for emphasis. While it is true that in Hebrew this word means "almost all" or "all", and does not necessarily mean 100 percent, this does not affect the reasoning to be used from this.

Ex 9:31-32 contains the Hebrew word ABIB in this context [NASB], "Now the flax and the barley were ruined, for the barley was in the ear and the flax was in bud. But the wheat and the spelt were not ruined, for they [ripen] late." Here the entire phrase "was in the ear" is given for the Hebrew word ABIB. Magil uses square brackets writing "[was in the] ear". To show what is implied about the meaning ABIB from this context it is necessary to digress a little about agriculture in Egypt and more specifically about the time of the barley harvest in different parts of Egypt.
[2] Agriculture in Egypt

Except for the northern east-west strip of Egypt that comes close to the Mediterranean Sea, Egypt is a desert with less than two inches of rainfall each year. Barley requires about eight inches of rainfall (if there is no artificial irrigation) during the growing season for a crop to come. The only reason that Egypt produced abundant highly valued crops is that the annual overflooding of the Nile River provided much water that was highly mineralized from the mountains originating far south of Egypt, and the Egyptians had learned how to trap this water and slowly

release it to irrigate their farmland along the banks of the Nile River. Once each year the Nile overflowed its banks beginning about the middle of July, and then three months later about the middle of October the water receded so that sowing the grain crops may begin.

In Egypt, the triangular Delta has one side bordering the Mediterranean Sea, and the Nile flows north into the Delta where it splits into a few tributaries that keep the whole Delta productive with crops. The ancient city of Memphis is 110 miles south of the Mediterranean Sea and is at the southern tip of the Delta. Modern Cairo is about 25 miles north of Memphis, within the Delta. Cairo is part of the desert with no more than about 1.5 inches of rain per year. When the Romans began to govern Egypt about 30 BCE, they divided it into three large districts. Page 168 of Talbert is titled "Roman Egypt", and states, "For administrative and fiscal purposes the province [of Egypt] was divided into three large districts - Delta [Lower Egypt in the north], Heptanomia [Middle Egypt], and Thebaid [Upper Egypt in the south]; to the last of these was also joined the frontier zone of the Dodecaschoenus beyond the natural barrier of the First Cataract." The distinction between Upper, Middle, and Lower relates to elevation above sea level; the Nile flows from the high elevation of Upper Egypt in the south to the low sea level elevation of Lower Egypt in the north. A good map of Ancient Egypt is shown on page 167.

Ancient Egypt extends from the Mediterranean Sea to the First Caratact, a straight distance of 500 miles, although the Nile twists and is thus a little longer up to the First Cataract. In rounded numbers the 500 miles is split into the northern 100 miles (Delta), the middle 150 miles (Heptanomia), and the southern 250 miles (Thebaid). The first dam at Aswan which is at the First Cataract (the southern boundary of Ancient Egypt) was built in 1889. This dam controls the annual floods along the Nile River and thus disrupts the ancient natural timings for some agricultural events. The dam provides energy for a continuous electrical supply and it provides a constant water flow. Artificial fertilization is used today. One must be cautious about using modern harvest data with its timings as if it was fully applicable to the distant past. Nevertheless, events dependent solely on temperature are reasonably applicable to the past.

[3] Smith's Paper and Ears of Barley in Egypt

In 1883, six years before the first dam at Aswan was built, biblical scholar W. Robertson Smith published a paper (see Smith in the bibliography) concerning the time of the barley harvest in Egypt. Our interest is in the winter barley which is planted in the fall throughout the Nile River basin and grows during the winter. The last paragraph in Smith's paper helps to clarify and reconcile the reports numbered under points 2 and 4 in his paper. He points out that the source in point 2 means "about ready to harvest" when he writes "is in ear", but the source in point 4 means "the ear has just formed" when he writes "is in ear". Smith's paper is copied as Appendix A below. Writing about southern Egypt, point 2 shows that the barley is ready to harvest from latter February to the middle of March. Point 4 shows that a

little north of Cairo the barley is ready to harvest about the beginning of April. At the end of point 2 we find, "The difference between upper and lower Egypt is about 35 days." This is the time from latter February to the first part of April. Point 4 in the paper shows that the barley a little north of Cairo has its ear formed in the beginning of January although it is not ready to harvest until the beginning of April. The colder weather in the north retards the ripening process so that the time for harvest in the extreme north is about 35 days later than in the extreme south.

[4] Lewis' Book and Ears of Barley in Egypt

Page 115 of Lewis states, "The following is the schedule of major activities in an average year in the vicinity of Memphis [southern tip of the Delta] and the Arsinoite nome [about 40 miles further south], with each phase coming two to four weeks earlier in the Thebaid [southern district of Egypt]." This says that from the southern part of Ancient Egypt to the southern tip of the Delta there is a four week (28 day) difference in harvest. Page 116 states "April [Pharmouthi] The grain harvest begins. May [Pachon] Harvesting continues, threshing begins." This is fully consistent with the paper by Smith when allowing for a seven day span from the northern end of the Delta to the southern end of the Delta 110 miles to its south. Page 115 of Lewis states, "October [Phaophi] The Nile flood is past. Sowing of cereal crops begins."

[5] Hartmann's Book and Ears of Barley in Egypt

Hartmann writes about the main exporting region of the Delta on page 122 when he states (translated from the French by James Evans, a friend who enjoyed reading his French Bible during his lunch hours), "The harvest of cereal grains was generally carried out at the end of four months for barley and of five months for wheat (4), which is to say, in the months of April and of May."

[6] Pliny the Elder and Ears of Barley in Egypt

Writing in the first century about the main exporting region of the Delta, Pliny the Elder states on page 229 of Pliny_5, "... in Egypt barley is reaped in the sixth month after sowing and wheat in the seventh, ..." Sowing begins about the middle of October and continues into November. The first month after sowing is about November. The sixth month after sowing is about April. Pliny is saying that barley in the Delta is reaped in April and wheat is reaped in May. This is as Hartmann understands it, and it agrees with the earlier sources quoted. Pliny is only estimating the time difference between the harvest of barley and wheat to the nearest month. The specific variety of each plant may cause this difference to vary from no time at all to perhaps over two months. Thus Pliny's rounded estimate is the best one may obtain. From Pliny's statement alone one may only guess that a more accurate value might have been anywhere between three weeks and six weeks.

[7] Conclusions on the Time of the Hail and the Meaning of ABIB

Based upon Ex 9:22, 24-25 mentioned above, the purpose of the hail throughout Egypt, and the fact that Ex 9:31-32 speaks in a general

way for the effect of the hail, not confining the damage to some local region, we now consider the approximate time of this extraordinarily heavy miraculous hail. Point 4 in the paper by Smith (top of page 300) shows that in northern Egypt the ear of barley is formed in the beginning of January and in southern Egypt the barley is ready to harvest in the latter part of February. The most appropriate time for the hail to affect all of the barley in Egypt is about February 20 or sooner, before the barley harvest in the south begins, but with time for the ear to grow a little in the north. But this range of stages of barley growth from near harvest in the south to over 35 days before harvest in the north is still called ABIB in Ex 9:31. If the hail plague had been in April, then the whole purpose of having the hail go throughout Egypt would have been meaningless because all the barley south of the Delta would already have been harvested by April and hence not ruined. This is evidence from the Bible that the Hebrew word ABIB has a wide range of meaning in stages of growth rather than a narrowly defined meaning such as the finger squeezing pliable "dough" stage.

Based upon Pliny's statement discussed above and its implication that the time difference between the harvest of barley and of wheat must have been somewhere between three weeks and six weeks in any one place, as well as knowing from Ex 9:32 that the wheat was not damaged, we can say a little more. Suppose that the plague of hail occurred on February 20. Since wheat is roughly one month later than barley, would wheat in the far south have been damaged by hail on February 20? The growth of wheat in the far south would be approximately the growth of barley in the far north because there is a five week spread in the barley harvest. It seems likely that some ears of wheat in the far south might be damaged by this miraculously strong hail on February 20. Hence it is more likely that this occurred closer to the middle of February or perhaps even a little sooner. The conclusion remains that the word ABIB certainly does NOT have to mean ripe or nearly ripe or a hand pliable dough squeezing stage because of the 35 day difference in harvesting from north to south Egypt; this is the main point, not the exact date of the hail plague. The exact date may very by about a half month because of unusully warm or cool weather over the whole region.

Writing in 1880 Dillman discusses the timing of the hail plague on pages 88-89 based on sources that he mentions (avoiding the difference between northern and southern Egypt), and he estimates that this occurred in January. Without giving any details, on page 244 Hertz writes, "The time indicated is the end of January or the beginning of February." From these two estimates one might surmise that in the mind of these authors the word ABIB could certainly include a very early stage of the development of the ear.

Unfortunately, many biblical Hebrew lexicons such as those by Gesenius and by Brown, Driver, and Briggs are influenced in some of their definitions by the Talmud, the first part of which was published about 200 CE. Biblical scholars today (along with some in the nineteenth century) have come to mistrust meanings given to Hebrew words based on the Talmud. DCH uses all sources of ancient Hebrew texts that were composed before the Talmud in order to arrive at its meanings. On page 103 of DCH the meaning of ABIB is

"ear (of cereal)", and one context it cites for the use of ABIB is from "The Temple Scroll" (abbreviated 11QT) 19:7 where it gives the translation "new bread (made of) ears of various cereals". Here the plural of ABIB is translated ears and implies that the ears were ground into flour in order to make bread. This further shows that the range of the meaning of ABIB extends to being fully ripe so as to be able to make flour. This shows that ABIB includes all stages of the ears, from newly formed to fully ripe. "The Temple Scroll" is found among the Dead Sea Scrolls and most estimates date it to roughly 150 BCE.

[8] Time of the Barley Harvest in Israel

My translation from page 415 of Dalman is, "The harvest that I first observed at Jerusalem on May 8, 1925 was during barley and wheat blossoming, and in the middle of the same month the barley harvest began, in which, on May 24, I used the ripping sickle. On May 19, 1926 the farmers in Jerusalem saw the barley harvest nearly completed, the wheat harvest still remaining. In Jericho the barley harvest is first permitted to begin about the middle or end of April, for on the 18th of April, 1909 I saw it nearly mature there. For the coastal plains April can be predicted as the time of the barley harvest, May as the time of the wheat harvest. At Tiberias on the Sea of Galilee one predicts the beginning of the harvest of broadbeans, jointed vetch, and barley from the middle of April onward; wheat harvest first starts in May and continues through July. For ... Bethlehem May is the time of the [harvest of] legumes, June is the time of [the harvest of] barley and wheat. In general, for the beginning of the barley harvest in mountainous areas one must wait until the middle of May; the beginning of the wheat harvest is sure to occur about the start of June. On the coastal regions and plains of Jordan the beginning will occur about perhaps 14 days earlier." This shows that the time of the barley harvest varies from about the middle of April in Jericho to June in Bethlehem, which is a span of about seven weeks.

[9] Ambiguity of Month of ABIB from its Name

Ex 9:31-32 has shown that the meaning of ABIB encompases many stages of the earing of barley and that in Israel the barley harvest spans a seven week period. This is clear evidence that the name of the first month, ABIB, does not in itself define only one month. From the earliest stage of the earing of barley until the harvest is completed in Israel spans a time of perhaps five months. Hence the word ABIB alone is not sufficient to determine when this month occurs. Since the earliest phase of ABIB occurs long before it is ready to be harvested, if one wishes to propose that "month of ABIB" is intended to mean "month of first ABIB" (which the Bible does not say), then this would cause the first month to begin before March.

In I Ki 6:1, 37 there appears the expression "month of Zif", the second month. Zif is Strong's number 2099. On page 264 of BDB the word ZIF is given the meaning "brightness of flowers". On pages 265-266 of HALOT3 this word is given the meaning "blossom", which is similar. The primary meaning of the noun "blossom" is "flower of a plant". Is there only one month in which there is brightness

of flowers? No. Is there only one month in which there is ABIB (ears of grain)? No. Certainly each year there is only one month named Zif (the second), but this characteristic applies to more than one month. The same is true for ABIB. Some would insist that only the first month that shows this characteristic must have this name. If that were true, then the first month would begin about February or sooner because early stages of ears in Israel are found that soon. But in order for the second month in Israel to be fully characterized by bright flowers, the first month can not coincide with February. This shows that "month of ABIB" can not mean "month of first ears". More importantly, what Scripture states that ABIB is the month of first ears?

[10] Comparison of Barley Harvest in Egypt and in Israel

When comparing the time of the barley harvest in Egypt with the time of the barley harvest in Israel we see that the harvest in Israel begins at about the time that the harvest in Egypt is finished. In Egypt the barley harvest runs from about the latter part of February to the first part of April (a five week span), while in Israel it runs from about the middle of April to early June (a seven week span). Certainly there are variations in some years due to abnormalities in the temperature; this is a general picture, but it shows a significant difference between Egypt and Israel.

[11] Applying this to Ex 12:2

This has implications for the meaning of Ex 12:2 which was spoken to Moses in the land of Egypt [NASB], "This month shall be the beginning of months for you; it is to be the first month of the year to you." The life of Moses indicates that he was never is Israel and was quite unfamiliar with the time of the barley harvest in Israel. Does it make sense to think that when Moses heard the words of Ex 12:2 he thought of the barley in Israel? The context of Egypt and the context of Israel are very different for barley. Now consider the time difference from Ex 9:31-32 to Ex 12:2. After the plague of hail there was a plague of locusts and then a plague of darkness. Then came Ex 12:2. From the context nothing prevents a separation of about two months or more. Ex 9:31-32 is just not in the context of Ex 12:2, and with the difference in the time of barley harvest between Egypt and Israel, Ex 9:31-32 should not be associated with the barley harvest in Israel. There is no reason for Moses to think about the barley harvest at Ex 12:2 because the word ABIB is not even there. One may not arbitrarily grab the word ABIB from EX 13:4 and shove it into Ex 12:2. If barley in itself was to define the timing of the first month, then it would be of the greatest importance for barley or ABIB to appear in Ex 12:2, but neither is there!

[12] Gen 1:14 is a Cause and Effect Verse

Gen 1:14 "Let there be lights in the vault of the heavens to separate between the day and between the night, and let THEM be for signs and for festivals and for days and years."

Although there is no single chapter that explains the calendar of the Bible in a thorough way, Gen 1:14-18 does provide an outline

of the calendar by showing the ingredients that are needed. The biblical viewpoint is that for an observer on the earth the cause is the lights, one effect is the days, another effect is the festivals, and another effect is the years. It would take some specific direct Scripture to overturn these cause and effect outline verses for the determination of all aspects of the calendar. In reality, the light of the sun and its absence each 24 hours as seen from an observer on earth is not the true cause; instead it is the daily rotation of the earth on its axis that makes it seem as if the light from the sun is the cause. But Gen 1:14 speaks of cause and effect in terms of what people can see with their eyes, not the modern physics of the earth's axis. Lights do the separating, and lights are for festivals and years. There are three elements that make up a calendar: the day, the month, and the year. The day is determined through the alternation of light and dark, a visible sign of the sun. The beginning of a month is determined through the reappearance of the moon, the new crescent, which is a visible sign of the moon. The pattern has been established with the outline principle from Gen 1:14 that the day and the month are visible signs of the sun, and now it remains to be seen how this pattern is continued so as to establish the month that is the first.

[13] Minimal and Maximal Viewpoints of the Bible; Josh 5:10-12 and Wave Sheaf

People differ on what they will accept as evidence concerning the biblical calendar. Some will insist that if the Bible itself does not make a clear direct statement concerning an aspect of the calendar or any other subject, then we should not accept any hypothesis about that aspect within the biblical body of beliefs; this is the minimalist position. Others will examine what secular history, archaeology, ancient astronomy, ancient semitic languages, ancient culture, et cetera indicate concerning an aspect of the calendar or any other subject, and, after comparing this with the Bible, come to conclusions that affect their understanding of the biblical body of beliefs; this is the maximalist position. People will vary between these extremes from issue to issue depending on the nature of the evidence and how convincing it appears to be.

This subject needs clarification concerning the meaning of the Bible, especially as it concerns the minimalist position. In a strict sense, the Bible is the ancient texts of Scripture in their original languages. But that does no one any good unless we can know the meaning of the words and expressions found in these ancient texts of Scripture. Some will disagree and insist that the King James Version alone is the Bible, and will accordingly dismiss Hebrew and Greek lexicons as irrelevant. Such a position must accept the word Easter in Acts 12:4 despite the fact that the Greek word for this is PASCHA, and everywhere else in the New Testament this word is translated "passover". Such a position must also accept the words "old corn" in Josh 5:11 and 5:12, a matter that will now be discussed because it concerns the nature of the minimalist position and because it is relevant to matters to be discussed later concerning when to begin the count to the Feast of Weeks.

The Hebrew word translated "old corn" in Josh 5:11, 12 is AVUR (Strong's number 5669). While it is an easy matter to check that all modern scholarly lexicons since the time of Gesenius (early ninteenth century) translate this word as "produce" rather than "old corn", one should understand the reasons, further details, and the implications. It is true that the Hebrew dictionary at the back of Strong's concordance states that this word means "old corn", but this dictionary was primarily made by volunteer students who were not scholars, and this should not be classified as a scholarly lexicon.

About 1900 BCE Abraham left Ur of the Chaldeans to go the the land of Canaan (Gen 11:31; 15:7). This area which some maps approximate as Haran was about 400 miles northeast of Jerusalem in a region for which Akkadian was the ancient semitic language. Abraham, Lot, and their servants with their families brought this language with them, but Isaac, Jacob, and his sons' families lived in Canaan where their language was influenced by the Canaanites. Roughly 500 years after Abraham's time Joshua led the Israelites back into the land of Canaan where the Ugaritic language was spoken. The people of Israel never destroyed all the peoples of Canaan, and ancient Hebrew became a modified blend of Ugaritic with some variation of words from Akkadian. Ancient Hebrew was also similar to Phoenician, the language spoken just north of Canaan. The language of Phoenician colonies is the Punic language which is very similar to Hebrew. Later, Aramaic became the language of the Mesopotamian region, but Aramaic was originally an eastern Mesopotamian semitic language that also has many affinities to Hebrew. Syriac is a later offshoot of Aramaic. The common ancient semitic languages that are closest to biblical Hebrew in order of closeness are Ugaritic, Phoenician, Punic, Akkadian, Aramaic, and Syraic. Arabic is another semitic language that is less close to biblical Hebrew.

Page 128 of Ellenbogen points out that the translation "old corn" was an interpretive explanation by the Jewish sage David Kimchi (1160 - 1235), and his influence (by later reputation) among the Jewish scholars responsible for the Hebrew portion of the King James Version led to its adoption of "old corn". Ellenbogen writes that the Akkadian word EBURU means produce and harvest (from its ancient contexts that have survived the ravages of time). Often there is little distinction between the semitic consonants "B" and "V", and only the deletion of one dot changes the Hebrew letter bet ("B") into vet ("V"), so that the Akkadian EBURU is essentially EVURU which is almost the Hebrew AVUR ("old corn" in the KJV). Ellenbogen also mentions similar words in Aramaic and Syriac with this meaning. This word is discussed on pages 39-40, 65-66 of Cohen_1978 where further references are given for the semitic background of this word. Page 65 states, "Note finally that AVUR seems to be attested now on an ostracon from Arad with the meaning 'harvest-produce.'"

Near the end of Josh 5:12 the Hebrew word TVUAH (Strong's number 8393) is translated "yield" which the Israelites ate later that year which would then have become stored grain. TVUAH refers to food in storage in Lev 25:22; II Chr 32:28, although in other contexts its age is not relevant to its use, so that the meaning of TVUAH includes both fresh produce and stored produce. Nevertheless, the contrast of TVUAH with AVUR in the same context

would further indicate that AVUR means fresh produce rather than old grain. A large quantity of old grain would more likely have been stored within the protected walls of Jericho rather than in the smaller less protected area of Gilgal (Josh 5:10), so the context further supports the view that AVUR means fresh produce rather than old grain. This is indirect contextual supporting evidence.

According to Lev 23:14 Israel was forbidden to eat of the new crop until the day of the wave sheaf offering. Num 31:25-27; Deut 20:14; Josh 22:8 shows that the spoil of the enemy was to become theirs even though they did not plant it. Hence the new produce was theirs. Thus the wave sheaf offering must have been performed by the date of Josh 5:11 in order for the Israelites to have been permitted to eat that produce. Josh 5:11 states "on the morrow of the passover", and this phrase in the Hebrew also occurs in Num 33:3 where it is stated to be the 15th day of the first month. Thus Josh 5:11 was Abib 15, and the wave sheaf offering must have been offered on (or before) that date. But it couldn't have occurred before Abib 15 because Lev 23:5 mentions the passover on the 14th day before discussing the days of unleavened bread and the wave sheaf offering. Thus the wave sheaf offering occurred on Abib 15 that year, which, according to Lev 23:6 and Num 28:17 was the first day of unleavened bread. Since the wave sheaf offering is mentioned after the seven days of unleavened bread, the "morrow of the sabbath" in Lev 23:15 must always be one of the seven days of unleavened bread.

The day of the wave sheaf offering is mentioned in Lev 23:15-16, which literally states, "And you shall count for yourself on the morrow of the Sabbath from [the] day you brought the sheaf of waving [to the priest], seven complete (or perfect) sabbaths they shall be, until on the morrow of the Sabbath the seventh, you shall count 50 day[s], and you shall present a new offering to YHWH." Here the Hebrew phrase ME-MACHARAT, meaning "on the morrow", occurs twice. This shows the ending of the count to 50 on a Sunday (morrow of the Sabbath) and the starting of the count also on a Sunday. Thus Josh 5:11 fell on a Sunday, the first day of unleavened bread.

In summary, the rejection of the translation "old grain" for AVUR in Josh 5:11, 12 comes from (1) the evidence of a very similar word in Akkadian, Aramaic, and Syraic which are semitic languages; (2) the meaning of "old grain" is not known prior to Kimchi about 1200 CE; and (3) the indirect implications of the context. Modern scholarly lexicons base their conclusion primarily on (1). The minimalist position on the Bible would be in a dilemma here because the contexts of the similar word in the other semitic languages are not in the Bible and the secular history of the interpretation of AVUR is also not part of the Bible. The indirect implications of the context are too weak by themselves to determine the meaning of this word (assuming the other evidence is totally rejected). In light of this example we consider again the meaning of the Bible. If the Bible is only the ancient texts of Scripture in their original languages, then what determines the meaning of its words and phrases? Does a person blindly accept the modern lexicons without looking into the reasons for what the lexicons say? These lexicons are certainly not part of the Bible.

In order for the minimalist viewpoint to arrive at rational meanings from the original languages, it would seem that some of the ideals of the minimalist position would have to be abandoned. This is mentally unsettling to some minimalists because of a psychological desire to want to possess all data upon which to arrive at biblical knowledge, and this is contradictory to the need for someone to go to specialized libraries and research journal articles and commentaries that discuss words in ancient semitic languages which have a bearing on the meaning of some biblical Hebrew words.

If one wishes to glean insight into the ancient Hebrew of the Bible, one must move toward the maximalist position and recognize that there are many instances in which the Bible does not explain itself nor does it indicate the meaning of certain words. One must especially look at words in ancient semitic languages that are similar to ancient Hebrew words and used in similar contexts, and then accept those meanings that are implied by the non-biblical ancient contexts. This is not extending the Bible or indicating that ancient non-biblical texts should be thought of in a manner that gives them any sense of inspiration from the Holy Spirit, but instead shows historical ancient usage, though often in contexts with pagan rites and thoughts. Context shows meaning regardless of its nature. Ancient usage helps clarify the meanings of some Hebrew words. The KJV was published in 1611. Gesenius wrote his famous Hebrew lexicon before the middle of the 19th century and often used the meanings of ancient Arabic and Syriac words to explain the Hebrew words. But after his death newer archaeological discoveries written in ancient Akkadian, Ugaritic, Phoenician, and Punic have been made that are closer to Hebrew than Arabic and Syriac, and thus many useful papers and commentaries have been written since the middle of the 20th century, and some useful newer lexicons are available.

[14] Biblical View of the Sun's Yearly Motion is South - North

Ecclesiastes mentions the sun (SHEMESH in Hebrew) more than any other book of the Bible - 35 times! One pair of verses gets specific about its motion, but this is only noticed if care is taken to preserve the Hebrew word order and if courage is exercised to allow the Hebrew to make sense! A literal translation of Eccl 1:5-6 with special attention to keeping the word order the same as it is in the Hebrew text is:
Eccl 1:5 "And rises the sun and goes [away] the sun and to its place it pants, rising it there [again].
Eccl 1:6A It [the sun] goes toward south and turns around toward north.
Eccl 1:6B Turns around [and] turns around goes the wind, and on its circuits returns the wind."

Page 55 of Zlotowitz translates Eccl 1:5-6, "And the sun rises and the sun sets - then to its place it rushes; there is rises again. It goes toward the south and veers toward the north; the wind goes round and round, and on its rounds the wind returns." On the next page appears the comment, "Midrash Leckach Tov [by Toviah ben Eliezer, 11th century] interprets this verse [verse 6A] as referring to the course of the sun as manifested by the winter and summer seasons, but it adds that on a deeper level the verses

[5-6] refer to the Jews [they have moved from place to place due to persecution]."

About the year 400 CE Jerome translated the Old Testament from Hebrew to Latin which (except for the Psalms) became the Latin Vulgate. Page 307 of Japhet gives the following careful translation from Jerome's Vulgate for Eccl 1:5-6, (additions in square brackets are made by Japhet), "The sun rises and [the sun] sets and returns to its place. It rises there, goes to the south and turns about to the north. As it circles the world around goes the spirit, and upon its circuit returns [the spirit]." Jerome made this rhyme in the Latin.

In general I never use the Septuagint translation (abbreviated LXX) as a means of understanding some seldom used Hebrew words or difficult passages of the Old Testament because it often shows mere guesses for the Greek translation, so it is not reliable as an ancient indicator of the meaning of the Hebrew Bible. Among all of the books of the LXX, Ecclesiastes stands apart in a special way. Page 7 of Seow reveals, "The translation technique of LXX Ecclesiastes is unique among the books in the Bible, so that one may say with a reasonable amount of certainty that the translator is not the same as for any other books. The translation shows a number of features that are typical of the works of Aquila of Pontus, a second-century (C.E.) gentile convert to Judaism. Aquila, a pupil of the famous Rabbi Aqiba is best known for his translation of the Hebrew Bible into literalistic Greek [about 135 CE], among other reasons, to provide Jews who spoke Greek but did not read Hebrew or Aramaic with a translation that would reflect the Hebrew as much as possible. Thus, the Hebrew word order is rigidly adhered to and all details in Hebrew are represented, even when they seem awkward or even nonsensical in Greek." While scholars debate whether Aquila was the translator, we do know that the LXX for Ecclesiastes is literal and sticks very closely to the Hebrew. The commonly available translation of the LXX by Brenton translates Eccl 1:5-6, "And the sun arises, and the sun goes down and draws toward its place; arising there it proceeds southward, and goes round toward the north. The wind goes round and round, and the wind returns to its circuits." This translation reflects the fact that the word for "wind" does not occur in the Greek until after the word for "north". In fact, the Greek word order after "north" is "round round courses the wind", so Brenton's translation does put "wind" earlier in the verse than the Greek indicates. The Greek word PNEUMA, Strong's number 4151, is used for wind which is the translation of the Hebrew word RUACH, Strong's number 7307. Page 300 of Japhet translates the LXX more literally, "And the sun rises and the sun sets and draws to its place. It rises there, goes to the south and turns about to the north. Turns about, turning goes the RUACH (PNEUMA), and upon its circuit returns the RUACH (PNEUMA)." In footnote 31 on page 301 Japhet remarks, "This faithfulness to the MT [Masoretic Text of the Hebrew] is particularly striking when it creates forms which are awkward in the Greek."

Pages 298-299 of Japhet point out that Rashi, the well known Jewish commentator of the late middle ages, also treats the sun as the subject into Eccl 1:6.

The Syraic language is a variant of Aramaic and is thus a Semitic language that is quite close to Hebrew. The Syraic Peshitta is a translation from the Hebrew that was made about 200 CE. The Peshitta in its literal word order, is in agreement with the Hebrew text of Eccl 1:5-6 in continuing with the sun as the subject of Eccl 1:6A; however, George M. Lamsa's translation from the Syraic Peshitta departs from the literal view and translates it as if the wind were the subject at the beginning of verse 6. Lamsa often departs from the Syriac to agree with the KJV.

Page xi of Sternberg translates Eccl 1:5-6A, "The sun rises and the sun sets and hastens to its place and rises there. It walks to the south and returns to the north."

In Sternberg's above translation the word "walks" comes from the Hebrew word HALACH, Strong's number 1980, which is typically used in reference to people walking, yet it is used in other ways for the movement of inanimate objects. However, from the viewpoint of an observer on earth, the position of the sun at sunset from day to day does change in distinct increments as a "walk", and the position of the shadow cast by a narrow object at noontime from day to day also changes in distinct increments as a "walk". These changes do form a south-north yearly cycle as will now be explained.

[15] The South - North Yearly Cycle Indicated in Eccl 1:6A

A person who views sunsets daily from a place at which there is a clear view of the horizon might notice that the sun does not set at the same part of the horizon each day. He might think of performing the following experiment to determine the daily change in the position of the sun at sunset.

Permanently place a straight board and an object with a sighting point so that the middle of the board is about the length of a person west of the sighting point, and when looking approximately west with one's eye at the sighting point, the long top edge of the board is even with the horizon. Each day near sunset make a mark on the board where the board crosses the line of sight from the sighting point to the middle of the sun. For accuracy this should be done when the center of the sun is at the horizon.

If this is done from anywhere in the north temperate zone, for example Jerusalem (latitude 31.8 degrees north), during the coldest part of the year, the daily marks on the board keep going north (to the right). During the hottest part of the year the daily marks on the board keep going south. For several days while the temperature is getting quite hot, the marks will be at about the spot that is the furthest north of the marks; the middle day of this group is the day of the summer solstice. For several days while the temperature is getting quite cold, the marks will be at about the spot that is the furthest south of the marks; the middle day of this group is the day of the winter solstice. The word "solstice" means "stopping of the sun" which describes the state of the marks at the solstices. At all other times of the year the marks are separated from one another while heading north, or separated from one another while heading south.

The marks on the board are furthest from one another at the midpoint between the solstice marks because the south-north motion of the sun is fastest at these points. The mark closest to the midpoint while the marks are heading north is the mark at the vernal equinox. The mark closest to the midpoint while the marks are heading south is the mark at the autumnal equinox. Although this method determines the equinoxes quite precisely by first knowing the solstices, it is not necessary to know the day of the solstices precisely because the marks barely change for several days about a solstice. Page xii of Sternberg is one of several sources that discusses this.

[16] Equinox and Solstice is in the Bible

The Hebrew word TKUFAH, Strong's number 8622, occurs four times in the Bible, Ex 34:22; I Sam 1:20; II Chr 24:23; Ps 19:7. In 1907 when the well known lexicon by Brown, Driver, and Briggs abbreviated BDB was published (see page 880 for TKUFAH), the Dead Sea Scrolls were not yet discovered and clarifying insightful meanings into some ancient Hebrew words were not yet available. The Dead Sea Scrolls use the Hebrew word TKUFAH in contexts before the time of Christ, and this is now discussed.

The paper by Hoenig discusses a scroll labeled I QH among the Dead Sea Scrolls. On pages 312-313 he explains two expressions found there: one is "TKUFAH of the day" and the other is "at the appointed time of the night at TKUFAH". Hoenig explains that the former means "zenith of the day" meaning "noon" and the latter means "at the appointed time of the night at zenith" meaning "midnight". It is particularly intesting that in the expression "at the appointed time of the night at TKUFAH" the Hebrew word for "appointed time" is MOED, the same word used for the holy days in Lev 23 and for seasons in Gen 1:14. Thus it is not foreign to ancient Hebrew to use or associate TKUFAH with MOED. This use of TKUFAH shows two heavenly bodies, the earth and sun, interacting on a daily basis so that at astronomically distinctive points in time TKUFAH refers to those points in time.

In the book chapter by Johann Maier one of the Dead Sea Scrolls is discussed that contains the Hebrew word TKUFAH. On page 146 Maier writes, "The Songs themselves are attached to the thirteen sabbaths of one quarter or season (tqufah) of a year, according to the editor the first quarter (the Nisan season) only." Here we see the Hebrew word TKUFAH used for the season of spring which begins with the vernal equinox and ends with the summer solstice. Here also astronomically distinctive points in time involving the earth and sun define a time period called TKUFAH.

The intertestamental apocryphal Book of Sirach (also known as Ecclesiaticus) contains the Hebrew word TKUFAH. This book was written in Hebrew about 190 BCE, but today only incomplete sections of it have survived, having been discovered with thousands of other Hebrew texts in the attic of a synagogue in Cairo, Egypt toward the end of the nineteenth century. The treasure of texts in that attic which survived for many hundreds of years is known as the Cairo Geniza. There are many copies of Sirach in Greek translation, and most of the Hebrew words in Sirach 43:7 is preserved, one of them being TKUFAH. The Greek

translation for TKUFAH is SUNTELIA (Strong's Greek number 4930) which means completion, fulfillment, or destruction. These words indicate a point in time at which some event occurred. In harmony with this idea, the Jerusalem Bible translates Sirach 43:7, "the moon it is that signals the feasts, a luminary that wanes after her full". Here "her full" refers to the full moon and is translated from TKUFAH or SUNTELIA. Here TKUFAH refers to a natural distinctive time of the moon in its movement about the earth.

These contexts from the Dead Sea Scrolls and from Sirach from before the time of Christ show that the Hebrew word TKUFAH is used to refer to natural distinctive points or time intervals associated with the heavenly bodies of the earth, sun, and moon.

On page 394 of the lexicon by Holladay the word TKUFAH is defined. The parentheses and square brackets are part of the text of that book by Holladay where he writes about TKUFAH "turning (of sun at solstice) Ps 19:7; (of the year, i.e. end of year, at autumnal equinox) Ex 34:22; (of the days [i.e. of the year] = end of year I Sam 1:20".

In Ex 34:22 Moses was told, in literal translation, "And you shall celebrate ... the Feast of Ingathering TKUFAH the year". There is no Hebrew preposition attached to TKUFAH here so that the relationship between this feast and TKUFAH is very indefinite although translations attempt to make it definite by adding some preposition that is not in the Hebrew. This verse does not define an explicit relationship between these events, but merely indicates that there is some vague closeness in terms of the general year. In harmony with the astronomical uses shown above, this refers to the autumnal equinox. Certainly Moses was aware of the equinoxes from the knowledge he gained in his upbringing in Egypt (Acts 7:22), and the fact that the greatest pyramids had one wall aligned exactly east-west. Only on the days of the equinoxes does the shadow of a vertical object fall exactly east-west all day long. The ancients were easily able to determine an east-west line. Therefore the equinoxes are visible signs of the sun in relation to the earth and do fall within the perview of signs in Gen 1:14 "lights in the expanse of the heavens ... for signs and for festivals and for days and years".

The main points are:

(1) The Hebrew word TKUFAH found in Scripture does have use outside the Bible before Herod's Temple in Jerusalem was destroyed in 70 CE.
(2) Contexts with TKUFAH show it to mean distinctive points in time in relation to movements of the heavenly bodies as observed from people on earth. Also, it is used for the time period between the distinctive points, e.g., the Nisan TKUFAH or spring season.
(3) Moses used this word. While he did not specifically use it to refer to the vernal equinox, Ex 34:22 refers to the autumnal equinox, at least showing that Moses had a word in Hebrew that refers to an equinox.

Does Ex 34:22 refer to end of the harvest when it uses the word TKUFAH? There is no ancient context that forces TKUFAH to mean a

"point" of time defined by a harvest in contrast to ancient contexts that show it to relate to heavenly bodies. This is simply a matter of finding contexts that bring out meaning that is clear. Incidentally, the three main crops harvested at that general time of the year are figs, olives, and grapes. Figs, are a summer fruit, hardly ever extending into fall. The olive harvest occurs in September and October, and is over in most parts of Israel by about the third quarter of October. The grape harvest begins with sour grapes in July but with ripe grapes in some areas of Israel from the beginning of August. The grape harvest continues through about the first third of November in the area of Jerusalem. The uses of TKUFAH in the Dead Sea Scrolls show the meanng of a point in time.

[17] Equal Daytime and Nighttime is Not the Biblical Equinox

The word "equinox" comes from the Latin language and means "equal night" which implies that daytime and nighttime are equal at the time of an equinox. But did the ancient people that used this Latin name equinox use the meaning of this word in practice, or was it a mere guess that daytime and nighttime are equal on the days of the equinox? It will be shown that this was a mere guess.

Near the dates of the equinoxes the difference in time from sunrise to sunset from one day to the next is about two minutes. In order to determine the date upon which daytime and nighttime are equal at a certain latitude, it requires that a clock exist that can measure time during a 12 hour period to an accuracy that better than two minutes per day. When ancient Babylonian astronomers recorded an eclipse or the disappearance of a planet behind the moon, they wrote down the time it occurred as well as the month, day of the month, and year of a king's reign. The paper of Stephenson explains that the smallest Babylonian unit of time was called an us and equaled 1/360 of a day which is four minutes. Moreover, the Babylonians never expressed time as a fraction of a us. This shows that they made no attempt to express time more accurately than to the nearest four minutes with their water clocks. The paper of Steele showed a summary of a computer study of Babylonian astronomical phenomena from 562 BCE to 41 BCE, all recorded with a time of day. The conclusion was that the average accuracy of the recorded time was two us's which represents eight minutes from the true time. Moreover, accuracy remained the same during this 500 year period; their water clocks used for this purpose did not improve. One reason that water clocks were not accurate is that as temperature changed, the dripping rate changed. Another reason is that the construction of the mechanism and the recording method was not accurate. Page 609 of Ward shows a graph of how the accuracy of time mechanisms improved through history, based on historical improvements. This chart shows a sudden leap to about two minutes per day in the year 1656 when Christiaan Huygens perfected the pendulum clock. Ancient peoples did not have the ability to determine the day at which daytime and nighttime were equal because their clocks were not accurate enough. The day upon which daytime and nighttime are equal depends on the latitude of the observation because refraction of light increases as one gets closer to the north and south poles.

As already explained from Eccl 1:5-6, the Bible indicates that the

sun's annual position was noted on the basis of its south-north movement which was not a matter of measuring the time of day.

The Hebrew noun TKUFAH has an inner stem in common with the Hebrew verb NAHKAHF which occurs 19 times in the Hebrew Bible. The latter means "to surround" 11 times - I Ki 7:24; II Ki 6:14; 11:8; II Chr 4:3; 23:7; Job 19:6; Ps 17:9; 22:16; 88:17; Isa 15:8; Lam 3:5. It means "to go around" four times - Josh 6:3, 11; Ps 48:12; Isa 29:1 ("add year to year, let feasts 'go around'"). It means "to destroy" twice - Job 19:26; Isa 10:34. It means "to curve" once - Lev 19:27. It means "to finish" once - Job 1:5. The overall flavor of this word indicates the idea of encirclement which does not have any implication about accurate clock time measurement. The relationship between TKUFAH and NAHKAHF indicates that encirclement of heavenly bodies provides the basis of the meaning rather than the Latin meaning of equinox (equal night with day). When the word equinox is used, its original Latin meaning is discarded, and instead, the time of its practical determination anciently is meant. This time agrees with the modern astronomer's time for the equinox although the modern astronomer uses a technical definition that ancient peoples could not have used.

Page 124 of Pannekoek states, "Another instrument they [the Greek astronomers living in Egypt after the time of Alexander the Great] used was an equatorial ring, placed before the temples in Alexandria, in Rhodes, and perhaps in other towns, for calendar purposes. It consisted of a cylindrical belt, with its upper and lower borders exactly in the direction of the equatorial plane; the shadow of the southern half upon the inner side of the northern half left a narrow line of light at the upper or at the lower side of the equator. Thus the exact moment of the equinoxes could be fixed." This modern description of this ancient instrument uses the term "equatorial plane" which the ancient Greeks did not use; they bisected shadow angles at the solstices in order to construct this instrument which is today called the equatorial ring. Pages 73-74 of Pannekoek state, "The Babylonians, according to Greek testimony, used a vertical pole for measuring shadow length; thus they could determine the moments of solstice and, as medium points between the solstices, the moments of vernal and autumnal equinoxes."

The paper by Neugebauer proposes a simple geometric method by which the Great Pyramid could have been constructed so that it could have achieved its great accuracy in cardinal directions (precise east-west and north-south). Only on the days of the true equinoxes (not when daytime and nighttime are equal) does the shadow of a vertical object fall exactly east-west all of the daytime. This will be discussed further in the next section.

Pliny the Elder, writing about the middle of the first century, defines the equinox in two ways that are somewhat contradictory on page 309 of Pliny_1. He writes that "at the season of the equinox sunrise and sunset are seen on the same line", and this is the east-west line; this definition is practical and accurate, and while stated in a way that is very different from a modern astronomy book, it is nevertheless the same in the time. Pliny also writes "the equal hours of day and night at the equinox". When rounding off to hours this is correct, but not when rounding

off to minutes in the latitude of the Mediterranean Sea where Pliny lived.

On page 81 of Pasachoff we find, "These points are called equinoxes because the daytime and the nighttime are supposedly equal 12-hour lengths on these days. Actually, because the refraction by the earth's atmosphere makes the sun appear to rise ahead of the middle of the sun, at U.S. latitudes the daytime exceeds the nighttime by about 10 minutes on the days of the equinoxes. The days of equal daytime and nighttime precede the vernal equinox and follow the autumnal equinox by a few days." This is about four or five days for the U.S.

[18] The Vernal Equinox and Ex 12:2

Gen 1:14 mentions the lights in the heavens, and these are the sun, the moon, the stars, the planets, and comets. The cycles of the planets and comets are much too irregular in comparison to repeatable phenomena on the earth to consider in relation to a biblical calendar when considering the lights in the heavens. The stars must be excluded because during every 1000 tropical years the time of the appearance of the stars slowly shifts about 14.1 days further into the tropical year thus losing touch with the earth's seasons; this is called precession of the equinoxes in books on astronomy. Only the sun and moon remain to be considered. The moon determines the months but not which month is the first. Only the sun remains to be considered. The only repeatable time points involving the sun are the two equinoxes and the two solstices. Considering that the barley and wheat in Israel are harvested in the spring, the vernal equinox is the only logical candidate to consider that involves the lights in the heavens on the direct basis on Gen 1:14.

We must seek to know what Moses knew. Acts 7:22 reads [NKJV], "And Moses was learned in all the wisdom of the Egyptians, and was mighty in words and deeds." Pages 333, 336-337 of Lockyer show that most of the Egyptian pyramids are oriented east-west, and the two largest pyramids at Gizeh built by Cheops and Chephren are oriented east-west, having one wall aligned exactly east-west. Pages 63-64 of Lockyer explain that the sun's shadow on a vertical object from sunrise to sunset fall exactly east-west only on the days of the equinoxes. So it is clear that Moses knew how to determine the days of the equinoxes. When one considers that Gen 1:14 points to the lights in the heavens to determine the festivals and knowing that only the vernal equinox is related to the time of the year under consideration, Moses would naturally think of the vernal equinox in relation to Ex 12:2. That would be Egyptian training, Egyptian thinking, Egyptian context, and in harmony with Gen 1:14, the only explicit Scripture that directly addresses the determination of the festivals. Would Moses think of the vernal equinox if it had not yet occurred by that day? No, it would be premature for him to think of it. The natural thinking from Ex 12:2 in the context of Egypt and what Moses knew would point to the vernal equinox as having occurred.

Would Moses think it was necessary for him to explicitly mention the vernal equinox in the context of Gen 1:14? If this is the only choice there was, he need not think it was necessary. But the real

biblical evidence comes next.

[19] Ezra and Nehemiah in Relation to the Equinox

Ezra 6:15 mentions the month Adar and Neh 6:15 mentions the month Elul. These are month names in the Babylonian calendar, but these verses are in the context of Jerusalem. From 499 BCE to 400 BCE the Babylonian calendar followed a 19 year pattern which began Nisan on or after the vernal equinox, with one exception by one day in 465 BCE (only that once the first month of the Babylonian calendar began one day before the vernal equinox, but not adhering to this would have upset the 19 year pattern which the Babylonians were apparently not willing to do). History reveals that Ezra traveled from Babylon to settle in Jerusalem in 458 BCE, and Nehemiah followed in 444 BCE. They were apparently willing to replace the use of the name Abib with the name Nisan in the context of Jerusalem because they accepted the Babylonian month names. Neh 8:2, 9 shows that Ezra kept the holy day of the first day of the seventh month at the correct time. From this time onward Israel used the Babylonian month names for their calendar which would have led to confusion unless the Israelite calendar and the Babylonian calendar began Nisan at the same time almost always during the century in which Ezra and Nehemiah lived.

The claim has been made that the Persian Empire forced the Jewish leadership in Israel to accept the Babylonian month names into their religious calendar and discontinue all of the original month names. Ezra 7 gives the text of a letter from the Persian King Artaxerxes to Ezra the priest, and in verse 16 the king writes that the religious laws are in the hand (power) of Ezra, showing that the king is respecting the independence of the priest in carrying out the laws of the Bible. Neh 5:14 shows that Nehemiah was appointed governor by the king, and in Neh 13:30 Nehemiah writes, "Thus I cleansed them [the Israelites] of everything pagan." Israel had religious autonomy and self-determination. If the Babylonian Nisan was oftentimes not the Jewish first month, then the Jews would have kept both sets of names to avoid confusion with their numbering of religious months. Or instead, the Jews could have merely used numbers of the months without names for the religious calendar. Another response to this is that the Persian Empire had no control over Scripture, and through inspiration of the Holy Spirit, Ezra 6:15 and Neh 6:15 could have used the month number rather than the month name in the context of Jerusalem. These verses give approval to the use of Babylonian month names and provide a calendrical witness to us.

The book of I Maccabees covers the history of Israel from about 175 BCE to 130 BCE and was originally written in Hebrew. It shows the military struggle of the Jews to gain independence from Seleucid domination. The Jews had some degree of success, but it was a continual struggle. In this context of greater Jerusalem the Jews use Babylonian month names for their calendar in I Macc 4:52, 59; 7:43, 49; 14:27; 16:14 when the Babylonian Empire and the subsequent Persian Empire no longer existed. Josephus also uses these month names and calls them Jewish, and these names have been kept by the Jews until today. The existing biblical and historical evidence is that the Babylonian month names were not merely a secondary secular alternate method to desigate dates apart from

the biblical month numbers (as we today use January to December apart from the biblical month numbers), but that the Babylonian month names and the biblical month numbers were synonymous in designating months. For example, I Macc 4:52 reads, "Early in the morning on the 25th day of the ninth month, which is the month of Chislev, ..." This does not say that in this particular year the ninth month happened to be Chislev, but that the ninth month is Chislev. To emphasize this point even more vigorously, verse 59 states, "Then Judas and his brothers and all the assembly of Israel determined that every year at that season the days of dedication of the alter should be observed with joy and gladness for eight days, beginning with the 25th day of the month of Chislev". Thus this festival of Hanukkah (Feast of Dedication in John 10:22) was always to begin on Chislev 25, thus requiring Chislev to always be the ninth month.

The book of Esther discusses the origin of the Feast of Purim which has been kept by Jews from that time in 473 BCE in Babylon until today. For the year 473 BCE see the note to Est 8:12 in NIV. The date of the writing of the book of Esther is less certain. On page 718 of NIV we find, "Several scholars have dated the book in the Hellenistic period; the absence of Greek words and the style of the author's Hebrew dialect, however, suggest that the book must have been written before the Persian Empire fell to Greece [Alexander the Great] in 331". In Est 9:19-23 it is clear that the Jews had decided that every year on the 14th and 15th days of the 12th month Adar they would celebrate Purim. Note the specific wording in Est 9:20-21, "And Mordecai wrote these things and sent letters to all the Jews, near and far, who were in all the provinces of king Ahasuerus, to establish among them that they should celebrate yearly the 14th and 15th days of the month of Adar," and verse 23 concludes, "So the Jews accepted the custom which they had begun, as Mordecai had written to them". Thus Scripture teaches that the Jews accepted that the month named Adar would always be the month in which the Feast of Purim would fall. Adar is the name of the 12th month in the Jewish calendar as well as in the Babylonian calendar. The month names and month numbers were locked together; they did not slide around with respect to one another.

A number of letters written in Aramaic have been discovered during the late 19th and early 20th centuries on the island of Elephantine in Egypt which is on the Nile River about 500 miles south of the Mediterranean Sea. This island was a military base of the Persian Empire when it controlled Egypt. The troops at this military base were Jewish mercenaries. One of these letters is known in scholarly circles today as the Passover Papyrus. The Hebrew-Aramaic alphabetic characters in this letter along with an English translation are found on pages 56-57 of Lindenberger. In the following quotations from the letter, the square brackets and the contents within them appear on page 57 of Lindenberger. The letter contains "This year, year five of King Darius" which dates the letter in 419/418 BCE. There are gaps in the letter because it is poorly preserved. The addressing of the letter says "[To] my brothers Yedanyah and his colleagues, the Jewish garrison, from your brother Hananyah". It was written from one Jew in friendship to the Jews on the island with whom the author had familiarity. Part of the preserved text of the letter says, "Be scrupulously

pure. Do not [do] any work [...]. Do not drink any [...] nor [eat] anything leavened [... at] sunset until the twenty-first day of Nisan [...]". Another translation of this same segment of this letter is on page 283 of Whitters where he adds in square brackets some guesses in gaps in the text as follows, "be pure and take heed. [Do n]o work [on the 15th and the 21st day, no]r drink [fermented drink, nor eat] anything [in] which the[re] is leaven [from the 14th at] sundown until the 21st of Nis". Note that the final letter of Nisan is missing in the poorly preserved papyrus so only "Nis" is shown. This provides historical evidence that after the return from exile under Ezra and Nehemiah, Jews named the first month Nisan as a substitute for Abib. On page 283 Whitters comments, "The letter came from one Hananiah, who apparently wanted the Jews in Egypt to celebrate Passover and Unleavened Bread appropriately. The address and greeting rule out a local Egyptian official or Persian overlord." If the name Nisan was not significant for the first month, the letter could simply have said the first month or Abib.

[20] Gen 1:14; Ezra 6:15; Neh 6:15 Show the Vernal Equinox Starts the Year

Ezra 6:15 and Neh 6:15 tie in with Gen 1:14 to give the biblical and archaeological evidence that together show explicit evidence that Gen 1:14 involves the vernal equinox. The Babylonian cuneiform inscriptions are archaeological clay records that are now mostly in the British Museum. These tablets have eclipse data as well as new moon sighting data that correlate with computerized astronomy to prove the dating of their calendar. From the knowledge of the Babylonian calendar with the use of these month names in Israel we can say that Nisan 1 is on or after the vernal equinox. In discussions above it was pointed out that by the process of logical elimination of choices about the time of Ex 12:2 and within the parameters of Gen 1:14 involving the lights in the heavens, the vernal equinox is the only candidate for starting the year.

Some people have proposed that merely the 16th day of the first month need be on or after the equinox, and not the first day of the first month. Aside from the fact that this is not a natural thing for Moses to imagine, there is the practical problem of having to predict at the beginning of the month whether the 16th day of the month will be on or after the equinox. From one equinox to the next is 365 or 366 days, and it is not an easy matter to predict between the two because there is no repetitive pattern. However, it is only in unusual cases when the first day of the month will be within a day of the vernal equinox.

If it had orignally been true that merely the 16th day of the first month need be on or after the equinox to determine the first month, then about half the time the Israelite first month named Nisan would have been one month earlier than the Babylonian Nisan, and consider what confusion there would be in that case. The confusion would be unacceptable.

[21] Difficulty of Distance from Israel and Deut 30:11-14

Deut 30:11 "For this commandment which I command you today is not

too difficult for you, nor is it far off.
Deut 30:12 It is not in heaven, that you should say, 'Who will go up to heaven for us to get it for us and make us hear it, that we may observe it?'
Deut 30:13 Nor is it beyond the sea, that you should say, 'Who will cross the sea for us to get it for us and make us hear it, that we may observe it?'
Deut 30:14 But the word is very near you, in your mouth and in your heart, that you may observe it."

In Rom 10:6-10 Paul quotes parts of this and interprets this in a somewhat figurative way to look at the law as a type of Christ, because in the new covenant the law is written in our mind and heart, and Christ also is in our mind and heart ("Christ in you, the hope of glory" - Col 1:27). He is our example of keeping the law. The intent of Deut 30:11-14 is that (even though we are too weak to live a sinless life) the law is not too difficult us, so that figuratively it is not across the sea. But by analogy, if it was intended for all those with faith down through the ages to keep the month of Abib using an unspecified rule of barley, IT WOULD BE TOO DIFFICULT (verse 11) because some would indeed have to CROSS THE SEA (verse 13). This was given to Moses before the original listeners reached the promised land from which the barley for the wave sheaf offering was to be taken. It was intended that the law be kept down through the ages, not merely in the future when the law will go forth from Zion (Isa 2:3).

[22] Meaning of Lev 2:14-16 which contains ABIB

The following is my very literal painstaking translation from the Hebrew:
Lev 2:14 "And if you-bring an offering of firstfruits to YHWH of ears, you-shall-bring roasted/parched-grain with fire, [that is] fresh-grain crushed-grain [for an] offering of your-firstfruits;
Lev 2:15 and you-shall-put oil upon-it and lay frankincense upon-it; it [is] an offering.
Lev 2:16 And the priest shall burn its-memorial-portion from its-crushed-grain and from its-oil with all its-frankincense, an [offering by] fire to YHWH."

In verse 14 "ears" is the translation from the Hebrew word ABIB. Based upon evidence presented above, this word in itself does not indicate any specific stage in the growth of grain, but the rest of the context does relate to its development; this will be discussed below. This verse does not define ABIB and is merely an example of its use.

In verse 14 "firstfruits" occurs twice and is the translation from the Hebrew word BIKURIM, Strong's number 1061. This word occurs 18 times in the Old Testament: Ex 23:16, 19, 34:22, 26; Lev 2:14, 14; 23:17, 20; Num 13:20; 18:13; 28:26; II Ki 4:42; Neh 10:35, 35; 13:31; Isa 28:4; Ezek 44:30; Nah 3:12. In several of these contexts it is clear that firstfruits are genuinely ripe, and in all of them it ought to be understood that firstfruits have value, though not necessarily fully ripe. The very first stage of the earing of barley is before the milky stage when nothing of value exists except as food for animals. This does not qualify as firstfruits.

In verse 14 "roasted/parched-grain" is the translation from the Hebrew word KALI, Strong's number 7039. On page 1102 of HALOT3 "roasted grain" is the meaning. On page 885 of BDB "parched grain" is the meaning. Page 281 of Flannery discusses the purpose of roasting: "Sometime around the end of the Pleistocene, man discovered that by roasting the grain he had collected he could render the glumes so dry and brittle that they could be removed by abrasion. At several sites this was accomplished by roasting the cereals over heated pebbles in a pit or subterranean earth oven (cf. van Loon 73)." When the moisture content of the grain is relatively high so that it is not solid inside, the word parching applies, which connotes drying along with roasting.

In verse 14 "crushed grain" is the translation from the Hebrew word GERESH, Strong's number 1643. Page 176 of BDB defines this as "a crushing" and "groats, grits". Page 204 of HALOT1 defines this as "crushed new grain, groats". This Hebrew word for GERESH bears no resemblance to the Hebrew words for grind (Strong's numbers 2911, 2912, 2913 found in BDB page 377 column 2). Thus the description in Lev 2:14-16 from GERESH does not require that flour is obtainable from the ABIB mentioned in Lev 2:14. GERESH also occurs in verse 16.

In verse 14 "fresh-grain" is the translation from the Hebrew word KARMEL, Strong's number 3759. Conflicting opinions abound for the meaning of this word in the lexicons, and reasons for this will now be explained. Pages 325-336 of TDOT discuss this noun. On page 327 the theory that KARMEL means "complete" is mentioned, but in order for this theory to be valid, it requires dropping one consonent from the Arabic verb KAMALA, and Arabic is not an extremely close Semitic language to Hebrew, thus the evidence is weak; but moreover, according to page 327, no Semitic cognate to KARMEL has been found in which the context is similar to its usage in Lev 2:14; 23:14; II Ki 4:42. Examples with the Arabic verb KAMALA do not involve plants. The meaning of KARMEL as "new grain" (in the sense of fresh grain) is discussed on page 328. All three of these verses with KARMEL involve firstfruits. The question is whether there is evidence for the meaning of KARMEL as "newly ripened grain" without using the Talmudic literature, which is favored by some lexicons. The NRSV translates KARMEL as "fresh ears", thus dropping the Talmudic "ripened", and most translations follow this. The REB translates KARMEL as "fully ripened grain" which mixes the meaning of the Arabic verb KAMALA (complete) with the Talmudic "ripened". In Lev 23:14 three categories of food from barley are mentioned that are not to be eaten before the wave sheaf offering is performed. First is bread, second is roasted grain, and third is KARMEL. In Luke 6:1 we find the case of eating grain fresh and raw directly after picking, so it seems rational that this would constitute the third category of food from grain. This would more fit the meaning of "fresh", i.e., recently picked and without alteration. In Lev 2:14 this would be KARMEL before it was crushed and then roasted. TDOT favors the meaning "new grain" (which means fresh grain). The question arises as to how ripe the grain was in Luke 6:1. In this one example it would not have been uncomfortably hard grain, but it may have been in a pre-ripened milky state as noted next.

In footnote 60 on page 44 of Ginsberg we find, "In [Dalman, Vol. 3, 1933] p. 1, Dalman notes that the change from soft-seeded ears to fully ripe ones is marked by a change in the color of the standing grain: barley turns from green to yellow; in wheat, the green fades to a shade that is so light as to be almost white. I have learned further from competent informants in Jerusalem that during the green phase of the standing grain the seeds in the ears are likewise green and that if they are pressed liquid will ooze from them, for which reason this stage is called havsalat halav, literally 'milk ripening,' in Ivrit [= Hebrew]. It is this term that has inspired my own coinage milky grain." Next Ginsberg states, "Of course milky grain, though it cannot be ground to flour, is not unsuitable as food."

There is nothing that prohibits milky grain from being offered as firstfruits according to Lev 2:14 because milky grain is suitable for food, and based on Luke 6:1 there is no requirement that KARMEL needs to be ripe enough to make flour.

On page 231 of Weis there is a brief discussion of the difference of opinion between the Talmudic Rabbis and certain Karaite opponents concerning Lev 2:14. "According to the Rabbis, the oblation of first-fruit in Lev. ii.14 is identical with the first-fruit-sheaf of barley ordained in Lev. xxiii.11-12. Otherwise [say the Rabbis] no offering whatsoever could be brought of the new grain [Lev 23:16] before the two loaves have been presented on the Feast of Weeks. According to the Kariates, Lev. ii.14 is a private oblation brought voluntarily [note Lev 2:14 begins with "if"] by the individual of the first-fruit of his barley, oblations of the new barley being allowed to be offered in the interval between the presentation of the first-fruit-sheaf [wave sheaf] and that of the two leavened loaves. Thus, according to the Karaites, the designation [new grain offering in Lev 23:16] MINCHAH HADASHAH suits the two leavened loaves only in so far as, being of the new wheat, they are a new oblation in kind [different kind of plant], whilst according to the Rabbis, they are new as an offering." The Karaite view seems more sensible than the Talmudic view.

[23] Wave Sheaf Offering continued (see above on Josh 5:10-12)

The Hebrew word NOOF, Strong's number 5130, has been typically translated "wave" as in wave sheaf offering in Lev 23:11, 11, 12, but as now seen in pages 461-473 of Milgrom, there is significant evidence to translate it "elevate" instead. However I will wait until I note some further scholarly confirmation before I use this meaning.

The wave sheaf offering is mentioned in Lev 23:10-14; Deut 16:9-10. Here is a literal translation of Lev 23:10-14; Deut 16:9.
Lev 23:10 "Speak to [the] sons of Israel and say to them, 'When you come into the land which I am going to give to you and reap its harvest, then you shall bring [the] first sheaf of your harvest to the priest.
Lev 23:11 And he shall wave the sheaf before YHWH for your acceptance on the morrow of the sabbath the priest shall wave it,
Lev 23:12 on [the] day that you wave the sheaf you shall offer a year old male lamb without blemish for a burnt offering to YHWH

Lev 23:13 and a cereal offering with it, two-tenths [of an ephah] of fine flour mixed with oil, an offering by fire to YHWH, a pleasing odor and its drink offering of a fourth of a hin of wine.
Lev 23:14 You shall not eat bread, nor roasted/parched-grain, nor fresh-grain until this same day, until you have brought [the] offering of your Almighty. It is a statute forever throughout your generations in all your dwellings.
Deut 16:9, "Seven weeks you shall count for yourself from [about the time] you begin [to put the] sickle to standing grain, you shall begin to count seven weeks."

The differences between Lev 2:14-16 versus Lev 23:10-14; Deut 16:9-10 are:

(1) Lev 2:14-16 is voluntary because it begins with "if", but the wave sheaf offering is obligatory.
(2) Lev 2:14-16 mentions ABIB but Lev 23:10-14; Deut 16:9-10 does not.I do not necessarily attach any specific significance to this, but am simply noting differences.
(3) In Deut 16:9 "standing grain" is translated from the single Hebrew word KAMEH, Strong's number 7054. This occurs nine times in the Old Testament. It refers to mature grain three times: Deut 23:25 (twice); Is 17:5. It refers to immature grain three times: II Ki 19:26; Is 37:27; Hos 8:7. In three cases its stage is not indicated: Ex 22:6; Deut 16:9; Judg 15:5. The flexibility of this word makes it difficult to draw any conclusions from it, except that this word can not be used to show that the wave sheaf offering must be made from ripe grain or even valued grain!
(4) Lev 2:15-16 tells what is to be done with the preparation from Lev 2:14. It is consumed as a valued firstfruits offering. In sharp contrast to this, Lev 23:12-13 tells what is to be done with preparations different from the wave sheaf offering itself! There are no instructions of anything to be done with the wave sheaf offering itself after the waving.
(5) Lev 2:14 mentions firstfruits (Hebrew BIKURIM, discussed above) twice, but Lev 23:10-14 does not have this word at all, and neither does Deut 16:9-10! The voluntary offering of Lev 2:14-16 must come after the sheaf of Lev 23:10 is cut because Lev 23:10 has the word "first", and Deut 16:9 has the word "begin". The Hebrew word translated "first" in Lev 23:10 is RAYSHEET, Strong's number 7225, which is the word "beginning" at the start of Gen 1:1. Although translators often translate this "firstfruits" in Lev 23:10, it is not the correct Hebrew word for firstfruits.

Technically, the wave sheaf offering is not a firstfruits offering even though it must come first! This will be discussed in greater depth in a later section. The most literal translation of the Bible, YLT, translates Lev 23:10, "Speak unto the sons of Israel, and thou has said unto them, When ye come in unto the land which I am giving to you, and have reaped its harvest, and have brought in the sheaf, the beginning of your harvest unto the priest". Two matters will immediately stand out in this translation. The first is that RAYSHEET is translated "beginning", not firstfruits. The second is that since Hebrew verbs typically do not follow consistent patterns regarding the modern concept of verb tenses, Robert Young slavishly uses a uniform policy for certain verb forms in using the English past tense which is often contrary to the context and the original intent. Young wants to avoid making

himself an interpreter, so he tries to be consistent even if the verb tense does not make sense. Thus the greatest weakness of YLT is in his rendering of verb tenses.

YLT is noteworthy because it is so literal. In order to show that YLT is not an oddity among translations, it is relevant to point out some other translations that also translate the Hebrew word RAYSHEET in Lev 23:10 as "beginning" or "first" instead of "firstfruits". These include the TANAKH (Philadelphia: The Jewish Publication Society, 1985), the Jerusalem Bible (New York: Doubleday, 1966), the Modern Language Bible (Grand Rapids: Zondervan, 1969), the New English Bible (Oxford University Press and Cambridge University Press, 1970), the New International Version (Grand Rapids: Zondervan, 1973), the New Jerusalem Bible (New York: Doubleday, 1985), and the Revised English Bible (Oxford University Press and Cambridge University Press, 1989).

(6) Lev 2:14-16 compared to Lev 23:10-14; Deut 16:9-10 have vastly incompatible descriptions in their formulas of procedure, and the technical terms that are used to describe them are different, so there is no need to assume that the firstfruits offering of Lev 2:14-16 governs the non-firstfruits offering of Lev 23:10-14.
(7) The word "sheaf" in Lev 23:10, 11, 12, 15 is a translation of the Hebrew word OMER, Strong's number 6016, which occurs in the following ten other places: Ex 16:16, 18, 22, 32, 33, 36; Deut 24:19; Ruth 2:7, 15; Job 24:10. From Ex 16:36 we see that it is a measure of volume, but its content varies with the context. In these ten places it is accepted that the OMER's contents have value. There is no explanation of the content in Lev 23:10-15; Deut 16:9-10. Certainly I Cor 15:20, 23 calls Christ the firstfruits, but I Cor 5:7 calls Christ the passover. Just as the passover lamb is not the firstfruits, the wave sheaf offering is not the firstfruits, yet it is first. The sheaf most certainly has value in its symbolism, but the lack of calling it firstfruits as well as the lack of describing some additional ceremonial use of the sheaf detracts somewhat from literally emphasizing some specific degree of its maturity. This will be discussed further below. I Cor 15:20, 23 does not mention wave sheaf or barley, so there is no reason to force this into the wave sheaf offering.

Lev 23:10 states "first sheaf [OMER] of your harvest". In light of the absence of any specific statement indicating a necessary degree of maturity for the wave sheaf itself, can the phrase "your harvest" merely be taken to indicate that it is from a field that an Israelite owns that is part of his intended harvest when the time is eventually appropriate for a normally valued harvest of domesticated barley? By way of analogy Christ was accepted for death and resurrection when still in His relative youth. Christ was prophesied to be King in Ps 2:2-6, but he did not achieve this value before he was prematurely harvested, and in Acts 1:6-8 He refused to tell His disciples when He would fulfill the prophecy as King in the earthly kingdom (I Tim 6:13-16). He was given the value of the resurrection by a miracle that was not from Himself, but from His Father. He gave up His valued blood for others. The specific statements concerning the wave sheaf offering do not declare any specific degree of maturity of barley to be mandatory.

Lev 23:11 states that the priest will wave it for "your

acceptance". Here "your" is the farmer who brought the sheaf. The meaning typically given to the wave sheaf offering has ignored the literal reason, namely, "for your acceptance". When we are called, we are all in a different stage of maturity, in age, in spirituality, and in understanding. But we are all accepted when we have faith and repent. We bring ourselves in repentance as the offering and are accepted. Meanings of ceremonies can be multi-faceted and tricky.

[24] How the Wave Sheaf was Obtained

Lev 23:10 "Speak to [the] sons of Israel and say to them, 'When you come [plural form of the verb come] into the land which I am going to give to you and reap [plural form of the verb reap] its harvest, then you shall bring [plural form of the verb bring] [the] first sheaf of your harvest to the priest.'"

This definitely does not say that the priest goes out to look for the sheaf (OMER). Instead it says that "you", the farmers, are to bring it to the priest. The Hebrew verbs for "you come", "reap", and "you shall bring" are in the plural form - see AKOT where the grammatical form of every verb is given. This is similar to the English verb "to be", in which one writes, "I am", "he is", and "they are", so that the form "are" is plural.

It definitely does not say that only one farmer brings the wave sheaf. This is being spoken to all the sons of Israel, not merely to those where the barley is furthest in development. The wave sheaf ceremony occurs on the Sunday during the seven days of unleavened bread as previously discussed along with Josh 5:10-12.

Since the wave sheaf ceremony occurs during the seven days of unleavened bread, and at this time all the men were required to already be at one central place in Israel keeping this feast (Deut 16:16), in order for the farmers to bring it the distance from the field where it grew to the priest at this festival, it must have been cut by the farmer before leaving for the feast. The context definitely does not say that the barley that is brought by each farmer can only be brought if it has reached some specific stage of growth. A good reason why it does not say "firstfruits" (BIKURIM) is that each farmer is required to bring a sheaf regardless of whether it has become useful enough to be called a firstfruit. For some of the farmers it may be that the value of the sheaf is in what it would have become if it had been allowed to develop more instead of being cut before leaving for the feast.

[25] A Valued OMER for the Wave Sheaf Offering During a Cold Winter

I have already quoted from the personal experiences of Gustaf Dalman concerning the time of the barley harvest in Palestine. Some other sources are now tapped.

On pages 44-45 of Carpenter (who has translated from the Latin of J. D. Michaelis) we find, "Besides, all who in their travels [in Palestine] mention the time of harvest, tell us that corn [barley] grows ripe, and is mowed, in the months of April and May. Rauwolf says, that the harvest commences in the beginning of April; but he

is to be understood according to the old [Julian] calendar, and to say that about the tenth of our [Gregorian] April N.S. [new style] the sickle is first put into the early ripe fields of Palestine."

On pages 362-363 of Thomson we find, "I have visited the pilgrims' bathing-place, the supposed scene of this miracle, early in April, and found barley-harvest about Jericho already ended. I also found the [Jordan] river full to the brim, and saw evidence in abundance that it had overflowed its banks very recently [Josh 3:15]. Barley-harvest in the vale of the Lower Jordan begins about the end of March. This seems early, and in fact it is long before the crops are ready for the sickle on the neighboring mountains, or even around the fountains of the Upper Jordan. But the reason is obvious. The valley at Jericho is thirteen hundred feet below the level of the sea, is sheltered from cold winds on all sides by mountains of great height, and is open to the warm southern breeze from the basin of the Dead Sea. It has, therefore, the climate of the tropics, though in the latitude of Jerusalem."

On pages 487-488 of Ideler we find the following (my translation from the German), "According to the writings of journeys, the accounts of which were collected by Michaelis and exhaustively by Buhle, the barley at the border of Jericho, the warmest region of Palestine, generally reaches to maturity in the first days of our April. From this time onward, when the first ears were offered, one is permitted to begin the harvest, and this continues in the suitable parts of the land to the north near Lebanon until into the last half of May. Hence, here in Palestine the barley begins to ripen about 14 days after the vernal equinox, so we note that the Ears-Month would have begun according to Moses' determination approximately with this time of the year, if it was to be gauged according to the sun."

Now for a conclusion involving a very cold winter in light of the above quote which makes the unstated assumption that some barley would be ripe at the time of the wave sheaf offering. Based on the vernal equinox timing, the earliest date for the wave sheaf offering would be on April 3 or 4 if it was also a Sunday. If, in some year when there is a cold winter, there are no ears of barley capable of being used for flour (i.e., fully ripe) as early as April 3 or 4, the fact that "firstfruits" (the Hebrew BIKURIM) is not used for the wave sheaf offering removes the necessity for any barley being fully ripe.

Unless rain is severely withheld through most of the growing season throughout Israel or some other miracle occurs, there will always be ears that are in the milky stage and which is useful for eating by April 3 or 4 (see footnote 60 on page 44 of Ginsberg which was already quoted above). Of course this implies that there will be ABIB by April 3 or 4 (and indeed there is ABIB many weeks sooner). By this date the wave sheaf offering could always use barley of value (whether in the milky stage or fully useable for flour) if a recognized priest was available.

[26] Exploring Deeper into Deut 16:9

Deut 16:9, "Seven weeks you shall count for yourself from [about the time] you begin [to put the] sickle to standing grain, you

shall begin to count seven weeks."

This verse very briefly discusses the count to the Feast of Weeks (Pentecost). The method of counting is given more fully in Lev 23:15-16, which literally states, "And you shall count for yourself on the morrow of the Sabbath from [the] day you brought the sheaf of waving [to the priest], seven complete/ perfect sabbaths they shall be, until on the morrow of the Sabbath the seventh, you shall count 50 day[s], and you shall present a new offering to YHWH." Here the Hebrew phrase ME-MACHARAT, meaning "on the morrow", occurs twice.

Thus Deut 16:9 does not provide precise words and forces the translator to add the words "about the time", because the day that the farmers cut the first sheaf was before they departed for the festival of unleavened bread, not the day they presented it to the priest.

Since each individual farmer had his sheaf cut before leaving for the feast, and it took each of them some time to travel, the sheafs were not all cut on the same day. Undoubtedly many priests participated in the wave sheaf ceremony because there were many farmers. The start of the counting of seven weeks is not clearly indicated in Deut 16:9, but only from Lev 23:15-16 can we know that it was from the day of the wave sheaf offering, not from the day each farmer cut the sheaf in advance of leaving for the feast. Since each farmer had to cut his sheaf in advance of the day of the wave sheaf offering, is there any limitation of how far in advance the farmer may cut the sheaf that he planned to take to the feast for the wave sheaf ceremony? Scripture is silent on this. Once the farmer did cut this particular sheaf first and set it aside for safe keeping to be brought to the feast, is there any Scripture that forbids the farmer from harvesting additional grain before he leaves for the feast? The only statement that makes a prohibition is Lev 23:14, "You shall not eat bread, nor roasted/ parched-grain, nor fresh-grain until this same day, until you have brought [the] offering of your Almighty." Hence there is no requirement that the standing grain that the individual farmer wants to harvest (if any) before he leaves for the feast must be left standing. Thus the safety of the crop is not threatened by early ripeness in certain areas before the feast of unleavened bread!!!

Since Lev 23:10 mentions "your harvest" and wild barley neither provides a high yield for the effort nor has desirable qualities for normal use, wild barley would not qualify for "your harvest". Only domesticated barley was intended for the wave sheaf offering. But there is no reason why the word ABIB can not include wild barley.

When I spoke with Dr. David Marshall, a barley and wheat geneticist from Texas A & M University about 10 years ago, he told me that when he visited Egypt, the farmers who still used a sickle waited until the barley was at 30 percent moisture or less before harvesting. This was about the first time at which flour could be obtained. This was by experience rather than a scientific measurement, but Dr. Marshall knew the moisture content. They could wait some weeks and let the moisture content decrease, but

they could not let it get near 10 percent because at that point only modern machinery could harvest it without shattering and losing the grain. But winter barley that lies dormant over the winter ripens slowly because the temperature rises slowly. They have some weeks to wait before they will lose it to shattering. A primary difference between wild barley and domesticated barley is that domesticated varieties are bred to enable the grain to stay on the stalk for a much longer time before shattering than wild barley. Wild barley does shatter soon after ripening, but not domesticated barley.

Some Added Conclusions Based on the Wave Sheaf Offering

(1) In Lev 23:10-15; Deut 16:9-10 (the wave sheaf offering) the technical term BIKURIM for firstfruits is NOT mentioned because farmers from throughout Israel were required to bring their first sheaf, and many of these sheafs were in a stage of barley ears that was too early to be firstfruits, yet they were ABIB.
(2) Deut 16:9-10 does not mention firstfruits, nor does it mention harvest, and once the farmer has cut and put aside the first sheaf at any time before he left for the feast of unleavened bread, no Scripture forbids him to harvest the crop if he chooses. Thus the crop is not at risk based upon the day of the wave sheaf offering.
(3) The day of the wave sheaf offering may be thought of as a man having a long leash with a dog at the end. The dog represents the ripening of barley which can wander a little this way or that, but not too far from the day of the wave sheaf offering. Barley in Israel ripens over a seven week period depending on the location, so that the name ABIB is not discriptive of only one month. It takes a more precise astronomical method to pin down the month of ABIB to one month.
(4) Gen 1:14 ends in the word "years", so that the lights in the heavens determine years. Moses evidently did not think it was important to describe the astronomical method to define years because the vernal equinox was common knowledge in Egypt where the Israelites had been, being witnessed by the greatest pyramids of Egypt.

[27] The Meaning of Deut 16:1

In order to arrive at a proper understanding of a biblical subject or verse it is necessary to first understand the clear Scriptures and then use information from them to eventually understand the unclear ones. Deut 16:1 is an unclear Scripture for at least the following reasons:
(1) The first Hebrew word in Deut 16:1 is SHAMAR, Strong's number 8104, which has a variety of possible meanings depending on the context. It primarily may mean "to keep [a law]", "to observe [by sight]", "to preserve or protect", "to celebrate [a festival]", or "to guard [captives]", and some of these meanings can overlap or blend. There is debate over the meaning of SHAMAR in Deut 16:1.
(2) Considerable effort has been expended above to show that ABIB means "ears [of grain]" regardless of the stage of ripeness of the ears. But some references have taken only Lev 2:14 and the Talmudic interpretation of ABIB as "nearly ripe, green ears [of grain]" as if this constituted the full scope of its original meaning. Without a thorough study of Ex 9:31 and the hail plague in Egypt in its agricultural, historical, climatc, and

geographical context as well as the use of ABIB in the Dead Sea Scrolls, one can not appreciate the full scope of the meaning of ABIB, and this misunderstanding of ABIB has perhaps been the primary cause of confusion over the meaning of Deut 16:1.
(3) Deut 16:1 may be divided into two parts, the first desigated 16:1A and the second 16:1B. The Hebrew word CHODESH, Strong's number 2320, occurs in both parts. This word either means "new moon" or "month" depending on the context. The full Hebrew expression in which CHODESH occurs here is "CHODESH HA AVEEV" which literally means either "the new moon of Abib" or "the month of Abib". This exact Hebrew expression occurs six times in Scripture: Ex 13:4; 23:15; 34:18A, 18B; Deut 16:1A,1B. The context of the five places other than Deut 16:1A show it to mean "month of Abib". Is it plausible to think that in Deut 16:1A this expression means "new moon of Abib" but in the second half of the same verse (and everywhere else), the same expression has a different meaning? Some people think it is plausible, but in my opinion it is quite unlikely for the expression to change its meaning in only the first half of the verse.
(4) Another controversial question about the translation of Deut 16:1 involves whether the Hebrew word ABIB should be translated to emphasize its meaning or transliterated to indicate the name of the month, and this depends on the orignal intent of the first part of the verse. If the first part of this verse is intended to describe an activity of visual searching as some teach, then the word ABIB should most likely be translated rather than transliterated.

Now that four points of controversy concerning the translation of Deut 16:1A have been elucidated, it should be clear to the reader that one should not start the study of how to determine the first month with a forced interpretation of this verse. An edifice should be built on a firm foundation, not one that is conceived in debate. In other words the claim is made by some that this verse should start, "Observe [by sight] the new moon of [in which you find] nearly ripe, green ears ..." Notice that the added expression "in which you find" is not based on any Hebrew words from Deut 16:1, but is nothing more than a forced wishful interpretation upon the text. This interpretation involves a controversy over the intended meaning of SHAMAR, a controversy over the intended meaning of ABIB, a controversy over the intended meaning of CHODESH, and a controversy over whether ABIB should be translated into its meaning or transliterated as the name of a month. Beyond these four matters of controversy is the issue of adding the expression "in which you find", so that the belief of "physically searching for ABIB" is read into the text, and then this text is used as alleged evidence for this practice to determine the first month.

The clearest way to refute this alleged interpretation of Deut 16:1A is to recognize that ABIB means "ears [of grain]" regardless of the stage of ripeness of the ears. One does not go looking for something that has a wide scope of meaning, otherwise one does not know what to look for. Hence adding the expression "in which you find" is a fallacy as an implied translation. Consistency in translating the expression CHODESH HA AVEEV within Deut 16:1 requires that CHODESH mean "month" here. Deut 5:12 also starts with the word SHAMAR and means, "Keep [the laws of] the Sabbath

day to set it apart ..." Similarly Deut 16:1 means, "Keep [the laws of] the month of Abib and perform the Passover ..." The laws of the month of Abib include the laws of the Passover.

The presence of the Hebrew word CHODESH in Deut 16:1A thwarts the attempt to make to mean, "Observe [by sight] the nearly ripe, green ears ..." because CHODESH stands as a barrier between "observe" (SHAMAR) and "ABIB". Besides, ABIB has a wider range of meaning than this and the time at which barley comes to maturity ranges over a seven week period throughout Israel. Hence observing is not confined to merely one month as though this meant "Observe [by sight] the month of nearly ripe, green ears ..." When using an accurate translation of ABIB, the meaning, "Observe [by sight] the month of ears ..." still does not make sense because "ears" spans several months from the earliest stage to the last of the harvest.

[28] The First Month During the 40 Years of Wandering in the Wilderness

Num 9:1-14 describes the keeping of the passover in the wilderness during the first year after the Israelites left Egypt. In order to do this during the 40 years in the wilderness they would have to determine when the first month was.

Num 9:15 "Now on the day that the tabernacle was erected, the cloud covered the tabernacle, the tent of the testimony, and in the evening it was like the appearance of fire over the tabernacle, until morning.
Num 9:16 So it was continuously, the cloud would cover it by day, and the appearance of fire by night.
Num 9:17 And whenever the cloud was lifted from over the tent, afterward the sons of Israel would then set out; and in the place where the cloud settled down, there the sons of Israel would camp.
Num 9:18 At the command of YHWH the sons of Israel would set out, and at the command of YHWH they would camp; as long as the cloud settled over the tabernacle, they remained camped.
Num 9:19 Even when the cloud lingered over the tabernacle for many days, the sons of Israel would keep YHWH's charge and not set out.
Num 9:20 If sometimes the cloud remained a few days over the tabernacle, according to the command of YHWH they remained camped. Then according to the command of YHWH they set out.
Num 9:21 If sometimes the cloud remained from evening until morning, when the cloud was lifted in the morning they would move out; or if it remained in the daytime and at night, whenever the cloud was lifted, they would set out.
Num 9:22 Whether it was two days or a month or a year that the cloud lingered over the tabernacle, staying above it, the sons of Israel remained camped and did not set out; but when it was lifted, they did set out.
Num 9:23 At the command of YHWH they camped, and at the command of YHWH they set out; they kept YHWH's charge, according to the command of YHWH through Moses."

Notice in verse 22 that even if the cloud lingered for a year they remained camped. Their coming and going was strictly governed by the cloud by day and the fire by night over them during the 40 years. The only exception was when the 12 spies were sent out, which occurred before the announced 40 year punishment of

wandering in the wilderness (Num 14). There is no hint that they violated the rule of remaining with the miraculous cloud and fire by sending search parties into Israel to seek ABIB to determine the first month during the 40 years.

[29] Indirect Interpretation of Gen 1:14 and the Jews in Rome

I have seen the proposal that Gen 1:14 may be interpreted so that the sun indirectly affects the barley which in turn causes the time of the first month. But the trade winds and the rain also affect the temperature which affects the barley, not only the sun. A prolonged lack of rain also hastens the ripening of barley. Hence this interpretation of Gen 1:14 dilutes the role of the sun to determine the first month and introduces confusion in practical definitions regarding the arbitrary botanical investigation of barley, the wild and domesticated varieties of barley, whether artifical irrigation must be excluded, and the places within Israel to look for it. It would take another direct verse to overturn the directness of Gen 1:14, especially in light of Deut 30:11-14.

In Gen 1:28 we see the command to "Be fruitful and multiply, and fill the earth". In order to keep the days of unleavened bread during the first month while filling the earth, one had to have means for knowing when to do this when far from Jerusalem. Concerning the keeping of Pentecost, in Acts 2:10 we note that festival visitors came from "the districts of Libya around Cyrene, and the sojourning Romans, both Jews and proselytes". A major Jewish settlement around Cyrene was 800 miles from Jerusalem. Rome was about 1500 miles from Jerusalem. While this relates to Pentecost rather than the days of unleavened bread, going to Jerusalem for a seven day festival would be more desirous than for the one day festival of Pentecost. Even those who could not make the long and expensive journey from Rome would still want to observe the days of unleavened bread locally. In commenting on Acts 2:10, page 63 of Bruce states, "There was a Jewish colony at Rome in the second century B.C., and it was augmented by the Jews who were brought there from Palestine in 62 B.C., to grace Pompey's triumph, and later set free. We have references in Roman inscriptions to at least seven Jewish synagogues in Rome."

It would have been a significant problem for news about barley just prior to the first month to reach Jews about 1500 miles away in Rome in time for the days of unleavened bread for local observance in Rome. This problem is far worse for a person who wishes to travel from Rome to Jerusalem to keep the feast there after hearing the news about the barley in Rome. While hypothetical high speed runners and fire signals might be employed in getting news to Rome in time, this does not help people who want to travel from Rome to Jerusalem to keep the feast after finding out that the month which recently began is the first month. On page 149 of Carson_1974, we read, "To go from Italy to Spain by land would have taken a month, to Alexandria [Egypt] well-nigh two." On page 150 Carson writes, "For travellers heading for the eastern Mediterranean [by ship] from anywhere within the western part of the empire, Rome was far and away the best jump-off point." On page 123 of Carson_1994, we read, "Except for emergencies, the ancients limited their sailing to the season when

the weather was most dependable, roughly from the beginning of April to October. The winds over the waters between Rome and Alexandria during this period blow prevailingly from the west. This meant that the voyage from Rome, made with a favourable wind all the way, was quick and easy, taking normally no more than two to three weeks." On page 124 Carson explains that if a person wanted to go from Rome to Palestine, the best choice would be to get on a grain freighter from Rome to Alexandria, and then make the remaining 200 mile journey by land or sea. In summary, if a man left Rome by ship on April 1, which is the earliest time in the year that a ship would leave, he stood a reasonable chance of reaching Jerusalem by May 1. In most years this is too late for passover. Since a Jew would not want to travel on the sabbath, it would take about two months to travel from Rome to Jerusalem by land. In any event, news about barley would not come in time to help the Jew from Rome to know when to leave for Jerusalem.

Only an astronomical method that would allow the Jews in Rome to know the first month for themselves would make sense, and this is in harmony with a direct understanding of Gen 1:14.

[30] History of the Karaites

There are Jews in different parts of the world today that call themselves Karaites. The Karaites in Israel today use barley to determine the first month. Since many people receive emails from them, we now devote some space for a brief discussion about their history and the calendar.

Page 20 of Ankori states: "Ever since the famous century-old theory of Geiger linked the early Karaites with the internal conflicts of the Second Jewish Commonwealth, scholars did not cease to detect ancient antecedents in Karaite ideology. Geiger and his successors hailed the Karaites as spiritual heirs, nay, actual survivors, of the seemingly extinct Sadducee party. On closer analysis, however, Sadducceeism in its classical definition seems to have played in the Middle Ages the role of a haunting historical recollection rather than an actual source of influence, an amorphous symbol of dissent rather than a definitive sectarian identity."

On page 777 of Gil we find, "The origins of the Karaites and their early development are shrouded in obscurity. The sources which describe these beginnings single out the figure of 'Anan, who is considered the founder of Karaism." On page 778 we read: "As to the Karraite sources themselves, Qirqisani says that 'Anan lived in the days of the second Abbasid caliph, the founder of Baghdad, Abu Ja'far al-Mansur (754-775), which fits what has been said above."

On page 22 of Schur (1992) we see, "Modern research does not accept the traditional Karaite version, which regards Anan unreservedly as the founder of the Karaite sect. Most scholars stipulate now the existence of two separate groups:
* the Ananites, followers of Anan and sometimes actually members of his family;
* the Karaites, who were the outcome of the coalescence of various sectarian groups."

On page 211 of Schur (1995) we find, "Now that Anan's real position in Karaite history begins to be better understood, Benjamin Nahawendi looms much larger, as he was the first real leader and unifier of the sects which eventually made up Karaism. He hailed from Nihavend in Persia (in the province of Media), and might have lived (in the first half of the ninth centurry) in Persia or in Iraq. Page 213 states: "Nahawendi's importance is attested to by medieval Arabic accounts, which call the Karaites 'the followers of Anan and Benjamin'. Saadia Gaon and Judah Halevi regarded Anan and Nahawendi as the two founders of Karaism."

On page 448 of Ben-Sasson we find, "The diversity between the Karaites themselves resulted from the rationalistic individualism of this trend in the tenth century." Page 449 states: "According to the Karaites, the individual is duty bound to rely on his own intelligence and to understand the Holy Scriptures independently."

The Karaite named Levi ben Yefeth wrote a book about 1006-7 in which he mentions three prevalent views of how to determine the first month. This is reported on pages 303-304 of Ankori. The first view he presents is that of the Rabbanites who use the modern calculated Jewish calendar. The next quotation from pages 303-304 has square brackets with words added by Zvi Ankori in the midst of his translation from Levi ben Yefeth, where we read: "The second group consists of people in the Land of Shine'ar [= Babylonia] from among our brethren the Karaites. They follow the [computation of the vernal] equinox alone; yet, they stipulate certain conditions which are different from those stipulated by the Rabbinates. This is why we have listed this group as separated from the Rabbinates .... Now, this second group does not inquire, nor search, for the abib at all; [its members simply] wait and do [the proclamation of Nisan] when the sun reaches the Constellation of the Ram...."

In the Middle Ages the Constellation of the Ram meant the 30 degree segment of the zodiac beginning with the vernal equinox, not the actual star group that formed the constellation.

Next, on page 304, Zvi Ankori, continues his translation: "The adherents of the third group [i.e., the Palestinian-oriented Karaites] observe [the New Year] on the strength of abib alone and they do not investigate [the position of] the sun at all."

The following paragraph appears on page 326 of Ankori: "Thus, in the case of an unusually early ripening of barley in Palestine, the twelfth month of the Karaite calendar-year, Adar, would yield to Nisan, the first month of a new year. Indeed, an actual occurrence is cited when the Purim Festival, due to fall, as a rule, in the middle of Adar, was shelved altogether to make way for Passover, which falls in the middle of the succeeding month of Nisan." Footnote 66 places this in the year 1006-1007. In Est 9:19-23 it is clear that the Jews had decided that every year on the 14th and 15th days of the 12th month Adar they would celebrate Purim. Hence they understood that every year had to have at least 12 months, but the Karaites who used barley apparently accepted the viewpoint that some years might only have 11 months based on the state of the barley.

In Poland today (and scattered elsewhere in eastern Europe) there are Karaites that follow the second group above which uses the vernal equinox and not the barley to determine the first month.

In discussing the Karaites, pages 392-393 of Nemoy state, "Some of them begin the '(month of the) fresh ears' (with the appearance) of (any kind of) green herbage, whereas others do not begin it until (fresh) garden-cress is found all over Palestine; others begin it only when (at least) one piece of ground becomes ready for harvest; still others begin it even when only a handful of corn is ready for harvest." This indicates that Karaites in the middle ages who wanted to use vegetation to determine the first month could not agree among themselves on the method, undoubtedly because the Bible does not provide a botanical description for the month of Abib.

[31] Genetics of Barley

Concerning the genetics of the earing of barley, page 149 of Nilan states, "The inheritance of the time of heading in barley ranges from fairly simple to very complex. Several reports have indicated a 3:1 segregation ratio with early (Doney 1961; Gill 1951; Grafius, Nelson, and Dirks 1952; Murty and Jain 1960; Ramage and Suneson 1958; Scholz 1957) or late (Bandlow 1959; Frey 1954a; Scholz 1957) being dominant. Two-factor pair inheritance was reported (Frey 1954a) with late dominant to early. Fiuzat and Atkins (1953) found that the date of heading in two crosses appeared to be controlled by a single major gene pair plus modifying factors, an indication of some of the complexities of the inheritance of this characteristic. Yasuda (1958) reported on two-factor pairs responsible for the difference between early and late varieties. He labeled the genes 'AA' and 'BB' with 'AA BB' varieties 60-days earlier than 'aa bb' varieties. Each allele appeared to be additive, and no interaction between genes in the F1 hybrid was noted." The point here is that different varieties of barley behave differently with regard to reproductive timings. Presumably, if farmers planted one variety of barley as opposed to another in the appropriate place, they could manipulate the calendar for those who wanted to use barley to determine the first month.

[32] Ending of Ex 9:32

When Ex 9:31-32 was quoted above from the NASB, the last Hebrew word was translated "[ripen] late". This Hebrew verb is AFEEL, Strong's number 648, but the specific verb form is AFEELOT. When discussing this word on page 357 of DCH, a translation of the end of Ex 9:32 is given with the words "the wheat and the spelt were not damaged for they are late (crops)". Thus DCH translates AFEELOT as "are late (crops)". Pages 46-47 of Klein translate AFEEL as "ripening late", and Klein relates this to the Akkadian (Assyrian) word APATU "to be late". Klein is especially careful in applying the scientific principles of etymology to words, even using the words "possibly" or "probably" to show speculation, and when there are no grounds for speculation, Klein says nothing. Klein is an excellent source for correcting older sloppy careless guesses for etymology. Page 128 of Cohen_1978 translates this

"late (of crops)". On the same page Cohen_1978 writes, "Contrast both KB I, 77, and HALAT, 76, where the attempt to derive this term from the root OFEL 'to be, made dark' is semantically impossible and must be rejected." Cohen is stating that he agrees with the two German lexicons (which he abbreviates KB and HALAT, and which I looked up) that AFEEL is not derived from a word that means "to be made dark". Perhaps the reason for this fuss by Cohen is that on page 66 of BDB, for AFEEL, we see "(darkened, concealed, thence) late, of crops", so that BDB seems to be attempting to etymologically derive this word from "darkened". None of the modern Hebrew lexicons agree with BDB on this and there is no evidence for this.

[33] Example of a Year with 13 Months

The time difference between Ezek 1:1-2 and Ezek 8:1 is the difference between month 4 day 5 in the 5th year of King Jehoiachin's exile and month 6 day 5 in the 6th year of his exile. This is 14 or 15 months depending on whether the 5th year of his exile had 12 or 13 months. If the difference is 14 months, this is about 29.5 times 14 (= 413) days with an overestimate of 30 times 14 (= 420) days. The overestimate of 420 days is 17 days short of the known events because Ezek 3:15 accounts for 7 days and Ezek 4:4-6 accounts for 390 plus 40 days, the total being 437 days. Thus the difference must have been 15 months which is about 29.5 times 15 (= 442.5) days, just five or six days more than the known events of that time period.

If one should claim that the 5th year of the king's exile was a solar year, and an overestimate of 366 days ("leap" year) plus 60 days (two extra months) is allowed, the total is 426 days which is still far short of the 437 days for the known events.

Thus the biblical year is not a (pure) solar year, and there is a biblical example of a year with 13 months. This shows that a biblical year is not a solar year.

[34] Control of the Temple, and thus the Calendar, in the Early First Century

Both Sadducees and Pharisees are condemned in the New Testament in the sense of having incorrect teachings (Mat 16:6, 11-12); thus one can not look to either of these groups as having the original biblically correct understanding of some particular doctrine merely because of the label of the group attached to the doctrinal opinion.

(a) Many of the Scribes were Sadducees. Mat 23:2

Luke 20:27 [NKJV] Then some of the Sadducees, who deny that there is a resurrection, came to [Him] and asked Him,
Luke 20:28 saying: "Teacher, Moses wrote to us [that] if a man's brother dies, having a wife, and he dies without children, his brother should take his wife and raise up offspring for his brother. [Speech continues through verse 33]
Luke 20:34 Response to the Sadducees: "The sons of this age marry and are given in marriage." [Speech continues through verse 38]
Luke 20:39 Then some of the scribes answered and said, "Teacher,

You have answered well."
Luke 20:40 But after that they dared not question Him anymore."

From verse 39 it is clear that scribes had been there all along, and from verses 27 and 40 it is clear that these scribes were Sadducees. In fact the Sadducees would not have asked Him this sensitive question if Pharisees had been present because that would have immediately sparked a heated debate between the two groups over their difference on this issue.

Act 23:9 makes it clear that some scribes were Pharisees. Hence scribes included some Sadducees and some Pharisees.

On page 22 of Bar-Ilan we find the following paragraph: "Most of the scribes of the end of the Second Temple period whose genealogy is known were priests: Yosef (T. Shabbat 13:11), Yohanan (P. T. Maaser Sheni 5:4, 56c), Beit Kadros (T. Menahot 13:19), Josephus and others. It is clear that during the time of the Temple, priests, some of whom were scribes, used to manage the Temple property, contributions and gifts in addition to annual tithes (Neh 13:13; T. Shekalim 2:14-15; Josephus, War 6:387-91). The Temple as the official cultural-religious center was also the center of the knowledge of reading and writing, and because of that the priests in charge of the Temple were evidently responsible for the preservation of the Tora, its copying in general and the scribal profession in particular." Thus in the view of Bar-Ilan, a historical expert in the realm of scribes and priests in the first century, we see the priests in charge of the Temple and the scribes heavily represented by priests. Some writers have been unaware of the representation of priests among the scribes and have given a distorted picture of Mat 23:2.

Act 5:17 [NKJV] "Then the high priest rose up, and all those who [were] with him (which is the sect of the Sadducees), and they were filled with indignation." This shows the chief priests to be almost synonymous with the Sadducees.

Thus, when we see Mat 23:2 [NKJV] "The scribes and the Pharisees sit in Moses seat", the scribes are mentioned first, and their heavy representation is from among priests which are to be closely equated with the Sadducees. Hence Matthew is not excluding the Sadducees from Moses' seat, and the mention of Scribes (which includes Sadducees) comes first. Since Aaron was the first high priest rather than Moses, the expression "Moses' seat" does not naturally associate itself with the priesthood. In Ex 18:13-26 we see the role of Moses as a civil judge rather than in the role of communicating the law from YHWH to the people. In Heb 7:11 we see the function of the Levitical priesthood in communicating the law to the people. The common idea of a "seat" is the place of the judge who sits, hears, and decides legal cases. Such a decision should not alter the original law.

(b) The Parable of the Wicked Vinedressers

Luke spent considerable time with Paul (a former Pharisee) - see Col 4:14; II Ti 4:11 and the "we" portions of Acts that includes the presence of Luke as the author - Act 16:10-17; 20:5 - 21:13; 27:1 - 28:16. Luke partially relied on Paul for some of the

relations between the leaders of the Jews when he wrote. Paul, having been a Pharisee and living in Jerusalem, would have been an excellent first hand source of extra background information for Luke's writings.

Luke 20:9 [NKJV] Then He began to tell the people this parable: "A certain man planted a vineyard, leased it to vinedressors, and went into a far country for a long time.
Luke 20:10 ... the vinedressers beat him ...
Luke 20:11 ... they [the vinedressers] beat him also ...
Luke 20:12 ... they [the vinedressers] wounded him also ...
Luke 20:13 ... I will send My beloved son ...
Luke 20:14 ... vinedressers ... reasoned among themselves ... let us kill him.
Luke 20:15 ... they [the vinedressers] ... killed [him]. Therefore what will the owner of the vineyard do to them?
Luke 20:16 He will come and destroy those vinedressers and give the vineyard to others." And when they heard [it] they said. "Certainly not!"
Luke 20:17 Then He looked at them and said, "What then is this that is written: 'The stone which the builders rejected Has become the chief cornerstone!'
Luke 20:18 Whoever falls on that stone will be broken; but on whomever it falls, it will grind to powder."
Luke 20:19 And the chief priests and the scribes that very hour sought to lay hands on Him, but they feared the people - for they knew He had spoken this parable against them.

The parallel passage in Mark starts in Mark 11:27 where it mentions "the chief priests, the scribes, and the elders came to Him". The continuous flow of the narrative goes down to Mark 12:12 "And they [chief priests, scribes, and elders] sought to lay hands on Him, but they feared the multitude, for they knew He had spoken the parable against them."

The parallel passage in Matthew begins in Mat 21:33 and ends in Mat 21:45-46, "Now when the chief priests and Pharisees heard His parables, they perceived that He was speaking of them, but when they sought to lay hands on Him, they feared the multitudes, because they took Him for a prophet."

In this parable the phrase "the stone which the builders rejected" is mentioned in Mat 21:42; Mark 12:10; Luke 20:17 directly before the conclusion which shows that the leaders of Israel correctly perceived He was talking about them as the builders who rejected Him (the stone), and also about them as the vinedressers who killed Him (the son). Israel is the vineyard.

In the midst of the conclusion to this parable, when He says, in Mat 21:43, that "the kingdom will be taken from you", it is clear that He is agreeing with their interpretation that they are the leaders and that the kingdom refers to Israel and especially its government.

Luke says "chief priests and scribes", Mark says "chief priests, scribes, and elders", and Matthew says "chief priests and Pharisees". Despite these differences, all three mention chief priests first. These leaders understood that they themselves were

the vinedressers in the parable, and the vineyard was Israel. Thus the parable teaches that at the time near the death of Christ the leading position was in the hands of the chief priests which were Sadducees, but the Pharisees also had some leadership. This is the clearest statement of which group held the leading position from the standpoint of the seat of semi-autonomous government permitted by the Jews under the Roman Empire.

(c) How the High Priest Spoke to the Audience that included the Pharisees

John 11:47 [NKJV] Then the chief priests and the Pharisees gathered a council and said, "What shall we do? For this Man works many signs.
John 11:48 If we let Him alone like this, everyone will believe in Him, and the Romans will come and take away both our place and nation."
John 11:49 And one of them, Caiaphas, being high priest that year, said to them, "You know nothing at all, ..."

For the high priest to say to his audience that included the Pharisees "you know nothing at all", it seems obvious that he was not concerned that the Pharisees had so much authority over the Temple that they could push him around as they might choose.

(d) Pilate's Understanding of the Chief Priests' Authority

Mark 15:10 [NKJV] For he [Pilate] knew that the chief priests had handed Him over because of envy.

If the chief priests did not have primary authority, but instead the Pharisees controlled the Temple, the chief priests would have had less reason to be envious of Christ's authority through His miracles. Instead the Pharisees would have played a more prominent role during the trial.

(e) The Role of Gamaliel and Legal Authority of the Chief Priests

Act 5:34 [NKJV] "Then one in the council [= Sanhedrin] stood up, a Pharisee named Gamaliel ..."

If Gamaliel was the head of the Sanhedrin this would not merely say "one in the Sanhedrin". The language shows that Gamaliel was not the head of the Sanhedrin. Act 9:1-2 [NKJV] "Then Saul, still breathing threats and murder against the disciples of the Lord, went to the high priest and asked letters from him to the synagogues of Damascus so that if he found any who were of the Way, whether men or women, he might bring them bound to Jerusalem." Act 26:10 "This I [Paul] also did in Jerusalem, and many of the saints I shut up in prison, having received authority from the chief priests; and when they were put to death, I cast my vote against them." Act 26:12 "While thus occupied, as I journeyed to Damascus with authority and commission from the chief priests..." Here Paul who identifies himself as a Pharisee (Act 26:5; Phil 3:5) and as a student of the Pharisee Gamaliel (Act 22:3) does not go to any supposed Pharisaic leader for legal authority, but rather to the chief priests. Paul's personal identification with the Pharisees would have caused him to go to

the Pharisees for authority if they could give it.

Act 22:30 [NKJV] "The next day, because he [the Roman commander] wanted to know for certain why he [Paul] was accused by the Jews, he released him from his bonds, and commanded the chief priests and all their council [= Sanhedrin] to appear, and brought Paul down and set him before them." Here the Roman commander shows that he understands "their Sanhedrin" to be that of the chief priests despite the fact that in Act 23:6 Paul perceives that both Sadducees and Pharisees were present. Thus the chief priests were dominant.

The Pharisees did have sufficient clout in the local synagogues that they could excommunicate Jews from the life of the synogogue (Jn 9:13, 21-22, 34; 12:42). However, this environment is not the Temple where the chief priests (Sadducees) were dominant.

The Greek word for sanhedrin, Strong's number 4892, occurs 22 times in the New Testament (Mat 5:22; 10:17; 26:59; Mark 13:9; 14:55; 15:1; Lk 22:66; John 11:47; Act 4:15; 5:21, 27, 34, 41; 6:12, 15; 22:30; 23:1, 6, 15, 20, 28; 24:20). In three of these places (Mat 5:22; 10:17; Mark 13:9) a local court is the meaning, but in all other 19 cases this is the Sanhedrin in Jerusalem associated with the Temple. In 17 of these 19 cases the Greek definite article is used which implies that there is only one headquarters Sanhedrin. The two exceptions without the definite article are Mark 15:1; John 11:47.

(f) Talmudic Portrayals of First Century Authority in Judaism

We will discuss in more depth the following introductary statements. Orthodox Judaism elevates the Babylonian Talmud to the level of Scripture and its scholars seek to defend this position. It is to be expected that they would reject the New Testament. The Talmud portrays Gamaliel as the head of the Sanhedrin and the Pharisees as in control of the Temple during the first century. Gamaliel is described in the Babylonian Talmud as determining intercalation of the 13th month. But most other Jewish and non-Jewish scholars agree that the priests controlled the Temple while it still stood.

On page 13 of Neusner_1994 (an internationally recognized authority on the Talmud and a conservative Jewish scholar), we find the following concerning the Talmud and Rabbinic writings of the same period, "Sayings and stories were made up and attributed to prior times or authorities." On page 68 Neusner writes: "Ample evidence in virtually every document of rabbinic literature sustains the proposition that it was quite common for sages to make up sayings and stories and attribute the sayings to, or tell stories about, other prior authorities. Considerations of historical fact did not impede the search for religious truth: the norms of belief and behavior. That is why, if all we want are historical facts, we cannot believe everything we read except as evidence of what was in the mind of the person who wrote up the passage: opinion held at the time of the closure of a document."

David Kraemer, a Jewish professor at the Jewish Theological Seminary of America in New York wrote the following two paragraphs

at the start of his chapter on page 201:

"Scholars, mostly Jewish but also non-Jewish, have been using Rabbinic sources for historical study for well over a century. These studies - one 'History of the Jews in the Talmudic Period' or another - have been, almost without exception, what Jacob Neusner terms 'gullible.' They have assumed, in other words, that the Rabbinic record can, more or less, be taken at its word and that, once one has determined the 'original version' of a teaching and discounted obvious fabulous material, one may accept that teaching as historically reliable.

By this stage in the development of Judaic scholarship, the folly of these earlier habits is broadly recognized. Neusner and others have pointed to a variety of crucial and even fatal flaws in the approach just described, and there is hardly a scholar writing today about the history of Jews in late antiquity who does not at least pay lip service (though often no more than lip service!) to the much repeated critique. But even the critical questions that have been articulated - Can we believe Rabbinic attributions for purposes of dating a tradition? Why should we believe what any given tradition reports? and so forth - do not capture the full scope of the problem of using such records for writing history. In the following pages, I will describe the obstacles that would have to be overcome before we could be sure that a Rabbinic record contains historically reliable evidence. I will conclude that these obstacles are effectively insurrmountable, and that most sorts of political, social, or religious histories cannot be constructed on the basis of Rabbinic testimony."

Note that at the end of the above quotation Kraemer states that Jewish political history cannot be constructed from Rabbinic writings which especially includes the Talmud, the first part of which is the Mishnah, dated about 200 CE.

In footnote 38 on page 98 of Grabbe_1997 we find, "[Talmud tractate] Rosh ha-Shanah normally assumes that the sages [non-priests] sat to receive witnesses [of having seen the new moon]. However, [Mishnah] M. Rosh ha-Shanah 1.7 mentions that the witnesses reported to the priests; this datum which goes against the views of the rest of the tractate is likely to have been a genuine memory of pre-70 times when the priests - not the rabbis - declared the sacred calendar."

On pages 35-36 of Green we read, "Before the fall of the Jerusalem temple in A.D. 70, the priests proclaimed the sacred times of the year. In the aftermath of the temple's destruction, the new rabbinic movement appropriated that priestly task to itself."

On page 81 of Neusner_1984 we have, "The Pharisees before 70 did not control the Temple and did not make laws to govern its cult [the Levitical priesthood]. But afterward, they made plans for the conduct of the Temple when it would be restored."

On page 39 of Cohen_1986 we see, "Our methodological delemma is heightened when we confront a contradiction between rabbinic and nonrabbinic sources. The most prominent example of this sort of difficulty is the nature and composition of the sanhedrin.

Rabbinic texts, both legal and anecdotal, regard the sanhedrin as a supreme court cum senate, populated by rabbis and chaired by two rabbinic [non-priestly] figures. Josephus refers to a koinon and boule as well as a synedrion. From Josephus we do not know whether these are all one and the same institution and whether these are permanent or ad hoc bodies, but we see that aristocrats and high priests as well as Pharisees figure prominently in the discussion of these matters. The testimony of the NT matches that of Josephus (except that the NT does not use koinon and boule to refer to a supreme council in Jerusalem). How do we resolve this contradiction? Should we conclude that the composition and leadership of the Jewish supreme council changed over the centuries and that the rabbinic and Greek sources reflect different stages in this development? Or should we conclude that Josephus and the NT present a basically accurate picture which the rabbis have 'corrected' and improved either through wishful thinking or intentional distortion?"

I conclude that after 70 CE when the Temple was destroyed, the successors of the Pharisees overturned certain practices of the priests and later rewrote history to favor their views. I do not believe that Gamaliel the Elder controlled the calendar as the Babylonian Talmud indicates through their alleged quotations.

I believe that the successors of the Pharisees departed from the calendrical practices of the priests and destroyed all writings of the Sadduceean priests. Not a single document written by a Sadducee survives and the Talmud ridicules the Sadducees and others associated with them. In order for the Talmudic portrayal of the Pharisees from before the destruction of the Temple to demonstrate the alleged authority of the Pharisees, the Talmud uses the illustration of the control of the calendar by specific primary leaders of the Pharisees. The Talmud asserts the authority of Gamaliel the Elder and his grandson Gamaliel II by employing a calendrical method that requires the judgment of an authority figure. As if merely using the ripeness of barley were not complicated enough (what variety, where to look, how to define ripeness, et cetera), they even allegedly included other criteria that required a judgment based upon a combination of factors (even ripeness of fruit trees along with considering the date of the equinox). No precisely defined formula is given for the time before the Mishnah so that an authority figure becomes a requirement.

(g) Josephus and Authority among Jews in the First Century

In matters pertaining to human authority over the Israelite people it is instructive to see how Scripture compares with Josephus. Deut 17:8-13 discusses what to do when a difficult legal case arises. The authority figures are mentioned in Deut 17:9 [NKJV] "And you shall come to the priests, the Levites, and to the judge there in those days, and inquire of them; they shall pronounce upon you the sentence of judgment." A careful translation of Josephus's Ant 4.218 is given on page 32 of Pearce, "But if the judges do not understand how they should give judgement about the things that have been laid before them - and many such things happen to people - let them send the case up untouched to the holy city, and when the chief priest and the prophet and the senate

have come together, let them give judgement as to what seems fit." Note that Moses spread out the authority to certain individuals regardless of where in Israel they may be, and he included Levites; nevertheless it is possible to imagine the peoples in Deut 17:9 in a collective sense as one body, but that does not seem to be the natural way to view this. Josephus explicitly concentrates decision making to one body in Jerusalem and does not mention Levites as a group, nor does he mention priests in general, but only the chief priest. It is a matter of scholarly debate whether Josephus is describing the situation as he knew it before the Temple was destroyed rather than as stated in the law of Moses. But Josephus is not giving a simple portrayal of Scripture, so he is showing bias.

In Deut 17:14-20 Moses describes the appropriate behavior for future kings of Israel, and this does not show the king to share his rulership with other men. Comparing this to the corresponding description in Josephus, we see the following on page 583 of Josephus_4, Ant 4.224, "Let him [any future king of Israel] concede to the laws and to God the possession of superior wisdom, and let him do nothing without the high priest and the counsel of his senators ..." Here Josephus puts a non-biblical restraint upon the king's authority so as to force him to share it with the high priest and a senate.

Josh 2 describes the spying mission of two men into Jericho, and verse 23 states [NKJV], "So the two men returned, descended from the mountain, and crossed over; and they came to Joshua the son of Nun, and told him all that had befallen them." Comparing this to the corresponding description in Josephus, we see the following on page 9 of Josephus_5, Ant 5.15, "So having made this compact, they departed, letting themselves down the wall by a rope and, when safely restored to their friends, they recounted their adventures in the city. Joshua thereupon reported to Eleazar the high priest and to the council of elders what the spies had sworn to Rahab; and they ratified the oath." Here Josephus portrays an authoritative decision to accept the private agreement between the two spies and Rahab being officially accepted only by mutual agreement of Joshua along with the high priest and a senate. Thus Josephus shows Joshua as unable to make this authoritative decision alone.

These three examples from Josephus show a consistent bias of elevating the authority of the high priest and a senate so that Joshua and future kings are expected to share authority with them rather than act alone.

On page 290 in the concluding chapter of his second book about Josephus, McLaren writes the following.

"This study has focused on the implications of trying to make use of the gold-mine, particularly in terms of the nature of the relationship between Josephus, his narrative of events, and contemporary scholarship, in the reconstruction of first-century CE Judaea. Scholars have increasingly voiced the need to display caution in the application of Josephus's narrative in an effort to understand the dynamic of the society. In fact, reference to Josephus without some introductory words of caution is now

extremely rare. With Josephus we are dealing with a biased source. In itself, such a statement should not be a concern. Josephus has provided his own understanding of what happened and scholarship has labeled this his bias.

The gold-mine begins to take on the appearance of a minefield. The one and only substantial narrative of events pertaining to the first century CE is biased. If we are to establish a means of understanding the data it is of fundamental importance that we be able to distinguish between the bias and the narrative of actual events. Where the real problem lies is being able to stop before we become dependent on Josephus's interpretation."

Scholars have debated much about the nature of the biases of Josephus. On the whole, His account of actual events (not general statements) that involve Jewish leadership during the first century before the outbreak of the war with Rome in 66 shows that the chief priests could not be overruled by the Pharisees. Scholars have pointed out that in some ways Josephus's account of the war with Rome in his Wars of the Jews contradicted his account of this same war in his Antiquities of the Jews which he wrote later. Josephus's very general statements about Jewish authority also differ when comparing his Wars with his Antiquities. His Antiquities of the Jews was completed in 93/94 CE, more than two decades after the Temple was destroyed and the priests lost their source of wealth, their Temple with their control of it, and their legal power as recognized by the Roman authorities. Josephus's general statements about the control by the Pharisees in his Antiquities shows that the Pharisees could manipulate the priests any way they wished, but unfortunately Josephus does not state what years this situation prevailed, i.e., whether it was only after the destruction of the Temple.

On pages 198-199 of Grabbe_2000 we see the following concerning Josephus's remarks about Jewish leadership: "Those sources [in Josephus] which give the Pharisees a general dominance of a religious belief and practice are those which come later in relation to parallel sources. Thus, it is only two later passages in the Antiquities which state that public worship is carried out according to Pharisaic regulations and that the Sadducees are required to follow them even when they hold office. This is not stated in the War and is not bourne out in Josephus's other passages on the Pharisees [in the first century]."

In view of Josephus's bias and his statement that he decided to follow the way of the Pharisees in his public life, one must take his statements relating to calendrical matters as a reflection of Pharisaic positions from after the destruction of the Temple, and therefore of little value for proving Jewish practice during the early first century.

In summary, the view of the New Testament should prevail, which is that before the Temple was destroyed in 70 CE the priests (Sadducees) were dominant in matters pertaining to the Temple (which included the governance of the calendar).

[35] Luke 2, the First Month, and Philo

Luke 2:41-42, "His parents went to Jerusalem every year at the

Feast of the Passover. And when He was twelve years old they went up to Jerusalem according to the custom of the feast." This shows that Christ kept the Passover with His parents every year according to the first month as determined by the Jews at the Temple, and from II Cor 5:21; I Pet 2:22 He never sinned. This shows that the method used to determine the first month at the Temple during the early first century was correct. Another Scripture that corroborates this is I Cor 15:3 which states that "He died according to the Scriptures", and this means that He died as the passover lamb (I Cor 5:7). Thus He died according to Lev 23:5 which states, "In the first month on the 14th [day] of [the] month between the two evenings [is the] passover to YHWH". Luke 2 is the primary witness for the correctness of the applied calendar of Judaism at the Temple in the early first century. This was controlled by the priests.

There is a Jewish witness whose writings date from the early first century who discusses the meaning of Gen 1:14 and Ex 12:2. This witness is Philo of Alexandria. This witness would be of no consequence and irrelevant if the applied calendar of Judaism at the Temple in the early first century was not correct. We now discuss certain aspects of Philo's writings and thinking, and quote from him. It is necessary to establish some relationship between the calendar of Judaism at the Temple and Philo's thinking in order for Philo's comments on Gen 1:14 and Ex 12:2 to be relevant.

Philo writes on pages 139, 141 of Philo_7 (Special Laws I.67-70), "There is also the temple made by hands; for it was right that no check should be given to the forwardness of those who pay their tribute to piety and desire by means of sacrifices either to give thanks for the blessings that befall them or to ask for pardon and forgiveness for their sins. But he provided that there should not be temples built either in many places or many in the same place, for he judged that since God is one, there should be also only one temple. Further, he does not consent to those who wish to perform the rites in their houses, but bids them rise up from the ends of the earth and come to this temple. In this way he also applies the severest test to their dispositions. For one who is not going to sacrifice in a religious spirit would never bring himself to leave his country and friends and kinsfolk and sojourn in a strange land, but clearly it must be the stronger attraction of piety which leads him to endure separation from his most familiar and dearest friends who form as it were a single whole with himself. And we have the surest proof of this in what actually happens. Countless multitudes from countless cities come, some over land, others over sea, from east and west and north and south at every feast. They take the temple for their port as a general haven and safe refuge from the bustle and great turmoil of life, and there they seek to find calm weather, and, released from the cares whose yoke has been heavy upon them from their earliest years, to enjoy a brief breathing space in scenes of genial cheerfulness. Thus filled with comfortable hopes they devote to the leisure, as is their bounden duty, to holiness and the honouring of God. Friendships are formed between those who hitherto knew not each other, and the sacrifices and libations are the occasion of reciprocity of feeling and constitute the surest pledge that are all of one mind."

On page 369 of Hay we read, "Philo speaks often of the Jews as a nation ([Greek Strong's number 1484] ETHNOS) or race ([Greek Strong's number 1085] GENOS) ..." As an example of this collective sense of the Jews everywhere as one nation (ETHNOS), Philo writes on page 55 of Philo_7 (Decalogue 96), "The fourth commandment deals with the sacred seventh day, that it should be observed in a reverent and religious manner. While some states celebrate this day as a feast once a month, reckoning its commencement as shown by the moon, the Jewish nation never ceases to do so at continuous intervals with six days between each." In this quotation Philo distinguishes between a "state" as a political subdivision of the world or as a province of the Roman Empire in comparison to the "nation" of Jews which is not a political subdivision because Jews are in all subdivisions, yet collectively one nation as a religious and culturally distinct people, yet with minor differences within that "nation". Philo uses ETHNOS in the same sense as in John 18:35 (nation); Acts 10:22 (nation). Philo uses GENOS in the same sense as in II Cor 11:26 (countrymen); Gal 1:14 (nation). The Jewish nation is especially identified by the sabbath, circumcision, the clean food laws, recognition of the Scriptures as sacred, and a common mental identity. Only by a further study of an individual's views can one assess his relationship to Jews as a whole. We have already seen that Philo recognizes only the one Temple in Jerusalem as valid, and that he speaks very favorably of Jews everywhere going to the festivals at this one Temple.

On page 63 of Grabbe_1995 we see, "No better example of a Hellenistic Jew can be found than Philo of Alexandria (c. 20 BCE to 50 CE). He was a member of a long-established wealthy family which possessed Alexandrian citizenship. He shows evidence of a good Greek education and seems to have known only Greek; all the evidence available indicates that he had little or no Hebrew." Later on the same page we find, "Philo was, however, also a completely observant Jew who identified with the Jewish community and religion."

On page 4 of Sandmel we read, "The [Jewish] community [in Alexandria] appears to have been formed at the time of the founding of the city by Alexander the Great in 332 [BCE]. Some seventy-five years later that community had largely forgotten the ancestral Hebrew in which Scripture was written, and the spoken Aramaic of Judaea. Fidelity to Judaism, and some noticeable abundance of Jews, impelled a translation of the Five Books of Moses into Greek." This was the first part of the Septuagint.

On page 364 of Hay we read, "He [Philo] writes within some considerable and long-standing tradition of Hellenistic Jewish thinking in Alexandria, thinking that accepts the Septuagint as an inspired form of the Scriptures and is unembarrassed by study of Hellenistic culture, especially philosophy, finding in such studies not grounds for cognitive dissonance with Judaism but rather ideas and methods that can reveal new depths of meaning in the Mosaic texts." Philo uses some version of the Septuagint (= LXX) that we no longer possess, although printed versions of the LXX available today are probably similar to Philo's Bible.

On pages 97, 99 of Philo_8 (Special Laws 4.143) we read from Philo, "Another most striking injunction [law] is that nothing should be added or taken away, but all the laws originally ordained should be kept unaltered just as they were" (Deut 4:2; 12:32). Although he properly understands this from Scripture, he unfortunately does not use the Hebrew text, so his understanding is distorted according to the inaccuracies of the LXX. On page 441 of Amir we find, "Such examples could be multiplied ad lubitum. They show that Philo uncritically accepted the Septuagint text he had before him as identical with the Hebrew Bible. Otherwise he could not have extracted from it the deeper layers of Mosaic wisdom supposedly hidden in every fine nuance of word-choice." If Philo had known Hebrew, he would have been able to recognize that the LXX had inaccuracies whem compared with the Hebrew text.

On page 341 of Borgen we see, "Was Philo then fundamentally Greek or Jewish? His loyalty to the Jewish institutions, the laws of Moses, the role of Israel as the priesthood of the world, and his harshness against renegades (even to the point of advocating lynching) shows that he was fundamentally a Jew." On page 879 of Mondesert we read, "We have evidence that Philo did not live on the fringe of his religious community, nor of Alexandrian society; first and foremost from his work, where on every occasion both his deep attachment to the faith and traditions of his fathers and also his knowledge of the activities of the city, with its theatres, gymnasia, its stadium, its banquets and shows and its commercial and financial activity are found. It is significant that his co-religionists chose him as ambassador to Caligula in 39-40. In such circumstances only a man who was important in the city could be appointed."

Philo wrote of one journey that he made to Jerusalem, and we have no knowledge of any other visits (page 894, Mondesert). His single statement concerning his only known visit to Jerusalem is on page 501 of Philo_9 (On Providence, 2.64) where we find, "While I was there at a time when I was on my way to our ancestral temple to offer up prayers and sacrifices I observed a large number of pigeons at the cross roads and in each house, and when I asked the reason I was told that it was not lawful to catch them because they had been from old times forbidden food to the inhabitants." The scarcity of his personal visitation to Jerusalem could probably be explained by his lack of knowledge of Hebrew and Aramaic, the languages in which services were sure to have been conducted at the Temple.

How did Philo's writings survive, and did later Jews distort his writings? Pages 16-17 of Runia address this as follows, "The result of our enquiries so far is a complete vindication of the judgment of Cohn and Wendland that the survival of Philo's writings was entirely dependent on the intervention of the Christian authors. Pagans were not greatly interested in his thought; Jews either ignored him or condemned him to silence."

What does Philo think of the priesthood? On pages 145, 147 of Philo_7 (Special Laws I.79) Philo writes, "The nation has twelve tribes, but one out of these was selected on its special merits for the priestly office, a reward granted to them for their gallantry and godly zeal on an occasion when the multitude was

seen to have fallen into sin through following the ill-judged judgement of some who persuaded them to emulate the foolishness of Egypt and the vainly imagined fables current in that land, attached to irrational animals and especially to bulls." On page 189 (Special Laws I.157-158) Philo continues, "All these [Levites] have the tithes appointed as their wages, this being the portion settled on them [Levites] as temple attendants. It should be noted that the law does not allow them to avail themselves of these tithes until they have rendered other tithes from them treated as their own property as firstfruits to the priests of the superior class." Philo's statements about the Levites and the priests are always positive, and he calls the priesthood the superior class. He never hints at any corruption in the priesthood and he treats the priests with a respect that the Pharisees would never have done (see Acts 5:17; 23:6-10). Philo never mentions the term "Sadducee" or "Pharisee" and avoids discussing Jewish politics in Jerusalem. On page 36 of Sandmel we find, "Philo is quite external to the Rabbinic tradition in his basic religiosity." Since Act 2:10 mentions people from Egypt present during Pentecost, and Philo is a witness that people from his region go to the Temple during the festivals, Philo should be aware from those that make these festival journeys that there were Sadducees and Pharisees, and that there were differences in belief among them, but one would never suspect this from his writings. He writes from his own understanding and does not appear to concern himself with whether he may differ with others in Jerusalem.

When facing the questions of how accurately Philo represents the teaching of the Bible and how accurately he describes the practice of the Jews of his day, two points stand out. The first point is that since he uses the Septuagint as his Bible, we can expect him to make any errors that stem from that version which differ from the Hebrew text. For example, the LXX of Lev 23:10-16 claims that the wave sheaf is to be offered on the second day of unleavened bread; hence Philo makes this error as expected. On pages 405, 407 of Philo_7 (Special Laws II.162) Philo writes, "But within the feast [of unleavened bread] there is another feast following directly after the first day. This is called the 'Sheaf,' a name given to it from the ceremony which consists in bringing to the alter a sheaf as a first-fruit, both of the land which has been given to the nation to dwell in and of the whole earth, so that it serves that purpose both to the nation in particular and for the whole human race in general." This illustrates how Philo follows the LXX in doctrine and how he embellishes Scripture with allegorical meaning. The LXX states in Lev 23:11, using Brenton's translation, "On the morrow of the first day the priest shall lift it up."

The origin of the disagreement over when to begin the count to the Feast of Weeks may go back to 300 BCE. Philo's statement and the LXX do not imply that the priests at the Temple in Jerusalem were using this date for the wave sheaf offering; it only implies that Philo was faithful to the biblical text that he had. Jews from Alexandria who desired to go to the Temple for Pentecost would have to know to plan to get there by the date that the priests actually used for Pentecost, so that the difference between the priests (who always began the count on a Sunday) and the Pharisees (who preferred the method indicated in the LXX) had to be common

knowledge in Alexandria. Philo undoubtedly believed that the priests were biblically incorrect in this matter because his Bible made their view incorrect, but he makes no other comment despite the fact that he shows only a favorable attitude toward the priesthood. A Jewish writing known as the Megillat Taanit which was largely composed about the time of the destruction of the Temple preserves a record that the method of counting Pentecost was changed to what it eventually became. The record of an approximate time for this change is indicated in the Babylonian Talmud by associating the account in the Megillat Taanit with the victorious debator and Jewish leader after the destruction of the Temple named Yohannan bar Zakkai. This implies that the method of counting was different before his leadership, i.e., before 70. The Megillat Taanit itself is better evidence than the Talmud, but in itself it says very little. Thus the historical evidence for the time of the change in counting Pentecost is weak, but that is all there is.

For the second point that stands out in recognizing the perspective of Philo, let us now quote from him. On page 279 of Philo_6 (Life of Moses I.4) we read from Philo, "But I will disregard their malice, and tell the story of Moses as I have learned it, both from the sacred books, the wonderful monuments of his wisdom which he has left behind him, and from some of the elders of the nation; for I always interwove what I was told with what I read, and thus believed myself to have a closer knowledge than others of his [Moses'] life's history." Here we see Philo's admission that he mixed the Scripture (for him the LXX) with the tradition of his Jewish teachers in stating his views. When he engaged in allegorical interpretation, he alone bears responsibility, although he may be repeating views from his teachers. When Philo wrote "from some of the elders of the nation", this undoubtedly means his Jewish teachers in his greater environment. Such teaching would likely be a supplement or an interpretation to the Septuagint rather than a contradiction to it. If a verse in the LXX is vague, the possible interpretations are open to regional bias.

Philo avoids claims that the Jews have doctrinal unity, but he does not display a knowledge of any disunity. His writings only indicate that he visited the Temple once, so he need not be well informed about doctrinal interpretations there. We have seen that Philo recognizes the cohesion of the Jewish people everywhere in calling them a nation, and acknowledges and speaks favorably of those Jews who go to the one Temple on the festivals. He writes as one who is part of the mainstream of Judaism. As long as the Septuagint would not force a strange calendrical concept, it would hardly make sense for him to write against a calendrical concept that prevails by the priesthood in Jerusalem. Specifically, it would not make sense for him to contradict the method used at the Temple to determine the first month because doing so would make him at odds with his own encouragement for Jews to attend the festivals at the Temple. If the first month is not correct, then none of the festivals of that year would be correct.

In Gen 1:14 where the Hebrew text has the plural of MOED which is typically translated seasons or festivals, the Septuagint has the Greek word KAIROS (Strong's number 2540). The various versions of

the Jewish Aramaic paraphrased translations of the Hebrew Bible known as the Aramaic Targums all interpret MOED to include the meaning festivals. The Jewish commentaries of the middle ages also agree with this understanding of MOED. In Lev 23 the Hebrew MOED occurs six times: Lev 23:2, 2, 4, 4, 37, 44. The association of MOED with festivals is clear from its use in Lev 23 as well as in Ps 104:19 and elsewhere. In contrast to this, KAIROS occurs in Lev 23:4, but nowhere else in the Septuagint of Lev 23. KAIROS is a very general word for time in Greek, and it is not noted for being associated with the festivals or any other regular repetitive time. Thus one would not particularly expect Philo to interpret KAIROS as festivals, and indeed Philo does not interpret it that way. But he does use the word KAIROS in discussing this portion of Gen 1:14, indicating that his version of the LXX Gen 1:14 is similar to the one that is commonly available to us.

Philo discusses Gen 1:14-16 on pages 34-47 of Philo_1 (On the Creation 45-61). On pages 44-45 (paragraph 59) Philo writes, "By 'appointed times' [KAIROS] Moses understood the four seasons of the year, and surely with good reason." It is a little humorous that he puts this interpretation in Moses' mind as if to say this is what Moses knew it to mean rather than this is Philo's interpretation. Since the four seasons are bounded by the equinoxes and the solstices, he certainly believes that Gen 1:14 includes these astronomical events. On pages 46-47 (paragraph 60) Philo continues, "The heavenly bodies were created also to furnish measures of time: for it is by regular revolutions of sun, moon, and the other bodies that days, and months, and years were constituted." Since the calendar is based on these units and he declares these units to be based on measures of time of the heavenly bodies, he leaves no place for the barley to be the determining factor for the first month. The reader might be curious about why Philo wrote here "and the other bodies". While we know that the Greek astronomer Hipparchus proved that the stars drift very slowly from the equinoxes, and he discovered this about 100 years before Philo was born, this knowledge had not been popularized and accepted, so that Philo does not know this. Thus Philo implies the thought that the cycle of the appearance of stars agrees with the sun's signs of the equinoxes and solstices that make the seasons.

Philo writes on page 151 of Philo_7 (Special Laws I.90), "Who else could have shewn us nights and days and months and years and time in general except the revolutions, harmonious and grand beyond all description, of the sun and the moon and the other stars?" Again Philo leaves no place for the use of barley in calendrical determinations. If, on an annual basis, the Jews in Alexandria had to wait for a report on the state of the barley from the priests in Judaea in order to know when to leave for a journey to keep the feast of unleavened bread at the Temple, Philo would not neglect such an important annual event in its role to determine the time of the first month. In this matter the Septuagint has no distortion that would give Philo a reason to have a prejudice against the use of barley, but he surely knows nothing of the role of barley in the early first century to determine the first month.

Having examined Gen 1:14 in Philo's writings, the next step is to consider his comments on Ex 12:2. In order to properly evaluate

this, certain terminology of Philo and his age needs to be discussed first. One concern is the meaning of "the Ram" (also called Aries which is the Latin word for Ram) in the sense of the first of the twelve annual signs of the zodiac. According to pages 594-595 of HAMA (volume 1) secular writers of the first century wrote that the eighth day of the Ram is when the vernal equinox occurred. However, the elite group of Greek astronomers who employed mathematics considered the first day of the Ram as the day of the vernal equinox (page 600); it took a few centuries for Roman society to gradually accept the astronomer's definition. Philo was not studied in the area of astronomy and would have used the secular meaning. Hence Philo speaks of the vernal equinox as being in the Ram instead of occurring at the start of the Ram. Secular society also considered the autumnal equinox to occur on the eighth day of the sign of the zodiac called the Scales.

With the help of a little sloppiness in the existing translations it is easy for readers to become confused about what Philo means. To help explain one confusing part of Philo's writings I made a word for word translation from the Greek. Here is my literal translation of Philo's On the Creation, paragraph 116 (in chapter 39) on pages 92-95 of Philo_1: "The sun, too, the great lord of the day, bringing about two equinoxes each year, spring and autumn, the spring in [the] Ram and the autumn in [the] Scales, supplies very clear evidence of the sacred dignity of the seventh [number], for each of the equinoxes occurs [near a] seventh month, and during them [these seventh months] there is enjoined by the law the keeping of the greatest national festivals, since [during] both of them [these seventh months] fruits of the earth ripen, [in the] spring indeed grain produce and all else that is sown, and [in] autumn the [fruit] of the vine and most of the other fruit trees." One peculiar thing to notice here is that Philo uses the word "spring" twice as though it meant "spring equinox" and the word "autumn" twice as though it meant "autumn equinox". Elsewhere he seems to use the word "equinox" to mean the season that it begins; for example, he writes separately of the feast of trumpets at/in the autumn equinox and the feast of tabernacles at/in the autumn equinox . Philo enjoys analogies, symmetry, and approximation in his writings.

Philo discusses Ex 12:2 on pages 2-5 of Philo_QE (Exodus, Book 1.1). On page 2 he writes, "'This month (shall be) for you the beginning of months; it is the first in the months of the year.' (Scripture) thinks it proper to reckon the cycle of months from the vernal equinox. Moreover, (this month) is said to be the 'first' and the 'beginning' by synonymy, since these (terms) are explained by each other, for it is said to be the first in order and in power; similarly that time which proceeds from the vernal equinox also appears (as) the beginning both in order and in power, in the same way as the head (is the beginning) of a living creature. And thus those who are learned in astronomy have given this name to the before-mentioned time. For they call the Ram the head of the zodiac since in it the sun appears to produce the vernal equinox." Then on page 3 he writes, "And that (Scripture) presupposes the vernal equinox to be the beginning of the cycle of months is clear from the notions of time held in the ordinances and traditions of various nations." As a commentary to this last sentence, page 391 of Samuel states, "In the areas of Syria and

the East controlled by the Seleucid kings, the Macedonian calendar was adjusted to make its months coincide with the months of the Babylonian calendar, which was in turn regulated locally by a nineteen-year cycle. The system was in general use in the East, and persisted in an adjusted form in cities all over the eastern regions well into the period of Roman domination." The first day of Nisan in the Babylonian calendar since 499 BCE fell on or after the vernal equinox in every year except that in 465 BCE it fell one day before the vernal equinox. When Philo speaks of the "traditions of various nations", from Samuel's statement he is referring to the continuation of the Babylonian calendar whose first month did not precede the vernal equinox. This is the only place where Philo makes a statement about the first month that is capable of some explicit comparison with the vernal equinox.

In none of this is there any use of barley to determine the first month, and the Septuagint does not force Philo to take his position. There is never a hint that the Jews in Alexandria waited with anticipation to hear the news of barley reports so they could begin their plans for the passover.

[36] Issues Against the Position that ABIB Determines the First Month

(1) Ex 9:31-32 in its context shows that ABIB includes a multitude of stages of the growth of the ear of barley. One text in the Dead Sea Scrolls shows it to mean fully ripe ears. With such a variance in the inclusive meaning of ABIB, how can it be used to determine the first month?
(2) The presence of ABIB in Israel applies to several months from the meaning of ABIB, so that its name does not uniquely determine a month.
(3) Since Moses never went into Israel and did not know when barley grew through its various stages there, and since the stages of barley growth in Egypt are different from the stages of barley growth in Israel, how would he know to think about barley growth in Israel in relation to the first month at the time that Ex 12:2 was told to him given that there is no mention of barley or ABIB in the immediate context of Ex 12:2?
(4) Although there is evidence that the wave sheaf offering should be performed with domesticated barley rather than wild barley, there is no evidence that the general meaning of ABIB must be restricted to domesticated barley. The word ABIB does not occur in contexts of the wave sheaf offering. How does one use the Bible to decide whether to use wild or domesticated barley in any proposed definition to use ABIB to define the first month?
(5) If a proposed defintion of barley is used to determine the first month, what would prevent a year from having eleven months, and how should this be accepted in light of Est 9:19-23?
(6) The second biblical month is called the month of "brightness of flowers" (Hebrew word ZIF in I Ki 6:1, 37) which prevents the phrase "month of Abib" from meaning "month of first Abib" because the first ABIB occurs too early for the second month to be the month of brightness of flowers. Since month of Abib does not mean the month of first ABIB and several months show ABIB, how does one decide the month of Abib from the word ABIB?
(7) Num 9, especially verse 22, shows that Israel did not search for ABIB in Israel to determine the first month during the 40

years of wandering in the wilderness. This is a type of how people all through history from that time onward who wanted to keep the festivals were expected to use a different method than searching for ABIB to determine the first month, especially in view of Deut 30:11-14. Similarly, Karaites in Babylonia about 1000 CE used the vernal equinox and ignored the barley; they were too far away from Israel to use barley, and it is not known that they would have used barley if they could have known its status.
(8) In the first century it would have been a significant problem for news about barley just prior to the first month to reach Jews about 1500 miles away in Rome in time for the days of unleavened bread for local observance in Rome. This problem is far worse for a person who wishes to travel from Rome to Jerusalem to keep the feast there after hearing the news about the barley in Rome. While hypothetical high speed runners and fire signals might be employed in getting news to Rome in time, this does not help people who want to travel from Rome to Jerusalem to keep the feast after finding out that the month which recently began is the first month. If using barley is the proper method, what advice does one give to the Jew in Rome who wants to go to Jerusalem for passover?
(9) What Scripture is strong enough to overturn the direct cause and effect statement in Gen 1:14 that the lights in the heavens are for festivals and years? Neither Lev 23:10 nor Deut 16:9 provides a direct statement that the wave sheaf offering determines the first month.
(10) Ezra 6:15 and Neh 6:15 tie in with Gen 1:14 to give the biblical and archaeological evidence that together show explicit evidence that Gen 1:14 involves the vernal equinox so that the first month begins on or after the vernal equinox. The Hebrew word TKUFAH can mean equinox or solstice.
(11) Philo of Alexandria explains Gen 1:14 and Ex 12:2 without the use of barley, and with the use of the vernal equinox. He makes a reference to the vernal equinox as used by other nations which would necessarily be the continuation of the Babylonian calendar which did not allow the first month to precede the vernal equinox.

[37] Appendix A: Smith's Paper

Complete W. Robertson Smith reference except for a section written in Arabic for which Smith includes a translation which he puts in quotation marks shown in the published paper and which is copied below.

NOTE ON EXODUS IX. 31, 32

1. All over Egypt it is common to raise at least two crops of barley - shitawi and seifi. See Lane, Modern Egyptians, ch. xiv., from which it will be seen that the seifi or summer crop is sown about the vernal equinox or later, and so has no bearing on the text before us. Dr Grant-Bey of Cairo, who has kindly made a series of enquiries for me among natives and Europeans who know the country parts of Egypt, says however that in the Sharkiya district there are sometimes three crops of barley, and about Mansura and in the Gharbiya even four. What follows refers to the winter crop (shitawi).

2. The data of the harvest varies greatly in different parts of Egypt. From the Rev. Mr Harvey of the American mission Dr Grant

got the following dates, applicable to the country south of Cairo:
(a) The barley is in ear from the latter part of February to 15th March.
(b) The flax is in flower from January 10th and in seed from February 15th.
(c) When the barley is in ear the ears of wheat begin to form, but the grains are in a milky state.

The difference between upper and lower Egypt is about 35 days.

3. Rev. Dr Lansing of Cairo visited the region of Zoan in the first part of May,1880, and found the farmers reaping barley while the wheat was nearly ripe. But he was told that the crops were at least a fortnight later than usual.
4. I have before me an Arabic letter to Dr Grant-Bey from a farmer in the district of Kalyub, a little north of Cairo. The following is a transcript of part of it.

[Arabic text appears here]

"The barley is in ear in the beginning of January, and the flax blooms in the middle of January, and the seed is found in it in the beginning of April. When the barley is in ear the wheat is green herbage; but the seasons vary as I told you."
As the date when the flax blooms is almost the same in this statement as in Mr Harvey's it is plain that Mr Harvey is thinking of an earlier stage of the seed capsule, when he speaks of February 15th, than the native writer has in view when he says that the bizr or seed-grains are found in the beginning of April. On the other hand it is pretty plain that Mr Harvey's statement about the barley refers to the full ear, when harvest is about to begin. The letter of the native farmer gives what we want, for he speaks of the state of the barley when its ear is formed, but not that of the wheat. And at that time the flax is in flower, which appears to determine the sense of gevol.

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