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[1] General Introduction

This study is a selective extract from *Treatise on the Biblical Calendar*. It also expands on some areas where the second edition of the latter has not yet been revised. The Masoretic Text of the Scriptures (this is written in Hebrew with a very tiny portion in Aramaic) is called the Tanak.

When I began to collect information on the biblical calendar and its history in 1967, I already knew from my youth in Hebrew school that the matter was controversial among Jewish scholars, and I wondered at that time whether I would ever reach any conclusion concerning the original method of the biblical calendar. My initial goal was to collect information from a wide variety of sources in order to discover the nature of the different viewpoints on the calendar, and then to learn the strengths and weaknesses of each viewpoint. I made an effort to avoid coming to any conclusion early because I knew that once I would strongly favor one view, it would take much effort to avoid becoming biased and I might find it difficult to change if evidence began to mount in a different direction. Even today I try to maintain an openness to additional thinking on the calendar. It was not until the summer of 1981 that I did reach a conclusion on the original method of the calendar, and I did previously obtain information from various sources that favored other viewpoints. I have never stopped collecting relevant data.

It is the purpose of this general introduction to give an overview of the rest of this document without the evidence to come later. The basic outline of the biblical calendar is in Gen 1:14-18, where the lights in the heavens determine the appointed-times (festivals and the Sabbath, including the Day of Atonements).

There are six places in the Tanak where the expression *chodesh ha aviv* is used for the first month. This expression literally and fully means “month of the *aviv*”, but that leaves the key word untranslated. In this expression the word *aviv* will be shown to mean “ears [of barley]”, and several stages of the development of barley are included in the biblical use of this word.

In Ex 9:31 the word *aviv* refers to barley in a spread of five weeks of unripe stages during the hail plague throughout the north-south distance of Egypt near the Nile River. If it was ripe it would have already been harvested, especially in the far south, and hence it would not have been ruined, contrary to Ex 9:31-32. This is a 500-mile straight stretch, but longer if the Nile River's twists are considered. This gives a wide meaning to *aviv* as an ear of barley, and it cannot be narrowed down to one stage of growth that can be judged by some carefully worded description.

In Lev 2:14 the word *aviv* refers to any grain, not necessarily barley. Because this is in a context of offering firstfruits, here *aviv* is certainly restricted to a time in its growth when it is **edible**. In Lev 2:14 the word *aviv* is used in a context to restrict it

down to the meaning of the Hebrew word *karmel*, which means “fresh grain [that is edible]”, and this includes both unripe grain and ripe grain. In this verse there is a description of making a kind of porridge from the *karmel*.

One viewpoint is to claim that *aviv* is a characteristic of the first month, but not so narrowly defined so as to pinpoint only one month by its meaning. Another viewpoint is to claim that *aviv* uniquely defines which month is the first month. The latter view takes an indirect view of Gen 1:14, in the sense that light from the sun indirectly causes the ears of barley to gradually mature. Chapter [13] discusses some problems with this viewpoint. One problem with the view that *aviv* uniquely determines the first month is that *aviv* covers a spread of several stages in the development of an ear of barley, so that it cannot be carefully defined in order to uniquely identify only one month. If different people examine ears of barley, it is reasonable to think that they will not agree on what criteria to use as the basis to determine the first month, if they believe that such a method should be used. In any single field of barley the individual stalks are generally not in the same stage of growth at the same time, and this further makes the determination of judging the barley difficult to determine. It has been suggested by some that a random sample of stalks should be taken, and then a certain percentage in the same stage should be accepted as the state of the whole field. This illustrates the arbitrariness of subjective rules for the judgment of the barley. Another problem is that excavations in Israel show that there were different varieties of cultivated barley in ancient Israel. Modern studies in genetics show that different varieties of barley ripen at different times, so that within ancient Israel the time of ripening depends on the variety of barley that was planted. Different varieties were planted in different places.

The word *aviv* is not used in the contexts of the wave sheaf offering (Lev 23:9-15; Deut 16:9). Some people claim that the wave sheaf offering defines the first month due to their claim that the wave sheaf must attain some narrow stage in the development of an ear of barley. There are two problems with this view. The first problem is that the Tanak does not say that after the wave sheaf offering is completed, the ears in the sheaf will be eaten, nor does it refer to the wave sheaf offering as *bikurim* (= firstfruits). Firstfruits does not have to refer to a specific stage of growth, but it must be useful. Firstfruits is the first of the crop that the farmer desires to offer to the priesthood. The second problem is that the expression relating to the first month is *chodesh ha aviv* instead of *chodesh ha omer*, where *omer* is the Hebrew word for “sheaf”. Clear evidence is presented below to show that the *omer* is a “bundle of stalks [that may be held up]”. The implication is that the stalks are of barley because barley ripens before other grains. If a narrowly defined description of the *omer* was intended to uniquely define the first month,

then the first month would be described in this manner (*chodesh ha omer*) and hopefully more would have been said about this rather than putting the full burden on such a vague hint. Nothing in Scripture requires that the *omer* be in some specific stage of growth in order to be valid for the wave sheaf offering because the wave sheaf offering is not stated to be a firstfruits offering.

Chapter [8] discusses a biblical principle from Deut 30 that implies that barley in Israel should not determine the first month. Deut 16:1 is discussed to show that it is not a command to go out looking for *aviv*. Deut 16:9 is discussed to show that it does not prevent harvesting the new crop before the wave sheaf offering.

[2] Introduction to the Meaning of *aviv*

In order to discuss any subject, it is important to put a priority on the definition of key words. In this context an important key word is *aviv*, and this introductory chapter cannot neglect this matter. Most readers will want to grasp the essence of the matter without spending a great deal of time searching for it. For this reason the introduction will summarize and peek ahead into the most important area of this document.

The first biblical month must be determined by some event (or combination of events) that can be decided without ambiguity, so that people may know which month is the first. Such an event (or combination of events) will be called **the trigger** for the first month. The nature of the trigger must be motivated by specific Scriptures if it is to be convincing.

Gen 1:14-18 leads to the suggestion that at least one light in the sky along with an event associated with that light constitutes **the trigger** because verse 14 contains the word for *appointed-times* (this includes the festivals, and they require a calendar), and verse 14 contains the word *years*. The Hebrew word that is used six times in the Pentateuch in association with the first month is *aviv*, and some people have proposed that *aviv* is **the trigger**. The expression “month of *aviv*” is used six times as a reference to the first month. That expression does not explain itself, nor does it explain the meaning of *aviv*. There are only two other places where *aviv* is used in Scripture: Ex 9:31 and Lev 2:14.

W. Robertson Smith wrote a paper that was published in 1883, and this paper went to the heart of the meaning of *aviv*. Smith wanted to discover when in the year the hail plague occurred, which is the greater context of Ex 9:31. Smith wrote to several agriculturalists in Egypt, and he asked when the barley came to a head (= formed ears) because Ex 9:31 says that the “barley [was in] *aviv*”. The bulk of his paper was explaining the response that he received from different parts of Egypt. As one moves south in Egypt (closer to the equator), the temperature gets warmer, so that it is a good guess that the barley ripens sooner and also comes to a head

sooner in the south. The basic result that Smith received is that in the most northern part of Egypt the barley came to a head and ripened five weeks later than in the most southern part of Egypt. From north to south, the ripening variation of five weeks spreads gradually. Thus Ex 9:31 and its context makes it clear that throughout all parts of Egypt where barley was grown, almost all the barley was destroyed because “the barley [was in] *aviv*”. Hence the meaning of *aviv*, when applied to the condition of barley, must include the whole variation of five weeks in the growth, and this time spread includes multiple stages in the ripening of barley. A full discussion of Smith’s paper below will also show that *aviv* must include growth of the barley well before it gets ripe. Hence the meaning of *aviv* is not narrowed to only one stage in the ripening of barley. Archaeology along with Scripture does show the full extent of ancient Egypt in the southern direction. At the time of the hail plague, in far southern Egypt the barley was nearly ready to be harvested, but in northern Egypt the barley was more than five weeks prior to the normal harvest. Using reasonable evidence from Pliny the Elder and others, the most that can be said with confidence is that the hail plague occurred between January 15 and February 15 (Gregorian calendar), more likely toward the end of that time. Smith's paper is reproduced in Appendix B of this document and is discussed in detail later in this document.

This five weeks is a very very broad interval of time for *aviv* to uniquely constitute **the trigger** for the first month! When a new month is about to begin, since *aviv* is broad enough to include several stages in the development of barley, how would **the trigger** be defined? **Based on the hail plague, the trigger cannot be when ears of barley are ripe or nearly ripe, because it was at least five weeks before such ripening in northern Egypt at the time of the hail plague when the barley there was *aviv*.** The condition of the barley five weeks before the heads ripen is not always the same because the weather during those five weeks affects how soon the heads ripen. There is a greater variation of temperature extremes in Israel, leading to a seven week variation in the ripening time of barley in Israel. Where in Israel would a person look for *aviv*? When the Israelites crossed the Jordan River and first entered the Promised Land under the leadership of Joshua, the first month had just begun and the only place they knew in that land was the area at Gilgal. Five weeks must include multiple stages in the development of an ear of barley. This proves that *aviv* is not suitable to be **the trigger** that provides a clear yes or no answer to whether the month that is about to begin is the thirteenth month or the first month. The context of the hail plague shows that *aviv* refers to the ears of barley that include at least five weeks of stages of the development of these ears under conditions in Egypt. Briefly, *aviv* means ears, but without specifying a botanically precise time in their development. Once the ear is destroyed, it will not

grow back.

Ex 9:31 has the word *aviv* and the context defeats the use of *aviv* as being a suitable trigger to provide a clear yes or no answer concerning when the first month begins.

The only other candidate Scripture that remains to be discussed with the word *aviv* is Lev 2:14. This verse contains a few Hebrew words that require discussion for a proper understanding. Then the wave sheaf offering remains to be discussed.

[3] Psalm 133 shows Calendrical Unity via the Authority of the Aaronic Priesthood

Ps 133:1, “A song of the upward-steps, by David, Behold how good and how pleasant [is the] dwelling of brothers, yes-indeed in-unity.”

Ps 133:2, “[It is] like the good oil upon the head, descending upon the beard, Aaron's beard, descending upon the edge of his garments.”

Ps 133:3, “Like the dew of Hermon descending upon the mountains of Zion, because there YHWH commanded the blessing of life forever.”

Preliminary to discussing verse 2, some mention of the high priest is relevant.

Lev 21:10 begins with the Hebrew *v-ha-cohan ha-gadol*, which literally means “and the priest the great”, which is commonly translated “the high priest”. The Hebrew word *gadol* means “great” and it shows greatness in authority. The authority of the high priest is seen in Lev 21:10, “And the high priest among his brothers on whose head the anointing oil was poured, and [hence] whose hand [= symbol of authority] was filled to put on the garments, shall not uncover his head nor tear his garments”.

Verse 2 mentions Aaron, the first high priest, who thus represents the Aaronic priesthood (Levitical priesthood). Anointing with oil upon the head bestows authority on the priest (Ex 28:41; 29:7-9; 30:30; 40:13-15). This is saying that dwelling in unity is like the oil of authority upon the Aaronic priesthood, because unity can only come about if the priesthood properly teaches the law (Lev 10:8, 11; Mal 2:7) and signals the beginning of each month through their blowing of the two silver trumpets (Num 10:1-2, 8-10). Only then can there be spiritual unity, and with individual spiritual growth, the ideal outcome of this will be the blessing of eternal life (note Ps 133:3). The appointed-times, the days of holy convocation, were indirectly announced by this priesthood at the beginning of the first and seventh months. This was a means of promoting unity in collective worship and unity of the days of holy convocation. There could be no opposing opinions and disunity concerning the day of the beginning of a month because of the authority of the high priest to achieve unity. This priesthood that was used to achieve unity was only given residence within Israel (Num 35:2-8).

To speak of pleasantness in unity, as seen in verse 1, implies a mental peace that can only come by willing agreement with the decision of the priesthood (Ps 133:1-2). If knowledge to achieve spiritual unity is attained, it should produce uniformity in recognizing the days of holy convocation, the appointed-times.

Through the symbol of oil, Psalm 133 shows calendrical unity through the authority of the Aaronic Priesthood. Verse 1 shows that this unity is good and pleasant.

Positive evidence that calendrical unity was only to be achieved through the authority of the Aaronic priesthood does exist in Ps 133. In that psalm the unity of the brethren was to be achieved through the anointing oil upon Aaron's beard, which symbolizes the bestowing of authority upon that priesthood to bring about unity. This authority would be contradicted by some body of non-priests who would attempt to direct priests concerning the appropriate time to blow the two silver trumpets and declare which month is the first.

[4] Biographical Sketch of Josephus and General Evaluation of his Writings

Josephus was a Levitical priest who lived in Jerusalem and whose life spans 37 to c. 100. He is a witness for what happened in Jerusalem in the decades before the Temple was destroyed in 70. When the war between the Jews and the Romans broke out in 66, he became the leading Jewish general outside the city of Jerusalem. Within a year he was taken captive by the Romans, and then, from the walls that surrounded Jerusalem, he delivered speeches to the Jews urging them to surrender. Thus he was considered a traitor by the Jews, and he avoided subsequent contact with Jews to avoid being assassinated.

Having studied much of what Josephus wrote and having read widely on how scholars perceive his reliability and his writings, I will now summarize some of my thoughts on Josephus. The following emphasizes where he is biased in his writings.

(1) Josephus goes out of his way to exaggerate and boast about his own abilities in intelligence and knowledge of Jewish and biblical matters. He never claims to have any particular knowledge of mathematics or astronomy.

(2) Josephus goes out of his way to exaggerate and boast about the accomplishments of the Jewish people through history.

(3) Josephus portrays the actions of the Roman generals Vespasian and his son Titus in a manner that makes them appear more virtuous than reality. These men provided for the needs of Josephus at the expense of the Roman taxpayers. He returns their favor by modifying history in their favor. Both of them became

emperors.

(4) The primary audience for the writings of Josephus is the nobility in Rome whose culture included the Greek language and famous Greek writers and themes. He is writing to them and with their definitions of terms in his mind. Josephus is biased toward the thought process and appeal of this audience. To common people in the capital city of Rome, the primary language was Latin. Some people besides the well educated minority in Rome also understood Greek.

(5) On page 445 of Deines, he gives the following careful translation of Josephus's Life 12, "In the nineteenth year of my life I began to lead a public/political life, whereby I joined with the program of the Pharisees, which is comparable to that which the Greeks call stoicism." The sweep of the life of Josephus shows that he was a political opportunist, and in Life 12 he wrote that at the age of 19 he decided to follow the program of the Pharisees. It is reasonable to conjecture that he was not a fully recognized Pharisee because he did not personally comply with all the requirements necessary for that. Thus his wording is merely that he decided to promote its principles. In Jewish doctrinal matters, we should expect Josephus to be biased toward the views of the Pharisees.

(6) At the end of Varneda 1986 there is a list of about 100 Scripture references along with corresponding locations in the works of Josephus where he distorts the biblical account. Louis H. Feldman has written extensively about many of these distortions in a variety of publications, and he attempts to explain them with the excuse that Josephus is trying to make the biblical heroes appear as ideal Greek heroes. Josephus is less concerned about biblical accuracy than he is with making Jewish history appealing to the Roman nobles who favor Hellenistic norms.

(7) For matters that pertain to things that happened before the birth of Josephus, there were many writings that claimed to be historical in nature, concerning the Jews. Josephus picked whatever he wanted from these writings and used them for his purposes. Whenever there seems to be a desire to quote Josephus for some purpose, it is necessary to review the above list of biases in order to help to understand any possible way in which Josephus might be less than reliable.

(8) Scholars see no need to reject all of the writings of Josephus merely because there are biases in his writings. They seek to understand his biases so that they may evaluate where to accept and where to reject what he wrote. He is a mixed bag and must be read with caution and evaluation. There is no need to completely avoid him merely because some of what he wrote is not trustworthy.

(9) There is nothing in his writings to suggest that he ever visited Judea after he arrived in Rome upon the defeat of the Jews in 70. Hence his news about Jewish leaders and Jewish politics in Judea and Galilee after the Temple was destroyed

was meager and late. He published his Antiquities in 93/94, which is 23 years after the Temple was destroyed. The power struggle between the Pharisees and the Sadducees would have been completed by that time, and Josephus would have had some sketch of the result.

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

When studying the history of the calendar whose roots are embedded in the Tanak, and then continuing onward into history, one encounters writings from the New Testament, from Philo of Alexandria, from Josephus, and from rabbinic literature. Then the reader is faced with the problem of determining whether all the statements one finds in these sources are historically true. There is a huge time gap from the fifth century BCE when Ezra and Nehemiah lived to the first century environment of the New Testament. Josephus was born in 37 CE, and while he wrote about events in prior centuries, his sources from that time are not subject to independent checks for accuracy. Undoubtedly there were elderly folk who could give him personal recollections from the decades prior to his birth. Due to the difficulty in verifying information in Josephus from before the first century, our attention from his writings will be confined to the first century.

(A) Primary Sources of History in the early First Century

In analyzing who controlled the Temple before the war between the Romans and the Jews broke out in 66, the major primary sources are the New Testament and Josephus, and the question of whether the rabbinic texts that begin with the Mishnah (c. 200 CE) are to be properly accepted as primary sources deserves some initial brief comment. From the destruction of the Temple in Jerusalem in 70 CE to the publication of the Mishnah c. 200 CE is 130 years. While the authors of the New Testament were personal witnesses of what they wrote (though Mark and Luke received their information from others who were personal witnesses) and Josephus was a personal witness beginning about the middle of the first century, the Mishnah was not set into its written form by anyone who was a personal witness of events before 70 or who personally knew anyone who was such a personal witness. Except for some relatively few apparent borrowings from the Megillat Taanit (published c. 120 though much of it came from earlier times), it is not known how the infrequent historical statements, dating from before the destruction of the Second Temple, that are found in the Mishnah and later rabbinic texts, found their way into those texts. Did they come from written sources, from vague legends, or from the imagination of the authors? Priests had no need to write the details about what they did because it was a continuum of learning firsthand from generation to generation. Josephus wrote about the fire in the Temple as it was destroyed, and only a few written items survived the fire.

By comparing certain statements in the New Testament, Josephus, and the rabbinic texts with one another that relate to authority in Judea during the first century before 70, and by supplementing this with a few remarks from the Roman historians Tacitus and Trogus, we can make a reasoned evaluation on whether the use of the Mishnah and later rabbinic texts are reliable as a historical source of events from before 70. In any case, the Mishnah falls short of being a primary source because it was not put into published form close to the time of the events we seek (before 70 CE), and we have no record of any primary sources that it utilizes except for the Megillat Taanit, which is only a very condensed skeleton of some events, and which was completed c. 120.

In the present discussion our interest lies in which Jews controlled the Temple services, especially during the first century before the war began in 66. The New Testament mentions the high priest, chief priests, Sadducees, Pharisees, and scribes. Josephus mentions these groups also, but adds the Essenes and the zealots. Since the latter two groups are never mentioned in the New Testament, they should be dismissed as candidates for having control of the Temple in the 70 years before its destruction.

(B) Branches of Modern Judaism relate to evidence on this Issue

Jewish scholars are biased in their writings and opinions, and it is important to address this in order to warn the reader concerning the literature on this subject. Scholars may be grouped based on their personal religious affinity, and this is sometimes reflected in their writing even though they may carefully avoid telling the audience their religious outlook.

Modern Judaism is divided into many groups, but these may be roughly categorized into four divisions based upon their attitude toward the Pentateuch and the Talmud. My summary is somewhat oversimplified and it pertains to the culture within the United States rather than modern Israel, but growing up as a Conservative Jew in New York City and having a grass-roots feel from personal contacts, in my opinion it is not very far off base. Certainly not all individuals within these groups conform to the characteristics to be described next, but these characterizations do approximately reflect the historical development of these divisions and the views of some major scholars from these groups. Jewish laymen sometimes tend to be more idealistic and less studied in the details of their religion, so that many of them are less likely to fit the broad description than the knowledgeable students and scholarly representatives. In discussing these divisions, the major emphasis will be on their attitude toward the law of Moses, and that is the reason for limiting the discussion to the Pentateuch within the Tanak. All of the divisions of Judaism consider the entire Tanak to be a sacred

document of their religion.

The first division is Orthodox Judaism, which treats both the Pentateuch and the Talmud as inspired, and accepts the laws of the Pentateuch as they are interpreted in the Talmud. The second division, Conservative Judaism, treats both the Pentateuch and the Talmud as sacred documents of their faith, but regards common views of archaeological interpretation as well as secular history and biblical textual criticism as valid sources for occasionally modifying their reliance on the Pentateuch and the Talmud as representing correct history. Adherents of Conservative Judaism tend to be less strict in their observance of the laws than Orthodox Jews, and their knowledge of the Talmud (excluding Conservative scholars) is typically significantly less than that of Orthodox Jews. Adherents of Conservative Judaism generally do not accept the legal interpretations of the Talmud to be authoritative in theory or in practice in their lives. The third division, Reformed Judaism, treats the Pentateuch as a sacred document, but not the Talmud. Reformed Jews regard the laws of the Pentateuch to be interpreted figuratively or allegorically, and to be applied in a changeable way according to the times. From a literal standpoint Reformed Jews are the least observant of the laws of the Pentateuch. Reformed Jews do not regard the Pentateuch as depicting correct history. The fourth division, Karaite Judaism, treats the Pentateuch as inspired, but the Talmud is not considered to be a sacred document. Karaites interpret the laws of the Pentateuch in a literal way, and they are strict in observing them. Karaism is the smallest of the four divisions in numbers of adherents, and their interpretation of the laws is not uniform amongst themselves. Orthodox Judaism and Karaite Judaism both represent Jewish fundamentalism, but the latter discard Talmudic interpretation.

It is to be expected that a scholar who was reared in Judaism will be biased toward the Talmud according to that rearing. Only Orthodox scholars will be heavily motivated to treat the Talmud as representing true history, although a minority of Conservative scholars will write in such a fashion that they will often appear to masquerade as Orthodox Jews. If one examines a book, a paper, or an article in an encyclopedia that was written by an Orthodox Jew, one can expect that author to use the Talmud heavily as accurate history. All Jewish scholars will downplay the New Testament. Within their writings, Jewish scholars very rarely label themselves according to their specific Jewish upbringing, but the reader who examines their works can usually decide whether or not each one appears to favor the Orthodox position. It is important to make some judgment about an author's position because bias plays a role when the reader is trying to determine which position represents correct history. It is possible to use certain criteria in order to judge whether it makes sense to treat the Talmud as inspired, which is the accepted

position of Orthodox Jews.

If two laymen are debating an issue and one of them uses an opinion by an implicit Orthodox Jewish scholar while the other uses a differing opinion by a Conservative Jewish scholar, the two laymen will not be able to agree because the sources that they each favor are in disagreement. That is the reason why it is so important to go back to the primary sources and discuss the place of the Talmud for historical purposes before the Temple was destroyed. After this is done and after the bias of a scholar is identified, one will know how to weigh that author's writings.

(C) The New Testament as a Primary Source

The writers of the New Testament were convicted to motivate its readers to seek eternal life according to the faith they had come to accept, but except for Paul who declared himself to be a Pharisee (Acts 23:6; 26:5; Phil 3:5), there is no clear evidence that they were personally biased for or against the Pharisees compared to the Sadducees in the subject of who controlled the Temple. Josephus devoted more personal attention to the politics of the groups and was involved in politics, so he should be expected to be far more biased than the writers of the New Testament. The rabbinic texts are not primary sources for events from the first century and earlier. From these considerations it should be clear that the most important primary source of historical information from before the Temple was destroyed in 70 CE is the New Testament, so this will be discussed first.

Obviously, favoring one primary source will produce conclusions that are biased toward that source. Any author who arrives at conclusions has no choice but to favor some source after giving reasons. Both Sadducees and Pharisees are condemned in the New Testament in the sense of having incorrect teachings (Mat 16:6, 11-12). Thus, according to the writers of the New Testament, one cannot look to either of these groups as having the original biblically correct understanding of some particular teaching of the Tanak merely because of the label *Sadducee* or *Pharisee* attached to the doctrinal opinion.

(D) Many of the Scribes were Sadducees. Mat 23:2 and Moses' Seat

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.

Acts 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.

Acts 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 included within the Sadducees at that time, although it is unclear how many Sadducees might be from outside the priesthood, if any. Although this statement is neither comprehensive nor precise concerning the makeup of the Sadducees, it roughly approximates the Sadducees with priests, especially chief priests.

There is one other means of corroborating this understanding of the Sadducees. That is, there are a number of examples in the rabbinic texts where the context explicitly mentions the word *Sadducee* or *Boethusian*, and the nature of what this person does clearly indicates that the person is a priest or a high priest. It appears that the rabbinic literature expects the reader to associate the words *Sadducee* or *Boethusian* with a priest without making such a general statement. On page 210 of Rivkin 1969, he wrote, “However, the Tosefta employs this formula [language of a controversy between Sadducees and Pharisees], but substitutes the Boethusians for

the Sadducees. The terms may nonetheless be considered synonymous, for the identical position taken by the Boethusians in the Tosefta texts is that attributed elsewhere in the tannaitic literature [= rabbinic literature by the Tannaim, i. e., before c. 250] to the Sadducees.” On pages 212, 213, and 227 Rivkin gives examples where a Sadducee or a Boethusian is mentioned, and the person's activity makes it obvious that this is a priest. Josephus mentions several men of the lineage of Boethus who became high priests, so that when the term Boethusians was originally used, it referred to a subgroup of the priests.

Thus, when we see Mat 23:2 [NASB], “The scribes and the Pharisees have seated themselves in the chair of Moses”, the scribes are mentioned first, and they have a major representation from among priests, which were seen to be closely equated with or within the Sadducees. Hence Matthew is not excluding the Sadducees from Moses’ seat, and the mention of Scribes (which includes Sadducees) comes first. There are three primary biblical functions of the Levitical priesthood. The first concerns the performance of the sacrificial system including personal counseling with those who bring sacrifices for personal reasons (such as to atone for their sins) and rituals at the sacred altar for the holy days, the Sabbaths, the new moons, and the daily sacrifices. The second concerns teaching the law to the people, which is shown in Mal 2:7 and Heb 7:11. The third concerns the prominent role of the priests and Levites throughout the court system of Israel according to the law of Moses (Deut 17:9; 19:17; 21:5). Thus the priests were to officiate at the holy altar, teach the people, and judge legal cases.

Let us consider the meaning of “Moses' chair or seat” from Mat 23:2. Moses did have the supreme role in the first primitive court of one judge in Israel. In Ex 18:13-26 we see the role of Moses as the civil judge rather than in the role of communicating the law to the people. Ex 18:13 has the expression “Moses sat to judge the people”. This sitting implies a chair or seat of office for judging. The Hebrew word *shaar*, Strong's number 8179, is normally translated gate, but it sometimes means “court”. Deut 16:18 [NKJV], “You shall appoint judges and officers in all your gates [courts]...” Amos 5:15 [NKJV], “Hate evil, love good; establish justice in the gate [court]”. On page 1045 of BDB the second meaning of this word is “space inside gate, as public meeting-place, market”, and within this category, BDB later adds “where elders, judges, king, sat officially”. Examples of sitting in the gate (meaning court) include Gen 19:1; Ruth 4:1-2; II Sam 19:8; I Ki 22:10; II Chr 18:9; Est 2:19, 21; Job 29:7; Prov 31:23; Jer 38:7. The advice of Moses' father-in-law in Ex 18:13-26 was a pyramid structure of judges, but in Num 11:16-17, 24-25 this pyramid structure was replaced by a flat structure (equal authority) of 70 men from among the elders of the people.

At the end of the 40 years in the wilderness, more details about the future court

system were revealed in Deuteronomy, where Deut 17:9; 19:17; 21:5 show the prominent role of the priests and Levites throughout the court system of Israel according to the law of Moses.

From biblical examples, Moses' chair or seat sensibly means the official seat from which civil case judgment comes, a judicial function, not a legislative function. This is neither the changing of existing laws, nor the legislation of new laws, but the application of existing laws to specific cases in dispute between relevant parties who seek to bring their case to a civil court. Priests would not consider their procedures to be under the jurisdiction of a civil court. Civil justice of disputes does not include the methods and rules whereby the priests carried out their functions, which were not civil disputes in nature. This reasoning only considers the context of the Tanak applied to Mat 23:2, so the question remains as to whether, in the first century, an expanded jurisdiction existed for the main Sanhedrin in Jerusalem, in which it is assumed that Moses' seat was exercised. In a religious society certain aspects of civil laws must be derived from the law of Moses as it was understood in their day, but the question remains concerning whether the central Sanhedrin had a legislative function at all. The Sanhedrin will have to be discussed in more detail.

(E) Sanhedrin in the New Testament

The Greek word *sunedrion* for sanhedrin, Strong's number 4892, occurs 22 times in the New Testament. These are Mat 5:22; 10:17; 26:59; Mark 13:9; 14:55; 15:1; Lk 22:66; John 11:47; Acts 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 Sanhedrin associated with the Temple. The two exceptions without the definite article are Mark 15:1 and John 11:47. The context of all 22 places is consistent in showing a civil court where accusation against a party is made, witnesses for or against that party are questioned, the accused party is questioned, and a judgment for or against that party is rendered. Except for Acts 23 where the outsider Paul introduced the doctrinal issue of the resurrection from the dead in order to cause strife and detract attention from his own case, in none of the meetings of the Sanhedrin associated with the Temple do we encounter a debate over the application of the law of Moses or the meaning of the Scripture. In the only examples available, the Sanhedrin appears to be a civil court in which civil cases are relevant, not an environment for the debate over biblical doctrine. The Sadducees and Pharisees appear to try to get along with one another peaceably within the Sanhedrin, except for the case in which Paul caused a stir over doctrine. The conclusion from the New Testament is that the Sanhedrin in Jerusalem

associated with the Temple acted as the supreme court to hear cases, but did not engage in legislating new additions to the law of Moses.

(F) The Parable of the Wicked Vinedressers

Luke spent considerable time with Paul (a former Pharisee) - see Col 4:14; II Tim 4:11 and the “we” portions of Acts that includes the presence of Luke as the author - Acts 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 having lived 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 vinedressers, 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, “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”. 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 general time of the crucifixion, the leading position among Jews in Judea 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.

(G) 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 had no fear of the Pharisees and there could hardly be any substance to the idea that the Pharisees had so much authority over the Temple that they could push him around as they might choose.

(H) 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 area, the chief priests would have had less reason to be envious of the authority exercised by the Nazarene through the miracles. Instead the Pharisees would have played a more prominent role during the trial due to their authority, and the Pharisees would have shown envy. Note that Mark 15:10 does not say, “The Pharisees had handed Him over”, but instead, “the chief priests had handed Him over”. The last two times in Matthew that the Pharisees are mentioned are Mat 23:39; 27:62, but the trial occurred between these places. The last time that the Pharisees are mentioned in the other three Gospels are Mk 12:13; Lk 19:39; John 18:3, but these are all before the trial began. Thus the Pharisees by name seem totally absent from the trial.

(I) The Role of Gamaliel

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

If Gamaliel was the presiding officer of the Sanhedrin, this would not merely say “one in the Sanhedrin”. The language of the New Testament shows that Gamaliel was not the head of the Sanhedrin. The title *nasi* (primary leader) is given to Gamaliel along with others in his lineage in the rabbinic texts. Thus the rabbinic texts are inflating the importance of Gamaliel compared to the New Testament. Josephus does mention Simon the son of Gamaliel as a prominent Pharisee, but also not lifting Simon to the level implied by the rabbinic title of *nasi*. Josephus does not discuss his father, Gamaliel the Elder, which would be surprising if his father were *nasi*.

(J) Legal Authority of the Chief Priests

Paul lets his audience know of his background as a Pharisee in Acts 23:6; 26:5; Phil 3:5, and as a former student of the Pharisee Gamaliel in Acts 22:3. If Paul had a choice in seeking credentials for authority, he would naturally seek it from among the Pharisees rather than the high priest or the chief priests who were of the Sadducees. Here is what we find when we see where Paul went for authority. Acts 9:1-2 [NKJV], “Then Saul ... 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.” Acts 9:14, “Ananias said, And here he [Paul] has authority from the chief priests to bind all who call upon Your name.”

Acts 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.” In Acts 26:12, “While thus occupied, as I journeyed to Damascus with authority and commission from the chief priests...” We see that Paul 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.

Acts 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 Acts 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 synagogue provided there was reasonable cause (John 9:13, 21-22, 34; 12:42). However, the synagogue environment is not the Temple where the chief priests (Sadducees) were dominant.

(K) Conclusion from the New Testament

The evidence from the New Testament has been given, and the Sadducees including the high priest and chief priests are clearly dominant concerning the overall political control of civil government from the semi-autonomous viewpoint that the Romans permitted. Qualification to the Levitical priesthood was a matter of heredity, not learning, and not popular support. Since only the priesthood was permitted to carry out the Temple services commanded in Scripture, and the priesthood was associated with the Sadducees, we would conclude that the Sadducees dominated the control of the Temple services.

(L) The Roman Historian Tacitus

Scholars estimate that Tacitus was perhaps 15 to 20 years younger than Josephus. He wrote most of his history while Josephus was still alive. He wrote in Latin, the common language of the city of Rome, and had records from the library at Rome as references. In Tacitus' History 5:8 (page 662), he wrote, “A great part of Judaea consists of scattered villages. They also have towns. Jerusalem is the capital. There stood a temple of immense wealth.” Later in the same section and page he continues, “The Macedonian power [Alexander the Great and the Greek generals that succeeded him] was now weak, while the Parthian had not yet reached its full strength, and, as the Romans were still far off [in time and distance], the Jews chose kings [the Maccabean dynasty] for themselves. [Foreigners were] Expelled by the fickle populace, and regaining their throne by force of arms, these [Maccabean] princes, while they ventured on the wholesale banishment of [some of] their subjects, on the destruction of cities, on the murder of brothers, wives, and parents, and other usual atrocities of despots, fostered the national superstition [Judaism] by appropriating the dignity of the priesthood as the support of their

political power.”

This negative account of the Jews by Tacitus after their four-year war with the Romans ending in 70 CE (ending in 73 in Masada) does attribute political power of the Jews to the priesthood as Rome saw the situation while the Temple stood. Since the successive governors of Judea were appointed by the Roman government from 6 CE until the war broke out in 66, this view by Tacitus must represent the viewpoint of the Roman governors who were there. Notice the attitude of the Roman governor Pilate in Mat 27:24 [NKJV], “When Pilate saw that he could not prevail at all [in front of the large crowd of Jews], but rather that a tumult was rising, he took water and washed his hands before the multitude, saying, ‘I am innocent of the blood of this just Person.’” Mark 15:15 declares that Pilate wanted to gratify the crowd. The Roman governors recognized the priesthood as having legal status over the Jews, and they backed up the priesthood with their authority in order to keep the Jews stable and the taxes to Rome flowing steadily. According to Josephus these governors sometimes changed high priests as they saw fit. Even John 11:49 states, “Caiaphas, being high priest that year”, thus implying frequent changes in the priesthood. At the very top Rome was in charge, but Rome used its governor to control matters through the high priest. Rome backed the priesthood to keep the country stable. When the Temple was destroyed and Rome was angry with the Jews for starting the fighting that began the war, Rome no longer backed the priesthood. We see that Tacitus agrees with the conclusion of the New Testament.

(M) The Roman Historian Pompeius Trogus

The third generation Roman citizen Pompeius Trogus wrote a history in Latin c. 20 (see pages 2-3 of Yardley and Develin). At some time within the next 200 years a person named Justin wrote excerpts from Trogus’ history, and these excerpts survive in Latin (pages 2-6). The well known early church father Augustine (c. 400) wrote that Justin wrote a brief history following Trogus (page 6). On page 230 we find this translation of 2:16, “After Moses his son, Arruas, was made priest in charge of the Egyptian objects of worship, and soon afterwards king. And ever after that it was the practice amongst the Jews for their kings to be their priests as well. This integration of their judicial and religious systems made the Jews unbelievably powerful.” The following comment on this statement appears on page 241 of Stern, “Pompeius Trogus anachronistically depicts all Jewish history according to the conditions that prevailed during the Hasmonaean [Maccabean] monarchy, when the king and the high priest were the same person; ...” This excerpt from Trogus, who wrote in the early first century, shows that he understood the Levitical priests to exercise the judicial function. This independent primary witness agrees with Tacitus and the New Testament in attributing primacy

of Jewish authority to the priests.

(N) Josephus concerning Priestly Leadership in Judea before 66

The Pentateuch does not assign any specific role to the high priest within the court system, but priests do have a prominent role throughout the court system (Deut 17:9; 19:17; 21:5).

Consider the highest court in the land according to Josephus. 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 judgment 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 [Greek: *sunedrion* (Sanhedrin)] have come together, let them give judgment as to what seems fit." Note that Deut 17:9 gave a primary role to the priests and Levites without mentioning the high priest. Josephus adds the high priest, but does not insist on any other priests, although he may assume them to be included in the Sanhedrin.

Several years after Josephus wrote his *Antiquities of the Jews*, he wrote his last work, *Against Apion*. In AA 2:187 (pages 367, 369 of Josephus_1) he wrote, "But this charge [for the priests] further embraced a strict superintendence of the Law and of the pursuits of everyday life; for the appointed duties of the priests included general supervision, the trial of cases of litigation, and the punishment of condemned persons." In AA 2:194 (page 371 of Josephus_1) he wrote, "With his colleagues [the priests] he [the high priest] will ... safeguard the laws, adjudicate in cases of dispute, and punish those convicted of crime."

The difference in time of writing is not great, yet in the later version the priesthood is given a much greater role. In both versions the high priest has a major role.

In his last work, in AA 2:188 (page 369 of Josephus_1), Josephus wrote, "Could there be a more saintly government than that? ... ***the priests are entrusted with the special charge of it***, and the whole administration of the state resembles some sacred ceremony?" Here Josephus gives the priests the sole authority over the religion and government. Of course this assumes that Jewish society is normal, i. e., that the priesthood is practicing in the Temple, unlike the present situation when he wrote this.

In Ant 20:250-251 (pages 521 and 523 of Josephus_9), Josephus wrote, "Now those who held the high priesthood from the times of Herod up to the day on which Titus captured and set fire to the temple and the city numbered twenty-eight in all, covering a period of one hundred and seven years. Of these some held office during the reigns of Herod and Archelaus his son. After the death of these [two]

kings [Archelaus died in 6 CE], the constitution became an aristocracy, and ***the high priests were entrusted with the leadership of the nation.***” Now this is a claim concerning history that included some of his own life!

In *Wars of the Jews*, published c. 79, Josephus makes no clear statement concerning whether the Pharisees or Sadducees have control over one another.

In *Antiquities of the Jews* there are a few places in which he compares the Sadducees, the Pharisees, and the Essenes. In these places he claims that the Pharisees have more authority and power than the Sadducees, and from the viewpoint of authority, he leaves the Essenes in the background. Note the following example.

In Ant 18:16-17 (pages 13 and 15 of Josephus_9), Josephus wrote, “The Sadducees hold that the soul perishes along with the body. They own no observance of any sort apart from the laws; in fact, they reckon it a virtue to dispute with the teachers of the path of wisdom that they pursue. There are but few men to whom this doctrine has been made known, but these are men of the highest standing [nobility and wealth]. They accomplish practically nothing, however. For whenever they assume some office, though they submit willingly and perforce, ***yet submit they do to the formulas of the Pharisees, since otherwise the masses would not tolerate them.***”

This section from Ant 18 in bold is a sharp contrast with the prior sections from AA 2 and Ant 20 in bold. The context of Ant 18:16-17 does not imply the existence of the Temple, but the other two contexts do imply its existence!!

One plausible way to reconcile this contradiction is to presume that in *Against Apion 2* and *Antiquities 20* he was referring to the time before 66 when the priesthood still functioned in a normal fashion with the Temple services, and in *Antiquities 18* he was referring to the time after 70 when the Sadducees lost its power base associated with the Temple because it no longer existed, and it lost the recognition that was previously given to it by the Roman authorities. Thus all the grandeur was gone from the Sadducees. This reconciliation of the contradiction has the advantage of obtaining an agreement with the New Testament. Ant 18 above, if thought to be prior to 66 in the first century, contradicts the New Testament as well as the other quotations.

Notice John 12:42, “... because of the Pharisees they [the Jewish rulers] were not admitting, lest they should be put out of the synagogue.” This shows the sway of the Pharisees over the people in the synagogues. The Temple was not a synagogue.

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 [*Antiquities of the Jews* compared to *Wars of the Jews*]. 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 borne out in Josephus's other passages on the Pharisees [in the first century].”

Now to repeat and discuss the above dated historical quote from Ant 20:250-251, “Of these [high priests]some held office during the reigns of Herod and Archelaus his son. After the death of these [two] kings [Archelaus died in 6 CE although some think this date should be a few years earlier], the constitution became an aristocracy, and the high priests were entrusted with the leadership of the nation.”

Josephus is writing to the Roman nobles who are familiar with the word “constitution” as the method and legal document by which Roman society is governed. He is applying this term to the method of governance of the Jews in Judea, but he also uses this term as a synonym for the law of Moses, because that theoretically governs the behavior of the Jews. In the above quote, the word aristocracy clearly refers to the high priests with their nobility and wealth. This quotation from Josephus indicates that from the year 6 CE until the Temple was destroyed, the Romans, allowing for potential veto power by the governor appointed from Rome, gave governance over the Jews to the high priesthood. Josephus also mentions in many places that the individual who became high priest gave over a considerable sum of money to the Roman authority for the privilege of becoming high priest. The Roman governor appointed and removed high priests. If the high priest did not have real authority and power to govern, it would have been a worthless fraud to give considerable money to the governor for this privilege.

Since the Levitical priesthood did not prevent the war that broke out in 66, the Romans had a negative attitude toward the priesthood, and they no longer officially recognized the priesthood as having authority in relation to the Roman governor and the other Jews in Judea. This meant that the only support the priesthood could get had to come from the Jews, not the Romans. The loss of the priesthood (as a functioning institution) from history is the clear evidence that the Pharisees let the priesthood vanish because of the friction between the two groups and through the Pharisees' greater influence over the people in the synagogue environment.

After 70, the priests generally still owned much property and were still wealthy and well educated. But their power to govern was removed, and their individual authority within the environment of *some* of the synagogues in greater Judea was dependent upon their individual willingness to conform to the program of the

Pharisees and their successors without necessarily bearing the name Pharisee. This does not imply that all beliefs in the myriad of details in the Tanak was uniform among Jews, nor does it imply that there was one centralized Sanhedrin through which interpretations must filter in order to be generally accepted. Josephus mentions that there were Pharisees, Sadducees, and Essenes. His description of Essenes partially differs from Philo's description of a significant group of atypical Jews, and both differ in some details from beliefs in sectarian writings in the Dead Sea Scrolls. Scholars believe that there were a variety of splinter groups, and that Josephus was oversimplifying by lumping them together, representing them all as Essenes having one belief system. It is certainly plausible that some synagogues having a personable priest and needing monetary support from the priest still functioned with that priest and with his teachings not in conformance with those of the Pharisees. We have no history on such details.

Philo of Alexandria never once mentions the word *Pharisees* or the word *Sadducees*. It is not clear that in the first century any of the Jews living in the region of Babylonia and having a background from the Babylonian exiles called themselves by either of these two terms. For all we can tell, these terms were localized to greater Judea and gradually fell into disuse.

With the above reconciliation of the apparent contradiction in Josephus (i. e., some referring to the time before 70 and others to the time after 70), the conclusion is that the priesthood controlled the Temple before 66.

[6] Distortion in Rabbinic Texts concerning pre-Mishnaic History and the Tanak

It will be necessary to determine the meaning of some biblical Hebrew words that are not clear from the context. Some of these words are given a meaning in the rabbinic texts, and it is therefore important to gather evidence of whether to trust or distrust the meanings to be found in the rabbinic texts.

(A) Meaning of *aviv* from the Mishnah compared to the Dead Sea Scrolls

The word *aviv* appears in the Mishnah (c. 200) in Tractate Kil'ayim 5.7 where five English translations, the context, and commentary provide a basis for understanding the Mishnah's meaning of the word *aviv*. The context involves a growing cereal plant in the ground where it should not be growing because its growth is a violation of Deut 22:9, which prohibits growing different kinds of crops close together. This is an example of a forbidden mixture, and the Hebrew word *kilayim* (found in Deut 22:9) means “(forbidden) mixtures” or “diverse kinds”.

This passage from the Mishnah Tractate Kil'ayim bearing the word *aviv* is embedded in the text of the Babylonian Talmud, and it appears in translation with a

modern commentary in the footnotes by J. Israelstam on page 117 of BT-KI. The passage (with square brackets that I added for clarity) is: “R. Akiba said: If it [a growing cereal plant] has produced [only] blades, he must turn the soil; if it has reached the stage of green ears [= *aviv*], he must beat them out; if it has grown into corn [= *dagan*], it must be burnt.” Footnote 6 concerns “turn the soil”, where it states, “So as to ensure that they do not grow again.” Footnote 7 concerns “the stage of green ears”, where it states, “I. e., before it has reached a third of its normal full growth.” Footnote 8 concerns “grown into corn”, where it states, “And make no use of either grain or stalk. So [according to the view of] R. Johanan; but in R. Hosha'ia's view only the grain is prohibited, but the stalks are permitted. (T.J.)”.

From examining the above passage in the Mishnaic Hebrew as printed on page 210 of Blackman and page 138 of ArtScroll Kilayim, some words were added in the above translation. It is more literally, “Rabbi Akiva says, if blades, hoe-it-up; and if *aviv*, break-it-off; and if grain, burn-it.”

In the above passage, the Hebrew words *aviv* and *dagan* are contrasted, with different rules for each. The Hebrew word for “grain” is *dagan*, Strong's number 1715. It is the ordinary biblical word for grain, and its sense is indicated in Deut 12:17 (“tithe of your grain”) and Neh 13:5 (“tithe of the grain”), showing that *dagan* is grain that is capable of being used for its most typical purpose, which is making flour so that it may be used for bread.

Before commenting on this passage and the above footnote 7, notice the five English translations of *aviv* and *dagan* in Kilayim 5.7 Page 117 above by J. Israelstam translates *aviv* into “green ears” and *dagan* into “corn”. Page 30 of Danby translates *aviv* into “ear” and *dagan* into “corn”. Page 60 of Neusner translates *aviv* into “early ripening” and *dagan* into “[fully ripened] grain” (his bracketed addition). Page 210 of Blackman translates *aviv* into “ear” and *dagan* into “full grain”. Page 139 of ArtScroll Kilayim translates *aviv* into “begun to ripen” and *dagan* into “completed grain”.

Only one of the five above translations of Kilayim 5.7 used the words “green ears” for *aviv*. As most varieties of barley ripen, its color changes from green to yellow, and finally to white. The word *green* is intended to convey the idea that it is well before being fully ripe. The few Hebrew words that mean green do not resemble *aviv*.

Essentially, the five translations agree that *dagan* occurs later in growth than *aviv*, and three of the five add at least one word before *dagan* to emphasize that *dagan* is fully ripe grain, in agreement with the Tanak.

One commentary helps to explain footnote 7 above, where J. Israelstam stated that

aviv is “before it [the head] has reached a third of its normal full growth.” Page 138 of ArtScroll Kilayim states that Rashi (1040-1105) claimed that *aviv* means “when the kernels have begun to form, but have not yet reached a third of their eventual size”. The ArtScroll Mishnah Series generally favors the interpretations of Rashi, and its translation “begun to ripen” for *aviv* is a rough approximation to Rashi's viewpoint.

Based upon the context of *aviv* in Ex 9:31 discussed above, I believe that Rashi shows a lack of proper comprehension of the original intent of *aviv*, and is thus incorrect. Orthodox Jews most often like to follow Rashi. Since Kilayim 5.7 appears to separate the growth of the barley plant into only three distinct periods and the last of these is fully ripe grain, it would seem almost obvious that the author of the Mishnah would disagree with Rashi's viewpoint.

From the context and literal words as well as all five translations, “blade, *aviv*, and *dagan*” are intended to be three non-overlapping categories of growth. This statement separates the growth of a cereal (no specific grain is named) into only three broad groups: (1) no ears yet; (2) ears exist, but it's not sufficiently mature for flour; and (3) ears exist that are ripe enough to be made into flour.

Thus the Mishnah recognizes that *aviv* includes the first several stages in the growth of an ear, but not to the point of its being used for flour.

When discussing the meaning of *aviv* in one dictionary of ancient Hebrew, the only place among the Dead Sea Scrolls where this word occurs, is mentioned. On page 103 of DCH, the meaning of *aviv* is “ear (of cereal)”, and one context it cites for the use of *aviv* is from “The Temple Scroll” (abbreviated 11QT) 19:7 where it gives the translation “new bread (made of) ears of various cereals”. Here *avivot*, the plural of *aviv*, is translated “ears” and implies that the ears were ground into flour in order to make bread. This example of the use of *aviv* from c. 150 BCE shows that the range of the meaning of *aviv* extends to being fully ripe so as to be able to make flour. This use of *aviv* from a time when Hebrew was still widely spoken in Judea contradicts the meaning given in the Mishnah, which is the first published rabbinic text.

As previously discussed, the hail plague context of Ex 9:31 does not prevent the meaning of *aviv* from extending to fully ripened, and the only other biblical context with *aviv* (aside from “month of *aviv*”), namely Lev 2:14 awaits discussion. However, it too will be seen to not prevent *aviv* from extending to fully ripened.

The Dead Sea Scrolls did not become known to scholars until late 1947, and this is the only source that indicates *aviv* includes fully ripe grain. There is a tendency in some lexicons of Biblical Hebrew as well as in some commentaries to give

credence or acceptance to the meanings of words that were handed down into modern times from rabbinic writings, the first of which is the Mishnah.

The conclusion is that the Mishnah misrepresents the meaning of *aviv*.

(B) Rabbinic office of *nasi* and the Elevation of the Authority of Pharisees

In the Babylonian Talmud, specifically on page 63 of BT-SHAB in Shabbath 15a, we find (where the note in square brackets was added by the translator H. Freedman), “Hillel and Simeon [his son], Gamaliel and Simeon wielded their Patriarchate during one hundred years of the Temple’s existence”. Footnote 6 states that these four were all in a male succession of lineage, each the father of the next one. This 100-year period would be from 30 BCE to 70 CE. The above quotation has the word “Patriarchate”, which is translated from the Hebrew *nasi*. The title *nasi* is a biblical Hebrew word (Strong’s number 5387) that refers to the primary leader within some context. When the title Patriarch is used as a translation of *nasi* from rabbinic writings, the document intends to imply that the bearer of this title is the sole spiritual leader (perhaps also quasi-political leader as well, depending on the year and circumstance) of the Jewish people generally. The word *nasi* is used in the latter chapters of Ezekiel to refer to a unique future leader of Israel. According to page 493 of the article “NASI” by Christine Hayes, when mentioning historical matters before the destruction of the Temple, rabbinic literature uses the title *nasi* to refer to “the presiding officer of the Sanhedrin in the Temple”, although in later times it refers to one individual who is recognized as the political head of the Jews scattered among the nations.

The definition of *nasi* is not stated in the rabbinic literature itself, but is surmised from the various contexts. In fact, it is primarily the New Testament and Josephus that cause scholars to reduce the rabbinic significance of the title *nasi* before the destruction of the Temple and even before Judah the *nasi* who published the Mishnah. From rabbinic literature itself there is no indication that *nasi* means something different before and after some year, such as the year 70 or the year 200. Thus the Babylonian Talmud Shab 15a (see above) informs us that between 30 BCE and 70 CE the presiding officers of the Sanhedrin in the Temple were among the lineage Hillel to Simeon to Gamaliel to Simeon. According to rabbinic tradition, Hillel was descended from King David, so that they were from the tribe of Judah, and hence not priests.

Acts 5:34 calls this Gamaliel a Pharisee. The language of Acts 5:34, as previously discussed, denies that this Gamaliel was the president of the Sanhedrin.

Josephus mentions Simon the son of Gamaliel as a prominent Pharisee, but does not indicate that he was the leader of the Sanhedrin or of some other ruling body. Since Josephus applauds Simon's achievements, if he had been the head of the

Sanhedrin, he should have mentioned it.

The conclusion is that the rabbinic texts elevate the line of Hillel to the primary leadership of the Sanhedrin, contradicting the account of the New Testament and Josephus. Gamaliel and his son Simon are known to be Pharisees, so that the Pharisees are distorted to be the leaders of the Sanhedrin according to the rabbinic texts. This is a distortion of history regarding the leadership role of the Pharisees at the headquarters of of Judaism.

The previous chapter showed that the priesthood controlled the Temple and the calendar in the first century before the Temple was destroyed. This is in harmony with Psalm 133 as previously explained.

(C) Forcing the Concept of the Sanhedrin into the Torah by Rabbinic Texts

There is a unique event in Num 11:16-30 that shows a selection of 70 men from among the elders of Israel. Num 11:16, 24, 25, 30 have the word *elders*, which is the Hebrew word *zaken*, having Strong's number 2205, appearing in BDB on page 278 where its first meaning is “old of human beings” and another meaning is “elders, as having authority”. The meaning of *zaken* is best appreciated when one considers the nature of the chain of authority through male lineage as shown by a combination of commandments. Among the ten commandments is, “Honor your father and your mother ...” (Ex 20:12; Deut 5:16). The authority of the husband over his wife is seen in Gen 3:16; Num 30:6-16. These laws work together to imply that the oldest living male within a family's lineage has authority over the extended family, and he is thus surely an elder or *zaken*. Num 11:16 makes it clear that these 70 men were already elders before Moses began the selection, and moreover, besides being elders, they were officers. Here the word officers is the Hebrew word *shoter*, which is Strong's number 7860, appearing in BDB on page 1009 where it states, “appar[ently] subordinate *officer*, judicial, civil, or military”. This implies that these elders have had some practical leadership or management experience, but not necessarily at the top position.

Num 11:16, “And YHWH said to Moses, Gather to Me 70 men from [the] elders of Israel whom you know to be elders of the people and its officers. And bring them to the tent of meeting, and let them stand there with you.”

Num 11:17, “And I will come down and I will speak with you there. And I will take of the Spirit that is upon you, and I will put [it] upon them, and they shall bear [the] burden of the people with you. Thus you shall not bear [the burden] yourself alone.”

No further qualifications are given concerning the selection of these 70 men from among those who were already elders. There was no tribal restriction, there was no

requirement of a knowledge of the law, and there was no requirement of faith. There is never any indication in the Tanak that these elders met together as one body to discuss matters among themselves, or that they had a unified label such as a court or Sanhedrin.

In Ex 18:13-27 Moses' father-in-law gave him advice to build a pyramid organizational structure of judges, so that only the very difficult cases would filter their way up the pyramid to him. This advice did not involve previously recognized elders with leadership experience. If this advice would have succeeded, there would have been no need for the subsequent complaint by Moses in Num 11:1-15, which led to the appointment of the 70 men who were already elders.

In Num 14:26-33 the punishment of death during the 40 years of wandering in the wilderness was given to all Israelites who were 20 years old and above. This death in the wilderness came to all of the 70 elders with the exception of Joshua and Caleb, if they were among these elders. One need for elders in Israel was simply the practical function of communication of basic news to all people from a central seat of government. When Joshua crossed the Jordan River there were a few million Israelites. If Joshua himself spoke loudly, only a tiny fraction of them could hear him. Since people were geographically grouped as near relatives, the most practical way to communicate with all people was through the system of elders. Joshua would speak to the elders as heads of clans (subgroups within a tribe), and they in turn would go to those who they represented in family ancestry and authority so that the news would reach everyone. Existing authority through male lineage was respected. Thus Josh 7:6 mentions the elders of Israel who were near Joshua. There is no need to imagine that there were 70 of them. These elders were authority figures for purposes of orderly travel and communications, and they also had ancestral authority as the oldest males in their extended family.

The Mishnah teaches that the 70 men with Moses constituted the greater Sanhedrin where it quotes from Num 11:16 discussed above. On page 383 of Danby's translation of the Mishnah, in Sanhedrin 1.6, we find (with Danby's additions in square brackets), "The greater Sanhedrin was made up of one and seventy [judges] and the lesser [Sanhedrin] of three and twenty. Whence do we learn that the greater Sanhedrin should be made up of one and seventy? It is written, *Gather unto me seventy men of the elders of Israel*, and Moses added to them makes one and seventy." Although Num 35:24 mentions "the congregation shall judge", the Tanak never defines the congregation in this sense as the 70 (or 71) elders. It may refer to any court that represents the people in any area of Israel through history. The Mishnah interprets Num 11:16 as the first great Sanhedrin in a succession through history in order to justify a major leadership role for a body of men who are not necessarily Levites.

Deut 17:8-13 mentions the need to judge legal cases of dispute, and those who do the judging are referred to as priests, Levites, and judges in verse 9. The word *elder* is not used here, thus negating the Mishnaic supposition that a collective of 70 elders was to continuously constitute a greater Sanhedrin. If this Mishnaic interpretation were true, there would be some clear evidence of it in the Tanak, which is often occupied with political conflict. On page 382 of Danby's translation in Sanhedrin 1.2, authority to render calendrical decisions is claimed for a small committee within the Sanhedrin, and there is no tribal requirement for this committee. It appears that the Mishnah is inventing an entity that controls the calendar apart from the priesthood.

Thus the Mishnah is planting a ruling body, the Sanhedrin, into the law of Moses, and giving it authority that supplants the Aaronic priesthood, especially with regard to the calendar. As stated above, this Mishnaic concept is contradicted by Ps 133.

After the Temple was destroyed, the successors of the Pharisees no longer recognized the rightful authority of the priesthood, and eventually the Mishnah justified this change in authority by inventing the Sanhedrin within the law of Moses. This Sanhedrin had no requirement of tribal descent. Thus a usurpation of authority was justified by the Mishnah. The Mishnah distorted history, altered the law of Moses with its Sanhedrin, and altered the control of the calendar from the priesthood to a committee within the Sanhedrin.

(D) Talmud forces Wisdom in the Torah to include Mathematical Astronomy
Scripture defines the wisdom of ancient Israel in an unconventional way in the following passage.

Deut 4:5, "Behold I have taught you statutes and ordinances as YHWH my Almighty commanded me, that you should do so in the midst of the land where you are going to possess it."

Deut 4:6, "So keep and do [them], for that [is] your wisdom and your understanding in the sight of the peoples who shall hear all these statutes. Then they shall say, surely this great people [is] a wise and understanding nation."

Deut 4:7, "For what great nation [is there] that has an Almighty [so] near to it as YHWH our Almighty in everything we call upon Him."

Deut 4:8, "And what great nation [is there] that has statutes and ordinances [as] righteous as all this law that I set before you today?"

The nations of the world think of wisdom in terms of scientific achievement and the acquiring of great knowledge, but that is not the way Moses was told to

proclaim wisdom to Israel. Mathematical astronomy was not to be wisdom for them. I do not doubt that the ancient Israelites had the mental capacity to be able to develop advanced mathematics, but without the collective need for this effort by Israelite society, what would motivate such an effort? Ancient Israel could determine the calendar from observation, so they had no need for any advanced tedious calculations accompanied by detailed records of observations over many decades or centuries to correlate with the calculations.

Why would the nations of the world say, as predicted in Deut 4:6, “Then they shall say, surely this great people [is] a wise and understanding nation.”? It is abnormal for nations to take a serious interest in the laws of another nation and recognize such laws to be wonderful and praiseworthy. What is the motivation for such an attraction to the law of Moses by the other nations?

The attraction is the response to Deut 4:6, “So keep and do [them], for that [is] your wisdom ...” The wisdom is obedience, not the law itself. The response to their obedience is declared in Lev 26:3-13 and Deut 28:1-14 where Israel is promised the blessings of abundant crops and livestock, fruitful population growth, and living in peace and security with their neighbors afraid of them. These abundant blessings would catch the attention of the nations around them and they would inquire about the reason for such blessings. When the answer would be the blessings for obedience, the nations would desire the same blessings, and hence they would be highly motivated to know the law and obey it themselves.

Hence Israel's wisdom is their obedience to the law, not scientific achievement.

In the Talmud, on page 357 of BT-SHAB, we find, “How do we know that it is one's duty to calculate the cycles and planetary courses? Because it is written, [Deut 4:6] *for this is your wisdom and understanding in the sight of the peoples*: what wisdom and understanding is in the sight of the peoples? Say that is the science of cycles and planets.”

Here we see that at the time the Babylonian Talmud was published, c. 500-600, the original intent of **wisdom** in Deut 4:6 was twisted from collective obedience to include mathematical astronomy! About 2000 years after Moses, the culture of Jewish scholarly leadership in the Talmudic path had changed to finally bestow a high value upon mathematical astronomy, and to do so through a distortion of the Tanak.

(E) The Meaning of the *omer* in the Wave Sheaf Offering

The passage on the wave sheaf offering in Lev 23:10-16 contains the word sheaf [6016 *omer*] in Lev 23:10, 11, 12, 15. This Hebrew word 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 dry measure of volume, but Ruth 2:7, 15 provide an alternate meaning, namely a sheaf of stalks with expected ears of grain. We are faced with the problem of resolving the ambiguity between the two meanings of *omer*.

Before examining the context of Ruth 2:7, 15 in some detail, the method of reasoning to resolve the ambiguity of the meaning of *omer* in the context of Lev 23 is now undertaken. Except for the period of the Babylonian exile and some period of laxity due to a lack of zeal, the Aaronic priesthood existed and performed their ceremonies every year in Jerusalem until the Temple was destroyed in 70. This ceremony of the wave sheaf offering was witnessed by all people who attended the the Festival of Unleavened Bread. This ceremony continued to be performed every year, and with one united priesthood, their practice should not have changed through the centuries. People came to Jerusalem from great distances to be at this festival and thus see this ceremony, including Jews from Alexandria, Egypt, which was only about 200 miles away. Specialists in the Septuagint, the Greek translation of the Hebrew text, recognize that that its translators had a better command of the Greek language than of the Hebrew, and that the translation was undoubtedly made in Alexandria. Some of the Jews in Alexandria, possibly even some of the translators themselves, could surely explain what happened during the wave sheaf ceremony, so that the Greek translation could be accurate in its description. The translation of the Pentateuch of the LXX was made c. 280 BCE. The Greek language does not have the ambiguity of the Hebrew language for the two meanings of the word *omer*. The Greek text uses one word, *gomer*, for the dry measure of the manna in Ex 16, and a different word, *dragma*, as the translation for *omer* in Deut 24:19; Ruth 2:7, 15 and the wave sheaf offering. This resolves the ambiguity of the meaning of *omer* in the context of Lev 23. All the uses of *dragma* in the Septuagint are listed on page 348 of Hatch and Redpath. If there existed any historical hint that the nature of the *omer* was a controversial issue at that time, then this would not resolve the question. But there is no such hint from before the destruction of the Temple, nor does rabbinic literature hint that there was a debate over this.

Moreover, in Gen 37:7 where the Hebrew word for sheaves is *aluma* (Strong's number 485), its Greek translation in the Septuagint is also *dragma*. The Septuagint translation by Brenton for Gen 37:7 is: "I thought ye were binding sheaves [= *dragma*] in the middle of the field, and my sheaf [= *dragma*] stood up and was erected, and your sheaves [= *dragma*] turned round, and did obeisance to my sheaf [= *dragma*]." (Plural forms of *dragma* are used where the translation is plural.) **Thus a bundle of tied stalks is called a sheaf (*dragma* in Greek).** Hence this would be its meaning where *dragma* is used for *omer* in the wave sheaf

offering in the LXX.

Ruth 2:7, “And she said, 'Please let me glean and gather among the sheaves [= *omer*] after the reapers.’” (This has the plural of *omer*.) Gleaning is gathering the grains still having their husks. The reapers swing the sickles that cut the stalks.

Ruth 2:15, “And she rose to glean. Then Boaz commanded his young men saying, 'Let her glean even among the sheaves [= *omer*] and do not rebuke her.’” (This has the plural of *omer*.)

Ruth 2:17, “So she gleaned in the field until the evening and beat out what she had gleaned, and it was about an ephah of barley.” The beating was necessary to separate the husks from the grains.

On page 73 of H. L. Ginsberg 1982, he translates *omer* in Lev 23 as “armful”, judging the quantity that might be tied into a bundle.

The Syriac Peshitta uses the word *kf*, meaning “bundle” or “sheaf” to translate the word *omer* from Lev 23. This Syriac word is found on page 222 column 1 of Payne Smith 1903 and the Syriac text is from Peshitta 1991. This is the Syriac equivalent of the Greek *dragma*. In Ex 16 where the Hebrew has *omer* for the dry measure volume, the Syriac text from Peshitta 1977 transliterates *omer* into Syriac characters.

When Jerome translated the Hebrew Bible into Latin c. 400, which became known as the Vulgate, he translated the Hebrew word *omer* in Ex 16 as *gomer*, merely a transliteration. But he translated *omer* in Lev 23 into the Latin *manipulus* or *manipulos* (according to Weber). This means “bundle, sheaf, truss” from page 1074 of Glare. The Knox translation of the Vulgate has “gomer” in Ex 16 and “sheaf” in Lev 23.

The Aramaic Targums use the same transliteration of *omer* in both Ex 16 and Lev 23, thus carrying the ambiguity of the Hebrew into the Aramaic. The Aramaic word has the same two meanings as the Hebrew.

Thus the LXX, the Peshitta, and Jerome all agree that in Lev 23 the *omer* is a bundle or armful of stalks. Nothing is said about any stage of growth of the ears in the stalks here in Lev 23. The wave sheaf offering will be discussed in more detail later.

On page 506 of Danby's translation of the Mishnah in Menahot 10:4, talking about the wave sheaf ceremony and specifically the grains of barley (after they were separated from the husks), we find, “They put it in a grist-mill and took therefrom a Tenth [of an Ephah of flour] which was sifted through thirteen sieves.” Danby added the explanation in square brackets, “a Tenth [of an Ephah of flour]”. Ex 16:36 states, “Now an *omer* is one-tenth of an ephah.” Danby is showing the

common rabbinic understanding that the Mishnah accepts the viewpoint that the Hebrew word *omer* means the dry measure quantity instead of a tied bundle of stalks. This contradicts the understanding given above using the Greek word *dragma* from the Septuagint, which was translated long before the Temple was destroyed, although we have no copies of Exodus in the LXX from the first century or before.

On page 206 of vol. 1 of Field 1875, it is preserved that when Aquila translated Lev 23 into Greek c. 130, he used the Greek transliteration *gomer* where the Hebrew has *omer*. Aquila did not use the Greek word *dragma*. Thus, under the training in Hebrew by the leading rabbis of his time as portrayed by rabbinic texts, Aquila gave the same meaning as the Mishnah for *omer*. The rabbinic texts approve of Aquila's translation (see appendix A).

The incorrect interpretation of *omer* from the Mishnah as a dry measure, implies that the ears that were used in the wave sheaf offering were always ripe enough to make flour. Lev 23 does not say that the wave sheaf offering was used for any purpose other than this specific ceremony. Lev 23 does not use the technical Hebrew word *bikurim* [1061 firstfruits] applied to this ceremony or this *omer*. The subject of firstfruits will be discussed in detail later.

(F) Concept of the Oral Law in Rabbinic Texts

Near the beginning of the Rabbinic writing known as The Fathers According to Rabbi Nathan (often abbreviated “Avot”, which is the Hebrew word for “fathers”), the concept of the Oral Law is explained. According to this concept from Avot, when Moses came down from Mount Sinai, he was told what law to write down and what law to memorize instead of committing it to writing. The latter was to be transmitted from Moses to Joshua, and this oral memorized transmission was to continue through a succession of people down through to Gamaliel the Elder, then his son, and this continued down to Judah the Nasi. The latter had control over the contents of the Mishnah.

Josh 8:32-35 shows that all the law that was given to Moses was written down. Thus the concept that there was an Oral Law that was spoken to Moses but never written down, and was accurately handed down from generation to generation in memorized form until the time of the Mishnah, is a historically false concept. This assumes that the reader accepts the Tanak literally where it makes common sense to do so. The concept of the Oral Law is promoted in the rabbinic writings, and it is an example of false history in the rabbinic writings. This is one reason for mistrusting history in the rabbinic writings.

Philo, Josephus, and the New Testament all refer to the tradition of the elders, using slightly different words. Orthodox Jewish scholars all claim that this refers to

the Oral Law. Other Jewish scholars and non-Jewish scholars deny this because these sources never claim that Moses was given this law orally, and the nature of “tradition” typically denies a definite known origin. The law of Moses is never called tradition in Philo, Josephus, or the New Testament (see Mat 15; Mark 7).

The concept of the Oral Law as a historical reality from Moses is a fiction of the rabbinic texts. This concept was probably invented to provide a reason and a motivation for Jews to accept the rabbinic interpretation of the law of Moses and of the Tanak in general. Thus the Oral Law includes some traditions from before the third century and some innovative viewpoints that were conceived as the rabbinic texts were first being written. Some of these traditions go back to the Pharisees of the first century and earlier.

(G) Rabbinic Texts imply the Pharisees Controlled the Temple before 66

Rivkin 1969 avoids the New Testament and Josephus, and uses rabbinic texts to define the Pharisees. He concentrates on selections in which the Pharisees and Sadducees are opposing one another.

On pages 212-213 Rivkin discusses an incident mentioned in the Babylonian Talmud, Yoma 19b, where a high priest who is called a Sadducee will soon enter the Holy of Holies on the Day of Atonement, so that the context is before the Temple was destroyed. The father of the Sadducee says, “My son, although we are Sadducees we fear the Pharisees.” Later in this incident when this high priest finishes performing his duties in the Holy of Holies according to the interpretation of the Sadducees and contrary to the Pharisees, as soon as he exits from the Holy of Holies he is found dead with the heel of an animal between his shoulders. The incident reports that Rabbi Hiya taught that an angel did this to the Sadducee. Then Rivkin mentions another similar type of incident found in Tosefta Hagiga 3.35.

From these incidents Rivkin concludes, on page 213, “They [the Pharisees] exercise great power, striking fear in the hearts of the High Priestly families, and they [the Pharisees] are depicted as those who have control of the Temple.”

As explained previously, the New Testament, Tacitus, Trogus, and Josephus all depict control of the Temple by the priests in the first century. The rabbinic texts imply that the Pharisees controlled the Temple. I conclude that the rabbinic texts in this matter are fabricated history and lead to incorrect conclusions.

I conclude that frequently the rabbinic texts cannot be trusted for accurate history, and its writers invented certain history to promote the lineage of Gamaliel, which was aligned with the Pharisees in the first century. Some teachings of the Pharisees are promoted, although the term “Pharisees” is not used frequently in the rabbinic texts, and this term changes meaning when used in contexts beyond the first

century in rabbinic texts.

(H) Historical Reception of the Rabbinic Literature

After the Temple was destroyed in 70, except for rabbinic texts that first began to be published c. 200, we have very little by way of explicit writing concerning the beliefs and divisions of the Jews in the Mediterranean region and the Babylonian region. We have some very useful indications of the overall direction in greater Judea from Josephus, but there are no names and no details. His assessment c. 93 is only that the Pharisees exercise the primary control over the masses in greater Judea.

The rabbinic texts provide its own views from its own bias, and except for priests (= approximately Sadducees = Boethusians) or heretics, it rarely indicates any diversity within the total Jewish community, and this creates the impression that nearly all of Judaism embraced its own views.

The rabbinic texts speak against drawing and displaying images of living things, both people and animals. From excavations of cemeteries and synagogues from c. 200 – c. 400, page 550 of Levine 2006 states, “... we witness a return to figural representation in many communities of ancient Palestine and the diaspora.”

Another indication of diversity from the ideal expressed in rabbinic literature compared to remains showing reflections of reality are the varied meanings of translations of certain biblical words in the several versions of the Aramaic Targums. This document has a small sample of such differences with the rabbinic texts. Even in the Targum Onqelos that is supposed to have the blessing of the rabbinic sages we see certain meanings that contradict teachings in the Babylonian Talmud.

Therefore, even without a written narrative history, it is clear that rabbinic texts represent a theoretical ideal of how to live that differed greatly from real life among Jews. The rabbinic literature was not received positively by the masses of Jews. From page 525 of Levine 2006 we note that in the Jewish Bet Shearim cemetery in the Galilee in which there were over 1000 burial sites that spanned c. 200 – c. 400, 78 percent of inscriptions were in Greek, 21 percent of inscriptions were in Latin, and 1 percent of inscriptions were in Hebrew or another Semitic language. This area of Galilee was the hotbed of production of rabbinic literature during this period.

Thus the rabbinic literature misrepresented reality within Judaism in the sense that later generations who examined this literature had cause to imagine that this brand of Judaism was dominant to the exclusion of virtually all others during the centuries of its initial output.

The school for rabbis in Caesarea and the other rabbinic academies in Babylonia along with continued output of Hebraic rabbinic literature eventually helped propel rabbinic Judaism to become accepted Orthodox Judaism. However, initially it was fake facade.

The various other aspects outlined in this chapter also depict a fake framework. The concept of the Oral Law is a fraud along with many meanings of Hebrew words. The alleged supreme authority of the initial Pharisaic sages of the first century before the destruction of the Temple was a fraudulent rewriting of history.

(I) The First Century Calendar Fraud of the Rabbinic Literature

The need to bring all this to light is forced because it is necessary to expose the historical fraud of the rabbinic texts that claim that certain Pharisees had the authority to determine the calendar before the Temple was destroyed. Here is an example where Gamaliel the Elder had the primary authority to declare when the 13th month would be intercalated. On page 435 of Danby's translation of the Mishnah in Tractate Eduyoth 7.7, we read, "Once Rabban Gamaliel went to have authority given him from the governor in Syria, and he was long in returning; so they declared the year a leap-year on the condition that Rabban Gamaliel should approve; and when he returned he said, 'I approve'; and so the year was reckoned a leap-year." This alleged authority of Gamaliel the Elder, a Pharisee, does not ring true to the known authority of the chief priests in the context of the Temple. Hence the supposed authority of Gamaliel concerning the calendar according to the rabbinic texts must be rejected as a fabrication of history.

In the Babylonian Talmud, Sanhedrin 11a, on pages 47-48 of BT-SAN, it states that in Simon b. Gamaliel's letter to the communities he wrote, "We beg to inform you that the doves are still tender and the lambs still young, and the grain has not yet ripened. I have considered the matter and thought it advisable to add thirty days to the year." Here Gamaliel's son Simon, a Pharisee, is claimed to possess similar authority before the Temple was destroyed in 70.

In Sanhedrin 11b, on page 49 of BT-SAN, it states, "Our Rabbis taught: A year may be intercalated on three grounds: on account of the premature state of the corn-crops; or that of the fruit-trees; or on account of the lateness of the *Tkufah*. Any two of these reasons can justify intercalation, but not one alone." This is one example among many in rabbinic literature where the biblical Hebrew word *tkufah* is used with the meaning of equinox or solstice, and in this context it is intended to refer to the vernal equinox. The use of such alleged combined principles to determine intercalation of a 13th month would require a personal judgment and the recognition of some human authority for a decision. This is not an objective clear trigger. This cannot be accepted as true history from before the Temple was

destroyed.

[7] The First Month correlates with Standing Ears of Barley

(A) Deut 16:9-10 relates to Lev 23:9-10

After mentioning the seven Days of Unleavened Bread in Lev 23:6-8, verses 9-16 pertain to a commanded ceremony involving the Israelites along with the priesthood that is often called the wave sheaf offering. Verse 16 mentions a count of 50 days from the day of this wave sheaf offering, and verse 21 declares this 50th day to be a day of holy convocation. Deut 16:9-10 mentions a count of seven weeks, which is 49 days, culminating with the Feast of Weeks. Num 28:26 states that the Feast of Weeks is a day of holy convocation. By correlating these matters it becomes clear that the unnamed day of the holy convocation on the 50th day in Lev 23:21 is the Feast of Weeks. Hence Deut 16:9-10 is an outlined summary of matters that lead into the Feast of Weeks.

Deut 16:9 mentions “sickle to the standing-grain”, where *standing-grain* is a translation of the Hebrew word *kamah*, which is Strong’s number 7054, and is found on page 879 of BDB. This word *kamah* occurs 10 times in the Tanak. 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 four cases its stage of growth is not indicated from its own immediate context: Ex 22:6; Deut 16:9; Judg 15:5 (twice).

It is instructive to note the context of *kamah* in Deut 23:25, which also contains the same Hebrew word for “sickle”, although the entire phrase is not identical in the Hebrew in these two verses from Deuteronomy.

(B) Deut 23:25 and *mleelot*

Deut 23:25, “When you go into the standing-grain [= *kamah*] of your neighbor, then you may pluck the ears [4425 *mleelot*] with your hand, but you shall not put the sickle on the standing-grain [= *kamah*] of your neighbor.”

In Deut 23:25 above, the translation “ears” is given for *mleelot*, and this is the only place in the Tanak where the Hebrew word *mleelot* occurs. This sole context does not precisely determine its meaning. This word also occurs once in the Dead Sea Scrolls where it is mentioned on page 103 of DCH (vol. 1) when *aviv* is the subject, and on page 300 of DCH (vol. 5) when *mleelot* is the subject. The translation from “The Temple Scroll” (abbreviated 11QT) 19:7 that is given by DCH is “new bread (made of) ears of various cereals”. Here “ears” is the plural of *aviv*, and “various cereals” is the translation of *mleelot*. In my opinion this translation would be more plausible if the word “various” was also in parentheses, because the Hebrew shows nothing for it. Another problem with this translation is

that it omits providing for the Hebrew word “and”. The actual Hebrew expression in the Hebrew word order in 11QT 19:7 is shown partially translated in the literal, “bread new *avivot* and *mleelot*“. This might mean “new bread [made of] ears and kernels”, where “ears” refers to what would be ground into flour, and “kernels” refers to whole unbroken ears left intact baked in the bread. This seems rational because in Deut 23:25 the item is eaten whole rather than after any processing before going in the mouth.

In Deut 23:25 above, when people pluck growing ears from stalks, until they attempt to rub off the outer husks from the ears after picking, they cannot tell in advance whether the ears are almost empty, almost full, or full. Therefore it is not likely that *mleelot* refers to some particular stage of fullness. A different word, namely *mlayot* having Strong's number 4392, is a plural noun form of the adjective *mlay*, and this plural noun occurs in Gen 41:7, 22, and it means “full ones”, referring to full ears of grain. The fact that this different word means “full” is a second reason why it is very doubtful that *mleelot* means full.

On page 376 of Wevers 1995, he mentions that the Greek word that is used in the Septuagint for *mleelot* means “ears or stalks of grain”. The Knox translation of Jerome's Vulgate translates this “ears”. Here Jerome disagreed with the rabbinic texts on the meaning of *mleelot*. Rabbinic texts give the meaning as “full ears”.

(C) Introducing Questions to be Answered Later

Returning to Deut 16:9, the relationship between the phrase “sickle to the standing-grain” and the wave sheaf offering from Lev 23 is not stated. However, since Deut 16:9-10 is an outlined summary of matters that lead to the Feast of Weeks, it may at least be inferred that the tool called the sickle is used to cut down some standing-grain, and that this cut down standing-grain from Deut 16:9 is the agricultural item that is ultimately involved in the wave sheaf offering. This will be explored in greater detail later. The limited conclusion at this time is simply that the agricultural item of interest in the wave sheaf offering comes from cut *standing-grain*. The stage of growth of this standing-grain is not indicated in the summarized context of Deut 16:9-10, and this question remains to be explored later.

One paramount question concerning Deut 16:9 is whether any usage of this cut standing grain beyond that of the wave sheaf ceremony can be demonstrated from the related context of Lev 23:9-16. Technicalities of Lev 23:10 must be discussed. Care must be taken to avoid making assumptions for which there is no evidence. The reason for raising these questions is to discover whether there is any evidence concerning the degree of maturity of this cut standing-grain for the wave sheaf offering.

There is nothing in the context of Lev 2:14-16 to show that it refers to the wave sheaf offering or even that it pertains to only one kind of grain. This will be discussed further later.

The word *sheaf* that occurs in many translations in Lev 23:10, 11, 12, 15 is the Hebrew word *omer*. This has already been discussed and the conclusion was that this is a small bundle of stalks having ears. It will soon be shown that these ears are of barley. The priest waves or lifts up the *omer* when performing the wave sheaf ceremony. Obviously there must be standing grain for this to happen, and this is the first month according to Lev 23:5-21.

(D) On Day 15 of Month 1 *matsot* is eaten from the Prior Year's Crop

The single Hebrew word for “unleavened bread” is *matsot*, which is Strong’s number 4682. This word occurs in Lev 23:6 and Num 28:17 where both of these verses show that the 15th day of the first month is the first day of the Feast of Unleavened Bread. Ex 12:15 explicitly states that the Israelites were to eat *matsot* for seven days, and verse 18 takes care to specify that this period of eating *matsot* is from the end of the 14th day through the end of the 21st day. Deut 16:3 refers to *matsot* as “bread of affliction”, so that the normal Hebrew word for bread also applies to *matsot*. Lev 23:14 commands that until the wave sheaf offering has been performed, various forms of grain products, including bread (this includes *matsot*), must not be eaten by the Israelites. Since *matsot*, a form of bread, must be eaten from the end of the 14th day for seven days, thus including the 15th day, how can Lev 23:14 forbid the eating of bread until the wave sheaf offering has been performed? The answer to this apparent contradiction is that in verse 14 it must be understood that grain products are forbidden to be eaten from the *new crop* of grain until the wave sheaf offering is performed. The people were not forbidden from eating grain products from the previous year’s crop. Thus *matsot* may be eaten for all seven days from the previous year’s crop.

(E) Barley is involved in the Wave Sheaf Offering

What type of grain is involved in the wave sheaf offering? There is no direct statement about this in the Tanak, but there is clear indirect evidence from Lev 23:10, 14. Lev 23:10 concerns some technical details that are postponed until later, so verse 14 will be discussed now. Since Lev 23:14 forbids the eating of grain products from the *new crop* of the land until the wave sheaf offering, this implies that the first species of grain that ripens is the crop most affected by this prohibition. II Sam 21:9 says, “... in the days of harvest, in the first days, at the beginning of the barley harvest”. Here some translations have the second use of the word “days” in italics, indicating it is not in the Hebrew. The Hebrew word translated “first[day]s” is *reeshneem*, the masculine plural form of *reeshon*,

Strong's number 7223, found on page 911 of BDB. The Hebrew word for "days" is also masculine plural, so that the word "days" is implied yet absent. This verse is clarifying that the beginning of the grain harvest is when barley is reaped. This shows that barley is the first major crop to be reaped when the weather is warming after the cold of winter, although any full study of agriculture in Israel would reveal this. The wave sheaf offering must pertain to barley because it is the first grain crop to ripen. Ruth 1:22 ends with "... at the beginning of the barley harvest". The Hebrew phrase used here in Ruth also appears at the end of II Sam 21:9. Ex 9:31-32 also shows that barley matures before wheat and spelt.

Obviously there is some correlation between the first biblical month and the presence of standing ears of barley in Israel. There is a need to explore the nature of this correlation. How precise is the correlation?

(F) Two Questions about *chodesh ha aviv* including the Hebrew Grammar

Lev 23:6 shows that the Feast of Unleavened Bread occurs in the first month. Ex 34:18 reads, "You shall keep the Feast of Unleavened Bread. Seven days you shall eat unleavened bread as I commanded you at the appointed time [in] *chodesh ha aviv*, because in *chodesh ha aviv* you went out of Egypt." Num 33:3 states that the Israelites set out from Rameses in Egypt on the 15th day of the first month. The word *chodesh* may mean "month" or "new moon", depending on the context. Here in Num 33:3 it must mean "month" because the Feast of Unleavened Bread begins on the 15th day of the first month according to Lev 23:6 and Num 28:17. One matter is now obvious: the Hebrew word *aviv*, having Strong's number 24, is associated with the first month. We have also seen that standing ears of barley is associated with the first month.

Having introduced the phrase *chodesh ha aviv* from Ex 34:18, two questions now arise: (1) What does the expression *chodesh ha aviv* mean? (2) What is the significance of the grammar in this expression with the Hebrew word *ha* between *chodesh* and *aviv*? The word *ha* means "the". Some Hebrew expressions have *ha* where the English does not have "the", and some English expressions have "the" where the Hebrew does not have *ha*. Care must be exercised when attempting to draw conclusions from this, but there is definite evidence available concerning this second question.

The word *aviv* occurs eight times in the Tanak. In six of the eight places this occurs in the expression *chodesh ha aviv*. These six places are Ex 13:4; 23:15; 34:18 (twice); Deut 16:1 (twice). The context of these six places does not help to pin down the meaning of *aviv*. However, prior discussion of the hail plague did clarify that *aviv* encompasses the various stages of the growth of an ear of barley. Lev 2:14 is also important.

(G) Three Hypotheses on the expression *chodesh ha aviv*

The second question concerns the significance of the grammar in the expression *chodesh ha aviv*, especially focusing on the middle word *ha*, meaning “the”.

A third question will now be considered. For this third question, three different possible proposed choices or hypotheses are now presented concerning the expression *chodesh ha aviv*. It is useful to have the simplest verse with *chodesh ha aviv* before our eyes when considering its meaning. 13:4, “This day you are going out in the *chodesh ha aviv*.” there is universal agreement that *chodesh* means month. Some people want to understand this to mean “This day you are going out in the month [that is defined by the characteristic] *ha aviv*.” The word “of” is not required in Hebrew, so that others may understand this to mean, “This day you are going out in the month of *aviv*.” In the latter case the word *aviv* is treated as a name whose meaning is a characteristic of that month, but not of that month alone.

(i) This choice is the pure description hypothesis that uniquely defines only one month. This proposal claims that the meaning of *aviv* is sufficiently precise that the first place (in time) within the biblical borders of Israel that satisfies the definition of *aviv* causes the next month to qualify as the first month of the biblical year. In this hypothesis barley is involved and the natural conditions of temperature and water supply are not to be distorted for the evidence to be admitted. This pure description hypothesis claims that *aviv* is not a name, but is instead a precise description that uniquely determines the first month. Some promoters of this hypothesis may also claim that the middle word in the expression *chodesh ha aviv* is conclusive evidence from Hebrew grammar that the description in the definition of *aviv* must be so precise that no other candidate month could qualify as the first month.

(ii) This choice is the abstract name hypothesis. This proposal claims that regardless of what *aviv* means, the significant use that *aviv* has in the expression *chodesh ha aviv* is merely to abstractly label the month with a name rather than to insist that the meaning of *aviv* is significant in the expression.

(iii) This choice is the descriptive name hypothesis. This proposal claims that the use of *aviv* within the expression *chodesh ha aviv* serves the dual purposes of being a name (as a label) and also having a meaning related to the context of the first month. This choice avoids the need to require that *aviv* has such a precise meaning that its meaning alone identifies one and only one month. A biblical name frequently has meaning. For example, the name Isaac, in Hebrew, *Yitschak*, means “he laughs”. Note the meaning from the context in Gen 17:17-19 where Abraham laughed.

One purpose of this study is to consider the evidence for each of the above three

choices. One aspect of the evidence is to consider the consequences. The next chapter will consider one consequence.

(H) Solution to the Grammar Question in the expression *chodesh ha aviv*

Consider now the significance of the grammar involving the middle word *ha* in *chodesh ha aviv*. Is there any other biblical month that is identified with a word (not a number) for which the Hebrew word *ha* appears before the word? I Ki 8:2 states, “And all [the] men of Israel were assembled toward the King Solomon in *yerach ha etanim*, which [is] the seventh the month [= *chodesh*] at [the] feast.” Consider the following comments concerning I Ki 8:2.

(1) Note that this very literal translation takes painstaking care with the Hebrew word *ha* and the English word “the” so that whenever the Hebrew has *ha*, the English translation has “the”, and whenever the English would normally use “the” but the Hebrew does not have *ha*, square brackets are used to show the need to supply “the”. This illustrates the inconsistency between English and Hebrew concerning the use of the word “the” and *ha*. Much caution is needed before jumping to conclusions involving the presence or absence of *ha*.

(2) Note that the expression *yerach ha etanim* is typically translated “month of Ethanim”, omitting the word *ha* in translation. The word *yerach*, Strong’s number 3391, means “month”, but *chodesh* is used far more frequently. The word *etanim* has Strong’s number 388. In the commentary for I Ki 8:2 on page 193 of Gwilym Jones 1984 we read, “... the name [Ethanim] is connected with a root meaning ‘always filled with water’...” On page 82 of Norman Snaith 1947 he gives his opinion, “This makes Ethanim to be the month when only the most stubborn streams continue to flow. It is the last period of the summer drought, before the former rains begin.” Further remarks on the grammar of *ha* in the expression *yerach ha etanim* will be discussed below.

(3) Abraham’s native language was Akkadian, but when he arrived in the land of Canaan, he encountered the Ugaritic language, or perhaps a slight variant of Ugaritic. Abraham’s later years as well as Isaac’s life and Jacob’s life primarily involved contact with the language of the Canaanites, a variant of the Ugaritic language. Ancient Hebrew is very similar to Ugaritic and many Hebrew words of a technical nature are from Ugaritic. The Canaanites also used a lunar calendar that attached certain words or names to certain months in an annual pattern. Not enough archaeological information about the Ugaritic language is known to establish month names for all months, and even the order of month names that have been found is a matter of conjecture. It is not known whether there was a very precise rule to determine the placement of the month names among the Canaanites. The word *aviv* has not been found in Ugaritic, but since our current knowledge of

ancient Ugaritic is not complete, it is possible that the word *aviv* was used among the Canaanites (page 44 of Propp 1999). The month Ziv appears in I Ki 6:1, 37 and the month Bul appears in I Ki 6:38. The month names Ethaniam, Ziv, and Bul have been found in Ugaritic or Phoenician. At the time in biblical history that these names occur in I Kings 6 and 8, King David had conquered the Canaanites, so the Canaanite month names were not a source of competition or confusion within Israel.

We possess two archaeological examples of the use of Ethaniam (*etanim*) outside the Tanak. On the island of Cyprus a Phoenician document was found with the expression *yerach etanim* (page 421 of Lidzbarski). In a Ugaritic document from an area where Lebanon is today, the same expression *yerach etanim* (document 37A: page 8 of Donner and Rollig 1979, and page 54 of Donner and Rollig 1968) also occurs. In both of these non-biblical examples the word *ha* does not occur. This implies that ancient Israel added the word *ha* in the expression *yerach ha etanim* where *ha* did not occur in Ugaritic or Phoenician. Hence this expression from I Ki 8:2 should not be considered a mere copy of a Canaanite expression as though it had no significance in the ancient Hebrew language. The only known examples of the Hebrew *ha* before a month designation are for *aviv* and *etanim* in early ancient Israel. These are the first and the seventh months, which are unique in that they contain the major festivals. There may be a cultural reason associated with the festivals that motivated ancient Israel to place *ha* before these month designations.

(4) If the use of *ha* were to **grammatically force** a highly specific characterization or description in the expression *chodesh ha aviv* that would always force one and only one month to be determined through the meaning of *aviv*, then the same claim should prevail concerning the expression *yerach ha etanim*, an expression that is unique to ancient Hebrew, differing from the Ugaritic and Phoenician. The meaning of *etanim* as given above in (2) is a reasonable assertion according to several sources, but confidence in this is not nearly certain. The word *aviv* is used for the first month and the word *etanim* is used for the seventh month. Therefore, there are always exactly five months between them. But it does not make sense to imagine that a meaning from nature (agriculture or weather) that supposedly precisely and uniquely identifies two months will necessarily always have exactly five months between them, from month one to month seven. Therefore the alleged argument **from grammar alone** that *chodesh ha aviv* must be a very specific description that itself determines the first month is incorrect. Of course it still remains to be seen if other evidence (not grammatical) to be discussed later is able to force a highly specific meaning to *aviv* that would require exactly one month to be identified based upon its meaning and use. Footnote 1 on page 926 of August

Dillman 1882 states the following in my literal translation from his German, “In the OT it is verified that *aviv* is only joined with the [definite] article [*ha*] and only with *chodesh*, also its meaning is perfectly clear, not hidden, that it was also certainly to be understood [for the] month name; the situation is nothing different from use with *etanim*.”

Most of the questions that have been raised still remain to be answered. However, a clarification of the issues has been attained. We know that *chodesh ha aviv* refers to the first month. We know that the presence of the middle word *ha* does not have significant grammatical consequences. We know that standing ears of barley is involved with the wave sheaf offering, which occurs during the first month. For the meaning of *aviv*, key explorations remain concerning Lev 2:14-16. The wave sheaf offering concerning Deut 16:9-10 and Lev 23:9-16 remains to be discussed in more detail.

[8] Deut 30 teaches that Barley cannot Determine the First Month

Deut 30:1, “And it shall be when all these things have come upon you, the blessing and the curse that I have placed before you, and you think about [them] in your heart in all the nations where YHWH your Almighty has banished you,”

Deut 30:2, “Then you shall repent to YHWH your Almighty [and] listen to His voice with all your heart and with all your soul according to all that that I command you today, you and your children.”

Deut 30:3, “Then YHWH your Almighty shall restore your captivity and He will have compassion to you and change, and gather you from all the nations that YHWH your Almighty has scattered you.

Deut 30:4, “If your exiled ones should be at the end of the heavens, from there YHWH your Almighty shall take you.”

Deut 30:5, “And YHWH your Almighty shall bring you into the land that your fathers possessed. Then you shall possess it and He will do you good and multiply you more than your fathers.

Verse 2 implies that the people will again keep the festival days, and verse 4 shows that the people will be scattered in places very far away from the Promised Land. In order to keep the festivals these scattered far off people would have to have the ability to know when the festivals occur. In particular, they would have to know when the first month occurs. Before modern communication, in order to keep the festivals at the proper time it would have had to have been possible to know when the first month began without getting reports about barley from Israel from so far away. Consider the following.

Deut 30:11, “For this commandment that I am commanding you today [is] not too

difficult for you and it [is] not far off.”

Deut 30:12, “It [is] not in [the] heavens [that you should] say 'Who shall go up for us [to] the heavens and get it for us and enable us to hear it that we may do it ?'”

Deut 30:13, “And it [is] not beyond the sea [that you should] say 'Who shall cross over beyond the sea for us and get it for us and enable us to hear it that we may do it ?'”

Deut 30:14, “For the word [is] very near to you, in your mouth and in your heart that you may do it.”

If knowing the state of the barley in Israel was required, then before modern communication, it would have been too difficult and would be far off beyond the sea for those in North America and South America. Here we have a general principle that provides evidence that we do not need to know about barley in Israel for the first month.

[9] The Fuzzy Theory for Knowing when the First Month begins

The nature of the planet earth requires an International Dateline (IDL). Based on considerations of avoiding confusion between peoples that are living close to one another as well as the historical evidence for the direction of the drift of the continents, there is a good case for accepting the IDL somewhere in the middle of the Pacific Ocean. However, the arbitrary way in which the modern IDL wiggles is fuzzy in terms of justifying it.

Once electricity became available, it became possible for people to live comfortably near the North Pole and the South Pole. In those environments there are certain months of the year in which there is no true darkness, no visibility of the stars at night, and in fact not even a sunset! Therefore the concept of counting days and especially knowing when the Sabbath begins and ends is fuzzy.

It is certainly true that before modern communication from Israel, people very far from Israel could not know when the new crescent was sighted in Israel in order to know which of two days begins the month. One approach to solving this in ancient times was to keep two successive days for the festivals so that whichever of the two days is correct, you are keeping the correct one. Another approach to solving this in prior times is to use the principle to observe the new crescent from where you live without contacting other people at all for what they saw. This also may be viewed as a fuzzy area.

The idea of the fuzzy theory begins with the above considerations. However, the above aspects are really not so fuzzy in the sense that there are common sense workarounds. With modern electricity and modern clocks it is possible to pick a time of day. International convention has established a specific IDL.

Here is how the fuzzy theory attempts to expand this to the use of *aviv*. Since the meaning of *aviv* in Scripture will be shown to be broad, so that there is no specific detailed test that one can apply to growing barley that agrees with its use in the Tanak, people in Israel will examine barley and select some time that seems appropriate to them. This is not a precise type of trigger for deciding between the first month and the thirteenth month; it is fuzzy. However, according to the fuzzy theory, this is perfectly fine.

The problem with the fuzzy approach is that if independent teams of people examine the barley growing in Israel, it is reasonable to think that they will not agree. They will have a fuzzy disagreement. Historically this did happen as the following shows.

In discussing the Karaites, pages 392-393 of Nemoy 1930 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 Tanak does not provide a botanically precise description for the month of *aviv*.

The outcome of this fuzzy theory is a lack of unity that could cause various groups to celebrate the festivals one month apart (or possibly even two months apart in some years). In recent years this has happened among some people, even among those who desire to use the concept of ripeness of barley. The choice of decision among some people would likely center around the personalities of those doing the judging of the barley. Only the Aaronic priesthood has the biblical authority for such a decision if the method is correct by Scripture.

[10] 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, this could make a significant difference in the time of the ripening of barley in Israel when viewed as a whole. This also makes it hazardous to make general precise statements about the time of the ripening of barley.

[11] Stages in the Development of an Ear of Barley

The journal article by Zadoks and others presents a list of distinctly definable stages in the development of a grain of cereal. In the botanical terminology of cereal crops the word “caryopsis” refers to the grain. On page 418 all of the distinct stages of the caryopsis are segregated into three broad phases in the order of timing: (1) Milk Development; (2) Dough Development; and (3) Ripening.

Milk development consists of the following four stages: caryopsis water ripe, early milk, medium milk, and late milk.

Dough development consists of the following three stages: early dough, soft dough (finger nail impression not held), and hard dough (finger nail impression held).

Ripening consists of the following four stages: caryopsis is hard and difficult to divide by the thumb-nail, caryopsis is hard and can no longer be dented by the thumb-nail, caryopsis is loosening in the daytime, and over-ripe (straw is dead and grain is collapsing).

The above classification defines eleven stages. The time for each stage depends upon the specific species of crop (for example barley, wheat, and buckwheat), the variety of each crop (genetics plays a role), and how rapidly the heat rises from day to day in the area of that crop. In the warmest areas where the temperature changes the slowest from day to day, these eleven stages may take about three months for certain varieties of winter barley. In the coldest areas having latitudes far away from Israel where the temperature warms very quickly from day to day, all stages may only take about one month.

[12] Firstfruits and the Hebrew words *bikurim* and *raysheet*

The word *aviv* is found in Lev 2:14, and this highly significant verse also contains the word firstfruits [1061 *bikurim*]. Before discussing Lev 2:14 in depth, it is beneficial to discuss *bikurim* because it helps to provide more context to Lev 2:14 and it will be useful later. This word occurs 17 times in the Tanak, always in one of the two plural forms, *bikurim* or *bikuray*. In eleven of these 17 times it relates to an

offering that was to be brought by the Israelites to the priesthood (Ex 23:19; 34:26; Lev 2:14, 14; 23:17, 20; Num 18:13; Neh 10:35, 35; 13:31; Ezek 44:30). In these eleven contexts this word is generally and consistently translated “firstfruits”, and this is not a controversy. The other six places where *bikurim* occurs are Ex 23:16; 34:22; Num 13:20; 28:26; II Ki 4:42; Nah 3:12.

One instructive context is Num 13:20, “And how [is] the land, [is it] fat [= rich] or lean [= poor], does it contain wood or not? And strengthen yourselves and bring of the fruit of the land. Now these days [were the] season of [the] first-ripe [= *bikurim*] grapes.” Grapes are ripe in Israel from about early August to the middle of November, a stretch of at least three months. This is too long for the entire period to be meant as a specific time reference in Num 13:20. The context here implies some specific agricultural description of the time of the year concerning grapes. Since the basic meaning of this word concerning an offering is “firstfruits” the word *bikurim* means “first-ripe” in Num 13:20. Another corroboration of this is Nah 3:12, “All your fortifications [are] fig trees with ripe-fruit [= *bikurim*]; if [they are] shaken they will fall into [the] mouth of an eater.” Only ripe fruit will fall from a tree when the tree is shaken. Thus the meaning is “ripe-fruit” here. These examples using grapes and figs show that the word *bikurim* implies ripeness. With grapes and figs ripeness is a synonym for usefulness for human consumption.

Another significant verse containing *bikurim* is II Ki 4:42, “Then a man came from Baal-shalisha and brought to [the] man of the Almighty bread of firstfruits [= *bikurim*], 20 loaves of barley, and fresh-grain encased [= in husks]”. The significance of this verse lies in the fact that bread was made from barley that is called firstfruits (*bikurim*). This shows that the barley that is called firstfruits can be fully ripe so that flour may be made from it. The word *bikurim* does not have to imply that the barley is less than fully ripe, though it may be less than fully ripe, and this will be explored further shortly. The above translation at the end of II Ki 4:42 is not relevant to the purpose of understanding *bikurim*. However, any interested reader who desires to know my motivation for translating the ending that way may consult pages 109-111 of Margalit 1984, pages 389-392 of Margalit 1989, and page 118 of Loewenstamm 1975.

II Ki 4:42 is an example of the use of *bikurim* in which it was given to the prophet Elisha rather than a priest. In the following five places *bikurim* is associated with the Feast of Weeks, also called Pentecost: Ex 23:16; 34:22; Lev 23:17, 20; Num 28:26.

We have seen above that grain called firstfruits (*bikurim*) may be fully ripe so that flour and bread may be produced from it. Now we consider the question of how early a stage in the development of grain it may be considered firstfruits. We have

seen above that the word *bikurim* implies ripeness as it was used in the context of grapes and figs. These fruits are considered ripe based upon certain taste characteristics and usefulness for human consumption.

Now consider grain. In the context of walking through the grainfields, Luke 6:1 states, “His disciples plucked the heads of grain and ate them, rubbing them in their hands.” This may certainly be in a stage before it may be ground for flour. The disciples were eating the grains raw and were apparently comfortable doing it. Thus the grains were not yet hard. Since the stage of development of these grains made them suitable for human consumption, they could qualify as suitable for a firstfruits offering. Scriptural ripeness for *bikurim* is not the same as the modern agricultural concept of ripeness for commercially reaping fields of grain. Ancient farmers would not want to begin their general reaping until the grain crop was advanced enough to make flour. Thus the grain offering of firstfruits to the priesthood could precede general reaping or wait until general reaping. Without experimentation with a specific variety of barley, it is not possible to abstractly state a specific earliest stage of usefulness.

In five of the 17 contexts with *bikurim* (Ex 23:19; 34:26; Num 18:12-13; Neh 10:35-37; Ezek 44:30) another Hebrew word, *raysheet* occurs, which has a greater variety of meanings. Strong's number 7225 is assigned to *raysheet*. Translations of *raysheet* sometimes differ from one another, even in the same verse. These five contexts all involve an offering by the Israelites to the priesthood of valued items that originate, directly or indirectly, from life that comes forth from the earth. Our goal now is to study the meanings of *raysheet*.

When a fine point of the law of Moses is under discussion in a translation of the Tanak where many contexts are involved, it is generally safer to consult a committee translation made by Jewish scholars because in a multitude of counsel there is wisdom, and because Jews would be more sensitive to fine points of the law than others. Two recent committee translations by Jewish scholars are Tanakh-JPS and Tanach-Stone. The former of the two had contributors from all branches of Judaism, while the latter is an Orthodox rabbinic work that was influenced by Jewish sages of the past. In all contexts for *raysheet* I looked at both of these translations, and occasionally I looked at other translations. I also consulted some commentaries and lexicons.

The Hebrew word *raysheet* occurs 51 times, and I have split them into six groups. Only the second and third groups involve the priesthood. In the first group of 19 places *raysheet* means “beginning”: Gen 1:1; 10:10; 49:3; Deut 11:12; 21:17; Job 8:7; 42:12; Ps 111:10; Prov 1:7; 4:7; 8:22; 17:14; Eccl 7:8; Isa 46:10; Jer 26:1; 27:1; 28:1; 49:34; Micah 1:13. In the second group of eleven places the priesthood

is involved and the meaning of *raysheet* is perhaps subjective, and its translation often varies: Lev 2:12; 23:10; Deut 18:4, 4; 26:2, 10; II Chr 31:5; Neh 10:37; 12:44; Prov 3:9; Ezek 20:40. In the third group of eight places the priesthood is involved and *raysheet* means best/choicest or first: Ex 23:19; 34:26; Num 15:20, 21; 18:12; I Sam 2:29; Ezek 44:30, 30. In the fourth group of six places *raysheet* means best or leading or finest: I Sam 15:21; Jer 49:35; Ezek 48:14; Dan 11:41; Amos 6:1; 6:6. In the fifth group of six places *raysheet* means first (though there might be some dispute in Jer 2:3): Num 24:20; Job 40:19; Ps 78:51; 105:36; Jer 2:3; Hos 9:10. The sixth group has only Deut 33:21 where the meaning may either be best or first.

The common concept that unites all six groups that represent *raysheet* is “first” in the sense that it may mean first in time, first in quality, first in prominence, first in strength, or first (in quality or time) from a crop or a product from a crop, where that small amount is to be presented to the priesthood. In contrast to this, the word *bikurim* primarily means “firstfruits” in the sense of an offering presented to the priesthood, yet there are some exceptions in its use, especially with regard to the Feast of Weeks. However, even when the latter feast is involved, the firstfruits (*bikurim*) of wheat is in mind (Ex 34:22), so that it may be argued that associations with this feast are really not an exception. Thus *bikurim* is almost exclusively a holy offering, while *raysheet* is multifaceted with some aspect of “first” involved, and it has some differences with *bikurim* as some examples will show.

Ex 23:19, “You shall bring the choicest / first [= *raysheet*] of [the] firstfruits [= *bikurim*] of your ground [into the] house of YHWH your Almighty.” Here *raysheet* is descriptive of *bikurim* rather than serving the role of a synonym. The actual form of *bikurim* here is *bikuray*.

Lev 2:12, “[As for the] offering of [the] choice-products [= *raysheet*], you shall offer them to YHWH, but they shall not be offered-upwards [in smoke] on the altar for a sweet aroma.” Here Tanakh-JPS translates *raysheet* “choice-products”, but Tanach-Stone translates it “first-fruit”. The context from verse 11 is a cereal-offering (sometimes translated “grain offering” or “meal offering”). Verse 12 forbids this offering called *raysheet* to be burned on the altar, but in verse 16 part of the cereal-offering called *bikurim* in verse 14 is commanded to be burned by fire. This shows a distinction between *raysheet* (none to be burned) and *bikurim* (part to be burned), although the cause for this distinction is not explained.

Prov 3:9, “Honor YHWH with your wealth, and with the best [= *raysheet*] of all your produce.” Here Tanakh-JPS translates *raysheet* “best”, but Tanach-Stone translates it “first”. Some translations use “firstfruits” here. This indicates a subjectivity in one's decision of how the context should be viewed. Prov 3:9 may

well be talking about an offering to the priesthood after the firstfruits offering was made. It may be present to encourage giving to the priesthood whenever the farmer notices a particularly excellent item. If *bikurim* is the Hebrew word, you know it refers to commanded firstfruits, unless the context clearly shows it to be totally different. When *raysheet* is used, it requires some subjective thought and perhaps uncertainty concerning whether it refers to the first offering of that crop to the priesthood in its normal fashion where *bikurim* could also have been used. The word *raysheet* may refer to “first in quality”, i. e., best or choicest. Perhaps the context has a highly unique usage for which *bikurim* would not fit in its normal usage, so that *raysheet* was used instead.

There are two places among the 51 in which both Tanakh-JPS and Tanach-Stone agree to use “firstfruits“ for *raysheet*: Neh 12:44 (Tanakh-JPS has “first fruits” and Tanach-Stone has “first-fruits”) and Ps 78:51 (Tanakh-JPS has “first fruits” and Tanach-Stone has “first fruit”).

Since the two words *bikurim* and *raysheet* generally have distinctions between them, it seems preferable in the vast majority of cases to use a translation that preserves this distinction.

When a grain (i. e., cereal) offering is involved, the small quantity has value for human consumption even during some soft stages of development, and this is long before the normal time for general reaping. This implies that whether the word *bikurim* is used or *raysheet* is used for a grain item, that item certainly has value for human consumption. Indeed it must have such a value if the context implies that the priesthood will consume it. However, no particular stage of development of the grain is implied by these words. Ripeness for general reaping is not implied by these words when applied to grain.

[13] Heat Determines the Ripening time of Winter Barley in Israel

The rainy season in Israel generally begins with light rains in November and mostly ends in April, although there can be some rare showers at other times. Page 4 of Nuttonson 1957 states, “In some of the high-temperature and winter-precipitation regions of the world, barley is grown without irrigation in areas where the annual rainfall seldom exceeds 8 inches and is often even less than that.” This *winter-precipitation* applies to Israel, but in the southern desert areas of Israel the annual precipitation is less than 2 inches. This desert condition also applies to the Sinai Peninsula.

The rain pattern in Israel demands that there can only be one barley harvest per year in Israel without artificial irrigation. Here is a general outline of what happens in Israel, with some details to be filled in by quotations from Nuttonson. The planting of barley occurs in November or early December. Then it grows for a

while and develops depth in the soil. It lies dormant during most of the winter, and as the temperature warms, it begins to ripen. Barley that lies dormant during the winter is called winter barley.

Page 19 states, “Students of the temperature relations of plants generally consider that the physiological processes of most cereals usually stop below 40 degrees F. temperature.” Nuttonson continues, “It is also known that the temperature of 40 degrees F. is rather close to the minimum requirements for the growth of barley.” Nuttonson develops a formula that uses the mean daytime temperature when it is above 40.

He also uses a multiplication factor that is unique to each month (pages 267-272) in his formula, and this factor does change based on the latitude. The reason for the multiplication factor for each month is that the greater number of hours of daylight, the overall amount of **heat** is greater based on the mean temperature for the day if that is over 40. **The result of his formula shows the number of days from the heading of barley to its ripeness.**

His formula applies after the deep cold of winter when the mean temperature of the day is no longer under 40 degrees F., and he calls the result the day-degree summation requirement. He concludes that for each geographical region and each variety of barley, there is a specific day-degree summation requirement. He analyzes data for barley from different parts of the world to show that his formula applies. Nuttonson also discusses the effect of rain. A lack of rain can hasten ripening. Overall, the primary determinant for ripening is the mean temperature above 40 each day, along with the multiplication factors for the two or three months that apply. Hours of daylight does affect the total amount of heat for the whole day, and that is the reason for the multiplication factor for each month. The key temperature is 40 degrees F. If the mean temperature is below 40 for some day, then that day does not contribute to ripening. The greater the number of hours of daylight in the month, the greater the multiplication factor that is multiplied by the amount that the temperature exceeds 40. The major multiplier is the temperature.

The earth’s axis causes the seasons, although its result would have had no changing effect without the atmosphere to spread the heat over a large volume. Without the atmosphere to spread out the heat, the earth’s surface would be hotter than boiling water as it is on the surface of the moon. The spread of light into the atmosphere relating to the seasons is the most important factor in producing the temperature. The greater the angle of the light at noon, the greater the volume of the spread of light into the atmosphere, the lower the temperature.

Using the result of the work by Nuttonson, the development of an ear of barley is based upon a combination of the earth’s axis (causing the angle of the sun’s light to

vary at noon), the atmosphere, light from the sun, and miscellaneous minor factors such as wind, clouds, and rain, all over two or three months. From the biblical culture in which the Tanak is written, ancient Israel used two separate words, heat and light as effects of the sun. Israel was not aware of the modern understanding that each photon of light from the sun causes both heat and light. The Tanak separates the words for heat and light into different contexts, although a very few verses include both, but not claiming that light causes the heat. Gen 1:14-18 only speaks of light, not heat. The formula for estimating the number of days from the earing of barley until it is ripe is based on heat that is spread out over two or three months. The two keys are the number of degrees of temperature above 40 and the number of hours of daylight. The latter matters because the greater the hours, the greater the overall heat. Heat causes the gradual ripening.

The thought of a slow daily change in the development of an ear, where the hail plague shows that the meaning of *aviv* covers many stages of that development with no clear first stage, results in a fuzzy boundary for judging *aviv* that is like trying to nail jelly to a tree. Such a boundary cannot be defined by an objective test that fits Scripture. Different people are likely to come to different conclusions. The result will be a lack of unity.

[14] Southern border of Ancient Egypt when the Israelites were Slaves

The Israelites were slaves in Egypt where the plague of hail was destructive, mentioned in Ex 9:22-34. In order to fully grasp the context involving all of Egypt, the southern border of ancient Egypt is worthy of discussion. Ezek 29:10 states, “Indeed, therefore, I am against you and against your rivers, and I will make the land of Egypt utterly waste and desolate, from Migdol to Syene, as far as the border of Ethiopia [3568 *koosh*].” On page 98 in Sten Hidal 1977 we find that the ancient city of Syene is the location of modern Assuan (or Aswan), just north of today’s Aswan Dam in southern Egypt. Evidently Syene was the most southern city of ancient Egypt.

The name of the territory called *koosh* in biblical Hebrew is often translated Ethiopia, as seen above in Ezek 29:10. On page 27 of Margaret Shinnie 1970, we read, “KUSH is THE name that was given by the ancient Egyptians to the kingdom which lay to the south of their borders. This kingdom became really important in the time of the Meroitic people, and was the most ancient of the independent kingdoms of Africa. It spread over a part of the country which we now know as the Republic of the Sudan, to the south of Egypt, and like Egypt, it has always been dependent on the great river Nile for its life.” From this we see that geographically, the translation “Ethiopia” should be approximated with modern Sudan, not modern Ethiopia.

On pages 3-4 of Stanley Burstein 1998, we note, “Kush is the term the ancient Egyptians used to designate the upper [in altitude above sea level] Nile Valley south of Egypt and the various civilized states that occupied part or all of that region from the early second millennium BCE [c. 2000 BCE] to the end of antiquity. The historical significance of these states is considerable. By the early first millennium BCE they [the Kushites] had succeeded in unifying virtually the whole of the Nile Valley from near the southern border of contemporary Egypt at Wadi Halfa to a still undetermined point south of Khartoum, the capital of the modern Republic of Sudan.” From this we see that the southern border of ancient Egypt back to about 2000 BCE was approximately the same as the southern border of modern Egypt.

Later on page 4, we note, “Kush and its last and most famous capital, the city of Meroe (located near the junction of the Nile and the Atbara rivers in the central Sudan), were well known to the Greeks and Romans under the name Aithiopia (‘land of the burnt faced people’).” On page 37 of Liddell and Scott under the Greek word entry *Aithiops*, we find, “properly, *Burnt-face*, i. e. *Ethiopian*, *Negro*, ...” The Romans who spoke Latin borrowed this Greek word into their language. When Jerome translated the Hebrew Bible into Latin, which became known as the Vulgate, he translated the Hebrew word *koosh* in Ezek 29:10 into the Latin *Aethiopiae*; for example, see Weber. In the Septuagint translation of the Hebrew Bible into Greek, Ezek 29:10 has the Greek *Aithiops*, which may be found on page 10 of Appendix 1 in Hatch and Redpath 1998 where all places in which the Hebrew *koosh* is translated into the Greek *Aithiops* are listed. The English name “Ethiopia” is a transliteration from the Greek name *Aithiops*, Strong’s number 128, found in Acts 8:27.

On page 9 of Stanley Burstein 1998, we note, “Only in the first millennium BCE did a fortuitous combination of circumstances free the Kushites from this cruel dilemma [Egyptian domination and exploitation] and allow their civilization to grow and flourish.” Later on page 9 we see, “Indeed, for a brief period in the eighth and early seventh centuries BCE, Kushite kings were even able to turn the tables and conquer and rule Egypt (ca. 712-664 BCE).” The conclusion is that the southern border of ancient Egypt when the Israelites were slaves there was about the same as it is today.

[15] Introduction to the Plague of Hail and Ex 9:31-32

The account of the plague of hail upon Egypt appears in Ex 9:22-34. Verse 31 has a very significant use of *aviv* in a meaningful context that provides excellent information regarding the meaning of *aviv*. In order to squeeze out all of the meaning from the context, a variety of factors will have to be considered including

Egyptian climate, geography, topography, and agriculture.

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 cannot 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 cannot 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 *aviv* in this context of the hail plague.

Ex 9:31, “And the flax and the barley were ruined because the barley [was in] ear [= *aviv*] and the flax [was in] flower [1392 *gevol*]”.

Ex 9:32, “But the wheat and the spelt were not ruined because they [ripen] later.”

Here the entire phrase “was in ear” is given for the Hebrew word *aviv*. Joseph Magil, a teacher of Hebrew to Jewish youths, on page 158 of his literal interlinear

phrase by phrase translation, uses square brackets in writing “[was in the] ear”. Magil also wrote, “the flax [was in] blossom”. To show what is implied about the meaning of *aviv* from this context it is necessary to discuss a little about agriculture in Egypt and more specifically about the time of the barley harvest in different parts of Egypt. The meaning “flower” for *gevol* is taken from Smith 1883.

[16] Winter Grain, Agriculture, and Rainfall in Ancient 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. If there is no artificial irrigation, barley requires about eight inches of rainfall during the growing season for a crop to come. The only reason that Egypt produced abundant highly valued crops is that the annual overflowing 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.

The source of the water for the Nile River is rain and melting snow from the mountains of Africa. The sowing of grain crops in Egypt about the middle of October will soon cause these grain crops to remain essentially dormant during the coldest part of winter, and then slowly begin to grow with gradually developing grain as the temperature begins to warm. When a grain crop is dormant during the cold of winter, it is called a winter crop. Thus we speak of winter barley and winter wheat when the context is during the months of October to May in the northern hemisphere. With sufficient water from the Nile River overflow saved in containers, a second and third grain crop may also be grown later that year near the Nile banks, but that annual timing is not winter grain and that annual timing is not controlled by the natural cycle of the Nile River along with the natural cycle of the seasonal temperature.

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 1985 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 of Talbert.

Ancient Egypt extends from the Mediterranean Sea to the First Cataract, 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 applicable to the distant past for winter grain.

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

In 1883, six years before the first dam at Aswan was built in southern Egypt, biblical scholar W. Robertson Smith published a paper (see a copy of this paper in Appendix B) concerning the time of the winter barley harvest in Egypt. Our interest is in the winter barley, which is planted about the middle of October throughout the Nile River basin and grows only slightly during the coldest part of winter. The last paragraph in Smith's paper helps to clarify and reconcile the reports numbered under points 2 and 4 in his paper. Smith points out that the source of information that was sent to him in point 2 means “about ready to harvest” when he states, “is in ear”, but the source of information in point 4 means “the ear has just formed” when he writes, “is in ear”. 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 35-day period for the typical time of reaping in the south to the typical time of reaping in the north 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. Hence barley remains in the ear for about 90 days from its formation until its reaping at the location a little north of Cairo. The time of reaping is perhaps 20 days before the time of dead ripeness when the ears have its lowest moisture of 8 to 10 percent and the crop will suffer much loss because the dead ripe grains will fall off onto the ground before they can be captured in the reaping process. Farmers will not wait until the time of dead ripeness.

This approximate 90-day period of being in the ear is based upon the climate at this part of Egypt where the temperature gets warmer very gradually during the winter. This does not hold true for all locations. The more rapidly the temperature rises from day to day, the more quickly this total 90-day period is shrunk. This means that in Israel where the transition from cold weather to warm weather is quicker, this 90-day period of being in the ear is reduced. The variety of barley is also a factor that would alter the total time that the barley is in the ear. The colder weather in the north of Egypt compared to the south of Egypt delays both the start of earing and the ripening process so that the time for harvest in the extreme north is about 35 days later than in the extreme south.

For winter barley in Israel, the total number of days from the beginning of ear formation until the desired time for harvest depends on the weather and most especially the mean temperature above 40 degrees F. There is also a multiplication factor based on the number of hours of daylight, but without attaining the 40 mean, the hours of daylight do not count. The variety of barley will also affect this time. From literature that I have read, this is likely to be from about 50 days in the coldest areas of Israel to 75 days in the warmest areas. Each year the actual time interval will vary because the temperature, and the secondary factor of rain, will vary. If it gets hot for a greater number of days with little rain after the ear has formed, the time will be closer to 50 days.

[18] Lewis' Book and Ears of Winter Barley in Egypt

Page 115 of Lewis' book about ancient Egypt 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, which is 110 miles. Page 115 of Lewis states, "October [Phaophi] The Nile flood is past. Sowing of cereal crops begins."

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

Hartmann's book about ancient Egypt discusses 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." This is also consistent with the previous data.

[20] Pliny the Elder and Ears of Winter Barley and Wheat 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 crop may cause this time difference to vary.

Michael Zohary, a professor of botany from Hebrew University in Jerusalem, wrote on page 76 of Zohary 1982, "... it [barley] ripens a month or more before wheat, ..." This implies that one might expect there to be more than a month's difference with many varieties of these two cereal crops. One might approximate the time difference between reaping barley and wheat to be about the same as the 35-day difference from southern Egypt to northern Egypt for reaping barley. This means that when barley is reaped in the far north of Egypt in early April, wheat is about ready to be reaped in the far south of Egypt. Because the wheat was not destroyed in southern Egypt at the time of the hail plague, this implies that the barley was not yet ripe in northern Egypt at the time of the hail plague. This will be discussed more thoroughly soon.

[21] 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*, which is 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 writes, “Contrast both KB I, 77 [a German work], and HALAT, 76 [a German work], 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 recent Hebrew lexicons agree with BDB on this and there is no evidence for this. The English translation of the German reference HALAT is abbreviated HALOT. On page 78 of HALOT the meaning of *afeel* is “late in the season”.

The NASB does accurately capture the meaning of Ex 9:32, “But the wheat and the spelt were not ruined, for they [ripen] late.”

[22] Conclusions on the Time of the Hail and the Meaning of *aviv*

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 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. Because it is warmer in the south, ear formation of barley south of the Delta would have occurred before January 1.

Since the hail plague destroyed the barley in the southern part of Egypt before it was harvested in the latter part of February, the hail plague must have occurred before the latter part of February. This makes it obvious that the hail plague occurred sometime in January or February, but not at the beginning of January or the end of February. This also means that at the time of the hail plague, the state of the barley in northern Egypt was at least five weeks prior to the time that it was to be harvested in April. This means that the barley in northern Egypt was not ripe in the normal sense at the time of the hail plague, but it is called *aviv* in Ex 9:31. This means that *aviv* does include a development time prior to ripeness for normal harvesting by at least five weeks. There are more facts in Smith’s paper that allow us to improve this conclusion.

From Smith's paper item 2(c) states, “When the barley is in ear [to this respondent

'in ear' means 'ready to reap'] the ears of wheat begin to form, but the grains are in a milky state.” This means that at about February 15 the barley was soon to be ready to harvest in the far south and the wheat was almost ready to begin ear formation in the far south. In the rest of Egypt the wheat would begin ear formation later. This indicates that the hail plague would not have occurred later than about February 15. In order for all the barley in the south of Egypt to be destroyed, it is very doubtful that the hail would have come before January 15 because at so early a time the ears of barley would only be at the first stage (water ripe) or the second stage (early milk). The greater the ear growth, the greater the likelihood of destruction. The most that can be said with confidence is that the hail plague occurred between January 15 and February 15, more likely toward the end of that time.

Since this pushes the time of the previous estimate for the hail plague two weeks earlier, instead of a five week period before the normal time for harvesting, the actual time of the hail plague was at least seven weeks before the normal time for harvesting the barley in the northern extreme of Egypt. This is the time difference between February 15 and within the first half of April when the barley harvest in northern Egypt occurred.

This means that *aviv* includes barley in growth seven weeks before the normal time of ripeness for harvest in this context of northern Egypt. This is 49 days before the end of the full 90-day period from the start of earing until reaping. This certainly is a time before ripeness. Hence the biblical meaning of *aviv* includes barley in a pre-ripe state.

The eleven stages of barley are defined because there are criteria that allow distinguishing between these stages of growth. The 35-day span in ear development from south to north shows that in Ex 9:31 the word *aviv* was applied to all the stages in the 35-day span. Thus *aviv* is not applied to only one stage of barley. The eleven stages are grouped into three phases: milk, dough, and ripening. The entire time of being in the ear at any one location in Egypt is about 90 days. The last of the eleven stages is over-ripe, which would not responsibly occur. This reduces the number of stages to ten in about 90 days. This is about nine days per stage. In 35 days there are about four stages. The middle phase is the dough phase, which has three stages. With a 35-day spread, the ears would encompass either the pair “milk phase and dough phase” or the pair “dough phase and ripening phase”. Perhaps all three phases might even be represented.

This is evidence from the Tanak along with Egyptian agriculture that the Hebrew word *aviv* has a wide range of meaning in stages of growth rather than a narrowly defined meaning of one stage.

Writing in 1880, August Dillman discusses the timing of the hail plague on pages 88-89 based on sources that he mentions (avoiding any discussion of 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.” Both of these authors chose dates that fall within the range between January 15 and February 15, the conclusion attained using Smith's paper with other corroborating sources.

On page 103 of DCH, the meaning of *aviv* is “ear (of cereal)”, and one context it cites for the use of *aviv* 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 *aviv* is translated “ears” and implies that the ears were ground into flour in order to make bread. This example of the use of *aviv* from c. 150 BCE shows that the range of the meaning of *aviv* extends to being fully ripe so as to be able to make flour.

Conclusions about *aviv*: From the context of Ex 9:31-32 alone, the word *aviv* does include multiple stages of the development of ears of barley. Either the milk and dough phases are represented, or the dough and ripening phases are represented. The flexibility in the language of Lev 2:14 allows the firstfruits of the cereal offering to include all stages in the development of the ear of grain, and *aviv* is applied to such firstfruits. This implies that *aviv* means “ears” without restriction to any stage or stages of growth. The Dead Sea Scrolls from c. 150 BCE show that *aviv* includes a state of grain that allows flour to be made from it.

In the expression *chodesh ha aviv* the word *aviv* is a descriptive name meaning “ear”. This expression literally means “month of the ear(s)” or “month of ears”. There is also no harm in using a transliteration such as “month of Abib”.

[23] The Meaning of *karmel* (3759) in Lev 2:14; 23:14; II Ki 4:42

(A) The Categories of Meaning of *karmel*

The reason for the interest in the Hebrew word *karmel* lies in its use in Lev 2:14, which also contains the word *aviv*. The word *karmel* has Strong's number 3759 and occurs 40 times in the Tanak. These 40 occurrences may be separated into four groups. It occurs 15 times in the phrase “Mount Carmel”: Josh 12:22; 19:26; I Ki 18:19, 20, 42; II Ki 2:25; 4:25; Song 7:5; Isa 33:9; 35:2; Jer 46:18; 50:19; Am 1:2; 9:3; Nah 1:4. It occurs seven times as the city “Carmel”: Josh 15:55; I Sam 15:12; 25:2, 2, 5, 7, 40. It occurs 14 times having the meaning “fertile”, “plentiful”, “fruitful”, or “orchard” (a few of these are sometimes translated as the city Carmel): II Ki 19:23; II Chr 26:10; Isa 10:18; 16:10; 29:17, 17; 32:15, 15, 16; 37:24; Jer 2:7; 4:26; 48:33; Micah 7:14. It occurs three times in the context of ears

of a grain crop: Lev 2:14; 23:14; II Ki 4:42. The meaning of *karmel* in the last of the four groups (three verses) with a context involving a grain crop is our primary concern.

The clearest verse and the most useful one to provide a very general meaning to *karmel* follows.

Lev 23:14, “You shall not eat bread, nor roasted/parched-grain, nor *karmel* until this same day [of the wave sheaf offering], until you have brought [the] offering of your Almighty. It is a statute forever throughout your generations in all your dwellings.”

The goal of this verse is to prohibit eating of the current year's grain crop until the wave sheaf offering. This verse separates the food of the grain crop into three categories: (1) bread (this includes all foods made from flour such as cookies, cake, and noodles); (2) roasted/parched-grain; and (3) *karmel*. This shows that *karmel* is a name given to a form of the grain crop that may be eaten. There is an example of eating grain that does not fit the first two categories, so it should explain *karmel*. This example now follows.

Luke 6:1, “His disciples plucked the heads of grain and ate them, rubbing them in their hands.”

Rubbing the raw grain served the purpose of removing the outer husk. Since this was a common way to eat grain of the new crop, it makes sense to accept that this is the meaning of *karmel*, although it does not get specific concerning the characteristic implied by *karmel*. Thus, in a general sense *karmel* refers to raw grain that may satisfyingly be eaten as it is. This means *karmel* may be eaten before it is processed and before it is very dry and hard and thus uncomfortably hard to chew. This would include a range of growth from not yet ripe but still containing internal semi-solid substance, to ripe but not yet very hard. This is all common sense based upon the food categories of Lev 23:14.

Three different more precise meanings for *karmel* in this last group have been proposed in published literature or translations. These are (1) *full [grain]* in the sense of *having substantial internal substance*; (2) *young [grain]*, *soft [grain]*, or *tender [grain]*; and (3) *new [grain]* or *fresh [grain]*. The remainder of this chapter is concerned with which of these three meanings is correct. All three of these characteristics could make sense for *karmel*, but the contexts themselves do not provide a way to narrow down its meaning. Each of the three meanings has a range of application. How full is full? How soft is soft? How fresh is fresh? Regardless of which of the three meanings has the greatest evidence behind it, its meaning is still a raw grain food with a range of development for eating. This quality of variation of development carries over to *aviv* from Lev 2:14, as we shall see.

(B) An Overlap of the third and fourth Groups with *karmel*

Although the last group (Lev 2:14; 23:14; II Ki 4:42) having a common context (ears) is the main focus of attention, the third group of verses with *karmel* is also of some interest for the following reason. If only one of the proposed three meanings of the last group above have a significant overlap in meaning with that of the third group, that would highly favor that one of the proposed three meanings. This approach of first considering the meaning in the third group is now pursued.

Isa 10:18 has sufficient context based on opposites that the meaning of *karmel* becomes clear. This verse states, “And He will destroy [the] glory of His forest and of His bountiful [= *karmel*] [land], both soul and body. And it will be as when a sick man wastes away.” The use of the word *glory* here implies that the land has a beautiful appearance, and hence the land is green or luxuriant with growth. Isa 16:10 and Jer 48:33 have a similar context that also shows a meaning of *bountiful* or *productive*, describing the agricultural output of the land. A bountiful or productive land gives an appearance of luxuriant green growth during its active phase, showing healthy freshness or new growth. When the growth gets old, its chlorophyll reduces and its green color fades, so that it is no longer new or fresh. From this, the meaning of *new* or *fresh* is implicated by the third group of contexts (*bountiful* or *productive*). There is some sense in which the idea of *full* may fit *bountiful* or *productive*. But *full* plant parts do not specifically convey a beautiful appearance when applied to plant growth because other aspects of the plant may be a negative, such as poor coloring or shape. When a person who is walking in the grain fields selects *karmel* (raw grain) to eat, the choice will be based upon a good appearance that experience has shown to taste good. If it looks fresh (this implies green), it will not be dried out and hence it will not have a very low moisture content. This indicates that the third category of the use of *karmel* (*bountiful* or *productive*) favors the meaning of “*fresh*” when applied to the fourth category of grain food.

Now the focus of discussion will be confined to the last group. The three contexts (Lev 2:14; 23:14; II Ki 4:42) by themselves do not have enough detail to determine the specific meaning of *karmel*. Although we already have significant evidence, the remaining method to be employed to determine its meaning is explained in Appendix A, and this method is a study of Semitic cognates and ancient translations of *karmel* in the three contexts. For some ancient versions II Ki 4:42 was not available.

(C) Does *karmel* have a Semitic Cognate? No

In Ruzicka 1909 it was proposed that the Arabic word *kamala* was a cognate for *karmel*. The former word has the consonants KML while the latter Hebrew word

has the consonants KRML. Ruzicka hypothesized that over time the “R” was dropped from speech and then the word lost the “R”. Aside from the fact that there is no historical evidence to explain the linkage that jumps from the Hebrew to the Arabic for this word with this theory, there is the great weakness that the Arabic word does not have examples of use in an agricultural context. The Arabic word means “completed” in the sense of “completed a task”, or “maturity” in the sense of “the man reached maturity” (i. e., a *young* man). Without the agricultural context, this theory fails to meet an essential quality for a genuine Semitic cognate. Another weakness is the dropping of the “R” over time, because this is also a hypothesis without evidence. This is Ruzicka's theory, and it is a guess for a proposed cognate, but having no evidence with a similar context of plants. It makes far more sense to accept an ancient translation than Ruzicka's theory. An ancient translation is likely to have continued the original meaning of a Hebrew word.

This discussion involves some sources written in German, and I have presented the salient points in English translation. The German word *Jungkorn* is actually ambiguous, and after having consulted some dictionaries, I have decided to translate this German word “*young/fresh grain*” because I believe that Koehler intended both words to be understood in his German word. I believe that the word *fresh* is intended to be a synonym for the word *new*. Ludwig Koehler is the coauthor of the German lexicon that was translated into English, and the English version is called HALOT. In both the German original and HALOT, Ruzicka's paper from 1909 is referenced and two very brief papers by Ludwig Koehler, 1946 (only one page) and 1950 (two pages), are referenced. In Koehler's 1946 and 1950 papers concerning *karmel* he mentions Ruzicka's paper as supportive. In his paper from 1950 he references his paper from 1946. It is obvious that HALOT and these predecessors by Koehler are heavily influenced by Ruzicka's theory. With no additional evidence from Semitic languages or ancient translations supplied by Koehler, he argues for the meaning “*young/new grain*”. At the end of his discussion about *karmel* from 1950, Koehler includes the supporting German word *frisch*, which means *fresh*, and thereby shows that it is certainly not a guess that he includes the concept of *fresh*. In Koehler 1946 he also mentions that Dalman 1928 page 452 gave *karmel* the meaning “*young/fresh grain*” and “*grain having become ripe*”. Koehler (1946) explicitly wrote that Dalman (1928) gave this meaning with no further evidence. In other words it was simply Dalman's opinion for the meaning of *karmel*. The concept of ripeness is somewhat subjective.

HALOT (vol. 1, page 499) and the German lexicon from which it was translated, give the meaning “*new corn*” and “*what has just ripened*”. From the previous discussion it is clear that the translation *new* includes *fresh*. Some other sources and translations have copied Ruzicka / Dalman / Koehler. However, certain aspects

of this are merely a guess because there is no primary source for this – no ancient Semitic example in a similar context. Ancient translations are discussed below. It is interesting that some scholarly suggestions for the meaning of *aviv* (that fail to consider the hail plague) are similar to these suggestions for *karmel*. The proper goal here is seeking hard evidence for a meaning, not quoting mere opinions of lexicographers. Dictionaries disagree concerning the meaning of *karmel*.

(D) An alternative Hebrew word if the meaning is Full Ears

The Hebrew word *meleh* (Strong's number 4392) means "full". In Gen 41:7, 22 we find the phrase "seven ears [*shbaleem*, 7641] fat and full", where "full" is *meleh*. Here "ears" refers to grain. This points out that the meaning "full" that some translations give to *karmel* would have more substance if *meleh* had been in Lev 2:14 instead of *karmel*. It should be noted here from the above discussion with Lev 23:14, the specific Hebrew word *karmel* refers to the food category along with bread and parched/roasted grain. This is a contrast with the word *meleh* that is merely an adjective and never refers to a category of food. While this does not prove that *karmel* cannot mean "full", at least it does cast some doubt about this.

(E) *karmel* in the Septuagint

The quickest verse among the three (Lev 2:14; 23:14; II Ki 4:42) to discard from consideration in the Septuagint is II Ki 4:42 because the LXX translated *karmel* and the next Hebrew word as "fruitcakes" according to NETS, and "fruitcakes" is a mere guess. Brenton translates the LXX's Greek word that is used in place of *karmel* in II Ki 4:42 as "cakes of figs", essentially agreeing with NETS. It is likely that the translator of II Ki 4:42 was a resident of Alexandria who did not know the meaning of rare Hebrew words.

By comparing the LXX Greek in Wevers 1986 with the Hebrew text for Lev 2:14 and 23:14, it is clear that in the former verse *karmel* is translated *kidra* and in the latter verse, *karmel* is translated *kidra nea*. On page 1991 column 2 of Liddell and Scott *kidra* is defined as "unripe wheaten-groats, rubbed from the ear in the hands". The word *nea* means "new" or "fresh". For Lev 23:14 either *kidra* or *nea* may have been sufficient to translate *karmel*, but having both of them may indicate that both words capture the meaning of *karmel* as understood by the translator. In Lev 2:14 NETS translates *kidra* into "wheaten-groats" and Brenton translates *kidra* into "grains". Both NETS and Brenton are not convinced to follow the full meaning of *kidra* in Liddell and Scott. In Lev 23:14 NETS translates *kidra nea* into "fresh kernels" where *nea* corresponds to "fresh". In Lev 23:14 Brenton translates *kidra nea* into "new corn". The conclusion is that the LXX gives mixed results because only Lev 23:14 includes "new" or "fresh" as part of the meaning for *karmel*, and there is uncertainty on whether to translate *kidra* as in Liddell and

Scott or as in both NETS and Brenton.

(F) *karmel* in Aquila

Footnote 29 on page 21 of Wevers 1997 shows that Aquila translates *karmel* as *apalon*. This latter word is on page 176 column 2 of Liddell and Scott, where the meaning is “soft to the touch”. This word from Aquila is corroborated on page 121 vol. 1 of F. Field.

(G) *karmel* in the Syriac Peshitta

Peshitta 1976 is a source for II Ki 4:42. Peshitta 1991 is a source for Leviticus. The same Syriac word, *prikta*, was used in all three instances for *karmel*. This Syriac word appears on the bottom of column 2 on page 460 of R. Payne Smith where its meaning is “new corn rubbed from the ears”. Here the word “new” is a synonym for “fresh” rather than “soft”.

(H) *karmel* in the (Aramaic) Palestinian Targums

This was not available.

(I) *karmel* in the (Aramaic) Targum Onqelos

On pages 11 and 13 of Drazin 2008 Lev 2:14 translates *karmel* as “soft”. On pages 187 of Drazin 2008 Lev 23:14 translates *karmel* as “fresh ears”. The inconsistency shows uncertainty.

Edward Cook made a glossary of a different edition (Sperber) of this targum, and on page 225 he shows the Aramaic word *peruk* being used in both Lev 2:14 and 23:14, giving the meaning “new grain”. Cook shows this to be the translation of *karmel*. Note that this word is virtually the same as the Syriac word *prikta* discussed above. Hence the Sperber version agrees with “fresh” while the other version is split between the meaning “soft” and the meaning “fresh”.

(J) *karmel* in Symmachus

Footnote 29 on page 21 of Wevers 1997 shows that Symmachus translates *karmel* as *apalon*. This latter word is on page 176 column 2 of Liddell and Scott, where the meaning is “soft to the touch”. This word is corroborated on page 121 vol. 1 of F. Field.

(K) *karmel* in Theodotion

It is not certain what Theodotion did to translate *karmel*.

(L) *karmel* in Jerome's Vulgate

In Lev 2:14 *karmel* reflected through the Latin into the English of DRC_1 is “meal”, after it is prepared as described in that verse. In Lev 23:14 *karmel* as given

by DRC_1 is “frumenty” (= porridge). In II Ki 4:42 *karmel* reflected through the Latin into English by the Ronald Knox translation is “fresh grain”.

For II Ki 4:42 the Latin words are *frumentum novum*. For these simpler words Traupman 1966 was used. The meaning of *frumentum* from page 121 is “grain; wheat”. The meaning of *novum* from page 196 is “new, young, fresh, novel”.

It appears that after the time that Jerome translated the Pentateuch, he learned more from his Jewish teachers, because the meaning in II Ki 4:42 is considerably different from the former places. From modern study Jerome was incorrect in Lev 2:14 and 23:14, but he makes sense in II Ki 4:42. We should accept his translation in the latter place.

(M) Conclusion: *karmel* means “fresh-grain” in Lev 2:14; 23:14; II Ki 4:42

From the above ancient translations, when the unknown or inclusive ones are omitted from consideration, there are two choices to consider for *karmel*: “fresh” or “soft”. In order to consider how any modern translation may have been influenced by the rabbinic position, this will now be discussed from the Babylonian Talmud (= Bavli). No doubt the rabbinic position originated much earlier than the Bavli. In BT-MEN 68b on page 405 it interprets that Lev 2:14 refers to what is done to the *omer* of Lev 23:9-14. There is no evidence of this interpretation. Furthermore, it was discussed far above that the meaning of *omer* from the rabbinic viewpoint was stated to be a volume of actual grain. Several ancient translations were shown above to disagree with this rabbinic meaning of *omer*. Since Lev 2:14 has a context of firstfruits, the *omer* was expected (seen from the Bavli) to be eaten by the priests, so that it should be useful for eating. Certainly *karmel* is useful for eating. In BT-MEN 66b on page 392, two conflicting positions are expressed. At the top of the page *karmel* is said to mean “soft”. At the bottom of the page *karmel* is said to mean “full”. Footnote 8 shows that Rashi favored the meaning “full”, and indeed the KJV in Lev 2:14 and II Ki 4:42 translates *karmel* as “full”, but in Lev 23:14 the KJV translates *karmel* to be “green ears”, and “green” is one way to indicate “fresh”. The ultimate rabbinic position is that *karmel* means “full”, although a previous choice was “soft”. Orthodox Jewish translations generally favor Rashi's opinion and would be expected to use the translation “full”. Since the Talmud is known to often adopt subjective interpretive meanings that scholarship now knows to be incorrect, the Talmud is not considered to have a high value for which to judge the original meaning of a Hebrew word.

When the inconclusive and unknown ancient translations are omitted from consideration for the meaning of *karmel*, the results in favor of “fresh” are the Peshitta, the Sperber edition of Targum Onqelos, and Jerome. The results in favor of “soft” are Aquila and Symmachus. Aquila is given praise by the Palestinian

Talmud, so he is likely to have been influenced by the interpretive rabbis. It is plausible that the meaning “soft” was influenced by the rabbis when the Bavli is considered. It is possible that the Targum Onqelos preserved the meaning “fresh” from when it originated between 50-150. Jerome examined the LXX, Aquila, Symmachus, and Theodotion, and he sought expert advice from learned Jews that he hoped was not distorted by the rabbis. The Peshitta is based on information from c. 150. From the ancient translations that appear to have a clear position, the evidence is heavily weighted in favor of the meaning “fresh”. Prior discussion of *karmel* in the context of Isa 10:18; 16:10; Jer 48:33 favors the meaning of *bountiful* or *luxuriant*, and *fresh* is more related to that meaning than *soft*. The overall conclusion is that *karmel* means “fresh-grain”, and it specifically refers to food that is raw grain not yet hard, so that it is either mildly ripe or not yet ripe.

[24] Roasting / Parching Fresh Ears makes it easy to Remove the Husk

The ears of barley cannot be used for food until the outer husk is removed. The most natural way to remove the husk in small quantities is to roll the ears between your hands. This rubbing action will loosen the husk so it may be discarded. Then the ear may be eaten if it is not very hard. However, there is an easier way to remove the husk. That involves parching /roasting the ears before removing the husk.

Page 54 of Bender 1975 states, “A second disadvantage of wild grain is that it is difficult to remove the grain from the tightly-fitting husks. It can be done by parching the grain prior to grinding and this may have been the function of many of the clay-lined pits, sometimes filled with ashes, which are found on early farming sites.”

Page 281 of Flannery 1973 states, “... 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).”

Upon discussing Lev 2:14 it will be seen that this verse mentions parching /roasting, and from the above consideration, it is now plausible that the husk does not have to be removed before this parching/roasting begins. This implies that even if the stage of the ears is perhaps a little early for ordinary hand-rubbing because the water content is somewhat high, first it may be parched and dried, and then the husk may be removed easily. The drying removes the messy aspects of the semi-liquid upon hand-rubbing if the ears are at an early stage. Rubbing will be easier after parching and drying if the stage of the ear is a little early. The question of how early in ripeness the ears may be is debatable, but they may certainly be preripe.

[25] Meaning of Lev 2:14-16 which contains *aviv*

The following is my very literal painstaking translation from the Hebrew.

Lev 2:14, “And if you-offer a cereal-offering of firstfruits [= *bikurim*] to YHWH, you-shall-offer ears [= *aviv*] parched/roasted-grain with fire, [that is] fresh-grain [= *karmel*] crushed [for a] cereal-offering of your-firstfruits [= *bikurim*];

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.”

The conclusion above is that the word *karmel* means “fresh-grain” in verse 14, and it is specifically used as a name of a food that is raw grain not yet hard to chew, so that it is either mildly ripe or not yet ripe.

When I visited Dr. David Marshall (a specialist in barley and wheat genetics) at his office at Texas A & M University in 1992, he told me that in one of his trips to Egypt, he visited with farmers who still used the ancient sickle to harvest barley on their personal plot of land. They cut the stalks when the barley kernels had about 30 percent moisture according to his tests. The farmers did not know the percentage, but they could tell when to cut it by their experience in the past. That 30 percent value is low enough moisture to obtain flour from the barley, and that is mildly ripe. Dead ripe has from 8 to 10 percent moisture, and that is very hard. At very early stages of the ear, the ear has over 90 percent moisture. When machinery is used to harvest barley, the moisture content may be about 15 percent because the yield of flour is greater at that percentage. The additional time on the stalk for the moisture content to decrease allows the ears to gain more solid matter and yield more flour.

The food called *karmel* in Lev 23:14 is what people would desire to eat when it is plucked raw, and this covers some range of moisture content, both pre-ripe and mildly ripe; *karmel* is not restricted to some single stage of the ripening of barley. The main purpose of Lev 2:14 is to explain how to offer a firstfruits cereal offering, not to give a definition of *aviv*. However, in the explanation, it says to use *aviv* in a certain way that begins with *karmel*, and then the activity requires parching/roasting it with fire, and then crushing it to obtain edible cereal that some translations call groats. This certainly shows that *aviv* includes all stages of the ear that *karmel* includes. The hail plague context indicates that *aviv* includes a wider range of stages of the development of the ear than *karmel*. The conclusion is that there is no narrow definition of *aviv* that fits the biblical contexts that could be used as a trigger to make a clear

decision that now you have *aviv* and previously you did not have *aviv*. People can invent their personal definition of *aviv* to obtain a clear trigger for such a decision, but such a personal definition is not in harmony with the two Scriptural contexts of Ex 9:31 and Lev 2:14.

In verse 14 “cereal-offering” occurs twice and is the translation from the Hebrew word *minchah*, Strong's number 4503. This word is discussed on page 585 of BDB where Lev 2:14 is listed under meaning 5, “grain-offering”. There are certainly examples in which *minchah* is used for any offering, not specifically a cereal offering. However, when this word occurs in several verses in Leviticus, the Hebrew word order and the obvious outline meaning shows that it could not refer to merely any possible sacred offering; instead it must be a cereal offering. In Lev 2:14, the Hebrew word order with the word “if” shows that there is an implied comma that terminates the “if” clause immediately after “YHWH”. With the implied comma correctly placed after “YHWH”, and with *aviv* coming after “YHWH”, *minchah* must mean “cereal-offering” because *aviv* refers to ears. On page 37 of Gary Anderson's book about offerings to the priesthood, he wrote, “The Hebrew word *mincha* has two very different meanings in the Hebrew Bible. On the one hand it can have a cultic [this refers to a worship context] meaning. In this instance it can mean 'offering' in the generic sense, either animal or vegetable, or as in the case of the priestly writer it can refer specifically to the cereal offering.” Tanakh-JPS translates *minchah* “meal offering” here, and Joseph Magil's literal interlinear translation adds a hyphen rendering it “meal-offering”.

In verse 14 “firstfruits” (*bikurim*) occurs twice. When ears of barley are too soft to be used for flour, there are prior stages where they may be used for cereal meal as long as the husk may be removed. The previous chapter showed that parching over fire will dry the ears and promote removal of the husk.

In II Ki 4:42 firstfruits is used for barley grain that was made into bread, so that it was fully ripe in order to be good for making flour. The other words in this verse do not limit the stages of development of the grain that is used because of the structure of this verse and because there is nothing provable in the use of those later words that force a limitation, unless the reader has a prejudicial assumption that does not come from the Tanak. An outline paraphrase of this verse is: “If you offer a cereal offering of firstfruits to YHWH, here is how to do it.” The remainder of the verse describes the method. Lev 2:14-16 gives a description of how to perform the firstfruits cereal offering. There is nothing to restrict it to one kind of cereal crop such as only barley or only wheat.

In verse 14 “ears” is the most general translation from the Hebrew word *aviv*, which comes immediately after “YHWH”. To the ancient Israelite the meaning of

aviv was part of their culture and was well known. The verse informs us to begin the method with *aviv*. The rest of Lev 2:14 also relates to the method. The other words will be discussed below. The purpose of this verse is to explain the nature of a firstfruits (*bikurim*) cereal offering. It is not intended to define *aviv* and is merely an example of its use. The only other biblical context with *aviv* outside of the phrase *chodesh ha aviv* is Ex 9:31-32, the hail plague.

In verse 14 “parched/roasted-grain” is the translation from the Hebrew word *kali*, Strong's number 7039. On page 1102 of HALOT “roasted grain” is the meaning. On page 885 of BDB “parched grain” is the meaning. When the water content of the grain is relatively high so that it is not solid inside, the word parching applies, which connotes drying along with roasting. This Hebrew word is ambiguous, so that roasting or parching applies.

In verse 14 “crushed grain” is the translation from the Hebrew word *geres*, Strong's number 1643. Page 176 of BDB defines this as “a crushing” and “groats, grits”. Page 204 of HALOT defines this as “crushed new grain, groats”. This Hebrew word *geres* 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 *geres* does not require that flour is obtainable from the *aviv* mentioned in Lev 2:14. This word *geres* also occurs in verse 16. There is enough ambiguity in *geres* that it may be used for any stage of the ear's development provided that the husk can be removed. However, no one would choose raw ears to eat if it was very watery because it would make a mess to rub it.

In verse 14 “fresh [grain]” is the translation from the Hebrew word *karmel*, Strong's number 3759. This was already explained above. There is no requirement that *karmel* needs to be ripe in the sense of being ready for general reaping.

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. Here is the comment. “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 Karaites, 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.” There is insufficient biblical cause to insist that Lev 2:14 is talking about the wave sheaf offering. The use of “if” at the beginning of Lev 2:14 could simply acknowledge that many heads of household may not have any cereal plants, and they would be exempt due to lack of such a product.

In the expression *chodesh ha aviv* the word *aviv* is a descriptive name meaning “ear”. This expression literally means “month of the ear(s)” or “month of ears”. There is also no harm in using a transliteration such as “month of Abib”.

The examples of *aviv* in both the hail plague and the firstfruits offering of cereal show that *aviv* has considerable flexibility in the stages of the development of barley, and is therefore unsuitable for defining some trigger to decide between the first month and the thirteenth month.

[26] 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.

[27] 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 and rain. This

is a general picture, but it shows a significant difference between Egypt and Israel.

[28] Lack of Applying *aviv* to Ex 12:2

The word *aviv* does not occur in the immediate context of Ex 12:2, which was spoken to Moses and Aaron 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 lives of Moses and Aaron indicate that they were never in Israel and were quite unfamiliar with the time of the barley harvest in Israel. Does it make sense to think that when Moses and Aaron heard the words of Ex 12:2 they 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. The time of the hail plague was between January 15 and February 15, and the barley was in the ear (*aviv*) throughout Egypt. This is more than a month before the vernal equinox. Moreover, the earliest place in Israel at which the barley harvest may begin is typically near the middle of April, which is at least two months after the hail plague. 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 not in the time context of Ex 12:2, nor is it in the immediate context of Ex 12:2. With the difference in the time of the 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 and Aaron to think about the status of barley at Ex 12:2 because the word *aviv* is not even in the latter verse.

One may not arbitrarily grab the expression *chodesh ha aviv* from Ex 13:4 and shove it into Ex 12:2 in order to force this expression to be the quality that defines the first month. If some state of barley in itself was to define the timing of the first month, then it would be of the greatest importance for barley (or *aviv*) to appear in Ex 12:2, but neither word is there! There is nothing to prevent the word *aviv* to apply to all stages of the ripening of ears, and thus it does not pinpoint a single month, especially when considering the whole of Israel where there is a seven week difference in the time of the ripening of barley. The adjective “first” does not appear in the expression *chodesh ha aviv*, so that attempts to narrow the meaning of this expression from an agricultural viewpoint are not based upon biblical evidence. Claims that the first biblical month is the one which shows the first ripening of barley in Israel cannot be found in Scripture.

[29] Gen 1:14 is a Cause and Effect Verse with a Trigger of Light, not Heat

Gen 1:14, “And the Almighty said: Let there be light-bearers [3974 *mahohr*] in the expanse of the heavens to separate between the daytime and between the night, and let **them** be for signs, and for appointed-times [4150 *moed*], and for days and years.”

Gen 1:15, “And let *them* be for light-bearers [3974 *mahohr*] in the expanse of the heavens to give light on the earth, and it was so.”

Although there is no single chapter that explains the calendar of the Tanak 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 trigger of light from the light-bearers, one effect is the days, another effect is the appointed-times (which includes the festivals from Lev 23), 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.

There are three elements that make up a calendar: the day, the month, and the year. The day is determined through the trigger that changes from light to dark, a visible sign of the sun. The beginning of a month is determined through the trigger of 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 1:14-15 that the day and the month are visible signs of the lights in the heavens. This pattern from visible lights should be continued to establish the month that is the first month based upon the trigger of a visible sign of the sun.

It is the *heat* from the sun rather than the *light* from the sun that is of primary importance for the ripening of winter barley. All of Israel gets the same amount of light each day except when there is a difference in cloud cover or rain, but not the same amount of heat each day. The difference in *heat* is the primary reason for a seven-week difference in the time in the ripening of barley in Israel. Gen 1:14-18 mentions nothing about heat, but repeatedly mentions the role of light and lights. Any attempt to reason that the light from the sun indirectly causes the time of the first month through the effect of the sun’s light upon the barley is weak reasoning because the light is not the heat and because there is no Scripture that mentions this indirect reasoning as a definition for the determination of the first month. Gen 1:14-18 is an astronomical context, not an agricultural context.

[30] The Earliest Known Historical Understanding of the Meaning of *aviv*

(A) Septuagint’s Translation of *aviv*

Concerning all six places in which the Hebrew expression *chodesh ha aviv* (month of the *aviv*) occurs in the Tanak (Ex 13:4; 23:15; 34:18, 18; Deut 16:1, 1), only one expression is used in the LXX, the Greek *meni ton neon*, which means “month of the new”. The grammatical form of *ton neon* is plural, so that it implies a plural noun. This consistency in all places lends weight to the belief that the translators wanted to use the same meaning in all places; however, it indicates that they were not sure of its meaning because there is no plural noun. It seems safe to accept the

belief that the translators knew it referred to new plant growth with plural connotations. The word “new” can imply freshness or recent growth, and does not commit to any degree of ripeness or what vegetation was involved. In all six places the very literal careful NETS translation of the LXX has “month of the new things”, thus highlighting the noticeable lack of clarity for the word *aviv*. These six places are seen in the Greek on page 922 of Hatch and Redpath under the word for month, or they may be looked up individually in Brenton.

In Ex 9:31 where *aviv* occurs, a literal translation from the Hebrew is “barley [was in the] ear”. The LXX has the Greek word *parestekuia* where *aviv* occurs, and this Greek word is discussed on pp. 56-57 of Lee 1983. Lee provides a few ancient examples of its use in an agricultural context. On p. 56 Lee provides the approximate choice of meanings “‘be ripe’, ‘be fully grown’”. It makes sense that the translators were not aware of the variation of difference in development of the barley from southern Egypt to northern Egypt of five weeks, so that it could not be fully grown throughout the region (otherwise it would have been harvested in the south where it would have been too ripe to leave on the stalks). The Greek with translation may be seen in Brenton (who did not have the examples that Lee had); the Greek is also on page 786, column 1, of Hatch and Redpath under the Greek word *krithe*, meaning barley, at Ex 9:31. It is plausible that the translators of the LXX at Ex 9:31 created the meaning of *aviv* from this context rather than from a deep knowledge because they did not carry this meaning into any of the other seven uses of *aviv*. Perhaps they did not remember that they gave this meaning to *aviv* when they reached its next use in Ex 13:4 where they simply used the single vague Greek word meaning “new [things]”.

In Lev 2:14 where *aviv* occurs, the LXX has *nea*, which means “new” or “fresh”. This is not precise. The very literal careful NETS translation contains the following group of words, “new, roasted, pounded, wheaten-groats”. This must include both *aviv* and *karmel*. Here it seems that the translation for *aviv* is “new”, and the translation for *karmel* is “wheaten-groats” because that follows the order of the two Hebrew words. This makes it doubtful that the translators of the LXX knew the meaning of either word.

We have seen that the LXX is imprecise and vague in every case for *aviv* except where the context has much to offer in Ex 9:31. This indicates that the Jews in Alexandria do not seem to be aware of any important significance for this Hebrew word, although some of them undoubtedly went to Jerusalem during the seven days of unleavened bread, witnessed the wave sheaf offering, and understood how the first month was determined. It does not make common sense to think that the calendar's first month after Ezra was being determined by the use of the word *aviv*.

(B) Philo of Alexandria and the non-use of Barley to Begin the Year

Philo's Bible was the LXX and his understanding of Scripture was primarily shaped by it, although he wrote that his explanation of Jewish law, history, and practice was based upon a combination of the Sacred Writings and current Jewish teaching that prevailed in synagogues in Alexandria. Philo did encourage his fellow Jews to go to Jerusalem to observe the festivals in the law of Moses. He also wrote about each of the festivals. In three places he mentions that the first month occurs at the vernal equinox, a vague expression indeed; however, in one of those places he does pin it down much better.

Philo mentions all three elements of the calendar of the Jews in one place where he says “nights and days and months and years”. In the quote to follow, Philo mentions the revolution of the moon, which is not a feature of either the Julian calendar or the Egyptian civil calendar. Hence it is obvious that Philo is referring to the Jewish calendar.

Philo wrote 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?”

Notice that the way Philo asks this question emphatically shows that agriculture is not the way to determine the years of the Jews. He speaks of revolutions of the heavenly bodies, and in fact does not even mention the word lights. If the Jews of Alexandria had to wait for a report about barley from Judea every year, he could not have given such an emphatic statement and his mind would not be so fixated on the cycles of the heavenly bodies. Since Acts 2:10 mentions Jews from Egypt going to Jerusalem for Pentecost, many Jews would also have wanted to go for Passover and would have had to know which month was the first. This would have made a barley report a major annual event if it really happened. Instead Philo mentions the vernal equinox in three places regarding the first month.

The previous section discussed the meaning of *aviv* in the LXX and showed that it was quite vague in what that word meant. If, as some people today choose to imagine, the Jewish leaders in Judea in the first century before the Temple was destroyed went out searching for barley at some particular stage of development each year to determine which month would be the first of the year, then the Jews in Egypt would consider this a major annual event and would associate it with the word *aviv* because that would be the trigger to alert those who wished to get ready to come to Jerusalem for the Passover. The vagueness of the meaning of *aviv* in the LXX is a strong argument against any annual searches for barley. The LXX's lack of attention to *aviv* is even more pronounced with Philo's emphasis on only the

cycles of the heavenly bodies to determine years. Philo and the LXX reinforce each other on the neglect of attention to barley in the culture of first century Alexandria, although many Jews in that city did make the journey to Jerusalem for the festivals.

(C) Use of *aviv* in the Dead Sea Scrolls

The word *aviv* is only used one time in the Dead Sea Scrolls, as discussed above. It is used in The Temple Scroll (11QT 19:7). There it means “ears” that are used to make bread, so that it implies ripeness. Its use only once indicates that it is a rarely used word.

(D) Josephus and the Meaning of *aviv*

Josephus substitutes the name Nisan or the nearest Greek equivalent month named Xanthicus for *aviv*. He never uses a transliteration of *aviv* in his Greek writings. However, in Ant 3:251 the careful literal translation of Josephus given by Louis Feldman in FJTC_ANT_3 page 304 for the key portion of Lev 2:14, is “After roasting and crushing the bundle of ears of grain ...”. Here Josephus refers to “ears of grain” where Lev 2:14 has *aviv*.

In the previous statement, Ant 3:250, Feldman translates, “On the second day of the unleavened bread - this is the sixteenth - they partake of the crops that they have reaped, for they had not been touched before that time ...”. Here Josephus is promoting the position of the Pharisees in the count to the Feast of Weeks, and this was written about 23 years after the destruction of the Temple when the priests have lost their leading authority among Jews in greater Judea. Josephus did also write near the beginning of his autobiography that he had made the decision to follow the Pharisaic platform in his political life. It is no surprise that he here goes against the Sadduceean method to count the Feast of Weeks. This matter will be discussed below in more detail.

The above quote from Ant 3:250 states, “... for they [ears of the new grain crop] had not been touched before that time ...”. In footnote 722 on the same page Feldman comments, “Eaten, according to Lev. 23:14.” Feldman understands this prohibition to pertain to eating the new crop, not a prohibition against harvesting the new crop if desired by any farmers.

Josephus did not attempt to narrow down the meaning of *aviv* in any way when using the term “ears of grain”. The viewpoint of the later rabbinic literature is presented by Josephus here, namely that Lev 2:14-16 is a reference to the wave sheaf offering. In the middle ages the Karaites disputed this interpretation of Lev 2:14-16. This interpretation from Josephus may be the Pharisaic position that Josephus is promoting.

(E) The Meaning of *aviv* in the Mishnah and all Rabbinic Literature

Judah ha-Nasi, the editor of the Mishnah c. 200 used the word *aviv* in that document, and he certainly used it in a context that showed it to refer to an ear of a cereal crop that was not yet ripe. This was previously discussed using the context of Mishnah Tractate Kil'ayim 5.7. This word is not used elsewhere in the Mishnah.

It is true that the Mishnah indicates, through an example with Gamaliel, that barley is one factor among a few factors, that combine together as input for the decision for knowing which month is the first month of the year. This is fabricated history about Gamaliel to put him on a pedestal of supreme authority among all Jews during the latter part of his life about the middle of the first century. However, neither the Mishnah nor other rabbinic writings use the word *aviv* to apply to barley to determine the first month. In rabbinic literature barley is one factor among a few factors that are to be considered.

There are a few other places where the word *aviv* is used in *later* rabbinic literature (roughly c. 350 and beyond), but in those places it is used with an entirely different meaning, namely, "springtime", the season of spring. This fabricated meaning of *aviv* surely differs from the biblical meaning. The Aramaic Targums are not part of rabbinic literature although they were produced by Jews.

The rabbinic literature does *not* give the word *aviv* a prominent place when discussions concerning barley occur, because it is only discussed associated with a cereal crop in that one place above where the first month is not in the context. From this we see that the word *aviv* does not get much exposure in rabbinic circles in the context of barley.

(F) The Meaning of *aviv* in the Syriac Peshitta

Page 37 of Weitzman states that the Peshitta translates *aviv* in Ex 13:4; 23:15; 34:18, 18; Deut 16:1, 1 into the Syriac word that means "blossoms". On page 52 he states that this Syriac word means "flowers", and he adds, "by similarity of sound". Through examining the Syriac word, I note that the latter part of the Syriac word for "flowers" looks like *aviv* in pronunciation. The translators were misled because they imagined it was a cognate in their own language and did not know the ancient meaning of it.

In Ex 9:31 *aviv* is translated into two consecutive Syriac words, *mke cn* in Peshitta 1977. The verb *mke* appears on pages 738-739 of Sokoloff 2009 where, at meaning 11a, it cites Ex 9:31 and *aviv* as the source. It says that this verb is used with the second word *cn*, and the combined meaning is "to produce a stalk or root" (page 738). The noun *cn* appears on pages 632-633, where the meaning is "stem, trunk, stalk", and Ex 9:31 and *aviv* is again cited, on page 632. Thus here the meaning of

aviv in the Peshitta is “to produce a stalk”, which is obviously an incorrect guess. Scholars do not know who the translators of the Peshitta were, but the two choices are either Jews or converts to Christianity from among the Jews. Others would be incapable of doing the translating. The translation of the Pentateuch was made c. 150, probably in Antioch.

In Lev 2:14 the Syriac Peshitta makes another blunder for *aviv*. Here it uses the word *kf*, meaning “bundle” or “sheaf” to translate the word *aviv*. This Syriac word is found on page 222 column 1 of Payne Smith 1903 and the Syriac text is from Peshitta 1991. This is the Syriac equivalent of the Greek *dragma*, which is the word used in the Septuagint in Lev 23 for the sheaf (Hebrew *omer*). Hence in this context, the Peshitta treats *aviv* as if it meant the sheaf in the wave sheaf offering. It is not consistent when it translates the month as the “month of flowers”.

The Tanak does not discuss the word *aviv* in the context of the wave sheaf offering (Lev 23:9-14; Deut 16:9), so that any association of the two, such as by trying to tie Lev 2:14 with the wave sheaf offering is merely an interpretation. The Peshitta makes this interpretation by translating the word *aviv* into the Syriac word for sheaf in both Ex 9:31 and Lev 2:14.

The translators of the Peshitta evidently did not have any close contact with those rabbis who did understand the meaning of *aviv*, and neither did they have close contact with the learned disciples of the rabbis. It also shows that the word *aviv* was not an important word among Jews generally; otherwise its correct meaning would not have been lost to the translators of the Peshitta. The Jews had been naming the first month Nisan instead of *aviv* for several centuries, so that the word *aviv* had fallen into disuse and become rare. It was already noted above that the LXX does not have a clear meaning of *aviv*.

(G) The Meaning of *aviv* in Aquila and Jerome

On page 196 of Wevers 1990 he states that Aquila and also Jerome translate *aviv* as “new grain”, but this is only in regard to the phrase “month of *aviv*”. For Ex 9:31 and Lev 2:14 nothing has survived for *aviv* concerning Aquila.

For Ex 9:31 Jerome has the Latin *virens* in place of *aviv*. The Latin word *virens* is an adjective, and on page 1995 of Lewis and Short 1900 this corresponds to the verb *vireo*. The meaning is “to be fresh, vigorous, or lively; to flourish, bloom”. DRC_1 has “green” here. Even in English, meanings of “green” are “fresh”, “immature”, or “unripe”. A green tomato is an unripe tomato. I believe that Jerome is intending *aviv* to mean “unripe (ears)” here.

For Lev 2:14 Jerome has the Latin expression *spicis adhuc virentibus* in place of *aviv*. The word *spicis* means “ears [of grain]”. The word *adhuc* means “still”. The

word *virentibus* is similar to *virens* above and is not common. DRC_1 has “ears yet green”. Again I believe that Jerome is intending *aviv* to mean “unripe ears” here.

(H) Summary of the Early Historical Meaning of *aviv*

One clear finding is that the use of *aviv* in the early historical record is rare, partly because it was supplanted by the name Nisan for the first month, and partly because there are a few synonyms for ears of grain in ancient Hebrew, and *aviv* was not typically chosen for use among the synonyms. The Dead Sea Scrolls only use it once and the Mishnah only uses it once, and their contextual meaning disagrees, the former implying “ripe” and the latter implying “unripe”. (Meanings found in the Mishnah for rare words are often ignored by modern scholars as suspicious for sectarian bias.)

In the Septuagint this lack of use of *aviv* led to the selection of somewhat inconclusive vague terms for *aviv*, such as “month of new [things]” and the lack of a word that means ears in Ex 9:31 and Lev 2:14. In the Syriac Peshitta this lack of use led to using the normal Syriac word that means flowers for *aviv*, because except for the beginning portion of the word for flowers, it sounds like *aviv*. In contrast, the Peshitta translates *aviv* as "produced a sheaf" in Ex 9:31, and as "sheaf" in Lev 2:14. The meaning as "ear" is absent in the Peshitta. Aquila and Jerome definitely see the use of ears in *aviv*, with both of them adding the word “new” (implying fresh or youthful). In Ex 9:31 and Lev 2:14 Jerome indicates “unripe”.

It is possible to argue that both Aquila and Jerome sometimes show rabbinic bias (there is less bias in Jerome, but it is still present), so that the early historical evidence is not completely conclusive in itself. Therefore, it is fortunate that we have additional contextual information concerning both the hail plague focused at Ex 9:31 and the firstfruits cereal offering of Lev 2:14. When investigated carefully, these contexts are clear in showing that *aviv* does definitely include unripe ears. Jerome is vindicated here, although the range of *aviv* can extend into ripe based on the Dead Sea Scrolls. Simply using the single word “ears” would allow the whole range.

One important result of this historical investigation is that there is a complete noticeable lack of attention to *aviv* regarding the first month of the calendar from the first century. If the word *aviv* had significance for knowing when the first month should occur in the first century, then the use of that word should not have completely dropped out of use in favor of the word Nisan when referring to the first month. Philo is emphatic in pointing to the cycles of the heavenly bodies to determine all the basic terms of the calendar, specifically mentioning months and years. Josephus employed the astronomical zodiac in regard to the time of the first

month, never hinting that agriculture was a controlling factor. It is only when examining the later rabbinic literature that an alleged shared (not exclusive) role is given to barley (not the word *aviv*). Based on history that is known, it was not until the middle ages c. 770 that Anan ben David is given credit as the first one to promote the exclusive use of *aviv* to determine the first month. He is the leading forerunner that led to the rise of the Karaite movement.

[31] Ambiguity of Identifying the Month of *aviv* from the word *aviv*

Ex 9:31-32 has shown that the meaning of *aviv* encompasses several stages of the development of ears of barley. In Israel the collective beginnings of the barley harvest for all areas spans a seven-week period. This is clear evidence that the word used for the first month, *aviv*, does not in itself define only one month for the whole of Israel. From the earliest stage of ears of barley in one part of Israel until the barley harvest is completed in Israel spans a time of four, or even five, months.

Because Lev 2:14 uses *aviv* for any types of cereals and any firstfruits of ears provided that the husks may be removed and the product has edible use, the presence of *aviv* in the expression *chodesh ha aviv* is too general and hence not sufficiently specific to be able to determine when this month occurs from its description alone, if one entertains the hypothesis of totally avoiding the vernal equinox. If one wishes to propose that “month of *aviv*” is intended to mean “month of first *aviv*” (which the Tanak does not say) and desire to apply this description in Israel to determine the first month, then this would frequently cause the first month to begin in February. In any event, the goal in this document is to base proposed practice for the biblical calendar on evidence from the Tanak. When a great deal of individual subjectivity in definition enters the scene, the result is unresolvable controversy. Arbitrary definitions that have no basis in the Tanak must be rejected.

[32] Josh 5:10-12 and the Date of the Wave Sheaf Offering

In the KJV, 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 nineteenth 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.

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 ostrakon 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. The word *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 that *avur* means fresh produce.

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 in the land promised to Abraham, Isaac, and Jacob 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 the 15th day of the first month, and the wave sheaf offering must have been offered on (or before) that date. But it couldn't have occurred before the 15th day 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 the 15th day 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.

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 Syriac 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).

Other aspects relating to the proper count:

(1) 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 *mee 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.

(2) In Lev 23:16 where it mentions “seven complete/perfect Sabbaths they shall be”, the word “Sabbaths” does not have to mean “weeks”. The Hebrew word for “complete” also means “perfect” and “unblemished” as an unblemished lamb. Seven is the number of perfection and completeness, so that the Sabbath, being the seventh day, does complete and make perfect that week. “Complete/perfect” refers to the number seven, which defines the Sabbath day number. Thus a complete/perfect Sabbath may be understood as a “completing Sabbath”, i. e., a Sabbath that completes a seven day cycle. If seven continuous days does not end in the Sabbath, those seven days lack the perfection of ending in the seventh day. Thus “seven complete Sabbaths”, means “seven completing Sabbaths”, where a completing Sabbath is understood as a Sabbath that includes the six prior days. While a week is implied, the emphasis is on the fact that the Sabbath makes a completion and perfection in its day number.

(3) Is there a biblical Hebrew expression for a full or complete week that does not involve the word Sabbath which could have been used if the Sabbath was not involved in a special way in the count to Pentecost? There is. The Hebrew phrase for a “full month” (or complete month) is literally translated “a month of days” in Num 11:20, 21; Deut 21:13; II Ki 15:13. Thus, by analogy, a complete week ought to be “a week of days”. Indeed this phrase “week of days” (meaning complete week) does occur in Dan 10:2 and 10:3, which the NKJV and KJV does show with the words “full” and “whole”. This shows that the usual way to mention a “complete week”, when the Sabbath is not involved, was not used in Lev 23:16.

(4) There is a count to 50 for the Jubilee year in Lev 25. In Lev 25:8 where it states “... seven Sabbaths of years...”, there is no reason to understand “Sabbaths” as meaning “weeks”. After counting the first six years, the count for the next year is both Sabbath year number one and year number seven. Repeating this for the next six years to again arrive at year 6, the count for the next year is both Sabbath year number two and accumulative year number 14. Continuing in this way, the count at Sabbath year number three is also accumulative year 21, the count at Sabbath year number four is also accumulative year 28, etc., until the count at Sabbath year number seven is also accumulative year 49. By counting Sabbath years (one through seven), each of which is the culmination of six ordinary prior years, one is indirectly counting 49 years, but the explicit direction from Lev 25:8 in counting Sabbath years from one to seven is perfectly fine and does not require one to translate the word “Sabbaths” as “weeks”.

(5) Making the analogy of patterning the count to the jubilee year with the count to the Feast of Weeks transfers the first six ordinary years to the first six ordinary days, and then the Sabbath year to the Sabbath day. Just as the jubilee year is the year after the seventh Sabbath year, Pentecost is the day after the seventh Sabbath day. This analogy would be broken if one starts the count to Pentecost on any day other than the first day of the week.

(6) The fact that one name of the feast is “Feast of Weeks” does not need to deny the use of the word “Sabbath” having been used multiple times in the description of the count in Lev 23:15-16. There is no context that requires the Hebrew word *shabat* in the Tanak to mean “week” or “seven”. There is a different Hebrew word for week and a different Hebrew word for seven. There is no need to confuse the use of these words.

[33] Wave Sheaf Offering and the State of its Barley

Previous discussion has established that the day of the wave sheaf offering occurred on the morrow of the Sabbath, so that this morrow was a Sunday, and this Sunday fell within the seven Days of Unleavened Bread. The *omer* that was offered was a tied bundle of stalks of barley.

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 “lift” instead. Jerome translated it “lift” instead of “wave”.

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] children of Israel and say to them, ‘When you come

into the land which I am going to give to you and reap its harvest / crop, then you shall bring [the] first [= *raysheet*] sheaf [= *omer*] of your harvest / crop to the priest.

Lev 23:11, “And he shall wave the sheaf before YHWH for your acceptance on the morrow after 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.”

In Lev 23:10 the phrase “when you come into the land” is often used in the special sense of “from the time that you come into the land onward”, not specifically “when you come into the land for the first time”. This is seen in the following examples: Lev 14:34; 19:23; 25:2; Nu 15:2; Deut 17:14; 26:1.

Lev 23:10 mentions harvest [7105 *ketseer*] twice. This word occurs on page 894 of BDB where three meanings are derived from the biblical contexts: (1) “process of harvesting”; (2) “what is reaped, harvested, crop”; (3) “time of harvest”. The second meaning is often overlooked. Consider some examples.

In the context of a foreign nation that will come and conquer Israel, Jer 5:17 reads, “And they shall eat up your harvest [= *ketseer*] and your bread, which your sons and daughters should eat. They shall eat up your flocks and your herds. They shall eat up your vines and your fig trees. They shall destroy your fortified cities, in which you trust, with the sword.” These various foodstuffs have previously been harvested and then stored, though some of it has been eaten since the time of harvest. This verse shows that the invaders shall eat the stored food at the time of the invasion. Here the stored food, that is, what remains of the crop, is called the harvest.

Another way of describing a foreign invader is in Isa 17:11, “In that day you will make your plant to grow, and in the morning you will make your seed to flourish. But the harvest [= *ketseer*] will be a heap of ruins in the day of grief and desperate sorrow.” Here the word harvest refers to the crop as it is still growing at the time of the invasion. In this sense the word harvest simply refers to the crop in its current

state before the time of typical general reaping.

Joel 1:10, “The field is wasted, the land mourns. For the grain is ruined, the new wine is dried up, the oil fails.”

Joel 1:11, “Be ashamed you farmers, wail you vine dressers, for the wheat and the barley, because the harvest [= *ketseer*] of the field has perished.” Again the word harvest refers to the crop, but not the time of normal harvest.

As discussed above, when considering the phrase “and reap its harvest” near the beginning of Lev 23:10, keep in mind that one meaning for “harvest” is the crop itself without reference to the time of general reaping for sale. It is not the moment of general harvest for the majority of Israel. The ceremony described in Lev 23:10 is based upon reaping a first [= *raysheet*] bundle of stalks of barley, an *omer*. The Tanak does not require that anything be done with the *omer* after the ceremony. There is no statement that it used for food of any kind. The grains on those stalks may be in any of several stages of development from the milky phase to the ripe stage when flour may be ground. The *omer* is not a firstfruits offering, so that it is not required to be suitable for food.

I have heard the conjecture that the first available barley in Israel that was suitable for the wave sheaf offering when it would be ripe should determine the time of the first month. The first problem with this theory is that there is no biblical evidence that the state of the stalks of barley in the wave sheaf offering had to reach any particular state, and there is no evidence that it was eaten by anyone after the ceremony. The burden for evidence is upon the person making the conjecture. The second problem with this theory is that the main focus of the phrase *chodesh ha aviv* is the word *aviv*, and this word has a wide variation in meaning. If it were true that the state of the barley for the wave sheaf offering should determine the time of the first month, then instead of having the focus of the description of the month center on *aviv*, it should center on the sheaf, which is the Hebrew word *omer*. In other words the phrase for the first month should have been *chodesh ha omer* if that was the defining meaning for the time of the month.

[34] Comparison between Lev 2:14-16 and Lev 23:10-14; Deut 16:9-10

(1) Lev 2:14-16 begins with “if” and it pertains to those who own a grain crop. But the wave sheaf offering is a collective plural obligation of the children of Israel. The wave sheaf offering is from barley because it is the first of the harvest, but no specific kind of grain is indicated in Lev 2:14-16.

(2) Lev 2:14-16 mentions *aviv* 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 in wording. Any stage of ears that enables the husk to be removed and is useful for firstfruits [= *bikurim*] is indicated in Lev 2:14. Any stage of ears may be used for the wave sheaf offering because it is not stated to be a firstfruits offering and there is no requirement to use it for food. As previously discussed, *aviv* does not force any specific stage of ears.

(3) In Deut 16:9 “standing grain” is translated from the single Hebrew word *kamah*, Strong's number 7054. This word was already discussed. The flexibility of this word makes it difficult to draw any conclusions from its use in the immediate summarized context. The key question concerning Deut 16:9 is whether the specific use of this cut standing grain can be demonstrated from this summarized context, or even from the directly related context of Lev 23:9-16. The Tanak is silent on this. However, there is nothing explicitly said that prohibits the use of the wave sheaf offering for food after the ceremony is performed. That is under the jurisdiction of the priesthood.

(4) Lev 2:15-16 tells what is to be done with the preparation from Lev 2:14. Most of it is consumed as a firstfruits offering. In 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 what is to be done with the wave sheaf offering itself after the ceremony.

(5) Lev 2:14 mentions firstfruits (= *bikurim*, discussed above) twice, but Lev 23:10-14 does not have this word, and neither does Deut 16:9-10! The 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”.

(6) The wave sheaf offering is not called *bikurim* (firstfruits) even though it must come first! The reason for this may well be that *bikurim* for a grain offering has a highly specific method of use stated in Lev 2:14-16, and the context of Lev 23:10-14 does not show such a method. In Lev 23:10 the word *raysheet* is used, and it is hazardous to employ a subjective decision to translate this with the same word “firstfruits” and thereby appear to equate *bikurim* with *raysheet* in these contexts, although there are distinctions between these words as previously discussed in the chapter on firstfruits. Both Tanakh-JPS and Tanach-Stone translate *raysheet* as “first” in Lev 23:10.

(7) 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 Hebrew technical terms that are used to describe them are different, so there is no need to assume that the *bikurim* (firstfruits) offering of Lev 2:14-16 governs the offering of Lev 23:10-14.

[35] How the Wave Sheaf was Obtained

Lev 23:10 “Speak to [the] children 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 (the bundle of stalks, *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 children 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 Festival 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.

[36] More Comments on the Time of Early Ripe Barley in Israel

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 [grain or 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 1883 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.”

[37] Can the Barley Harvest begin before the Wave Sheaf Offering? Deut 16:9

Is there evidence that the reaping of the barley harvest could not start until the wave sheaf offering had been made? To help answer this question, let us review and compare a literal translation of two passages.

(A) Summary of the Keys to Understanding Deuteronomy 16:9

Deut 16:9 is most often not understood properly for the following reasons.

(1) It is not examined carefully in a literal fashion, and translations add words that are totally absent in the Hebrew text. The added words can put an incorrect spin on its meaning.

(2) There is generally a lack of correlating Deut 16:9 with the details of the wave sheaf offering.

(3) Deut 16:9 is highly summarized and is subordinated to Lev 23:9-16.

(B) Translation of Lev 23:10-16, the Wave Sheaf Offering

The wave sheaf offering is a commanded ceremony that involves one role for the Israelites and another role for the priesthood. These distinct roles are important.

Lev 23:10, “Speak to [the] children 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 [= *raysheet*] sheaf [= *omer*] of your harvest to the priest.

Lev 23:11, “And he shall wave the sheaf before YHWH for your acceptance on the morrow after 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.”

Lev 23:15, “And you shall count for yourself on the morrow after the Sabbath, from [the] day you brought the sheaf of waving [to the priest], seven complete/perfect Sabbaths they shall be,”

Lev 23:16, “until on the morrow after the Sabbath the seventh, you shall count 50 day[s], and you shall present a new offering to YHWH.”

In verses 15 and 16 the Hebrew phrase *me-macharat*, meaning “on the morrow following”, occurs twice.

The word *sheaf* that occurs in many English translations in Lev 23:10, 11, 12, 15 is the Hebrew word *omer*. The meaning of *omer* from its translations in the Septuagint, Jerome, and the Syriac Peshitta all agree. Even Josephus uses the same Greek word *dragma* as in the Septuagint. This Greek word is also used in the Jewish apocryphal Judith 8:3 where the context indicates that it means a group of stalks of grain considered as one unit. Greek lexicons agree with this meaning. The word *omer* is a group of cut stalks from standing grain.

In Lev 23:10 the phrase “when you come into the land” is often used in the special sense of “from the time that you come into the land onward” (a reference to the crossing the Jordan River under the command of Joshua and what will pertain to future generations from that time onward), not specifically “when you come into the land for the first time only”. This is seen in the following examples: Lev 14:34; 19:23; 25:2; Nu 15:2; Deut 17:14; 26:1. The Hebrew verb translated “you come” is in its plural form, relating to the plurality of the Israelites coming into the land, not one individual as a representative of the whole nation. This is very important because the plurality of the verbs continue in this verse as will be discussed. Only in the phrase “which I am going to give to you” is the verb singular.

(C) The Meaning of Harvest in Lev 23:10-14

The first usage of the word “harvest” in verse 10 is in the phrase “and reap its harvest”. Just as the verb within the phrase “when you come into the land” is in its plural form, the Hebrew verb “reap” within the phrase “and reap its harvest” is also in its plural form, relating to the plurality of the Israelites performing reaping.

Within the boundaries of ancient Israel from the earliest time that the barley is harvested in the lower Jordan River valley until the latest time that the barley is harvested in higher elevations in the northern regions is seven weeks according to the personal experiences of Gustaf Dalman who spent decades living in Israel before the use of modern farming equipment. When this seven weeks variation in the time of the harvesting of the barley in Israel is kept in mind, this wording in verse 10 may seem a little confusing because it gives the impression that the time of harvest all occurs at one time for all of Israel because “reap” is in the plural form and thus relates in a general sense to Israelite farmers who have planted barley. A fuller comprehension of the Hebrew word for “harvest” will help to remove the confusion.

Lev 23:10 mentions harvest [7105 *ketseer*] twice. This word occurs on page 894 of BDB where three meanings are derived from the biblical contexts: (1) “process of harvesting”; (2) “what is reaped, harvested, crop”; (3) “time of harvest”. The second meaning is often overlooked. Consider some examples.

In the context of a foreign nation that will come and conquer Israel, Jer 5:17 reads, “And they shall eat up your harvest [= *ketseer*] and your bread, which your sons and daughters should eat. They shall eat up your flocks and your herds. They shall eat up your vines and your fig trees. They shall destroy your fortified cities, in which you trust, with the sword.” These various foodstuffs have previously been harvested and then stored, though some of it has been eaten since the time of harvest. This verse shows that the invaders shall eat the stored food at the time of the invasion. Here the stored food, that is, what remains of the crop, is called the harvest.

Another way of describing a foreign invader is in Isa 17:11, “In that day you will make your plant to grow, and in the morning you will make your seed to flourish. But the harvest [= *ketseer*] will be a heap of ruins in the day of grief and desperate sorrow.” Here the word harvest refers to the crop as it is still growing at the time of the invasion. In this sense the word harvest simply refers to the crop in its current state before the time of typical general reaping.

Joel 1:10, “The field is wasted, the land mourns. For the grain is ruined, the new wine is dried up, the oil fails.”

Joel 1:11, “Be ashamed you farmers, wail you vine dressers, for the wheat and the barley, because the harvest [= *ketseer*] of the field has perished.” Again the word harvest refers to the crop, but not the time of normal harvest.

As was previously discussed, in Lev 23:10 the expression “and you reap its harvest” is in the plural and applied to Israelites in general although there is a variation of seven weeks in the actual time of performing the harvest. Both uses of

ketseer in verse 10 are best understood in the general sense of the second meaning in BDB, which is “crop” instead of the time of any true harvest in any single place or in all places in Israel. Only this meaning of “crop” will provide reasonable sense to the plural form “reap” within “and reap its harvest”. The word reap only implies the act of cutting. Lev 23:10 should best use the word “crop” in the translation instead of harvest in order to give the best sense, because otherwise it would give the false impression that the plurality of the Israelites would simultaneously be ready for the general harvest of their crop. A sensible understanding of this brief expression (“and you reap [plural verb] its harvest”) would be “and the approximate time to reap the crop prevails”. This would apply to the plurality of Israel over a seven week period and would do justice to the plural form of the verb “reap”.

The wave sheaf ceremony that is briefly described in Lev 23:10-11 is based upon reaping a first [= *raysheet*] bundle of stalks (assumed to be barley because that is the earliest grain to ripen, although barley is not explicitly mentioned), an *omer*, which is a cut bundle translated “sheaf”. The ears on those cut stalks may be in any of several stages of development because there is no requirement in Scripture for something to be done with that sheaf other than lifting it up by the priest in verse 11. Verses 10-14 does not specify anything about consuming the wave sheaf offering itself. Lev 2:14-16 mentions the Hebrew word *bikurim*, which means firstfruits, and this word does imply usefulness for consumption. Lev 2:14-16 applies to all grains and is independent of the wave sheaf offering, except that it must not violate Lev 23:14, which prohibits consumption of the grain of the new crop. Nothing in Lev 2:14-16 proves that it applies to the wave sheaf offering, and such a viewpoint is part of rabbinic interpretation. The fine flour mentioned in verse Lev 23:13 may be from the crop of the previous year.

Here is an advance summary of a few items to be discussed in more detail below. The phrase “first of your harvest” in Lev 23:10 means the first cutting of your crop, and it pertains to the wave sheaf offering. This phrase means that no other cutting of the crop is permitted to precede the cutting for the wave sheaf offering, because otherwise it would not be the first. The plural verb tenses in Lev 23:10 shows that Israelite farmers generally were to cut their first sheaf and take it with them to the Feast of Unleavened Bread, so that when the day for the wave sheaf offering appeared, they could hand it over to the priest according to verse 11.

(D) How the Wave Sheaf was Obtained

Lev 23:10 “Speak to [the] children 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 [= crop, not implying the time of

specific harvesting], then you shall bring [plural form of the verb bring] [the] first sheaf of your harvest [= crop] to the priest.”

This definitely does not say that the priest goes out to look for the sheaf (the bundle of stalks, *omer*). Instead it says that “you”, the farmers, are to bring it to the priest during the time for the ceremony during the seven Days of Unleavened Bread held at one place for all of Israel. The Hebrew verbs for “you come”, “reap”, and “you shall bring” are in the plural form. The priest does not usurp the obligation of the farmers to bring their sheaf to the priesthood during that time within the festival.

It definitely does not say that only one farmer brings the wave sheaf. This is being spoken to all the children of Israel who are farmers with that crop, not merely to those where the barley is furthest in development.

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. The time of the cutting of the *omer* is not dictated by Scripture, and a literal study of Deut 16:9 shortly to come will bear this out.

(E) A literal Translation of Deuteronomy 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.”

If this verse was intended to prohibit harvesting of the new grain crop until the day of the wave sheaf offering, then there would have been no need for the following.

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.”

If you cannot harvest it, then you most certainly cannot eat it! There would be no need for verse 14 above if you cannot harvest the new crop before that offering was made.

Note that Deut 16:9 is a brief summary because it does not mention the full 50 days, it does not mention the sheaf, it does not mention the priest, it does not mention the waving or lifting up, it does not mention “for your acceptance”, it does not mention “morrow after the Sabbath”, etc. The lack of Hebrew words that would have been able to give this a very specific meaning show that this is intended to be a very sketchy summary.

In Deut 16:9 since no words are added between “from” and “you”, and since no

words are added between “begin” and “sickle”, the thought is not complete. The words that need to be added need to be deduced from reasoning, but whatever words are added, they must be in harmony with the thoughts and overall context expressed in Lev 23:9-16. The omissions in Deut 16:9 make it subordinate to the fuller description in Lev 23:9-16. It is Leviticus 23 that controls the understanding of Deut 16:9, not vice versa.

Deut 16:9 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. Nothing in Scripture requires that the day of cutting the first sheaf for any specific farmer also be the day that the farmers presented it to the priest.

Deut 16:9 does *not* imply that no harvesting can be performed between the time of cutting the *omer* and the offering of the wave sheaf during the festival. Lev 23:9-14 does not mention the day that the sheaf is cut. It only mentions the time that the farmers give it to the priest and that no one can eat it before that time.

A translation of Lev 23:14 was already provided above, and this prohibits eating of the new crop of grain, but it does not prohibit harvesting the new crop in case it is ready for harvest in some areas of Israel before leaving for the festival. Thus the safety of the crop is not threatened by early ripeness in certain areas before the feast of unleavened bread!

Deut 16:9 mentions “sickle to [the] standing-grain”, where *standing-grain* is a translation of the Hebrew word *kamah*, which is Strong’s number 7054, and is found on page 879 of BDB. This word *kamah* occurs 10 times in the Tanak. 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 four cases its stage of growth is not indicated from its own immediate context: Ex 22:6; Deut 16:9; Judg 15:5 (twice).

Hence in Deut 16:9 *standing-grain* does not identify any aspect of ripeness.

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 Hebrew has no punctuation marks. Here is a reasonable attempt at a paraphrase. “Seven weeks you shall count for yourself from [after the time] you begin to cut the sheaf. You shall begin to count seven weeks.”

(F) Miscellaneous Comments and Conclusions

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” unless it was a time of famine. Only domesticated barley was intended for the wave sheaf offering. However there is no reason why the word *aviv* cannot include wild barley.

When I spoke with Dr. David Marshall, a barley and wheat geneticist from Texas A & M University in 1992, he told me that when he visited Egypt, the farmers who still used a sickle waited until the barley was at 30 percent water content 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 water content. They could wait some weeks and let the water 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

(1) The literal Hebrew words present in Deut 16:9-10 does not forbid the Israelite farmer from harvesting his crop before the wave sheaf offering. Once the farmer has cut and put aside the first sheaf, he may reap his crop. He may harvest the crop before leaving for the Feast of Unleavened Bread. Thus the crop is not at risk based upon the day of the wave sheaf offering.

(2) 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 word *aviv* is not descriptive of only one month. It takes a more precise astronomical method to pin down the month of *aviv* to one month.

(3) 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. Heat is the major factor that determines the time of the ripening of winter barley, not light. Lights are mentioned repeatedly in Gen 1:14-16, never heat.

[38] 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 *aviv* means “ears [of grain]” regardless of the stage of ripeness of the ears. Some references have taken the Mishnaic interpretation of *aviv* as the early phase of ripening, although some translations of the Mishnah show a broader wording. Without a thorough study of Ex 9:31 and the hail plague in Egypt in its agricultural, historical, climatic, and geographical context as well as the use of *aviv* in the Dead Sea Scrolls, one can not appreciate the full scope of the meaning of *aviv*, and this misunderstanding of *aviv* 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 designated 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 aviv*” which means either “the new moon of *aviv*” or “the month of *aviv*”. 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 *aviv*”. Is it plausible to think that in Deut 16:1A this expression means “new moon of *aviv*” 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 *aviv* should be translated to emphasize its meaning or to

indicate the name of the month, and this depends on the original 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 *aviv* should most likely be translated to emphasize the meaning of *aviv*. However, in ancient times a name typically did have meaning, so that *aviv* can indicate both a name and meaning. It is a descriptive name because the meaning alone applies to several months.

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 *aviv*, a controversy over the intended meaning of *chodesh*, and a controversy over whether *aviv* 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 *aviv*” 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 *aviv* 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 aviv* 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 ...”. There are multiple laws associated with the Sabbath. The obvious command is to refrain from work, but there is also the command to work on the other six days, and there is also the command for your animals and servants to refrain from work. There are multiple laws associated with the month of Abib. There is the law to keep the Passover. There is the law to eat unleavened bread for seven days. There is the law to refrain from laborious work on the first and the seventh day, as well as to participate in a sacred meeting on those two days.

Using the explanation of Deut 5:12 with *shamar*, Deut 16:1 means, “Keep [the laws of] the month of *aviv* and perform 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 “*aviv*”. Besides, *aviv* 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 *aviv*, 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.

The hail plague teaches that some stages of barley are called *aviv* before the ears are ripe. In that plague, at least seven weeks before the end of the 90 days to harvest would arrive in northern Egypt, the barley ears were called *aviv*. That is during the first half of the 90 day period from the first appearance of the ear until the harvest. There is no description of what to look for. There is no statement that people should go out to look. It is all an elaborate theory with nothing to back it up.

The presence of *aviv* in Israel applies to several months from the meaning of *aviv*, so that its name does not uniquely determine one month. This is a characteristic of the first month, but not a defining criteria that only identifies one month.

[39] Appendix A: How to Know the Meaning of a Hebrew word having vague Contexts

Certain words found in biblical Hebrew have a meaning that is not clearly determined from the biblical contexts. The best objective method to determine the meaning of a word when this situation prevails is to consider the availability of Semitic cognates and ancient translations.

An official accurate copy of the Hebrew (with brief segments in Aramaic) Scriptures would have been kept in the Second Temple with priestly responsibility for careful copying through the years until the Temple was destroyed (Kooij 2012). Jews who left Jerusalem to capture Masada in 66 CE were the source of a dozen books of the Hebrew scriptures that have been discovered at Masada when excavations were begun there in 1967, and these all show the Masoretic Text (MT) without the added vowel points (Woude, 1992 and 1995). The MT of the Scriptures is called the Tanak. This is the authoritative text that should be used. Additional corroboration of the validity of the MT comes from the caves in the Judean desert from 135 CE where Bar Kokhba died in battle and significant parts of about a dozen books of the Hebrew Bible were discovered after the 1967 war. The Dead Sea Scrolls have a greater variation in the spellings of the biblical Hebrew words to make them conform to the spellings that prevailed in the first

century rather than preserve the ancient spellings that agree with the MT and also agree with those texts from Masada and the caves in the Judean desert from 135. The Dead Sea Scrolls have significant variations in the Hebrew text of the Scriptures and there was no authority to prevent copying alterations outside the jurisdiction of the leading priests.

The examination of the two or three letter stem of a Hebrew word is too loose a method to determine the original meaning of a word. Sometimes this is incorrectly referred to as the etymology of a word. The latter refers to the history of how the word originated. Older works such as Strong's Concordance took wild guesses at etymologies, and this is worthless to use. If a worthy etymology is known, it can sometimes be useful to approximate the meaning of a word, but it is not likely to yield a precise meaning. The following tools provide the best method to determine the meaning of a Hebrew word that has vague contexts.

The rabbinic literature is too hazardous a source to use for reliable original meanings of Hebrew words.

(A) Semitic Cognate

A Semitic cognate of a word in biblical Hebrew is a word that: (1) sounds almost the same in another Semitic language; and (2) is used in a similar context. Both tests are required in order to have reasonable confidence that the cognate word's meaning is applicable. Contexts of the cognate word in the other Semitic language often provide a clarification or a more precise meaning of the Hebrew word. Archaeological preservation of ancient texts is the source of Semitic cognates.

(B) The Septuagint

The Septuagint, often abbreviated LXX, is the oldest translation of the Hebrew Bible. Its Pentateuch was translated c. 280 BCE and the remainder was completed by c. 100 BCE. The target language was Greek.

The Hebrew text from which the LXX was translated is called the *Vorlage*. Since we do not possess the *Vorlage*, any substantial difference between the meaning of the Tanak and the LXX is often the result of a difference between the *Vorlage* and the Tanak. Study of the biblical texts found among the Dead Sea Scrolls has shown that a small number of the discovered books in Scripture do resemble the translations in the LXX that show wide differences with the MT, indicating that the *Vorlage* was a real object rather than an assumption (pp. 247-248, F. Garcia Martinez 1999). For this reason alone there is always a need for some sensible judgment in weighing the use of the LXX for any particular verse and for the meaning of any Hebrew word. Jan Joosten 2011 wrote on page 7. "The translators [of the LXX] tend to render Hebrew words – and sometimes Hebrew roots – by a

single Greek equivalent. Since words in different languages rarely have the same exact meaning, this 'lexical stereotyping' leads to contextual uses that are unnatural in Greek. More often than not, the equivalent is adequate enough in some contexts, but does not fit certain other contexts. It also happens, however, that the Greek equivalent from the start diverged in meaning from the Hebrew.” Later on pages 7-8 he wrote, “At times it appears that the translators confused different Hebrew words or forms.” In summary, inadequacies in scholarly knowledge concerning biblical Hebrew among the translators of the LXX should typically cause the modern reader to lack full confidence in blindly accepting the LXX's apparent equivalent of a rare Hebrew word as correct.

Another major weakness of the LXX is that we do not possess the original LXX translation; there are many differences among the surviving handwritten copies of the LXX. A critical text of the LXX has been produced by a team of scholars based upon the surviving handwritten copies. A literal translation of this critical text is available, abbreviated NETS. It is always possible that for some important passage, none of the surviving copies of the LXX agree with the original Greek translation. People who copied the LXX varied in their desire to preserve the text exactly as they saw it. Many scholars believe that some Christian copyists of certain Messianic texts in the LXX deliberately altered the text to force it to conform to certain details that are found in the New Testament. The two oldest surviving complete copies of the LXX date from c. 350 CE, and only small parts of it exist from before that time.

The most important parts (not the earliest small number of fragments) of the LXX from before c. 350 stem from the Greek commentaries of Origen c. 200-250 and from surviving fragments of the Hexapla (six column work with the Tanak in the left column), whose preparation he supervised during that time. Due to the fact that Origen compared differing versions of the LXX before deciding what to use for the LXX column in the Hexapla, scholars today generally accept Origen's decision in the Hexapla (and his commentaries) for their critical text of the LXX, which is the basis for the NETS translation published in 2007. About 500 years separate the original LXX from Origen's decisions in the Hexapla. Origen wrote that in some small number of instances he modified the LXX in the Hexapla to agree with Aquila's very literal translation from the Hebrew that he made c. 135. Origen called this process of altering the LXX to agree with Aquila, a “healing / restoration” of the LXX, because he assumed that the original LXX was perfect and Jewish scholars that he knew personally informed him that Aquila was generally an accurate reflection of the Hebrew. Origen only did this in rare cases and did not provide a list of such places. He knew that Greek speaking Christians believed that the LXX was inspired, and he would not write anything to cast doubt on this

beyond sometimes writing that he was restoring the LXX back toward its original state. His writings do admit that many divergent copies of the LXX exist, and it makes it difficult to know what the original contained. His decisions toward restoring the column of the LXX were often based on comparing divergent copies of the LXX with Aquila and the other two Greek translations of Symmachus and Theodotion. During the latter part of Origen's life and after his death, copies of the fifth column (the LXX) of the Hexapla were made at the library founded by Origen at Caesarea and shipped out to various interested parties. See pages 42-49 of Martens 2012.

The translation method used for the LXX differs greatly from book to book. Some are done more literally and some are more paraphrased. Some books transliterate certain technical words while others translate such words. It appears that for certain Hebrew words the translation often differs in different books. There are known instances in which the translator of the LXX was uncertain of the meaning of a Hebrew word and thus a Greek translation was chosen that had a pronunciation similar to the Hebrew word, but with a surely incorrect meaning. In other words, the meaning of some Hebrew words was not known to some of the translators, so that guesses were made (see G. B. Caird, 1976).

Concerning certain matters in the biblical text, there may have been a controversy among Jews during the time that the LXX was first translated or later copied, and this may have introduced a translation bias in favor of one controversial interpretation.

(C) Aquila's Translation

Aquila translated the Tanak into Greek c. 130 (note page 36 of Louis Ginzberg 1902), and this was quite literal in a word for word sense. This was about 60 years after the Temple was destroyed when Hebrew was still spoken in limited areas of greater Palestine. Aquila's early life was in a solely Greek speaking environment, but he later moved to Palestine where he studied Hebrew. In the following quotation from the Yerushalmi (Palestinian Talmud) Aquila is written Aqilas. The Yerushalmi is broadly from c. 400 although the whole work took decades to produce, so that its contents could have been known from decades earlier. Jerome would have been exposed to its content about Aquila, either directly or through his Hebrew teachers.

Page 51 of PT_Megillah I.9 [V.A] states, “R. Jeremiah in the name of R. Hiyya bar Ba: 'Aqilas the proselyte translated the Torah before R. Eliezer and R. Joshua, and they praised him.' [V.B] They said to him, 'Gird your sword upon your thigh, O mighty one, in your glory and majesty.' (Ps 45:3)”

This is clearly a rabbinic method of approval to Aquila's translation, although one

cannot say that every translation within Aquila's work would have had rabbinic acceptance. It would appear from this that Aquila was taught Hebrew under rabbinic instruction. Footnote 32 on page 294 of Rajak 2009 states, "Jerome commenting on Isa. 7:14 says that [Rabbi] Akiva was Aquila's teacher." Rabbi Akiva is a major rabbinic sage. Jerome understood that Aquila's translation was generally approved by the rabbis, and for that reason he knew that he had to weigh Aquila's meanings, and sometimes he rejected Aquila's meanings.

This important fact is a great weakness in using Aquila's translation because rabbinic literature sometimes has untrustworthy meanings due to new interpretations. Because rabbinic teachers of Aquila were involved in the new interpretations, it is reasonable to expect that Aquila used some incorrect meanings. He innocently accepted what the rabbis told him. Burkitt wrote on page 35, "Aquila also has an unfortunate habit of dividing rare Hebrew words into their real or imagined component parts [to produce his literal Greek translation]; ..." This is generally not an accurate method for translation and it shows that Aquila did not understand the meaning of some rare words. Only small portions of his translation have survived.

(D) The Syriac Peshitta

The Syriac language is an offshoot of Aramaic that gradually took shape during the period 150-200 CE. The Syriac Peshitta translation from the Hebrew Bible was made over the period 150-200 (page 258 of Weitzman 1999). The Pentateuch was translated c. 150 and the remainder was spread out over the next several decades. The translators also consulted previous Aramaic translations (Targums of the Jews) and the Septuagint. This is known because some isolated parts of the Peshitta show influence of these other translations where they are contrary to the Masoretic Text. It is not known who made this translation, whether Jews or Christians. The oldest surviving copy of the Peshitta dates from c. 550, but not all parts of it are from about that date. A significant effort was made by the promoters of the Peshitta to keep its text free from modifications, and this lends weight to the belief that the original was close to the extant texts. The Peshitta was ultimately preserved by Christians beginning at some time between its creation and 400 CE. It is possible that the first translation of the Peshitta was influenced by rabbinic bias in some places. Scholars have noted that the translators of the Peshitta were sometimes unsure of the meaning of some Hebrew words, and they either pretended that the Hebrew word was not there, or they took a guess.

(E) The (Aramaic) Palestinian Targums

The best source of information on the dating of all the Aramaic Targums is Fleisher & Chilton 2011. Approximate dates provided below are taken from this source. All

of the writings known as the Targums were translated by Jews. The translation from the Tanak to the Aramaic known as the Palestinian Targums originated c. 200. The oldest surviving copies date from a few hundred years after this. All of the versions of the Targums were produced by Jews. Only the earliest groups of Targums are considered because the later ones have more interpretive paraphrases and are less likely to retain original meanings of Hebrew words.

(F) The (Aramaic) Targum Onqelos

The original Targum Onqelos (called Proto-Onqelos) no longer exists. Proto-Onqelos was translated from the Tanak into Aramaic between 50-150 CE. Eventually Proto-Onqelos was modified many times until its final version, which became quite stable, was accepted by the rabbinic leaders c. 600. Various parts of it show the Aramaic language as it existed during the period 50-150, while other parts show different flavors of later Aramaic. In some places there is heavy rabbinic influence in the surviving translation, and at other places a very early translation remains. Caution is advised in accepting its meanings.

(G) Symmachus or Theodotion Translation

These two translations from the Tanak to Greek were made c. 180 CE. Only rare portions of it survive.

(H) Jerome's Translation into Latin

Jerome's translation from the Tanak into Latin dates from 391 to 405 (page 195 of Graves 2007). The best current effort to recover the complete Latin original by Jerome is by Robertus Weber, and this work includes the Psalms in Latin from the Hebrew. Jerome's translation became the Vulgate except that his Psalms in Latin from the Hebrew was excluded from the Vulgate. He was recognized as exceptionally competent in Latin and Greek grammar. He began learning Hebrew in 376. From his grammatical background he understood the need to develop technical grammatical principles of the Hebrew language. In 384 while in Rome, he translated the Psalms from some version of the Septuagint into Latin. Not long afterward, he visited Caesarea where he examined Origen's improved version of the Septuagint, so he retranslated the Psalms from this Greek version into Latin. As Jerome continued his studies into Hebrew with the Tanak, he became convinced that the differences between the various versions of the Septuagint and the Tanak were so significant that the only way for Latin speaking people to attain an accurate Bible that originated with the Jews, was for him to make a direct translation from the Hebrew. He was armed with significant funds from wealthy patrons to pay experts in Hebrew any reasonable price so that he could obtain the best knowledge of Hebrew. In Jerome's commentary on Genesis c. 392 based on the Hebrew text, he often refers to how Aquila, Symmachus, and Theodotion

translated specific Hebrew words in comparison to the Septuagint, probably using Origen's version of the latter. From this and other writings of Jerome, it becomes obvious that Jerome had a copy of all four of these Greek versions. From this we know that despite the fact that Jerome's translation was made about 250 years after those of Aquila, Symmachus, and Theodotion, in a sense he was transported back into their time for a knowledge of Hebrew vocabulary because he consulted with these three when translating from the Hebrew into Latin.

Page 197 of Graves 2007 states, "Jerome learned Hebrew for the most part through Jewish sources, primarily his Jewish teachers and the Greek translations of Aquila, Symmachus, and Theodotion." In his commentaries, Jerome mentioned that he often disagreed with Aquila for less common Hebrew words. On pages 198-199 Graves wrote, "Although he certainly could miss the mark on particular passages, Jerome's work on the Hebrew text reflects that of a competent Hebrew scholar whose literary and critical sensibilities are much like our own." Later on page 199 we note, "Modern scholarship on the Hebrew Bible should take seriously the traditions of late antiquity. For these traditions, Jerome is one of the most valuable resources." This source is a revision of a doctoral dissertation from Hebrew Union College in Cincinnati.

Page 499 of Pablo-Isaac Halevi (Kirtchuk) 2002 states, "Jerome was aware of the many problems of translation, both at the technical level and at the theoretical level, and solved them successfully and often with elegance. Therefore he is considered not only as a great figure in Hebrew studies in the Christian world, but also as a great translator."

The basic weakness of Jerome's translation is that occasionally his Hebrew teachers exhibit rabbinic meanings that were not original meanings. He attempted to avoid rabbinic influence in his translation, but was not always successful. His knowledge of Hebrew was far superior to that of the translators of the Septuagint and the Syriac Peshitta. **Overall, his translation is the best of the whole group and it generally deserves the most weight.**

[40] Appendix B: Smith's Paper

This is a complete copy of W. Robertson Smith's reference (see the bibliography) except for a section written in Arabic for which Smith includes a translation that he puts in quotation marks shown in the published paper and which is copied below. This short paper takes a little effort to fully understand. It is discussed in this document. The paper now follows.

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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