

## **Development of the Hebrew Calendar**

**Many Assumptions Factor into Peoples' Positions Regarding that 'True' Calendar by which we should Observe God's Annual Feasts. Fundamental to Most is the Assumption that the Calendar has Remained Unchanged throughout History.**

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"It is a well-established rule of scientific investigation that the first time an experiment is performed, the results bear all too little resemblance to the 'truth' being sought. As the experiment is repeated, with successive refinements of technique and method, the results gradually and asymptotically approach what we may accept with some confidence to be a reliable description of events." This quote by Philip Bevington in the May 1988 *Imnaci*, a publication of the Institute for Creation Research, is a fitting description of the search for the "true" development of the Hebrew calendar.

Reams of data have been collected, read and reread. Techniques have been tried, questioned and discarded or used. There have been some surprises. Some points of truth that have been hard to accept, like realizing that this is an historical rather than a Biblical question. Some truths have been disheartening, like realizing that hundreds of scholars for nearly two thousand years have attempted to find the "truth." And, like realizing that in our own ministerial body there exists such a variety of positions, many of which emerged from absence of sound historical information.

One "truth" can keep the search in perspective. Jesus said in John 14:6, "*I am the way, the truth and the life: no man comes unto the Father but by me.*" This truth is embraced in contrast to Titus 1:14: "*Not giving heed to Jewish fables, and commandments of men, that turn from the truth.*" Having experienced that "*much study is a weariness of the flesh,*" the Apostle Paul's judgment in 1<sup>st</sup> Corinthians 2:2 glows brightly as the wisest course of all: "*For I determined not to know anything among you, save Jesus Christ, and him crucified.*"

### **Some Basics of Biblical Reckoning**

God speaks of a system of yearly reckoning we might call a calendar in Exodus 12:2: "*This month shall be unto you the beginning of months: it shall be the first month of the year to you.*" It is helpful to read this verse by keeping in mind that the Hebrew word for "month" here is "*chodesh*," meaning "new moon." This relates to Genesis 1:14-16. On the fourth day of creation the moon was created as the heavenly body for determining dates. Psalm 104:19 teaches that God appointed the moon for seasons. Most of the world's cultures have followed this practice. Even today we say it is the 26th day of May rather than the 147<sup>th</sup> day of the year.

Which new moon was God referring to in Exodus 12:2? Exodus 13:4 is informative: "*This day ye came out in the month (new moon) Abib.*" When is Abib? The Hebrew word for Abib occurs eight or nine times in the Old Testament. Exodus 9:31 and Leviticus 2:14 are the only two places where it is not transliterated. These texts describe when the new moon is. Exodus 9:31: "*And the flax and the barley were smitten: for the barley was in the ear (Abib), and the flax was boiled.*" Leviticus 2:14: "*thou shalt offer for the meat offering of the firstfruits green ears of ~ dried by the fire*" (Do not be confused by "corn" rather than "barley." There is no word in the Hebrew where "corn" is inserted here.)

So, the new moon which appeared when the barley was in the green ear phase was the one which God designated to be the signal for the first month of the year. The sun determines the progression of the agricultural year. This kind of calendar is called a lunar/solar calendar.

This system seems easy to follow as long as those who use it live in one area and are an agricultural society. These two changes, location and occupation, were the primary practical reasons why the Jewish calendar deviated from a strict adherence to the Biblical guidelines. Extra-biblical traditions that the Jews incorporated into their feast-day-keeping also resulted in the development of a calendar that differed from the purely Biblical model. Political upsets produced other factors in its evolution.

### **Effects of Political Disruption**

In A.D. 70 Jerusalem was destroyed by Titus. The Sanhedrin moved 30 miles west of Jerusalem to Jamnia near the Mediterranean coast. From these new headquarters they declared the beginning of months and years until the complete destruction of Jerusalem in A.D. 135.

But, not all the Jews accepted the Sanhedrin's decisions. The Dictionary of New Testament Theology, Vol. I, describes the Jews during Josephus' time (A.D. 37 to after A.D. 100) on page 627: "*A special cause of differences was provided by the dates of the festivals, since there was no general agreement on the calendar ... the dates observed ... differed from one another. The Pharisees reckoned their calendar according to the lunar cycle, and brought it where necessary (later by calculated rules) into line with the solar year by adding an extra month. The Essenes, on the other hand, reckoned by the sun.*" Even among those who agreed on which calendar to use, there were arguments about methods.

Azriel Eisenberg in his Story of the Jewish Calendar tells of a disagreement between Rabbi Gamaliel II, a patriarch, and Rabbi Joshua, a plebeian. On page 34 he makes this revealing statement: "*It was thought that he (Gamaliel) had really made his decision because of mathematical calculations which he had learned from the Rabbis who were his teachers. (Evidently, even as early as 70 C.E., the Rabbis were beginning to realize the weaknesses of the method of setting the time for the beginning of the new month and were relying more on mathematical calculation than on eye-witness accounts.)*"

The book Akiba - Scholar. Saint. Martyr, by Louis Finkelstein, implies that a new governor began to rule over Palestine when Hadrian became Emperor in the year A.D. 117. He "*feared that Jamnia might become a second Jerusalem and center of national ferment*" (page 235). It was probably about the year A.D. 124 when he moved the seat of the Sanhedrin about 10 miles northeast to the city of Ludd (Lydda). He placed limitations on their activities, including forbidding the regulation of the calendar. This interdict created great confusion. "*The Jewish calendar ... had not yet been reduced to an automatic system. The beginnings of the months and the years were still announced by the court, whose duty it was to add an intercalary month about once in three years, so as to harmonize the Jewish year, based on revolutions of the moon, with the solar year which is about eleven days longer.*"

Neglect for more than five or six years would bring Passover, the spring festival, into early February. Akiba was sent to Nahardea in Babylon, which was under Parthian rule, to perform the ceremonies required for decreeing an intercalary (or thirteenth) month. The emotional ties to edicts from Judea were so strong that this rigorous and dangerous attempt by Akiba did not find support. "*It was probably in the year 134 that the Romans issued a decree forbidding the practice and study of the Torah. Now Akiba knew he had*

*reached the end of compromise." (page 272). "Convinced at last that there was no point in trying to conciliate the oppressor, Akiba decided to bring the calendar, which had been neglected for a decade, into order. He added a thirteenth month to each of three successive years -- an unprecedented procedure -- until Passover, which had been thrown back into January, once more occurred in its proper season" (page 274).*

The complete destruction of Jerusalem in A.D. 135 by Hadrian dealt a fatal blow to the Sanhedrin. The emperor tried to stamp out Judaism. The Sanhedrin was prevented from meeting. The Jewish year went out of control. Jews were left without a formal declaration to begin the month Nisan. The Jewish leaders were killed. Even Rabbi Akiba, who was then 95 years old, was imprisoned and killed three years later.

In A.D. 142, a new Sanhedrin was created. It set up headquarters at Usha (near modern-day Haifa) in Galilee. This is about 125 miles north of Jerusalem.

Ernest Martin, in "The Passover / Easter Controversy," April, 1984, describes a result of this move: *"From then on the Jews were once again provided with official pronouncements concerning the times of the beginnings of their years and months. This new calendar was, unlike the former ones, based primarily on calculations rather than on actual observations of the moon."* The Universal Jewish Encyclopedia uses stronger words on page 632: *"... the calendar was determined entirely on the basis of astronomical calculations and the hearing of the evidence of witnesses was merely retained to encourage individuals to perform their religious duties."* The article goes on to explain that that method of official proclamation of months and years lasted until the middle of the fourth century when its continuation was forbidden by Roman leaders.

### **Modern Calendar Slowly Evolved**

The Jewish Encyclopedia and The Universal Jewish Encyclopedia both agree that **the modern Hebrew calendar evolved slowly**. It acquired its present form by the **tenth century**. It has five main differences from the methods used while the second temple was standing. Those differences are:

1. Postponement rules for beginning the month to prevent:
  - a. Trumpets (Rosh Hashanah), 1st day 7th month, from being on Wednesday, Friday or Sunday.
  - b. Atonement (Yom Kippur), 10th day 7th month, from being on Friday or Sunday.
  - c. Last Day of Tabernacles (21st day 7th month) from being on Saturday.
2. Years with a 13th month were made to come on a predetermined schedule, the 3rd, 6th, 11th, 14th, 17th and 19th years of each 19-year time cycle.
3. The year was to begin in the fall. The first day of the 7th month became New Year's.
4. The beginning of months was to be determined by calculation rather than observation.
5. Pre-determined full and defective months were designated. The months of Nisan, Sivan, Ab, Tishri, Kislev and Shebat, were assigned 30 days each and declared full months. Iyar, Tammuz, Elul, Heshvan, Tebat and Adar were assigned 29 days each and called defective months. In a leap-year Adar had 30 days and Ne-Adar 29.

### **Unreliable Witnesses?**

It seems that the first change was determining the beginning of months by calculation. This was practiced as a way of testing the validity of the report of a witness who claimed he had seen the new moon.

Between the years A.D. 70 and A.D. 135 political unrest sporadically stopped the Sanhedrin from functioning. Travel was unwise. Calculation was safer. After A.D. 142 calculation became the preferred method of the new Sanhedrin. Over the years the Sanhedrin and the Jews got used to the idea.

It was an easy step to add other reasons for abandoning the requirement to begin their months with the **visible** new moon. One reason was for comfort. It was hard to have Sabbaths on consecutive days. So, postponement rules developed. **The next 700 years report many Rabbinical arguments as four postponement rules were hammered out.** For instance, the second rule states that if the astronomical new moon of the month Tishri is at noon or later, then Rosh-Hashanah is to be delayed one day. One Rabbi heatedly debated for noon plus 642 parts. (The Hebrew hour is divided into 1080 parts.)

The Jews in Their Land, edited by David Ben Gurion, 1966, gives this report of conditions after the death of Hadrian: *"Many of the anti-Jewish laws were slowly repealed between the years 138 and 235. Scholarly activity was enhanced and enlarged, Jewish autonomy with all its offices was restored and a number of important rabbinical works, such as the Mishna, were completed."* Ben Gurion continues, *"But, the next century (A.D. 235 - 330), saw tyrannous impositions, less autonomy and an increasing of Jews leaving the land for the Diaspora."*

With political oppression forcing many Jews to flee, it became impossible for the Sanhedrin to give notice of the correct day for beginning months and years and observing the annual feasts. So, according to a tradition quoted by Hai Gaon of the 11th century, the details of the present Jewish calendar were made public by the patriarch Hillel II in A.D. 358/59. The Jewish Encyclopedia, Vol. 5, p. 48 suggests the following: *"Hillel's 'details' possibly only refers to the fixed order of leap years in the 19-year cycle because at that time the 16th of Nisan was occurring before the Vernal Equinox in the crucial 16th year of the 19-year cycle. His action did not settle the matter though. At least three other patterns of leap years are found in Jewish literature as late as the tenth century. While it is not unreasonable to attribute to Hillel II the fixing of the regular order of intercalations, his full share in the present fixed calendar is doubtful ... There is unimpeachable evidence that the order of intercalation and pre-determined beginning of months were not yet intrinsic parts of the calendar of Hillel II. They were still ideas that were being considered along with other styles until the tenth century."*

Examples include Rabbi Abbahu, who, early in the fourth century, developed an elaborate 1176 year cycle. It allowed for Rosh Hoshana to fall on Wednesdays or Sundays on occasion. **Many Rabbis joined the effort to find the perfect formula. For 600 years after the time of Hillel II Rabbis experimented with ways of constructing a fully calculated calendar.**

It is readily recognized that sources can be arranged to make any conclusion seem like the "true" one. This study has attempted to be unbiased.

### **Unchanged from the Time of Moses?**

Much has been made by some scholars of Maimonides' assertions that the calendar was secretly passed down since the time of Moses. But, the Bible doesn't hint at any of the five previously mentioned differences. Even the Mishna, completed by A.D. 235, is silent.

Evidence is making Hillel II's contribution appear minimal. A study of Rabbinical statements proceeds to the tenth century before finding a description of the calendar which is like the modern Hebrew calendar.

### **The Influence of Maimonides**

Then, what about Maimonides? He writes "The Sanctification of the New Moon" about A.D. 1178. He frequently and adamantly maintains that Moses is the source for the methods of calculating the calendar. But, Mr. Otto Neugebauer, who wrote the introduction to a translation of "The Code of Maimonides" in 1956, finds evidence for **much later** sources than Moses. *Section A* of his introduction is about how the calendar was regulated during Bible times. Maimonides' sources are the Mishna and the Gemara. *Section B* tells how the calendar made use of mean values for the conjunction of sun and moon, and how other calendric regulations developed after the office of the Sanhedrin had been dissolved. Sources are Jewish writers during the tenth century when the construction of the modern Hebrew calendar was finalized. *Section C* is Maimonides' attempt to show how the ancient court predicted by means of mathematics and astronomy **the time when the new crescent would be visible**. But Mr. Neugebauer finds the source among contemporary Greek and Arabic astronomers.

Why was Maimonides so intent on giving a Mosaic origin for the calculated Hebrew calendar? We can only guess, perhaps to lend an air of authenticity, to gain acceptance. Mr. Neugebauer has a logical answer: *"The question of motivation must be viewed against the background of the strange but vociferous and far-reaching calendric controversy between the Rabbinites and the Karaites that, having come to a head in the second half of the 8th century, was to plague the Jewish communities for a long time to come. The Karaites rejected the fixed calendar as a heretical innovation. They taught that by the law of Scripture the beginning of months must be determined by the appearance of the new crescent and no other means, and that this had been the practice of ancient Israel at all times."*

Rabbinites asserted that the fixed calendar, with all its computations, was a Mosaic-Sinaitic law that had been followed at all ages of the past, while observing the new crescent was merely a passing episode in the history of the Jews. Maimonides maintained that both observation and calculation had an ancient origin and they were used together in determining the beginning of months and years.

Maimonides seems to have tried to be the great compromiser in this situation. But, in his attempts to placate, he made assertions that can not be substantiated. Both he and those who take the extreme position of calculation as the, sole method in Moses' time lack both Biblical and historical support.

### **Suggested Direction**

What shall we then do? Be modern-day Karaites? Accept Maimonides' authority? Join the Rabbis of the first millennium who argued over a multitude of minutia about the calendar? Throw it all out and have every man do what is right in his own eyes?

I pray that this study will help us do two things: First, encourage us to be alert in distinguishing where the authority of scripture leaves off and the logic of man begins. Second, help us decide doctrinal positions that speak where the Bible speaks; and allow latitude where it does not speak.

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## Who was **Maimonides**?

Moses Maimonides, also known as Rabbi Moses ben Maimon was born in Cordoba, Spain on March 30, 1135, and died in Egypt on December 13, 1204.

One of the greatest Torah scholars of all time, he was a rabbi, physician, and philosopher in Spain, Morocco and Egypt during the Middle Ages. He was the preeminent medieval Jewish philosopher whose ideas also influenced the non-Jewish world.

One of the central tenets of Maimonides's philosophy

is that it is impossible for the truths arrived at by human intellect to contradict those revealed by God. Maimonides held to a strictly apophatic theology in which only negative statements toward a description of God may be considered correct. Thus, one does not say "God is One", but rather, "God is not multiple". Although many of his ideas met with the opposition of his contemporaries, Maimonides was embraced by **later** Jewish and many non-Jewish thinkers. St. Thomas Aquinas held him in high esteem, and the fourteen-volume Mishneh Torah today retains canonical authority as a codification of Talmudic law.

Although his copious works on Jewish law and ethics were initially met with opposition during his lifetime, he was posthumously acknowledged to be one of the foremost rabbinical arbiters and philosophers in Jewish history. Today, his works and his views are considered a cornerstone of Jewish thought and study.

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## Reviewing Relevant Facts

The definitive scholar of modern Judaic thought lived in the late twelfth century.

There was no continuity of or uniformity of practice between the first century and the middle third century, a span of two hundred years.

Even in the early Christian Era, differing sectarian methods of calendar determinations were used.

The specific instruction of God regarding the start of the New Year became deliberately disregarded.

Employing the specific instruction of God which indicates when to intercalate the occasional 13<sup>th</sup> month (the Abib) was deliberately disregarded.

Calculation methods as the sole method for determining beginnings of months clearly was a post-Christian development.

Originally, calculation methods were intended to determine when the first visible crescent would appear, not the astronomical 'new moon' date.

Calendar-determining formulae were experimented with for 6 centuries after Hillel II. The current model didn't fully appear until the 10<sup>th</sup> century!

Details regarding the "Rules of Postponement" were 'hammered out' over a period of 700 years.