# THE CRUCIFIXION DATE (A Bible and Calendar Argument)

- I The Problem.
- II Vital Laws Governing the Scripture Passovers.
  - 1. The fourteen Scripture Passovers.
  - 2. Law of the first fruits.
  - 3. The passover date--its relation to the full moon.
  - 4. Time of slaying and eating the paschal lamb.
- III The Lord's Passover Supper -- the Legal Feast.
- IV 1. Gospel Account of the Jewish Feasts during Christ's Public Ministry.
  - 2. Crucifixion Passover -- a Late Season Feast.
  - V Rejection of 30 A. D. as the Crucifixion Year.
- VI True Crucifixion Date Governed by Prophecy, and by Jewish and Calendrical Law.

# THE CRUCIFIXION DATE

#### I. THE PROBLEM

Aside from the Messianic prediction in Daniel nine, no generally accepted calendar date for the death of Christ has as yet been demonstrated. There has been no united, irrefutable answer from the continued research into the annals of early centuries. The principal reason for this outstanding lack of agreement among scholars seems (1) to be primarily connected with the critical examination of the Bible text; (2) with the confused state of the chronological records of centuries subsequent to the death of Christ; and (3) with a mistaken application of Rabbinical calendation, which, in its present changed form, does not now fit the problem of ancient Jewish time. And this last mentioned cause is without doubt the most important of the three. Hence, erroneous conclusions are being drawn from the Jewish calendar of today, which should be definitely understood before an analysis of the ancient form of Jewish time can rest upon a sound footing.

The Ministry has already stressed the fact that March and early April represent the wrong passover season in the Holy Land of ancient time, and that the modern Jewish passover is frequently a month earlier than the law of Moses originally commanded. Several other Rabbinical calendar features are equally inconsistent with early Jewish time:

- 1. The modern Rabbinical calendar observes 15 Nisan for the passover, instead of the originally commanded 14 Nisan.
- 2. In the modern Rabbinical calendar, Monday, Wednesday, and Friday are excluded by the established rule of badu from passover observance. (Cf. any Jewish almanac.)

<sup>1</sup> May and June issues.

3. As a result, the modern Jewish reckoning employs a length of lunar year which does not conform to the natural length of the lunar year operative in early centuries, such as for example, the lunar year of dated contracts and cuneiform texts of Babylonian origin.

Of these three characteristics, all of which are foreign to ancient Jewish calendar practice, the first is of primary importance—that is, the wrong day of the month for the ancient passover ceremony.

But another equally misleading passover interpretation has somehow become associated with Rabbinical reckoning, and it has to do with the common significance of the ancient nychthemeron, or Jewish day, in the oriental sense. For, although modern Jewry the world over still begins its day at sunset, and in contrast to Roman custom, approximately twelve hours of darkness always precede twelve hours of light in one and the same Jewish day, yet this undeniable daily calendar event is repeatedly ignored by investigators in general. And confusion is almost complete with regard to the simple calendar facts that (1) in the oriental scenes of the Bible, the ancient Jewish day changed at sunset, the same as in the twentieth century; and (2) that ereb, or "evening" of the ancient Jewish day, unless otherwise implied, invariably refers to the sunset beginning of the day. This distinction is so vital to calendar reckoning in Jewish time that Scaliger wrote:

"Moreover, it must be understood that when I say Tisri begins from October 10, I mean from the night which followed sunset of the ninth, from which sunset the Jews count the beginning of the tenth. And so, evening of the sixth day is to them the beginning of the Sabbath. When therefore I speak of the beginning of the Sabbath, I refer to sunset of the day of Vemus [Friday]."2

Consequently, it is the purpose of this study in Jewish time to demonstrate that when, for example, Luke says, "Then came the day of

<sup>2</sup> Scaliger, Joseph, "De Emendatione Temporum," p. 85. Francofurt, 1593.

unleavened bread, when the passover must be killed," he obviously could only have had reference to the evening beginning of another Jewish day, which, in this instance, was Friday of the crucifixion, and not the Synoptic "Thursday," in the afternoon of which many, following Maimonides, insist that the crucifixion lambs were slain in the temple.

Since the sixth century A. D., and even earlier, this Talmudic interpretation of ancient passover practice—the slaying of the lambs on one day, and the eating thereof on the following day—has been again and again recited by Jewish and Gentile scholars alike, and passed on to those of modern times. The attempts to reconcile this Talmudic teaching with the crucifixion scenes have resulted in hopeless conclusions that have wrested the laws of calendar science and of lunar astronomy, and have mullified the ancient Mosaic laws and those governing the Bible synchronisms. And furthermore, Christian exegesis itself is challenged because no united conclusion has been forthcoming with reference to these earliest Jewish chronologies, to which, however, Jewish scholarship also has had no acceptable solution. Therefore, it is fitting and consistent to review the whole dated record of the Scriptures, and to bring face to face the laws that actually governed ancient Jewish time.

And in summation of the problem, it can accordingly be said that the Talmudic, or Rabbinical, computations represent at least three

Bedersheim, Alfred, "Life and Times of Jesus the Messiah," Vol. II, p. 487. London, 1923. This author makes Thursday of passion week to be 14 Nisan; but in no hypothetical year of the crucifixion epoch can this be done without contravening the moon's place in the sky.

Leitlin, Solomon, "The Date of the Crucifixion," Journal of Biblical Literature, Vol. LI, September, p. 271. 1932. This author agrees with Davidson that "There is an irreconcilable difference between the Synoptics and the Fourth Gospel, in respect to the date that Jesus was crucified."

Jewish passovers of the ancient and original type: the wrong month (March), the wrong day of the month (15 Nisan), and the wrong time of day (afternoon sacrifice of the paschal lamb).

The true alternatives of these Rabbinical calendar changes are found in the Pentateuch, in the Old and New Testament narratives, and in related Jewish history. The subject will be reviewed and analyzed according to the introductory outline.

### II. VITAL LAWS GOVERNING THE SCRIPTURE PASSOVERS

1. The Fourteen Scripture Passovers. There are seven passovers recorded in the Old Testament, and the same number in the New Testament. All of these feasts belong to a definite chronological outline-one that covers over 1600 years of earliest dated Jewish history. The following is the passover list:

a. Egyptian passover--Ex. 12:1-28.
b. Passover at Sinai--Num. 9:5.
c. Passover for the levitically unclean--Num. 9:11
(second month).
d. First passover in Canaan--Josh. 5:10.
e. Hezekiah's passover--2 Chron. 30:13 (second month).
f. Josiah's passover--2 Chronicles 35.
g. Second Temple passover--Ezra 6:19.
h. Passover in Jesus' 12th year--Luke 2:42
i. First passover in Christ's public ministry--John 2:13.
j. Second--the Synoptic passover--Luke 6:1.
N. T. K. Third--Jesus in Galilee--John 6:4.
l. Fourth--the crucifixion passover.
m. Herod's passover--Acts 12:3.
n. Paul's passover at Fhilippi--Acts 20:6.

Of the Old Testament series, five are given a Jewish date on the lith of the first month, and two on the lith of the second month. On the contrary, to none of the New Testament passovers is ascribed a Jewish date; but the only answer to the synchronal relations of the New

Testament Jewish feasts is the <u>Pentateuchal 14 Nisan passover date</u>. In the record of the life of Christ there are several of these synchronizing dates, and they fully establish the whole period of Christ's public ministry. These are further described in Parts V and VI of this series.

Other Biblical dates also have synchronal relations besides the passovers connected with the crucifixion; and this special character makes them as important as eclipses in substantiating the chronological outline for any period. In every century of the Scripture narrative. synchronisms of one kind or another are found. When any calendar date is tied to a certain day of the week, as the 14th of Misan to the crucifixion Friday, then it is a simple problem to demonstrate the year in which such a coincidence occurs. The first four passovers in the foregoing series can be identified as to their years from the fact that Moses went up into the mount with God on the seventh day of the week. 5 on a certain date in the third month of the year of the Exodus. The year of Hezekiah's passover is governed by a synchronism that the Bible records in his first year, when the 17th of Nisan coincided with the Sabbath consecration services. (2 Chron. 29:17-20.) That it was the Sabbath day is shown by the character of the ceremonies -- the number of the sacrifices, and the special music accompanying the burnt offering (Num. 10:10). The year of Paul's passover at Philippi is controlled by a synchronism that equates the 4th of Iyar, the second Jewish month, with the Sabbath day. In addition, this year is verified by the chronology of Paul's life as given by Luke and amplified by Paul himself in

<sup>5</sup> Ex. 24:16. "Upon the seventh day, which was the Sabbath, Moses was called up into the cloud."--White, Ellen G., "Patriarchs and Prophets," p. 313. Conflict Series.

his epistles.

Josephus also has important synchronisms that must be given recognition in determining the calendar he employs, and also in verifying his regnal years. When Antiochus Sidetes went against the king of Parthia, the Jewish priest John Hyrcamus, who marched with Antiochus, insisted that he lay up two days at the river Lycus, over Pentecost, because it occurred on the "next day to the Sabbath." Similarly, the year of the Jewish revolt from Rome is verified by a Josephus synchronism which begins the three weeks' flight with Cestius on the first day of Tabernacles, making it coincide with the Jewish Sabbath. The Jews left the feast and went to the battle, "without any consideration had for the rest of the seventh day."

The foregoing incidents illustrate the synchronisms of early Jewish history. These synchronal dates establish and confirm the epochs to which they are tied. The crucifixion date is likewise buttressed by the same kind of calendar coincidences. The epoch of the death of Christ is under the control of two concurring calendar events, which, in turn, are subject to the laws of two calendars—the one governed by the sun, the other by the moon. The sun marks off the days of the week, and the new moon determines the days of the month. This calendar relationship between sun and moon is an indispensable control of the crucifixion date.

2. Law of the First Fruits. The season, or month, in which Israel left Egypt, Moses called Abib. The word means "green ears" of barley, and these were divinely ordained to be the first fruits

<sup>7</sup> Josephus, "Antiquities," XIII.8.4. Tr. Whiston. 1844.

(Lev. 2:14). The ancient law demanded that not only the passover should be observed in the season of green ears (Ex. 13:4; 34:8; Deut. 16:1), but that before any green ear could be eaten, a sheaf of barley corn had to be waved by the priest before the altar on the lóth day of Abib (Lev. 23:10,11). Thus the ancient passover season itself was governed by a divine law that was committed to the people through Moses.

The season of ripe barley in the Holy Land is April—May, varying according to the requirements of intercalation. The citations relative to the barley harvest given in the May Ministry are important. The testimony of Josephus is of value because he was a priest living in the first century, and belonged to the first one of the twenty-four courses in the sacerdotal line:

"On the second day of unleavened bread, which is the sixteenth day of the month, they first partake of the fruits of the earth, for before that day they do not touch them. . . And after this it is that they may publicly or privately reap their harvest."

Josephus describes this rite as it used to be solemnized in his own time when the second temple was standing. Michaelis, in citing this same statement, speaks of Josephus as a witness of what he yearly saw, and as a priest giving account of the sacrifices at which he officiated. Michaelis goes on to say:

"Who that reads this will suspect that the precept of Moses and the climate of Palestine should disagree; and that most years they were unable from a deficiency of ripe corn to keep the festival? . . . Who will not rather think, that, on the xvith of that month, which Josephus calls the first month, there was plenty of ripe corn, and that the beginning of harvest then commenced? Which if true, then March cannot be the first month; nor can it [the first month] proceed from the New Moon, which falls on the first part of our March, from the Calends to the xvith or xxth."

<sup>8</sup> Josephus, "Life," p. 1. Tr. by Whiston. 1844. 9 Idem, III.10.5. 10 Michaelis, J. David, "Of the Correspondence of the Hebrew Months with the Julian," p. 7. Tr. Bowyer. London, 1773.

Schiaparelli definitely agrees with Michaelis when he writes:

"Hence we see that the first new moon, which began the first month and the Jewish year, could only take place in the last days of March at the earliest, and the sacrifice of the 'omer at the earliest only some days before the end of the first half of April."

From Dalman comes the reason why March could not be the first Jewish month:

"Accordingly February is the month in which for the most part [in Palestine] snow can be expected; but March stands with a snowfall equal to January, and thus it has, in this respect as with the rain, the character of a winter month. Here can be mentioned again the two-day snowfall or actual fall of hail to which I was subjected at the beginning of April in 1906 at el-kerak. Therefore spring and winter stand in close affiliation." 12

If, in the days of Josephus, his people commonly partock of the first fruits on the 16th day of the first month, while today the Jewish first month is frequently a moon too early for the Palestinian barley harvest, and also a month earlier than the Syrian "Nisan," as Michaelis has pointed out from Syriac chronology, 13 then somewhere in the intervening period the ancient Jewish names of the months must have been changed. Scaliger mentiones these changes. He finds agreement for the most part between the tables of the Jews and Dionysius (500 A. D.), but challenges the shifting back of the paschal month by one moon in ten out of nineteen years of the cycle:

"But what difference is there in the embolisms and change of the months! Yet those ancients when they used this cycle thought that they were celebrating the passover in the Jewish Nisan, which was Adar in the years 2, 4, 5, 7, 10, 12, 13, 15, 16, 18, as the Table [of the 19-year cycle] shows; and this now first will teach our men how much those ancients erred from ignorance of a thing of no little moment since it

<sup>11</sup> Schiaparelli, G. V., "Astronomy in the Old Testament," p. 122. Oxford, 1905.
12 Dalman, Gustaf, "Arbeit und Sitte in Palastina," 3 Band, 2 Hälfte, p. 305. Gütersloh, 1928.
13 Michaelis, 1. c., p. 21.

was hanging from the time of the preaching of Christ and His passion. And this certainly we do not learn from any Christian, but from those who either published the Jewish year, or wrote concerning the day of the Lord's passion—that up to this time have observed the position and state of the Jewish new moons and their embolisms."

But nature has stamped the ancient paschal month with a character independent of either its Jewish or Babylonian name. And if any one hears of Abib, the sheaf month, the month of green ears, whose "divine sign" was the sickle, 15 he will know that the passover month was first named from the fact of nature's producing in it a harvest of barley corn. This was the season in which the Israelites left Egypt, and the position of the month was governed by the sun's ripening crop of first fruits in the Holy Land.

3. The 14-Nisan Passover Date. The days of the week and also of the month are marked off by the sun. But the moon determines the first day of each lunar month by appearing on the western horizon after conjunction. Sometimes it will be three or four days before the young moon appears. Then again she can be seen on the first day after conjunction. It mainly depends upon whether she is near to the earth or far away. For her relation to the earth governs her velocity, and her velocity at the time of conjunction determines how long it will take for her to make a first appearance in the evening sky-whether in one day or more. And the evening of her appearance soon after sunset marked the beginning of the new month in ancient times.

<sup>14</sup> Scaliger, Joseph, "De Emendatione Temporum," p. 107. Francofurt, 1593. 15 Bucherii, Aegidii, "De Doctrina Temporum," p. 172. Antverpiae, 1634. (Citing Theophilus.) 16 Hevelii, Johannis, "Selenographia," p. 273. Gedani, 1647. (There are many authorities from earliest times that agree with Hevelius that the moon requires one to four days in which to make a first appearance. Geminus, Pliny, Aratus, Tatius, Kepler, Hales and Fotheringham are to be mentioned.)

Many oriental nations employed the principles of lunar astronomy in governing their calendars. But they differed (1) both with respect to the method of intercalation, and (2) with respect to the actual place of the moon that should mark the first day of the month. In some countries, as with the Babylonians, the youngest moon was taken to start the month, but never one that was three or four days old after conjunction -only one or two. 17 Other nations, as the Chinese and the ancient Athenians, started their months from the conjunction itself. Some began with the full moon. 19 But with the ancient Jews, their calendar was so tied to their harvest feast dates, that the passover became the pivot control for the whole year. 20 As a result, an older form of the crescent than that of other nations had to start the new year--one that was in agreement with the 14-Nisan date given by divine ordinance (Ex. 12:6,8; Lev. 23:5; Num. 9:5). To this law the Old Testament writers have left a record of confirmation. They agree with Moses that the passover had to take place on the 14th day of the lunar month, whether the ceremony was observed in the first month, or the second month. 21

But much difference of opinion has existed whether the New Testament passovers follow the Old Testament 14-Nisan passover date. And there are many arguments. But they all--both the Synoptic and Johannine hypotheses--resolve themselves into one question: Was Jesus offered as

<sup>17</sup> Mahler, Eduard, "Chronologie der Bebylonier," Denkschriften der kaiserlichen Akademie der Wissenchaften mathematisch-naturwissenschaft-liche Classe. 62 Band. Wien, 1895. (Compare his dates with the conjunctions.)

18 Scaliger, Joseph, "De Emendatione Temporum," p. 6. Francofurt, 1593. Gardner, J. Endicott, "The Peerless 100-Year Chinese-English Calendar," 1849-1948. San Francisco, 1924.

19 Albîrûnî, "Chronology of Ancient Nations," p. 1. Tr. Sachau.

London, 1879.

20 Idem, p. 13, 66.

21 Cf. references under Section II.

a paschal sacrifice upon the traditional 14-Nisen passover date or not? Paul seems to imply that He was. But why?

It is possible to answer this question purely from the standpoint of the position of the moon, and particularly from the relationship of the full moon to the passover date. The following table illustrates the problem.

		Passo		Pass. AFTER F.M					
A.D.	Con		1 Ni:			oo short r. Per.	F. Moon	1 Nisan	Tr.Per 5 (Day)
1	Apr	12.49*	Apr	13		(6.72h)	Apr 26*	Apr 14	1.28
10	Apr	3.38	Apr	4	.39	(9.36h)	Apr 17	Apr 5	1.39
1 2 2	Mar	25.26	Mar	26	.50	(12h)	Apr 8	Mar 27	1.50
28	Apr	13.68	Apr	14	.09	(2.16 <sup>h</sup> )	Apr 27	Apr 15	1.09
28	Mar	28.27	Mar	29	•49	(11.76h)	Apr 11	Mar 30	1.49
36	Apr	15.21	Apr	16	.56	(13.44h)	Apr 29	Apr 17	1.56
37	Apr	4.56	Apr	5	.21	(5.04h)	Apr 18	Apr 6	1.21
46	Mar	26.40	Mar	27	.36	(8.64h)	Apr 9	Mar 28	1.36

<sup>\*</sup> Cf. Ginzel's Chronologie.

Demonstration.—In the above diagram, the years have been selected in which the moon's velocity was rapid at the time of conjunction, because nearing the Nisan perigee. Under such conditions, the moon commonly appears at the second sunset after conjunction in the Holy Land (Col. 5). However, in these years, a l4-Nisan passover coinciding with the full moon (Col. 4), would move up the first day of Nisan to the first sunset after conjunction (Col. 2). But the interval between conjunction and this first sunset—known as the translation period—is so short that the moon could not possibly be seen (Col. 3). In the whole series, the translation periods run from 2.16 hours to 13.14 hours, and it is a known astronomical fact that the young moon, even in fastest motion, cannot be seen at the end of so short intervals.

<sup>22 &</sup>quot;The crescent phase does not begin until 6.75° away from the sun"-Danjon, A., "Jeunes et vieilles lunes," Bulletin de la Societe Astronomique de France, p. 64. 46th year, 1932, Paris.

And since the most rapid new moon cannot appear at the first sunset after conjunction, as would be necessary if 14 Nisan were to coincide with full moon, then, when the new moon is slowest, and the translation period longest, as over three days, the rule of correspondence consistently demands that the calendar should not cut a day off from the translation period by placing the 14-Nisan passover on the day of full moon. In other words, since a fast-going moon cannot hasten her first appearance by a day, how much less should the calendar represent a slow-going moon as so doing, even though the translation period be long!

This consistent law relative to the calendar and the moon's fast and slow motion, the ancient Jews thoroughly understood. Their succinct progress in calendation shows great respect for the literal motion of the astronomical moon. This is confirmed by the dates of the ancient synchronisms, and by the calendar council which the Jewish senate maintained in the first century. In the second century A. D., Mar-Samuel said that he was as familiar with the paths of the sky as with the streets of Nahardea. But more than all else, it was the Jewish passover that preserved the relationship between the calendar and the varying moon.

Hence it is obvious that, on the Jerusalem meridian, the Jewish calendar of old demanded its 14-Nisan date to follow the day of full moon. This is a simple, but most important law that relates to crucifixion calendation. And therefore, before any date can consistently be proposed for Friday of the crucifixion, its relation to the full moon needs first to be investigated. And now to the question whether the crucifixion Friday was the 14th or 15th of Nisan.

Astronomically, there are only two rival years for the death passover -- 30 and 31 A. D. Modern investigators have dropped the April 3

<sup>23</sup> Hoffmann, David, "Mar-Samuel," p. 19. Leipzig, 1873.

date in 33 A. D., because the year demands intercalation. In 30 A. D., Friday, April 7, was the Jewish day of full moon (Julian Apr. 6.93).

Hence, by virtue of the law just described, it was not the 14th of Nisen. It was, instead, 13 Nisen, just as Fotheringham computes it.

Similarly, in 31 A. D., Thursday, April 26, was likewise Jewish day of full moon (Julian Apr. 25.94). Hence it could not have been 14 Nisen, and it must therefore have been the 13th. The full moon governs these conclusions. Consequently, from the standpoint of astronomy and the calendar, and contrary to recent crucifixion arguments, these years, whose Nisen full moons fall nearest to the Friday in question—30 and 31 A. D.—do not provide the 15-Nisen Friday that has been laid at the door of the Synoptists! There really is no such synchronism in the epoch commonly accepted as the crucifixion period. The death passover must therefore have occurred on 14 Nisan.

4. Time of Slaying and Eating the Paschal Lamb. When all the details connected with the Egyptian passover are brought together, they leave no alternatives as to the time each incident occurred. Modern exegesis has taken it for granted that anciently, the paschal lamb was sacrificed "late on Nisan 14." But this is not the picture described under the First Jewish Code. Moses specifically mentions two different nights: (1) the night of the 14th of the first month, when the lamb was roasted and eaten—he calls it "in that same night" (Ex. 12:8)—and during the same night the death angel destroyed all the firstborn in Egypt (Ex. 12:29); 25 and (2) the night of the Exodus (Ex. 12:12), which was

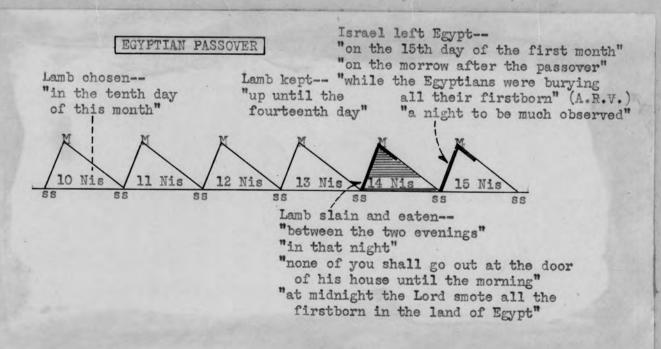
<sup>24</sup> Fotheringham, J. K., "The Date of the Crucifixion," Journal of Philology, Vol. XXIX, p. 107. London, 1903.

<sup>25</sup> It is important to remember that in Jewish reckoning the night always precedes the day. The night of the lith is therefore the night that begins at sunset of the 13th.

the night of the 15th (Num. 33:3). Moses calls this night of the 15th the "morrow after the passover," and also adds that the Israelites left Egypt in the sight of the Egyptians, who were burying their dead. These circumstances prevent any possibility of confusing the two nights, for-

- 1. It is very unlikely that the Egyptian firstborn were buried the same night they were slain, since they were slain at midnight (Ex. 12:29).
- 2. If the lambs had been roasted and eaten the night of the 15th, which was the night of the Exodus, the occasion could not have been called the "morrow after the passover." The Exodus would then have occurred on the same night as the passover.
- 3. Furthermore, on passover night, the people were forbidden to leave their houses until morning (Ex. 12:22). Therefore Passover Night did not coincide with Exodus Night. The second obviously followed the first.

The following diagram outlines the various incidents connected with the first passover and shows how they are all disposed in harmonious relation, if the paschal sacrifice is placed at the sunset beginning of 14 Nisan, instead of at the end. The first passover sets the precedent for all the passovers that followed.



#### SUMMATION OF LAWS GOVERNING CRUCIFIXION PASSOVER

- 1. Death passover governed by a synchronism between the solar and lunar calendars—between the day of the week and the lunar date.
- 2. Passover full moon governed by the law of the first fruits.
- 3. Passover subsequent to the Jewish day of full moon.
- 4. Passover on 14 Nisan-a one-day ceremony.
- 5. Lamb sacrifice occurring near the sunset beginning of lh Nisan.
- 6. Paschal supper -- later the same evening.

The various laws governing the crucifixion date have thus been summed up as six in number. Each law is in harmonious relation with all the others. These calendar relationships bring harmony into the gospel records without sacrificing any chronological fact or interpretative truth.

In this connection, the frequently discussed words in John 18:28 invite consideration. This Johannine passage is commonly taken to imply that the passover was yet future, even though the death Friday be counted as 14 Nisan. On this basis of interpretation, the lambs would be slain about the same time as the death of Jesus, but would be roasted and eaten during the night of the 15th—the high or great Sabbath which John describes (John 19:31). There are serious objections to this interpretation. And inasmuch as this chance reference alone seems to oppose a lamb sacrifice at the beginning of 14 Nisan, the context deserves detailed analysis.

The expression "and it was early," can signify "very early," even a "great while before day," as in the use made of the qualified Greek word proi in Mark 1:35. Thus the context in John would represent a case similar to the circumstance in Mark. For it will be remembered that even before midnight, Judas left the Lord's support able to meet the

"temple police," and the "wily priests and elders" who joined the rabble on the way to Gethsemane. Obviously, therefore, according to the conceded "Synoptic" argument, these Jews must have left their passover tables when they proceeded to arrest Jesus. Moreover, that which seems manifestly uppermost in the minds of these Jewish officers was to effect a speedy preliminary trial of Jesus by night through the cooperation of Pilate, and then to return to their paschal meal before the morning broke. 26

For, even if the Jews had gone into Pilate's judgment hall, their levitical uncleanness would have lasted only until the following evening (Lev. 15:1-11). Hence, this Mosaic law could not have prevented them from eating a passover after sunset on Friday if such had been their intention. Consequently, it could not obviously have been a passover supper on the subsequent Friday evening to which John refers, but only to the paschal feast from which the officers and priests had been called by Judas. But Pilate did not respond immediately to the urgent demands of the Sadducean priests, and they doubtless never returned to the paschal table in that tragic year.

The foregoing interpretation corrects the erroneous outline of events relative to the crucifixion passover, that has sometimes been ascribed to John, and brings harmony between all the evangelist writings and the calendar.

<sup>26</sup> White, Ellen G., "Desire of Ages," p. 703. Conflict Series.

# III. THE LORD'S PASSOVER -- THE NATIONAL FEAST

At the time of the Egyptian passover, each Israelite home was invested, as it were, "with the character and dignity of a temple." 27

Here the paschal lamb was slain, and the blood sprinkled upon the entrance door. These lambs were not sacrificed by a temple priest at a temple altar. Each lamb was slain by an ordinary person, selected to serve a small group of people (Ex. 12:4). The congregation as a whole took part in the sacrifice, and the lamb was roasted and eaten "in that night" which followed the evening of the sacrifice (Ex. 12:6-8). Such was the service that was commemorated whenever the passover was observed.

But sin and idolatry prevented the Jews from regularly keeping the passover, and each renewal of the service tended toward some change in the manner of its observance. The time came, after the fall of the second temple in 70 A. D., that the Jews were so persecuted by Rome that they were not even allowed to announce their feasts. The early church canons forbade Christians from keeping the passover with the Jews, or even accepting unleavened bread from the hand either of those in circumcision, or of those who had come over to Christianity. It became the urge for bishops and prelates to write against the Jews, who, in turn, challenged the Christians that they could not calculate their passover feast without the help of the ancient Jewish reckoning.

It has already been shown that the ancient calendar system, from

<sup>27</sup> Philo, "Life of Moses," Book III, p. 284. Tr. Yonge. London, 1855.
28 Migne, J.-P., "Patrologiae Cursus Completus," SL, t. LVI, Concilium Laodiciae Phrygiae Pacatianae, C. XXXVII, XXXVIII, XXXIX, col. 719.
Paris, 1855.

<sup>29</sup> Albîrûnî, "Chronology of Ancient Nations," p. 302. Tr. Sachau. London, 1879. Schwarz, Adolf, "Der Judische Kalender," p. 42. Breslau, 1872.

about the fourth century and onward, vitally changed its feast period, its length of year, 30 and the calendar position of the moon's phasis. Consequently, aside from the Sacred Text, it is of first importance to the problem to review the testimonies of men who lived near to the time of Jesus Christ. Such writers would be wholly unbiased by the confused lunar reckoning which permeated both Jewry and Christianity after the century of Hadrian and Commodus. The records of this second century A. D. show intense antagonism between Christian and Jew--each accusing the other of fallacious moon reckoning, and the Jews deceiving their opponents with regard to ancient lunar computations. 31

Philo Judaeus (20 B. C. to 54 A. D.) -- a contemporary of Christ and the Apostles -- makes revealing comment regarding the passover feast of his day:

". . . on which festival not only do private individuals bring victims to the altar, and the priests sacrifice them, but also, by a particular ordinance of this law, the whole nation is consecrated and officiates in offering sacrifices; every separate individual on this occasion bringing forward and offering up with his own hands the sacrifice due on his own behalf." 22

Then again:

". . . on which pascha the whole nation sacrifices, each individual among them not waiting for the priests, since on this occasion, the law has given, for one especial day in every year, a priesthood to the whole nation, so that each private individual slays his own victim on this day."

33 Idem, p. 171. [Italics mine.]

<sup>30</sup> Sidersky, David, "Etude sur l'origine astronomique de la chronologie juive," Mémoires présentés par divers savants à l'Académie des Inscriptions et belles-lettres de l'Institut de France, Vol. XII, part 2, p. 633. Paris, 1913.

In "Heresy 70," Lib. V, Cap. XVI, Epiphanius says of the Jews: "For now we have no communion with them. For they are even mistaken in the very calculation which they think to construct: so that they are found to err in every way, and to depart from the truth."

32 Philo, "Life of Moses," Book III, p. 121. Tr. Yonge. London, 1855.

Philo's words, "not waiting for the priests," are significant. They are suggestive that not every paschal lamb was sacrificed in the temple, and therefore, not all at the same time. That some private individuals did bring their lambs to the temple altar, according to Philo, is evident. The occasion of the first passover after the dedication of the second temple (Ezra 6:20), and also Hezekiah's passover (2 Chron. 30:17), are precedents. But, in the time of Christ, some lambs must certainly have been slain "without the gate" as a symbol of Him who "suffered without the gate" (Heb. 13:12). And as a type of this circumstance, we have the first passover in Egypt, when the lambs were slain at Israel's doors.

Maimonides (12th century) casts more light upon the question of "private altars," admitting that they had been permissible in early times. But he also refers to a traditional interpretation of Deut. 16:5 as forbidding such. The following is his complete statement:

"Thus the paschal victim, like the other sacrifices, was never slain except in the temple court. And then, there was the edict itself that the paschal victim should not be slain upon a private altar, although it was allowed that individual altars were kindled with individual fires. Whoever therefore had slain the passover lamb upon a private altar would be punished with stripes, as we see written in the law, 'Thou shalt not eat the passover in any of your towns.' For this tradition has been passed down to us that in this place there is a warning lest anyone should slay the paschal lamb upon a private altar, even though private altars are granted." The sacrification is a sacrification to the paschal lamb upon a private altar, even

The Latin words "cum arae privatae concederentur" without doubt refer to early century practice.

Josephus also supports the idea of individual passover alters as common to the time of Christ's birth. Both "Antiquities" and "Wars"

<sup>34</sup> Maimonides, Moses, "Tractatus Primus de Sacrificio Paschali," Cap. I. p. 4. Tr. de Compiegne de Veil. London, 1683.

describe a sedition that occurred among the Jews during the passover feast, shortly after the death of Herod the Great. Archelaus had assumed the throne in Judaea, but he had not yet been appointed by Augustus. The Jews were lamenting the death of Matthias, and others whom Herod had slain. An "innumerable multitude" had come up out of the country to keep the passover -- one seditious group resorting to the temple for protection, while the masses were without the city in their tents. Josephus describes them as offering sacrifices "with great alacrity."35

Against them Archelaus sends a regiment of armed men, whom the Jews attack, with sacrificial lambs in one hand, and stones in the other! "After which they betook themselves to their sacrifices, as if they had done no mischief."36 Finally, Archelaus "sent his whole army upon them, the footmen in great multitudes by way of the city [Jerusalem], and the horsemen by way of the plain, who, falling upon them on a sudden, as they were offering their sacrifices, destroyed about three thousand of them. "37

In this season, the moon was full, and in the piercingly clear moonlight of the Holy Land, it was as easy for the army to attack by night as by day. But the important feature is the fact that the Romans surprised the Jews as they were in the very act of offering their paschal lambs. Assuredly this was not a temple sacrifice, and it is easy to see how, by this method of observance, many lambs could be offered, as Josephus says, "with great alacrity."

<sup>35</sup> Josephus, "Antiquities," XVII.9.3. Whiston. 1844. 36 Josephus, "Wars," II.2.3. 37 Josephus, "Wars," II.1.3. Whiston, 1844.

The position therefore taken in this argument is that the gospel account supports a national festival only-one that for the most part in the crucifixion year, was observed on Thursday evening after sunset in the private homes and tents of the people. As further confirmation, attention is called to certain facts in the case:

- 1. The original passover was a night ceremony involving one day. If a two-day ceremony had ever been possible, then the law that delayed the passover a whole month for the levitically unclean would never need to have been given. (Num. 9:10,11)
- 2. At the crucifixion passover, both the typical lamb and the Antitypical Lamb were to be sacrificed. It would be as reasonable to insist that the barley sheaf, which as first fruits was a type of the resurrection, had to be waved by the priest at the same instant Christ arose, as to maintain that the typical lamb had to be slain at the same hour the True Lamb died. It seems sufficient that the two were sacrificed on the same Jewish day. But the interpretation is surely inconsistent that plans for the typical lamb to be roasted and eaten after the death of the Antitype.
- 3. It is argued that the disciples would have to go to the temple on Thursday to obtain their lamb. But it should be borne in mind that the paschal lambs had already been chosen since the 10th--Monday--and that on Thursday, Jesus and His disciples were in hiding outside the gates of Jerusalem, because of the activity of Judas in seeking to betray his Master (John 12:36).
- 4. But perhaps the most effective witness to the view that the Evangelists are one and all describing the national passover, is John, who says—and it was Thursday evening before the supper—that Jesus knew His hour had come (John 13:1). Jesus knew from the "seventieth week" prophecy in Daniel 9 that the fourth passover in His public ministry would be His last. But, if He anticipated the legal sacrifice upon which the prophecy is based, and subverted the time by a private paschal meal, not coincident with the passover kept by those who would cut off the Messiah, He could not reasonably have insisted to His disciples that "His hour was come!"

John's important words are also confirmed by Luke (Luke 22:14), and in harmony with their deep significance, the conclusion is clear that the gospels are describing one passover only—the national feast.

#### IV. JEWISH FEASTS DURING CHRIST'S PUBLIC MINISTRY

There are two features set forth in this analysis as essential to the outline of Christ's public ministry: (1) that it involved four passovers, but not a period of four full years; 38 and (2) that the four passovers are checked off by epochs in the life of John the Baptist. These two marks of distinction not only tie together the whole ministry of Christ, but they also bring harmony between the records of the Synoptists and that of the Fourth Evangelist.

The first passover (John 2:13) and the last, or the crucifixion passover, need no arguments. But the chronology that singles out in the Synoptic gospels an additional barley-harvest season, not belonging to any of John's passovers, is based upon one event—the imprisonment of John the Baptist. Therefore, since the first passover occurred before John was cast into prison (John 3:23), and since Jesus did not begin public preaching in Galilee until after the imprisonment of the Baptist (Matt. 4:12,17; Mark 1:14), the ears-of-corn Sabbath described by all three Synoptists, and introduced into the Synoptic context soon after the return of Jesus into Galilee, must have marked a passover during the imprisonment of John the Baptist. Consequently, this incident of the Synoptists' barley harvest could not have belonged either to the first passover, while John was baptizing near Jordan, nor to the passover in John 6, which came about the time of feeding the five thousand, after John's death (Matt. 14:13). Therefore, the Synoptic barley harvest must

Eusebius: "Hence, the whole time of our Saviour's ministry is proved not to embrace four entire years, there being four high priests for four years, from Annas to the appointment of Caiaphas, each one of which held the office a year respectively."—"Ecclesiastical History," p. 60. Cruse. London, 1817.

have been current with a paschal season during the period of John's imprisonment. In this manner, Matthew, Mark, and Luke introduce another passover, not included among the feasts described by the Evangelist John, and making altogether four passovers belonging to the public ministry of Christ. As will later be demonstrated, this Synoptic passover occurred in the spring of 29 A. D. It can be designated the second passover.

# FEAST OUTLINE OF THE PUBLIC MINISTRY OF CHRIST

Years

0.5 From the baptism of Christ to the first Passover (spring).

FIRST YEAR

Spring - First Passover - John baptizing near Jordan. 39

1.0 Fall - Tabernacles-"a feast of the Jews. "40

Sabbath healing of the impotent man.

An attempt to slay Jesus.

John the Baptist not yet in prison. 42

Jesus begins public preaching in Galilee. 43

Second Passover -- Synoptists' barley harvest. 44

Spring -- Third Passover -- "a feast of the Jews."

John is dead--Feeding of 5000.45

1.0 Fall -- Feast of Tabernacles.47

Attempt to stone Jesus.

Healing of blind man.48

Winter -- Feast of Dedication--another attempt at stoning.49

FOURTH YEAR (beginning)
Spring -- Crucifizion Passover
3.5 years

The third passover occurred after the death of John the Baptist, and it was near the time of feeding the five thousand. Jesus did not

39 John 3:23 40 John 5:1 41 John 3:24 John 5:32	42 Mark 1:14 43 Matt. 4:12,13 44 Luke 6:1 Matt. 12:1 Mark 2:23	45 John 6:4 46 Matt. 14:13-15 47 John 7-8 48 John 9:1-16 49 John 10:22
--	--	--

attend this passover -- He was in Galilee. There are those who read only "feast of the Jews" in John 6:4, because of a possible original relation of the Fourth Gospel to Aramaic, which omits the words to máo /a in this text. 50 And this translation is then employed to drop out a whole year from the public ministry of Christ. However, all four of the Evangelists describe the feeding of the five thousand, which incident John strictly associates with this festival. And thereby the chronology of the third passover is established. Even though the words τὸ πάσχα may have been a primitive interpolation, yet it must be remembered that John commonly names his feasts, which are six in number. And, as if in further confirmation of a paschal season in his sixth chapter, he states that there "was much grass in the place," where the people sat down to eat (verse 10). Mark adds that the grass was green (Mark 6:39). These descriptive details of that desert plain on the border of Galilee point to the spring as the season of the year.

In Palestine, during the summer, "the plains are parched with drought. and every green herb is dried up. . . no green thing remains but the foliage of the scattered fruit trees, and occasional vineyards and fields of millet." But after the spring rains, there are "rich and juicy pasturages."51 That the grass was green, and much of it is indicative of the season that had preceded the feeding incident. It had rained sufficiently for grass to spring up abundantly around the border plain of the sea of Galilee, which, during summer and autumn, is notable for its lack of green grass. 52 The passover always followed just such a

<sup>50</sup> Dalman, Gustaf Hermann, "Jesus-Jeshua," pp. 88,92. Tr. Levertoff.

New York, 1929.
51 Kitto, John, "Palestine," pp. 24,43. New York, 1900.
52 Ogg, George, "Chronology of the Public Ministry of Christ," p. 19. Cambridge, 1940.

period of rain -- called the latter rain.

The feeding of the five thousand Jews at a time when there was much green grass on the Galilean plain, precisely locates John's sixth chapter feast in the spring. But the Fourth Evangelist also ties his festival to this season by his descriptive storm of darkness and wind that began in the evening when the disciples took ship for Capernaum after the feeding of the five thousand. It was an all-night storm (Matt. 14:26)—one that drove the rowers about four miles off their course. And it was dark (John 6:17-19). This darkness was obviously caused by the storm, for otherwise the whole scene would have been lit up by the full moon of the approaching feast.

Such a storm, which all the gospel writers describe, was typical of early spring in Palestine, but not of harvest time (1 Sam. 12:17 and Prov. 26:1), either in summer or fall. By comparing the years of the crucifixion epoch in Table I, on page of this series, it will readily be seen that the year 30 A. D. is the only one with a very early season passover—April 8. This early spring storm, occurring near passover time, therefore identifies the year 30 A. D. There is accordingly no alternative but to conclude that John's third-mentioned feast is the third passover in the public ministry of Christ. The fourth is, of course, that of the crucifixion.

These four passovers signify that the actual public ministry of Christ involved a period of about three years. This fact is implied in the parable, where Jesus says to the dresser of His vineyard, "Behold, these three years I come seeking fruit on this fig tree." (Luke 13:7.)

In the FEAST OUTLINE on page 23, it will be noted that "a feast

of the Jews" (John 5:1) is designated as Tabernacles. The chronology demands that the feast be located several months after Jesus passed through Samaria during grain harvest (John 4:35, last clause). That a grain harvest was also possible in the period of the seventh month, compare Jer. 41:1,8.53 On this occasion, the Julian year was the same as that of the first passover--28 A. D. The record in John 5 calls for a synchronism--the coincidence between a feast day and the Sabbath day. A legend connects the Bible incident with a "certain season" (verse 4), and the presence of a "multitude" (verses 3, 13) indicates the important day of this feast season, pointing to such convocations as the 15th of Nisan, or the 15th or 22nd of Tisri. Jesus commonly worked under the protection of a multitude of people (Luke 22:6), especially when around Jerusalem.

But in the year 28 A. D. (cf. Table I), these convocations were dated as follows:

28 A. D. 15 Nisan = Thursday
15 Tisri = Sabbath (always two days later
22 Tisri = Sabbath than the 15th Nisan)

Hence the big feast day in John 5, upon which the Sabbath healing seems to have taken place, and after which the Jews sought to slay Jesus (verse 16), who was then called to account before the Sanhedrin (verse 3154), fits perfectly with either the first or last day of Tabernacles, but not with the feast of Unleavened Bread or the Passover.

Crucifixion Passover -- a Late Season Feast. Thus the outline of Christ's public ministry is based upon seven specific Jewish feasts.

<sup>53 &</sup>quot;It was four months to the time of harvesting the grain, but here was a harvest ready for the reaper."—White, Ellen G., "Desire of Ages," p. 191. Conflict Series.
54 White, Ellen G., "Desire of Ages," p. 204. Conflict Series.

These concur with various seasons in the four years indicated, and they are of importance of chronology from the fact that certain Scripture references to these feast seasons intimate whether the corresponding years were common or intercalary. If a passover, or any feast, were unusually late for the season, or early, it is consistent to expect some evidence in the Bible pointing out the presence or not of the embolismic month Veadar. And there are several suggestive allusions to that effect. The all-night storm on Galilee in the pre-crucifixion year has already been referred to as a sign of an early passover for that year. Two incidents will now be given as evidence that the crucifixion passover came late in the spring—not early: (1) the closed fishing season in John 21; and (2) the state of vegetation at the time of the crucifixion.

1. There is uniform testimony that the Galilean fishing season is from mid-December or January to mid-April. 55 Twice during the ministry of Christ, He performed a miracle in order to fill the disciples' nets with fish. The first instance was in Galilee, near the time of the Synoptic passover, and the year was 29 A. D. The passover for that year was on Monday, April 18--cf. Table I--and it is obvious that the season was not early and the fishing season was at its end. In the very early spring before the crucifixion, Peter could readily hook up a fish off the shore of Galilee (Matt. 17:27), "where the shallows swarm with small fish-fry." 56

<sup>55</sup> Dunkel, P. Franz, "Die Fischerei am See Gennesareth," p. 381. Biblica, Vol. 5, 1924. Rome. Masterman, Ernest W. Gurney, "Studies in
Galilee," p. 38. Chicago, 1909. Rohricht, Reinhold, "Regesta Regni
Hierosolymitani," p. 38. Libraria Academica Wagneriana. 1893.

56 Masterman, E. W. G., Idem.

The occasion of the second miracle was in the year of the crucifixion, after the resurrection. Peter and his comrades had fished all night, but had caught nothing. Then came the early morning catch at the command of the Master. If the crucifixion had occurred early in April, then fishing would still have been good for a week or two. But the fact that it was not good in water that in season teems with large fish a few yards out from shore, <sup>57</sup> is indicative that passover in the crucifixion year was late—that is, after the fishing season had ended. Hence a Veadar spring.

2. At the time of Christ's death, the "time of figs was not yet" in the highlands about Jerusalem (Mark 11:13). And still, there was in this particular orchard to which the Synoptists refer, an isolated tree in full leaf, but without any figs. And in other orchards also, other kinds of trees were leafing out (Luke 21:29,30). But this special fig tree was barren, and in the parable, it is left from year to year with the expectation that it would, after more culture, bear fruit (Luke 13:9). However, in the final, actual scene, it bore only pretentious foliage. And its green covering was so "luxurient in appearance, and beautiful to the eye," that Jesus endowed the tree with a symbol, and to it likened the hypocrisy of the Jewish nation.

In early April, the fig trees of southern Palestine have little green figs only-no leaves. But at the time of the crucifixion passover, leaves were maturing. If the passover had been in early April, none of the trees around Jerusalem would have been in leaf. Upon this very fact Jesus made comment:

<sup>57</sup> Masterman, E. W. G., Idem. 58 White, E. G., "Desire of Ages," p. 583. Conflict Series.

"Behold the fig tree, and all the trees. When they now shoot forth, ye see and know of your own selves that summer is now nigh at hand." Luke 21:29,30.

Hence, the fig tree with such abundant foliage, and the leafing out of other trees also are witnesses to the lateness of the crucifixion passover, and the extreme nearness of summer. Accordingly, the crucifixion spring must have included the embolismic month Veadar.

# V. REJECTION OF 30 A. D. AS THE CRUCIFIXION YEAR

Throughout this discussion of principles governing the crucifixion year, definite conclusions have been drawn why the year 30 A. D. was
not the crucifixion year. These will now be reviewed under four
arguments:

1. Coincidence Between Calendar and Gospel Narrative. The passover date in 30 A. D., as indicated by the full moon on April 6 (cf.
Table I), is the very earliest passover that any first century reckoning
offers. 59 On the contrary, the passover date in 31 A. D. was a late
season date—the moon fulling on April 25. These two passovers—one the
very earliest, and the other late—belong to two adjacent years that are
rivals in crucifizion chronology. All this from a calendar standpoint.

But the gospel narrative makes the same distinction between the pre-crucifixion year and the crucifixion year itself as the calendar does between the years 30 and 31 A. D. And this correspondence between the gospels and the calendar is too marked to be passed over. The early spring storm on Galilee near passover time in the pre-crucifixion year

<sup>59</sup> Scaliger places the first century passover limits from April 8 to May 6 (De Emendatione Temporum, p. 265). Schiaparelli has April 10 to May 10 (Astronomy in the Old Testament, p. 126). Earlier passovers are dropped on account of intercalation.

exactly answers to the very early passover in 30 A. D. that is pointed out by the full moon on April 6. And again, the signs of approaching summer in the season of Christ's death recorded by the Synoptists concur with the late season passover in 31 A. D. and its paschal full moon on April 25. Obviously, the conclusion is inescapable that the very early passover in the year 30 A. D. has no agreement at all with the closed fishing season of the Johannine narrative and with the trees in full leaf described by the other Evangelists in the crucifixion year.

2. A Friday-Passover in 30 A. D. Nullifies Ancient Calendar Relations. The ancient Jews had a calendar relation between their passover and full moon such as belonged to no other nation of the Orient. The advocates of 30 A. D. for the crucifixion year obtain a Friday-passover synchronism only by placing the passover on the Jewish day of full moon, and thereby mullifying the passover full moon relation. But this calendar procedure also breaks the true relation between the conjunction and the first day of Nisan, thus making the translation period altogether too short, as shown in the following diagram:

	Con- junction	-		Phas	sis			0 .09 .Wax			).					Full Moon		3	70
	0	1 . 1	92 1 M	1			(	Wax	.Per	.)	Ap	ril				(E)	1		
March	22.84 J.C.T.	T 23	F 24	S 25	Su 26	M 27	Tu 28	29 W	30	31	1	Su 2	3	Tu 4	W 5	T 693 J.C.T.	Fri	Sa 8	Su M 9 10
If 1 N	san =	1	00		t	h e	n	P	a	s s	o v	9 r		=	14	0.0.1	be		F.M.
If 1 N	san	=	100	A.		t	h	e n		Pa	s s	o v	e r		=	14	<u>b</u> e	efor	e F.M.
If 1 N	san	.92	=	1			t	h e	n	1	a	SS	o v	e r		=	14	on	F.M.
If 1 N	san .8		92	=	1		130	t	h	e n		Pa	s s	o v	e r		=	14	after
If 1 N	san	T	2.92 r. Pe		=	1				t h	e n	1	Pa	5 5	0 7	6 1		=	14"

Jong. In Table I, last column, the length of the lunar year between 30 and 31 A. D. is 384 days. But if the passover on April 8 is moved back to Friday, April 7, an additional day is thus added to the year, making it 385 days long. But it has been pointed out by Jewish chronologers—Sidersky and Poznanski—that the modern Jewish calendar only, with its dehiyoth, has a 385-day year, and that such a year length did not exist in the first century A. D. Therefore, it is conclusive that a Friday passover on April 7 in 30 A. D. would distort the length of the lunar year.

4. A Friday-Passover in 30 A. D. Would Occur Before the Moon
Fulls. The early testimonies of Aristobulus and Philc refer to a passover ceremony after full moon, but not before it, as would necessarily
be the case at sunset of April 6, 30 A. D. The oft-cited statement of
Aristobulus-repeated by Anatolius, Eusebius, Theophilus, and many
others-maintains that the day of the paschal festival began "on the
lith of Nisan after the evening when the moon stands diametrically
opposed to the sun as any one can see at the time of full moon."
These words have taken part in all the ancient Easter controversies.
The astronomical event of the full moon rising with the setting sun, and
on the morning after, setting with the rising sun, was significantly
described by the Babylonian idolaters as that "God was seen with the

60 See ref. 30.

<sup>61</sup> In this position, the paschal supper would occur over four hours before the instant of full moon at Apr. 6.93, J. C. T. 62 Nancelii, Nicolai, "Analogia Microcosmi ad Macrocosmon," Secunda Pars, Ad Lilios Fratres, col. 1204. Paris, 1611. Cf. Eusebius, Petavius, Bucherius, and Caspari.

God. 163 At the setting sun on 13 Nisan, the ancient calendar of the Jews commonly marked this event in Jerusalem. This was the custom as late as the time of Anatolius of Laodicea (277 A. D.). 64 After him, in the sixth century A. D., the Scots and Celtic churches were still trying to follow his teaching. 5 Then, in the words of Philo, the world was "full, not by day only, but also by night, of the most beautiful light." 66 This was a fit prelude to that ceremony of shedding the blood of the paschal lamb, which was a symbol of the True Light.

But by Eusebius, Theophilus, and Ambrose, and from that time on generally, the crucifixion passover was placed after sunset on Thursday of passion week, which was called 14 Nisan, while Friday, the next day, was named 15 Nisan. This is the reckoning adopted by Maimonides, Edersheim, and Torrey of our own century. The modern Jewish calendar also observes the passover on 15 Nisan, with ceremonies at the sunset beginning of the day. But these variations of the passover supper are entirely different from that commanded by the Pentateuch, and the

Neugebauer, P. V., und Weidner, Ernest F., "Ein astronomischer Beobachtungstext aus dem 37. Jahre Nebukadnezars II," (- 567/66), p. 42. Berichte über die Verhandlungen der Königl. Sächsischen Gesellschaft der Wissenschaften zu Leipzig Philogisch-historische Klasse. 67. Band. 1915. 2 Heft.

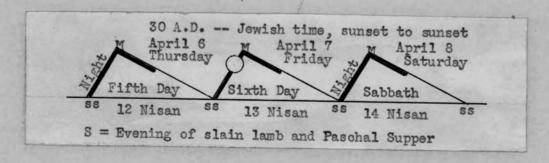
<sup>64</sup> Bucherii, Aegidii, "De Doctrina Temporum," pp. 451,452. Antverpiae, 65 Idem.

<sup>66</sup> Philo, "The Life of Moses," Vol. III, p. 291. Tr. Yonge. London, 1855. "And this feast [Feast of unleavened bread] is begun on the fifteenth day of the month, in the middle of the month, on the day on which the moon is full of light, in consequence of the providence of God taking care that there shall be no darkness on that day."—Idem., pp. 284,285. '67 Bucherii, Aegidii, "De Doctrina Temporum," pp. 473,476. Antverpiae, 1634.

<sup>68</sup> Maimonides, "De Sacrificiis Liber," p. 38. Tr. Ludovicus de Compiegne de Veil. London, 1683. Edersheim, Alfred, "Life and Times of Jesus the Messiah," Vol. II, p. 179. New York, 1923. Torrey, Charles Cutler, "The Date of the Crucifixion According to the Fourth Gospel," Journal of Biblical Literature, Vol. L, p. 241. 1931. Yale Press.

relation between Jewish and Julian time has become much involved in the hands of investigators of the crucifixion date.

But the spiritual interpretation, or paschal symbolism, is wholly lost in the year 30 A. D. when the supper is placed before full moon at the sunset beginning of Friday, April 7 (Jewish time). And neither in 30 A. D. can the supper be dated after the sunset ending of Jewish Friday, April 7, as 14 Nisan, calling the Sabbath evening 15 Nisan on which the actual supper "S" occurred in that year. For this is contrary to the Pentateuch, which calls for the supper on the beginning evening of 14 Nisan. And so, let it be repeated, according to the law of the Pentateuch, wherever the supper is placed, that day, from sunset to sunset, belongs to 14 Nisan. Therefore, since the only consistent position for the passover in 30 A. D. was in the night of the Jewish Sabbath—S on the diagram, this night must have belonged to 14 Nisan. Consequently, in the year 30 A. D. there was no "Friday" passover in the Jewish calendar sense, and therefore no crucifixion date. This conclusion is illustrated in the following diagram:



The foregoing arguments relative to the year 30 A. D. can be summarized under two conclusions:

1. That the Nisan moon of the year 30 A. D. agrees only with the calendar and gospel conditions in the pre-crucifixion year.

2. That a passover on Friday, April 7 in 30 A. D. is wholly out of agreement with calendar rules governing the lunar year, and the Old Testament law governing the position of the paschal supper.

#### VI. THE CRUCIFIXION DATE GOVERNED BY LAW

4 2 . . . . . .

1. Ancient Jewish Law. The death "Friday" has to get its Jewish date from the position of the paschal supper. And by the authority of the Pentateuch, the only traditional date for the supper is 14 Nisan. Furthermore, there is no ancient Scripture sanction of any kind supporting 15 Nisan as the supper date, which is strictly of later invention. Consequently, seeing that the New Testament has no Jewish date for its passovers, the crucifixion argument is wholly dependent upon the ancient law of the Pentateuch, which Moses gives as 14 Nisan in the following language:

"And ye shall keep it up until the fourteenth day of the same month; and the whole assembly of the congregation of Israel shall kill it in the evening. . . Mind they shall eat the flesh in that night, roast with fire. . ." Ex. 12:6.8.

In Hebrew, the word here translated that is also translated as same (cf. Gen. 8:11). The Latin gives "in the same night." Consequently, the conclusion is self-evident that the lamb was eaten in the night of the 11th of Nisan, and not in the night of the 15th of Nisan. For it has already been shown (cf. page 9) that in neither 30 cr 31 A. D. could the "Friday" of passover week have been designated 15 Nisan without making the translation period too short by one day. Hence the year 31 A. D. must have agreed with the following pattern:



Demonstration. —In this diagram, there are two hypothetical positions for the paschal supper—"S" and S'"—the Jewish Friday night, and the night of the Jewish Sabbath. If "S'" is chosen, then, according to Pentateuchal law, that Sabbath night was 14 Nisan. But by counting back on the calendar, it will be found that the 1st day of Nisan would then have occurred on the 15th of April, thus making the translation period 4.19 days long. (Conjunction = Apr. 10.58.) But this period is altogether too long for any meridian. Hence, in 31 A. D., the night of the Sabbath, which on the calendar belongs to April 28, is out for the paschal supper. And "S"—the night of Jewish Friday—is the only alternative position. Therefore that night must have belonged to 14 Nisan, and the day was April 27 on the calendar. In its favor are the following facts, and there are no facts in its disfavor:

- a. Occurs after full moon-neither before it nor on it.
- b. Coincides with a ll-Nisan Friday.
- c. Concurs with Synoptic and Johannine suppers.
- d. Involves a Nisan translation period of 3.19 days in harmony with a waxing period of 15.36 days. (Cf. Table I.)

Therefore, on the basis of the 14-Nisan passover supper of the Pentateuch, the evidence is in favor of a Friday, April 27 crucifixion in 31 A. D.

2. Calendar Law. In Table I, the hypothetical crucifixion epoch has been marked off from 28 to 34 A. D. These years have each been considered as possible crucifixion dates by one and another. The following series is taken from this Table, whose moon dates are based upon Ginzel:

<sup>69</sup> The moon never goes to the fourth day after conjunction to make a first appearance, for her velocity is too rapid even in apogee.

### CRUCIFIXION EPOCH (Jerusalem Civil Time)

A. D.	Full Moon	Passover on 14 Nisan	Day of the Week	Tr. Per. (Days)	Wax. Per. (Days)
28* 29 30 31* 32 33*	Apr 27.62 Apr 17.21 Apr 6.93 Apr 25.94 Apr 14.47 May 3.29 Apr 22.40	Apr 28 Apr 18 Apr 8 Apr 27 Apr 15 May 4 Apr 23	Wednesday Monday Saturday Friday Tuesday Monday Friday	1.09 1.95 2.92 3.19 2.81 2.87 2.19	13.94 14.39 15.09 15.36 15.52 15.39 14.82

<sup>\*</sup> Years with a Veadar spring.

In this Table, each passover date is governed by one and the same calendar rule, namely, that the passover on 14 Nisan always follows the sunset to sunset Jewish day of full moon in Jerusalem. This basic rule governs the whole calendar, which includes the Julian date for the first day of Nisan, and hence the length of the adjacent translation period. On the other hand, the full moons and conjunctions, and the resultant waxing periods have been deduced for the meridian of Jerusalem from standard moon tables. It should be noted that the translation periods, which are governed by the passover full-moon rule, have an average short and long correspondence to the waxing periods, which are governed by the standard almanac tables.

In the foregoing series, with the exception of the impossible 34 A. D., there is only one year that has a 14-Nisan Friday passover—the year 31 A. D. The only way in which a Friday passover can be obtained for any one of the other years is by rejecting the law that governs the relation between passover and full moon. The results shown by this table are based upon this law, and the passover date in each year is thereby governed. The consistency of the law is shown by the relative

correspondence between the translation periods and the waxing periods.

and I am

The year 33 A. D. was formerly the popular crucifixion date with both Jewish and Gentile chronologers. Its April full moon falls on Friday, April 3. But it is clear, from this very early full moon date, that this year had to have an embolismic passover, April 3 being altogether too early for ripe barley. Furthermore, April 3 is the day of full moon. On these two counts the year 33 fails to qualify. And in addition, the 33-year date for the death year was based upon the Rabbinical calendar which was not operative in the time of Christ.

The year 34 A. D. has a 14-Nisan Friday passover on April 23. But this year history challenges as too late for the death of Christ, since it belongs to the 203rd Olympiad. The 202nd Olympiad is the one commonly chosen by the early fathers. Its acceptance as a crucifixion date would interfere with the very exact chronology of the Acts and the life of Paul, and with the Messianic prophecy in Daniel nine. Hence this year is not to be considered as a possible death year.

Consequently, the year 31 A. D., with its Friday passover on April 27, is the only possible year of the series that can qualify for the death year of Christ. This conclusion is based upon calendar rules by which each passover date is governed, and not by different rules for different dates, as is so frequently encountered.

The question of embolism in the crucifixion year is given further proof by the following historical incident:

In the year 1722, Thomas Shaw (Oxford) was traveling through the Holy Land. He noted that "barley, all over the Holy Land, was in full ear in the beginning of April [Old Style], and about the middle of the month [last of the month, New Style], it began to turn yellow, particularly in the southern districts." He makes the following comment:

"According therefore to the quality of the season, in the year 1722, the first fruits could not have been offered at the time appointed; and would therefore have required the intercalating of Ve-adar, and the postponing thereby the passover for at least a month."70

Doctor Shaw was consequently an eye-witness in Palestine that the spring of the year 1722 demanded the intercalation of the Veadar month. But between the years 1722 and 31 A. D. are 1691 years, or exactly 89 cycles of 19 years each. Hence, according to the invariable law of embolismic repetition, as explained by Reinach, 1 since the year 1722 had a late spring, demanding the interpolation of Veadar, therefore the year 31 A. D. must have been likewise embolismic, since the interval between these two years consisted of an exact number of 19-year cycles. Thus the double witness of history and nature to the accuracy of the barley-harvest law in relation to the 19-year cycle. And this after more than three thousand years from the time of its ordination.

The law of embolism can therefore be added to the calendar rules governing the crucifixion date, Friday, April 27, 31 A. D.

3. Prophetic Law. It yet remains to be demonstrated that the year 31 A. D. is in harmony with the Messianic outline of the ministry of Christ as set forth in Daniel nine. According to Daniel, the anointing of the Messiah at His baptism was to occur at the end of 7 + 62 prophetic weeks, or 483 years; while the cutting off of the Messiah and the consequent cessation of Jewish sacrifice and oblation were forecast by the prophet to follow the 7 and 62 weeks, and to coincide with the "midst" of the seventieth week.

This marvelous prediction of two specific dates in the life of Jesus was made a feature of His message throughout His public ministry. After the imprisonment of John the Baptist, which took place about a year after the baptism of Jesus, He came into Galilee preaching, "The time is fulfilled" (Mark 1:15). Obviously, the "seventieth week" had

a trans

<sup>70</sup> Shaw, Thomas, "Observations of Barbary and the Levant," p. 137. Edinburgh, 1808.

<sup>71</sup> Reinach, Theodore,

begun! And Daniel's portent of the cutting off and death at the end of a period of  $486\frac{1}{2}$  years was confirmed every time Jesus said, "Mine hour is not yet come." It was Mark who called attention to the time message about the baptism, but John stressed the "hour not yet come." Finally he wrote that "His hour was come."

4 1 1 9 3 3 3

And there is no difficulty in identifying the king at whose command the restoration of Jerusalem and the building of the wall went forward. Ezra and Nehemiah relate this history of the return from Babylon, and thus record the beginning of the seventy weeks. The important features of the chronology consist in verifying-

- a. The relation of the Jewish year to Daniel's prophetic year, and also the rule of correspondence between the Jewish regnal years and the Persian.
  - b. The Julian year with which Artaxerxes' seventh concurred.
- c. The coincidence between the year 31 A. D. and the "midst" of the seventieth week.
- a. Nehemiah makes it very clear how he counted a king's reign.

  Even while in Babylon, he reckoned the 20th of Artaxerxes from Tisri to

  Tisri, for from the month Kisleu even past the 1st of Nisan, it was

  still the 20th year of the king (Neh. 1:1, and 2:1). He must therefore

  have counted the 21st year as beginning in the subsequent Tisri. That

  the prophet Daniel computes his prophetic year in the "70 weeks"

  prophecy in the same manner as Nehemiah is evident from the fact that

  the prophecy in Daniel nine ties the "midst" of the seventieth week, or

  middle of the prophetic year, to the spring in which Christ was cruci
  fied. Since therefore the passover month Nisan of the crucifixion was

  the middle of the prophetic year, then Tisri must have marked the begin
  ning of this prophetic year in Daniel's Messianic prophecy.

The foregoing is the proof that the Messianic periods began with the month Tisri. Consequently the baptism of Christ must have occurred in the autumn season at the end of the 69 prophetic weeks. In this manner prophecy connects its years with the Jewish year.

The Persians, on the contrary, began their year in the spring. The ancient Babylonian new year feast to the god Marduk was a spring festival. And it is essential to understand these differences in counting regnal years, because, during spring and summer, the Jewish regnal year was a year behind the Persian count, while from Tisri to Nisan, a king's reign was numbered the same by both peoples.

b. The seventh year of Artaxerxes is fully identified with the year 458 to 457 B. C. by Bible synchronisms and ancient tablets and documents. With Jewish reckoning, nine months of the king's seventh year—Tisri to Elul inclusive—were in 457 B. C., while with the Persians, the year 458 covered the large part of the seventh year—Nisan to Kisle: inclusive. And, furthermore, January 1 annually coincides with a different day in Kisleu or Tebet, as intercalation decides. These facts have led to confusion concerning the year in which Ezra left Babylon, but it can be shown that the Julian year 457 B. C. was the only possible year. There are no eclipses that tie in with the reigns of the Persian kings after the time of Cambyses and Darius I. This adds importance to the double-dated Aramaic papyri that are dated in the reign of Artaxerxes, of which three will be cited: 73

- (1) Papyrus B -- Artaxerxes' accession year.
- (2) Papyrus E -- the 19th year.
  (3) Papyrus F -- the 25th year.

<sup>72</sup> Zimmern, Heinrich, "Zum babylonischen Neujahrsfest." Cf. ref. 30. 73 Cowley, A., "Jewish Documents of the time of Ezra," pp. 32,42,44. London, 1919.

The double dates in the Aramaic papyri are now "generally accepted as belonging to the Babylonian and Egyptian calendars." And by these synchronal dates the regnal years of the Persian kings are identified with their corresponding Julian years. The Edward Mahler tables on Babylonian chronology endorse the 457 B. C. date for the seventh of Artaxerxes. These tables are based upon ancient cuneiform texts and contracts. The earliest tablet with an Artaxerxes I record is dated on the 5th day of the 7th month of his first year (Oppert). The latest record gives the end of his reign as 41 years, 11 months, 16 days. This implies that there was no hesitancy for a time after the king's death "in continuing to date tablets also according to the year of the previous reign."

But the records of Ezra and Nehemiah likewise offer convincing evidence concerning the seventh year of Artaxerxes. In connection with Ezra's return from Babylon-he had about 1700 men besides women and children in his company-there are recorded seven specific dates, not one of which could consistently concur with the Jewish Sabbath, because of the nature of the work performed on these days. The following is the series:

1 3, 1 m . 1

<sup>74</sup> Parker, Richard A., "Persian and Egyptian Chronology," American Journal of Semitic Languages and Literatures, July, 1941, p. 289. Chicago.

<sup>75</sup> Mahler, Eduard, "Chronologie der Babylonier," Denkschriften der kaiserlichen Akademie der Wissenschaften mathematisch-naturwissenschaft-liche Classe. 62 Band. Wien, ;895. Mahler records 456 Persian reckoning. This is equivalent to 457 Jewish reckoning.

<sup>76</sup> Clay, Albert T., "The Babylonian Expedition of the University of Pennsylvania," Series A: Cuneiform Texts, Vol. VIII, Part I, p. 4. Philadelphia, 1908.

<sup>77</sup> Idem, p. 4. 78 Idem, p. 5.

- (1) 1 Nisan (1st month) -- the start from Babylon. Ezra 7:9.
  (2) 12 Nisan (" " ) -- journey continued from Ahava. Ezra 8:31.
- (3) 1 Ab (5th month) -- company lands in Jerusalem. Ezra 7:9.
- (4) 5 Ab (" ") -- Ezra weighs out silver and gold.
  Ezra 8:33.
- (5) 20 Kisleu (9th month) -- the domestic trial. Ezra 10:9.
  (6) 1 Tebet (10th month) -- trial continues. Ezra 10:16.
- (7) 1 Nisan (1st month) trial finished. Ezra 10:17.

" le'

Assuredly Ezra would not have begun any itinerary, or have struck camp, on the Sabbath. Neither is it consistent to see him land in Jerusalem and pitch camp on the Sabbath. If the foregoing dates are compared with a Jewish calendar table (cf. table on page ), it will be found that there is only one day of the week which will concur with 1 Nisan without resulting in Sabbath interference in the itinerary of Ezra. That day was Thursday. (Cf. Table II on p. .) And the year 457 B. C. was the only year in a period of 16 years, 13 of which are included in Table II, that had 1 Nisan occurring on Thursday.

The Feast of Trumpets, which occurred in the 21st year of Artaxerxes, Jewish reckoning, was also a synchronism—both the Bible and the
calendar being in agreement that the 1st of Tisri in this year—443 B. C.—
coincides with the Sabbath day. (In Table II note that 1 Nisan in 443
is Thursday. Hence 1 Tisri would be two days later in the week, or
Sabbath.)

c. Thus is the beginning of the 70 weeks' Messianic period established in 157 B. C., and the last, or seventieth week, would be designated by the years 27 to 34 A. D.--from Tisri to Tisri--as the following Jewish table shows:

C - >

Nine Months Three Months (Tebet, Shebat, (Tisri, Hesvan, Adar. Nisan. Kisleu) Iyar, Sivan, Tammuz, Ab, Elul) 28 A. D. 28 12 -2 30 31 32 33 34 29 30 31 32 33 11 170 12 "Midst"

Since the crucifixion occurred in Nisan, the comparison has to be made in column II, whose years include the month Nisan. There can therefore be no question but that the year 31 A. D. corresponds to the exact middle of the "seventieth week." In such a marvelous manner, prophecy heralds the death year of Christ.

### SUMMARY FOR 31 A. D.

The year 31 A. D. has been chosen as the crucifixion date on the basis of the following laws:

- 1. Pentateuchal Law: It has been shown that the New Testament passovers are dependent upon the law of Moses for the designation of their passover supper date, which was anciently commanded to be observed at the beginning of 14 Nisan. Within the compass of Christ's public ministry, Friday, April 27, 31 A. D., is the only date that answers to such an observed passover on 14 Nisan.
- 2. Calendar Law: It has been shown that unless the 14 Nisan passover follows the Jewish day of full moon in Jerusalem, the relation between the conjunction and position of the phasis is nullified. The Friday, April 27, passover date in 31 A. D. is the only date in the generally accepted period for the ministry of Christ that upholds these two indispensable calendar relationships—the passover-full-moon relation, complementary to that of the conjunction—phasis relation.
- 3. Prophetic Law: The prophecy in Daniel nine proclaims a crucifixion in the "midst" of the seventieth week. It has here been demonstrated that only the year 31 A. D. answers to this Messianic demand.

· ( a )

### CONCLUSIONS

The type I to

The death of Christ in the year 31 A. D. has been supported by only a few investigators of crucifixion chronology for the reason that the laws governing ancient Jewish time have not been recognized.

Neither has it been taken into account that the modern Rabbinical calendar has been built up upon an entirely changed fundament—a changed position of the ancient paschal month, a changed date for the paschal supper, a changed time for the moon's first appearance after conjunction, and a change in the natural length of the lunar year—just to mention major changes. In addition, the argument has recently been proposed that, from the time of the Babylonian exile, ancient Jewish reckoning conformed to the Babylonian calendar, which was based upon observation of the moon.

But this last argument fails because the crucifixion date proposed—the year 30 A. D.—in no sense agrees with the Bible specifications for the death year of Christ, but, on the contrary, does conform
to the Biblical outline of the pre-crucifixion year. Therefore, the
year 31 A. D., with the death passover on a 14-Nisan Friday, April 27,
remains as the only possible death date of Christ.

It may be difficult for some to follow through all the proofs given in this series that Friday of the crucifixion was the lith day of Nisan. The following statement by Ellen G. White is confirmatory of this conclusion, and merits attention:

"On the fourteenth day of the first Jewish month, the very day and month on which for fifteen long centuries, the Passover lamb had been slain, Christ, having eaten the Passover with His disciples, instituted that feast which was to commemorate His own death as 'the Lamb of God, which taketh away the sin of the world.'"—"Great Controversy," p. 399.

In other words, this remarkable citation states that the crucifixion passover was a one-day ceremony only, and that on the lith day of
the first month Nisan, when the paschal lamb was slain, the paschal supper was eaten, and the Lord's supper was instituted—three passover events
all on one day. Obviously, only one day in the crucifixion year can
answer to this demand—the sunset to sunset sixth day of the week upon
which Christ was crucified.

With reference to the death of Christ the same pen has written that "every fact connected with it should be verified beyond a doubt" ("Desire of Ages," p. 571). And, in order to aid in such research, moon tables have been included in this series on crucifixion chronology.

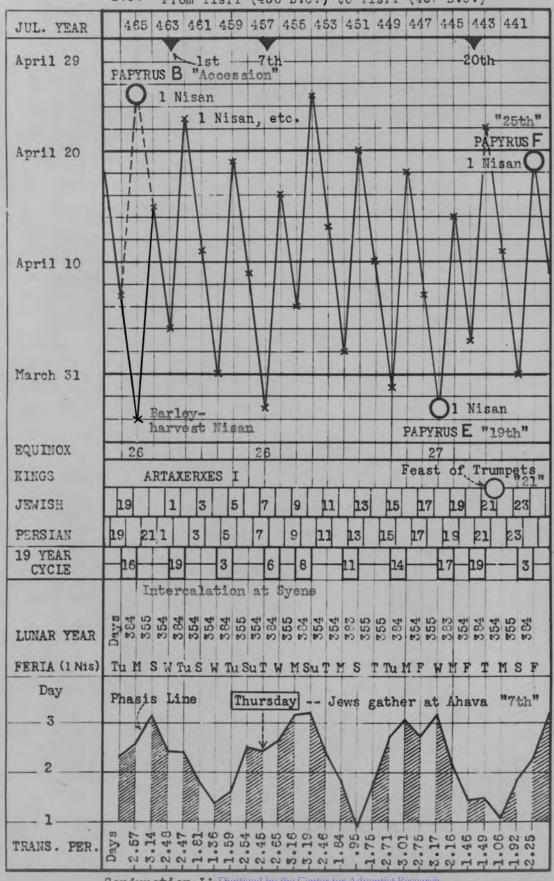
Every chronological conclusion concerning ancient Jewish time demands checking with ancient Jewish law, and with the calendar principles upon which it was founded. Only upon such a basis can correct calendar decisions be drawn.

Grace E. Amadon.

5 4 . A . .

# SEVENTH OF ARTAXERXES

B.C. From Tisri (458 B.C.) to Tisri (457 B.C.)



Conjunction Linegitized by the Center for Adventist Research

In Table II, five epochs in the reign of Artaxerxes are indicated. Three are taken from ancient contracts, as recorded in the Aramaic papyri, and two from the records of Ezra and Nehemiah. All five are synchronisms—the three papyri, according to Parker, being double—dated in Babylonian and Egyptian time, and the two Biblical dates fixed by solar and lunar calendars. All these epochs, therefore, tie the regnal years of the Persian king to the Julian calendar.

In the year 465 B. C., Papyrus B calls for an embolismic 1 Nisan on April 25. If the Jewish barley-harvest cycle had been followed on this date, 1 Nisan would have coincided with March 27, bringing the passover on April 9, one of the earliest passover dates in the fifth century B. C. The broken line in Table II leads to the embolismic 1 Nisan of Papyrus B.

Thus we have the ancient record that the Babylonian year did not always conform to Jewish barley-harvest intercalation. (The three papyri dates in this Table are taken from A. E. Cowley. The astronomical data are based upon Ginzel.)

FIRST CENTURY MOONS AND INTERVALS TABLE I (Jerusalem Civil Time)

	(Jerusalem Civil Time)									
			Day of				Waxing Year			
	A.D.	Conjunction 1 Nisan	Week	Period	Full Moon	14 Nisan	Period Length			
	40			(Days)			(Days) (Days)			
	1*	Apr 12.49Apr 14	Thur	1.28	Apr 26.40	Apr 27	13.91 355			
	2	Apr 1.72Apr 4	Tues	2.05	Apr 15.91	Apr 17	14.19 394			
	3*	Apr 20.41Apr 23	Mon	2.36	May 4.90	May 6	14.19 384			
	4	Apr 8.44Apr 11	Fri	2.33	Apr 23.62	Apr 24				
	5	Mar 28.69Apr 1	Wed	3.07	Apr 13.22	Apr 14	15.18			
	6*	Apr 16.60Apr 20	Tues	3.17	May 2.09	May 3				
	7	Apr 6.25Apr 9	Sat	2.52	Apr 21.31	Apr 22				
	8	Mar 25.96Mar 28	Wed	1.80	Apr 9.33	Apr 10	9 4 (97)			
	9*	Apr 13.94Apr 16	Tues	1.83	Apr 28.02	Apr 29	34 00			
	10	Apr 3.38Apr 5	Sat	1.39	Apr 17.33	Apr 18	13.05			
	11	Mar 23.53Mar 26	Thur	2.23	Apr 6.90	Apr 8	14.37			
	12*	Apr 10.23Apr 13	Wed	2.54	Apr 24.92	Apr 26	14.69 384			
	13	Mar 30.28Apr 2	Sun	2.48	Apr 14.61	Apr 15				
	14*	Apr 18.09Apr 21	Sat	2.68	May 3.58	May 4	75.40			
	15	Apr 7.57Apr 11	Thur	3.20	Apr 22.99	Apr 24	15.42			
	16	Mar 27.25Mar 30	Mon	2.51	Apr 11.11	Apr 12				
	17*	Apr 15.27Apr 18	Sun	2.50	Apr 29.78	May 1	14.86 384 14.51 354			
	18	Apr 4.89Apr 7	Thur	1.88	Apr 18.89	Apr 20	14. 130			
	19	Mar 25.26Mar 27	Mon	1.50	Apr 8.27	Apr 9	14-01			
	20*	Apr 12.00Apr 14	Sun	1.77	Apr 26.21	Apr 27	74 97 304 0940			
	21	Apr 1.03Apr 4	Fri	2.73	Apr 15.92	Apr 17	14.89 384			
	22*	Apr 19.74Apr 23	Thur	3.03	May 4.93	May 6	15.19			
	23	Apr 9.00-Apr 12	Mon	2.77	Apr 24.53	Apr 25	15.53 354			
	24	Mar 28.55-Apr 1	Sat	3.21	Apr 12.86	Apr 14	15.37			
	25*	Apr 16.57Apr 19	Thur	2.20	May 1.58	May 2	15 01			
	26	Apr 6.28Apr 8	Mon	1.49	Apr 20.60	Apr 21	14.29			
-	27	Mar 26.83Mar 29	Sat	1.93	Apr 9.76	Apr 11	12 02			
Epoch	28*	Apr 13.68Apr 15	Thur	1.09	Apr 27.62	Apr 28	90 04			
bods	29			1.95	Apr 17.21	Apr 18	94 70			
100		Apr 2.82Apr 5 Mar 22.84Mar 26	Tues	2.92	Apr 6.93	Apr 8	15.09 355			
ucifixion	30	The state of the s	Sun	3.19	Apr 25.94		15.09 384			
×	31*	Apr 10.58Apr 14	Sat	2.81	Apr 14.47	Apr 27 Apr 15	15.36 354			
4	32	Mar 29.95Apr 2	Wed	2.87		May 4	15.52 384			
63	33*	Apr 17.90Apr 21	Tues				15.39 354			
24	0.2	Apr 7.58Apr 10	Sat	2.19	Apr 22.40	Apr 23				
0	35	Mar 28.27Mar 30	Wed	1.49	Apr 11.43	Apr 12	14.16 384			
	36*	Apr 15.21Apr 17	Tues	1.56	Apr 29.19	Apr 30	13.98 354			
	37	Apr 4.56Apr 6	Sat	1.21	Apr 18.59	Apr 19	14.00			
	38	Mar 24.62Mar 27	Thur	2.24	Apr 8.23	Apr 9	14.61 384 6940			
	39*	Apr 12.31Apr 15	Wed	2.46	Apr 27.25	Apr 28	14075 955			
	40	Mar 31.46Apr 4	Mon	3.30	Apr 15.92	Apr 17	200			
	41*	Apr 19.33Apr 23	Sun	3.44	May 4.85	May 6	TO 000 ZEV			
	42	Apr 8.87Apr 12	Thur	2.90	Apr 24.15	Apr 25	10.40 354			
	43	Mar 29.58Apr 1	Mon	2.18	Apr 13.21	Apr 14	476 CO DOWN 384			
	44*	Apr 16.60Apr 19	Sun	2.17	Apr 30.90	May 2	14.30 354			
	45	Apr 6.14Apr 8	Thur	1.63	Apr 20.07	Apr 21	10.90 354			
	46	Mar 26.40Mar 28	Mon	1.36	Apr 9.55	Apr 10	384			
	47*	Apr 14.11Apr 16	Sun	1.66	Apr 28.54	Apr 29	14040 455			
	48	Apr 2.14Apr 5	Fri	2.63	Apr 17.26	Apr 18	15.12 355			
	49	Mar 22.35Mar 26	Wed	3.41	Apr 6.88	Apr 8	10.00			
	50*	Apr 10.25Apr 14	Tues	3.52	Apr 25.77	Apr 27	15.52 354			

<sup>\*</sup> The asterisk marks the years having the Veadar month. Conjunction and Full Moon dates taken from Ginzel.

#### JEWISH-CALENDAR WEEK TABLE III

	Iyar		Tamm		Elul	H	esva:	n !	Tebe	t	Adar	
Nisa	n	Siva	n	Ab		Tisr	1	Kisl	eu Si	hebat	t V	eadar
1*	1	1	1	1	1	1	1	1	1*	1	1	1
2	2	2	2	2*	2	2	2	2	2	2	2	2
. 3	3	3	3*	3	3	3	3	3*	3	3	3	3
4	4	4	4	4	4	4	4*	4	4	4	4	4*
5	5	5*	5	5	5	5	5	5	5	5	5*	5
6	6*	6	6	6	6	6*	6	6	6	6	6	6
7	7	7	-7	7	7*	7	7	7	7	7*	7	7
8*	8	8	8	8	8	8	8	. 8	8*	8	8	8
9	9	9	9	9*	9	9	9	9	9	9	9	9
10	10	10	1.0*	70	10	10	10	10*	10	10	10	10
11	11	11	11	11	11	11	11*	11	11	11	11	11*
12	12	12*	12	12	12	12	12	12	12	12	12*	12
13	13*	13	13	13	13	13*	13	13	13	13	13	13
14	14	14	14	14	14*	14	14	14	14	14*	14	14
15*	15	15	15	15	15	15	15	15	15*	15	15	15
16	16	16	16	16*	16	16	16	16	16	16	16	16
17	17	17	17*	17	17	17	17	17*	17	17	17	17
18	18	18	18	18	18	18	18*	18	18	18	18	18*
19	19	19*	19	19	19	19	19	19	19	19	19*	19
20	20*	20	20	20	20	20*	20	20	20	20	20	20
21	21	21	21	21	21*	21	21	21	21	21*	21	21
22*	22	22	22	22	22	22	22	22	22*	22	22	22
23	23	23	23	23*	23	23	23	23	23	23	23	23
24	24	24	24*	24	24	24	24	24*	24	24	24	24
25	25	25	25	25	25	25	25*	25	25	25	25	25*
26	26	26*	26	26	26	26	26	26	26	26	26*	26
27	27*	27	27	27	27	27*	27	27	27	27	27	27
28	28	28	28	28	28*	28	28	28	28	28*	28	28
29*	29	29	29	29	29	29	29	29	29*	29	29	29
30		30		30*		30	(30)	(30)		30 (	(30)	

From Table III, the day of the week is determined for any Jewish date. The asterisk marks the beginning of the week from the first day of Nisan. And, upon whatever day of the week I Nisan falls (cf. Table I), all the succeeding weeks to the last of Hesvan begin on the same week day. The 15th and 22nd of each month, throughout the whole year, are always the same day of the week as the first day of the month. These permanent calendar features make it possible easily to compute intervening dates between the marked weeks. If, for example, I Nisan is Tuesday, then every marked date for the first eight months is Tuesday; and 24 Elul, counting from Tuesday, 21 Elul, would be Friday.

The first day of Tisri always occurs two days later in the week than the

first day of Nisan.

The length of the year governs the weeks as follows:

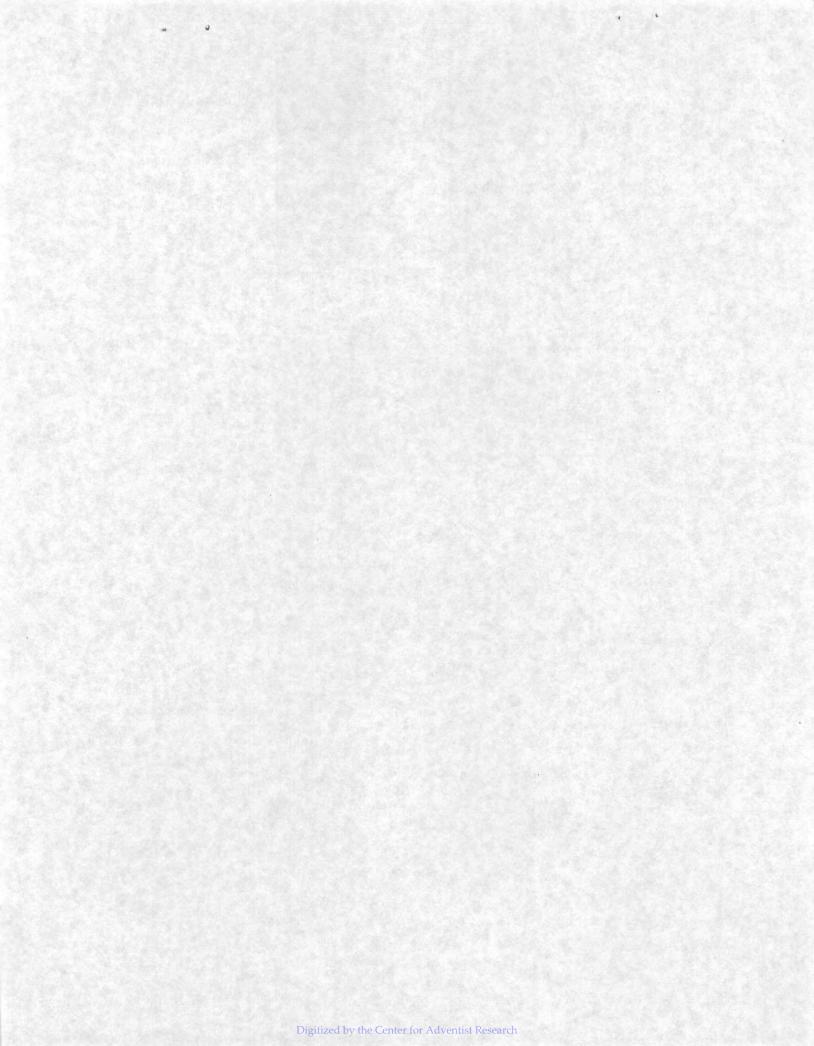
1. In a 354-day year, the weeks begin on the same day of the week throughout the year.

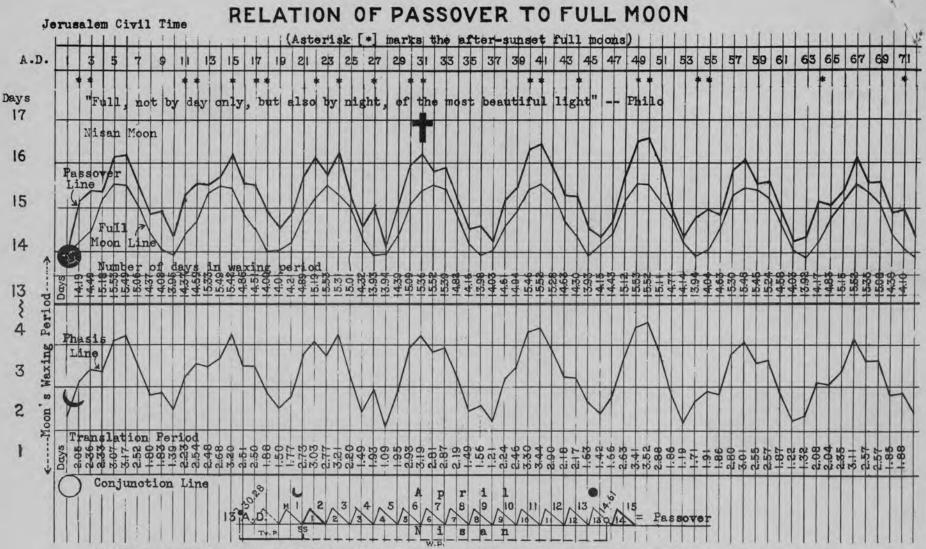
2. In a 355-day year, the weeks following Hesvan, which gains a day, begin a day later.

3. In embolismic years, the weeks in Veadar begin a day later than the

weeks in Adar, to which has been added a day.

4. In a 383-day year, the weeks after Kisleu, which loses a day, and on to the end of Adar, begin a day earlier.





If the passover be dated on the day of full moon, as some insist, discordance with the conjunction date results. For example: in case the phasis takes place at sunset of April 1, as in 13 A.D., then the civil date of 14 Nisan would be April 15, and the difference, as always, would be 14 days. In other words, the civil date of the passover is the 14th day after the civil date of the phasis. But frequently, as in the years 10 and 27, or 18 and 19, the waxing period of the moon is but little more or less than 14 days. Therefore, if a calendar places the passover on the day of full moon, the phasis would often occur on the same day as conjunction — an astronomical event that practically never happens. Hence discord would result between the laws of astronomy and the calendar. Consequently, the misplacing of the passover on the day of full moon, instead of after it, interferes with the laws governing the moon's phasis.

### THE CRUCIFIXION DATE

In this brief analysis of crucifixion chronology, the problem will be discussed in three parts:

- I. Important Scripture Checks Relating to the Crucifixion Date.
- II. The Lord's Passover -- a National Feast.
- III. 31 A. D. -- the Only Possible Death Year of Christ according to Luni-Solar Calculation.
  - I. IMPORTANT SCRIPTURE CHECKS RELATING TO THE CRUCIFIXION DATE

The outline of the gospel narrative is obviously indispensable to the investigation of crucifixion reckoning. But even so, from Biblical sources alone, no generally accepted date for the death of Christ has as yet been demonstrated. No irrefutable calendar has been the answer to faithful research into the annals of early centuries. The principal reason for this outstanding lack of agreement among scholars of today seems primarily connected with the critical examination of the Bible text. Consequently, the crucifixion time argument here presented is largely based upon astronomical and calendrical analysis. Nevertheless, there are important Scripture landmarks relating to the problem, without the recognition of which no valid solution can possibly be evolved. A few of these outstanding features make up the following series:

- 1. The ancient barley-harvest law, and its relation to primitive Jewish time.
- 2. Four passovers in the three-year public ministry of Christ.
- 3. The series of events during passion week.
- 4. Crucifixion Passover -- a late season feast.
- 1. The Ancient Barley-Harvest Law. The Mosaic law commanded Israel that a handful of the firstfruits of the land was to be presented to the priest for an offering at passover time before any bread, parched corn, or green ears should be eaten by the people. These limits were from April 8 to May 6 (Scaliger.) It was to be a statute forever throughout their generations in all their dwellings. (Lev. 23:10-14.) By this means the ancient

Jewish year was regulated, and the full moon of barley harvest marked the first month of the year. The original name for the Jewish first month of the year was Abib, signifying new fruits or "green ears." (Deut. 16:1.)

Consequently, the sickle became the sign of the paschal season. (Bucherius.)

Around Jerusalem, the earliest ripe barley occurs in April, and the harvest itself lasts until about June 1.

From this ancient barley-harvest law, as set forth in Leviticus, it is conclusive that the original Jewish passover did not occur so early as March. And furthermore, it was not necessary for primitive Jewish reckoning to employ a cycle in determining the first month of the year so long as the passover could be governed by the moon of barley harvest. This is doubtless an important reason why the intercalary year as such is not mentioned in the Bible.

But after the fall of the second temple (70 A.D.), the scattered and persecuted Jews had ultimately to follow the dictates of the Roman state, and also of the Church, who (a) based her feasts upon the March-passover cycle of Dionysius Exigius, and (b) insisted that Jews and Christians alike should not keep the paschal feast at the same time.

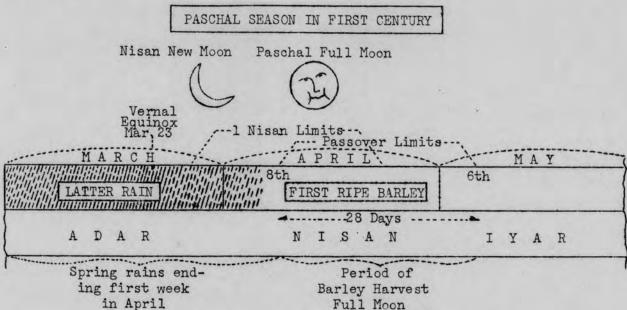
Inasmuch as the apostatizing Church chose the passover of the resurrection as a basis for her feasts, placing Easter on the first Sunday following the equinoctial full moon, the Jews had no alternative but to take the first—full moon after the vernal equinox as their paschal season. As a result, the Jewish constant calendar, from the fourth century onward, had many March passovers. The passover of the modern Jewish calendar occurs less frequently in March because its moons fall five or six days later than did the corresponding moons of early century cycles. This is caused by the fact that about every 300 years the moon advances a whole day ahead of the Julian calendar. The accompanying diagram outlines the limits of the paschal full Michaelis, Joanne Davide, "De Mensibus Hebraeorum Commentatio," Sections II

and III. Bremae, 1763.

<sup>2</sup> Note: Inasmuch as Ezra numbers his months, the month Adar mentioned in ch. 6: 15 is suggestive of intercalation-in other words signifying Adar Sheni.

3 Scaliger, Joseph, "De Emendatione Temporum," p. 107. Francofurt, 1593. He says:
"Yet those ancients, when they used this cycle [that of Dionysius] thought that they were celebrating the passover in Nisan, which was Adar [March] in the years 2,3,4,7,10,12,13,15,16,18, as the table shows. . "

moon date according to the ancient Mosaic law, and the law governing the modern Rabbinical calendar.



Mosaic Passover Full Moon

Rabbinical Passover Moon

Scaliger Passover Limits

Full Moon

= Full Moon during barley harvest, or the first full moon after equinoctial new moon.

= First Full Moon after the vernal equinox.

= April 8 to May 6 -- De Emendatione Temporum, p. 265. Francofurt, 1593.

The barley-harvest law, when applied to a continuous series of years. works the same as the law of the 19-year cycle. The moon dates repeat within a day every 19 years. The embolismic years follow the same cycle number indefinitely, and the cycle years can begin from any point in the series. In TABLE I, the Veadar years are marked with an asterisk, and the remaining years are common (c). If these symbols be set down in order, they will run as follows:

\* c c \* c

### 19 years

This order of common and Veadar years never changes in Jewish time, and the embolismic month is always in the spring. In ancient Babylonian reckoning, according to the cuneiform tables, the embolismic month alternates between spring and fall.

<sup>4</sup> Migne, J. P., "Patrologiae Cursus Completus," S. L. t. LXVII, col. 953, can. 69; col. 959, canons 185, 186. (Ferrandi, "Breviatio Canonum".) Paris, 1848.

2a. The Four Passovers. There are two vital features that are set forth in this analysis as essential to the outline of Christ's public ministry:

(a) that it involved four passovers, though not of course a period of four full years; and (b) that the four passovers are checked off by epochs in the life of John the Baptist. These two particular marks of distinction not only tie together the whole ministry of Christ, but they also bring harmony between the records of the Synoptists and that of the Fourth Evangelist.

## FEAST OUTLINE OF THE PUBLIC MINISTRY OF CHRIST

Years	
0.5	From autumn to the first Passover (spring).
	FIRST YEAR  Spring First Passover John baptizing near Jordan.
1.0	Fall Tabernacles"a feast of the Jews."  Healing of the paralytic on the Sabbath.  Attempt to slay Jesus.  John Baptist not yet in prison.
	SECOND YEAR
1.0	Spring Synoptists' "ears-of-corn" season. 10 [Second Passover] John in prison. 11 Jesus begins public preaching in Galilee
	THIRD YEAR 12
1.0	Spring Third Passover "a feast of the Jews."  Associated feeding of 5000after John's death.  Fall Feast of Tabernacles. 14  Attempt to stone Jesus.
	Winter Food of Podication and has attempt to store I
	Winter Feast of Dedicationanother attempt to stone Jesus FOURTH YEAR (beginning)
	Spring Crucifixion Passover
3.5 yea	

The argument upon which the foregoing passover outline is based is as

<sup>5 &</sup>quot;Hence, the whole time of our Saviour's ministry is proved not to embrace four entire years, there being four high priests for four years, from Annas to the appointment of Caiaphas, each of which held the office a year respectively."--Eusebius, "Ecclesiastical History," p. 60. Cruse. London, 1847.

6 John 2:13

7 John 3:23

8 John 5:1. 9 John 5:32. A living witness:

10 Matt. 12:1; Mark 2:23; Luke 6:1

11 Matt. 4:12,17; Mark 1:14

12 John 6:4

13 Matt. 14:13-21.

14 John 7

follows:

10

The chronology that singles out in the Synoptic gospels an additional barley harvest season, not belonging to any of John's passovers, is based upon one event -- the imprisonment of John the Baptist. Consequently, inasmuch as the first passover occurred before John was put into prison, in 28 A.D., and Jesus did not begin public teaching in Galilee until after the imprisonment of John, the ears-of-corn Sabbath, mentioned by all the Synoptists. and introduced into the Synoptic outline soon after the return of Jesus into Galilee, must have marked a passover during the imprisonment of John the Baptist. Therefore, this incident of the barley harvest, which each of the Synoptists mentions, could not have belonged either to the first passover. while John was baptizing near Jordan, nor to the passover in John 6, which came after John's death, at the time of the feeding of the five thousand. Hence it must have been coincident with a paschal season during the period while John was in prison. In this manner, Matthew, Mark, and Luke introduce another passover, not referred to by the Fourth Evangelist, making altogether four passovers belonging to the public ministry of Christ. This Synoptic passover must therefore have occurred in the spring of 29 A.D. It can be designated the second passover.

2b. Passover Near Time of Feeding the Five Thousand. Jesus did not attend this, His third public passover. He was in Galilee at the time. There are those who read only "feast of the Jews," in John 6:4, because of a possible original relation of the Fourth Gospel to Aramaic, which omits the word

<sup>16</sup> John 3:24

<sup>17</sup> Matt. 4:12

Matt. 14:13

"passover" in this text. But this interpretation drops out a whole year from the public ministry of Christ. However, all three of the Synoptists describe the feeding of the five thousand, which is strictly associated with this "feast of the Jews," and by comparing their records, the chromology of the passover feasts can be established. In the authorized version, and in the American Revised, John's words are direct to the point that "the passover, the feast of the Jews was nigh." And, as if in further confirmation of this circumstance, he states that there "was much grass in the place," where the people sat down to eat (verse 10). Mark adds that the grass was 20 green. This descriptive detail of that desert in Galilee is not only significant, but highly so because it was a desert place.

In Palestine, during the summer, "the plains are parched with drought, and every green herb is dried up . . . no green thing remains but the foliage of the scattered fruit trees, and occasional vineyards and fields of millet."

22

But following the rainy season, there are "rich and juicy pasturages." The very fact that the grass was green, and that there was much of it is indicative of the season that had preceded John's narrative. It had rained sufficiently for the grass to spring up abundantly. The passover always followed just such a period of rain -- designated the "latter rain."

But in marked contrast to the time of the feeding of the five thousand, which followed a period of rain, the feeding of the four thousand, the context shows, came a little later in the same year during the customary summer drought.

<sup>19</sup> Dalman, Gustaf Hermann, "Jesus-Jeshua," pp. 88,92. Tr. by Levertoff. N. Y. 1929

<sup>20</sup> Mark 6:39

<sup>21</sup> Matt. 14:13-21

<sup>22</sup> Kitto, John, "Palestine," pp. 24,43

Canticles 2:11

This miracle also took place in a desert, or wilderness, near a mountain 24 in Galilee, like the first feeding. But in this second instance, the people had to "sit down on the ground" to eat their supper of bread and fish.

Mark does not speak of any "green" grass, as he mentioned in the case of the five thousand -- he simply calls it ground, from the Greek ge, meaning 25 earth or land. Evidently, this later feeding came during the summer, when every where in Syria the grass dries up. And that this incident occurred during the summer dry weather, can also be concluded from the fact that these heathen people had been with Jesus for three days, and must therefore have 26 slept out on the heath for at least two nights in succession.

These two feeding miracles—the one of five thousand Galilean Jews, after the rainy season, and the other later one of four thousand Galilean heathen from around Decapolis, during the summer dry season — precisely locate John's "feast of the Jews" in his sixth chapter, even if we allow that the Aramaic omits the word "passover" from the text. For it could not have been other than the paschal season when the five thousand were fed, because of the abundant green grass in a desert place; and the feeding of the four thousand that followed later had to occur during the warm, dry weather of summer, when people and children could sleep out of doors. These two miracles could not be consistently related to any other seasons of the Jewish year. There is, accordingly, no alternative but to conclude that John's thirdmentioned feast is the third passover in the public ministry of Christ. The fourth is, of course, that of the crucifixion.

These four passovers signify that the actual public ministry of Christ

<sup>24</sup> Matt. 16:4

<sup>25</sup> Mark 8:6

White, Ellen G., "Desire of Ages," p. 404. (Con. Series, ed.)

involved a period of about three years, and this fact is implied in the parable, where Jesus said to the dresser of His vineyard, "Behold, these three 27 years I come seeking fruit on this fig tree."

3. The Events of Passion Week. They all point toward the sunset beginning of a 14-Nisan passover day.

# PASSION WEEK

28 (7 Nisan) -- Jesus came to Bethany six days before the Passover. Friday sunset (8 Nisan) -- There they made Him a supper--necessarily the evening Sabbath after the Sabbath. 29 Sunday (9 Nisan) -- On the next day -- triumphant entry into Jerusalem. Jesus enters the temple -- it is evening already. 31 He went out unto Bethany with the twelve. 32 (10 Nisan) -- And on the morrow, when they were come from Bethany --Monday the fig tree in full leaf. 33 Moneychangers overthrown. 34 Hosannas repeated by the children. 35 Blind and lame healed. 36 "After six days" And when even was come, He went out of the city. 37 On the 10th, the paschal lamb selected, 38 Tuesday '11 Nisan) -- And in the morning, as they passed by -- the dried up fig tree. 39 Teaching all day in the temple. Parable of the ten virgins -- an evening scene. 41 And at night He went out and abode in the mount. 42 After two days was the passover and unleavened bread. 43 (12 Nisan). Wednes- (12 Nisan) And all the people came early in the morning to Him in the temple for to hear Him. 14 The Greeks come to Philip (in the outer court). 45 A voice from heaven. 46 Greeks heard the voice. Jesus departed, and did hide Himself from them. (13 Nisan) Thurs-Now the feast of unleavened bread drew nigh -- Passover. Judas seeks opportunity to betray Jesus. 50 day (14 Nisan) Then came the day of unleavened bread, when the passsunset over must be killed. 51 Now the first day of the feast of unleavened bread the disciples came to Jesus. 52 And the first day of unleavened bread, when they killed the passover, His disciples said unto Him, Where wilt thou that we go and prepare that thou mayest eat the passover? 53 Now before the feast of the passover, Jesus knowing that His hour was come. 54

Friday (14 Nisan) -- Day of the crucifixion. 55 morning

When John said, "Then Jesus six days before the passover came to Bethany;"

### FOOTNOTES

```
27
Luke 13:7
28 John 12:1
29 John 12:2
30 John 12:12; Mark 11:2-7
31<sub>Mark</sub> 11:11
32 Ibid.
33 Mark 11:12-14
34 Mark 11:15-18
35<sub>Matt.</sub> 21:15
36 Matt. 21:14
37<sub>Mark</sub> 11:19
38<sub>Ex.</sub> 12:3
39<sub>Mark</sub> 11:20
40 Matt. 22-24; Mark 12,13; Luke 20,21
41 Matt. 25:1-13
42 Luke 21:37
43 Matt. 26:2; Mark 14:1
44 Luke 21:38
45 John 12:21
46 John 12:28
47 John 12:29,30
48 John 12:36
49 Luke 22:1
50 Matt. 26:16; Mark 14:11; Luke 22:6
51 Luke 22:7
52<sub>Matt.</sub> 26:17
53<sub>Mark</sub> 14:12
54 John 13:1
Note: Should the Jewish passover be made to coincide
  with 15 Nisan, then the calendar phasis would fre-
  quently occur before the moon could possibly be seen.
```

and on Tuesday evening, while sitting on the Mount of Olives, Jesus Himself said, "Ye know that after two days the passover cometh" (Matt. 26:2 A.R.V.), these two statements go into the Bible record concerning the same point of time--the sunset beginning of the passover day. When this instant arrived in Jewry, Thursday had ended and Friday had begun. The portion of time between the Thursday evening sunset and the subsequent midnight was called the sixth day of the week by the Jews, and would be thus deted on their public documents. When the sun set, a new day had begun for the Jew. And when Luke says, "Then came the day of unleavened bread, when the passover must be killed" (Luke 22:7), the context shows that he referred to the Thursevening day, beginning of the new Jewish day. Obviously the point of time was sunset, when the new day began in Jewish communities. Consequently, Luke must have had Friday in mind as the day "when the passover must be killed."

Similarly, John, in his description of the Lord's Supper, says, "Now before the feast of the passover, when Jesus knew that His hour was come" (John 13:1). These words refer to the same occasion as those of Luke -- the passover supper that was to be observed at the evening beginning of the sixth Jewish day, after the Thursday sun had set. By this order of feast observance, the harmony between John and the Synoptists is preserved.

4. Crucifixion Passover—a Late Season Feast. The outline of Christ's public ministry (page 4) is based upon seven specific Jewish feasts. These concur with various seasons in the four years indicated, and they tie together the ministry of Christ and the ministry of John the Baptist. But of importance also to our chronology is the fact that certain scripture references to these seasons intimate whether the corresponding years were common or intercalary. Necessarily, the year of greatest import is that of the crucifixion. If its Passover was unusually late, it is reasonable to expect some evidence in the Bible of the presence of the embolismic month Veadar. And there are several suggestive allusions to that effect: (a) the closed fishing season in John 21; and (b)

the state of vegetation at the time of the crucifixion Passover.

a. We have uniform testimony that the Galilean fishing season is from 56 mid-December or January to mid-April. Twice during the ministry of Christ, He performed a miracle in order to fill the disciples' nets with fish. The first occasion was in Galilee, after the Synoptic Passover. The Bible does not appear to state just how long after, but it is manifest that the season was late. In the very early spring before the crucifixion, Peter could readily hook up a fish off the shore of Galilee, "where the shallows swarm with small 57 fish-fry." The instance of the second miracle was in the year of the crucifixion, after the resurrection. Peter and his comrades had fished all night on the sea of Galilee, but had caught nothing. Then came the early morning catch at the command of their haster. If the crucifixion had been early in April, then fishing would still have been good for a week or two.

But the fact that it was not good in water that in season teems with large 58 fish a few yards out from shore, is indicative that the Passover was late—that is, after the fishing season had ended. Hence a Veadar spring.

b. In the highlands about Jerusalem at the time of the death of Christ, 59
the "time of figs was not yet." And still, there was in this particular orchard to which the Synoptists refer, an isolated tree in full leaf, but without any figs. Nevertheless, in other orchards at this time, trees were

Dunkel, P. Franz, "Die Fischerei am See Gennesareth," p. 381. Biblica, Vol. 5, 1924. Rome; Masterman, Ernest W. Gurney, "Studies in Galilee," p. 38. Chicago, 1909; Rohricht, Reinhold, "Regesta Regni Hierosolymitani," p. 38. Libraria Academica Wagneriana. 1893.

<sup>57</sup> Masterman, E. W.G., Idem.

<sup>58</sup> Idem.

<sup>59</sup> Mark 11:13

60

in leaf. But this special tree was barren, and it had been left from year 61 to year with the expectation that it would, after more culture, bear fruit. However, it bore only pretentious foliage. But its green covering was so 62 "luxuriant in appearance, and beautiful to the eye," that Jesus endowed the tree with a symbol, and to it likened the hypocrisy of the Jewish nation.

But in the crucifixion year, the paschal season was cold. The figs around Jerusalem had not yet matured, though leaves had. If the Passover had been in early April, it would still have been cold about Jerusalem, but the fig trees would not have been in leaf. From this very fact Jesus drew a spiritual lesson:

"Behold the fig tree, and all the trees. When they now shoot forth, ye see and know of your own selves that summer is nownigh at hand." 64

Hence, the fig tree, with such abundant foliage, and the leafing out of other trees also, are witnesses to the lateness of the crucifixion Passover, and the nearness of summer. In early April, the fig trees of Southern Palestime have little green figs only--no leaves.

The Bible gives the following character to the Passover of the crucifixion:

- 1. It was the 14th day of Nisan, as shown by all the Bible passovers.
- 2. It was also called the first day of unleavened bread.
- 3. It was the day on which the lamb had to be slain and eaten.
- 4. It was a one-day Passover.
- 5. It began at sundown on Thursday.
- 6. It was the fourth Passover of Christ's ministry.
- 7. It was a late season Passover.

It yet remains to demonstrate the nature and character of the Lord's supper in relation to the national feast.

<sup>60</sup> Luke 21:30

<sup>61</sup> Luke 13:9

<sup>62 &</sup>quot;Desire of Ages," p. 583.

<sup>63</sup> John 18:18

<sup>64</sup> Luke 21:30

### II. THE LORD'S PASSOVER -- THE NATIONAL FEAST

At the time of the Egyptian passover, each Israelite home was invested, as it were, "with the character and dignity of a temple." where the passover lamb was slain, and the blood sprinkled upon the entrance door. These lambs were not slain by a temple priest at a temple altar. But Philo (20 B.C. to 54 A.D. -- a contemporary of Christ and the Apostles), makes revealing comment regarding the passover feast inthe time of Christ:

". . . on which festival not only do private individuals bring victims to the altar, and the priests sacrifice them, but also, by a particular ordinance of this law, the whole nation is consecrated and officiates in offering sacrifices; every separate individual on this occasion bringing forward and offering up with his own hands the sacrifice due on his own behalf." 66

Then again:

". . . on which pascha the whole nation sacrifices, each individual among them not waiting for the priests, since on this occasion, the law has given, for one especial day in every year, a priesthood to the whole nation, so that each private individual slays his own victim on this day." 67

Philo's words, "not waiting for the priests," are significant. They are highly suggestive that not every paschal lamb was sacrificed in the temple, and therefore, not all at the same time. That some "private individuals" did bring their lambs to the temple altar, according to Philo, is evident. The occasion of the first passover after the dedication of the second temple, and also Hezekiah's passover, are precedents. But, in the time of Christ, some lambs must certainly have been slain "without the gate" as a symbol of Him who "suffered without the gate," And as a type of this was also the very first passover, when the lambs were slain at Israel's doors in Egypt.

Maimonides (12th century) casts more light on the whole question of "private altars." He admits that private altars had been permissible in early times, but that there had been an "edict" forbidding such. This is his com-

<sup>65</sup> Philo, "Life of Moses," book III, p. 284. Tr. by Yonge. London, 1855.

<sup>66</sup> Idem, p. 121. 67 Idem, p. 171 (Italics mine.)

<sup>68</sup> Ezra 6:20 2 Chron. 30:17 70 Hab. 13:12

plete statement:

"Thus the paschal victim, like the rest of the sacrifices, was never slain, except in the court of the temple. But then, it was permitted that individual altars be kindled with individual sacrifices, although there was an edict that no paschal victim should be slain, upon a private altar. Thoever, therefore, had slain a paschal lamb upon a private altar, was compelled with stripes: because we see written in the law, 'Thou shalt not slay the pascha in any of your towns.' Deut. 16:5. For this doctrine has been handed down to us that, in this place, it is warned lest anyone should slay the passever lamb upon a private altar, even though private altars were conceded."

The first day of unleavened bread had already come when Jesus said to 72

Peter and John, "Go and prepare us the passover that we may eat." They were outside of Jerusalem when Jesus said this. Possibly the lamb had even then been slain when the disciples asked, "Where wilt thou that we go and 73 prepare that thou mayest eat the passover," And, following in detail the Lord's instructions, the "disciples went forth, and came into the city, and 714 found as He had said unto them: and they made ready the passover." Jesus had said, "And he will show you a large upper room furnished and prepared: there make ready for us." And there the disciples did make ready. "And when the hour was come, He sat down, and the twelve apostles with Him."

In none of the evangelistic records is there any suggestion that Peter and John went up to the temple to slay the lamb. In the first place, sunset time was not the customary hour of the day for the temple passovers to be slain, at least according to the Mishna, which Maimonides cites. Secondly if it had been customary with Jesus to have their paschal lamb slain at the temple altar, Judas could have turned over this information to the priests, thus giving them opportunity to trail the disciples and arrest Jesus.

Josephus also supports the idea of private passover altars as a common practice at the time of Christ's birth. Both "Antiquities" and "Wars" give

Maimonides, Moses, "Tractatus Primus de Sacrificio Paschali," cap. I. p. 4. Tr. de Compiegne de veil. London, 1683.

<sup>72</sup> Luke 22:8

<sup>73&</sup>lt;sub>Mark</sub> 14:12 74<sub>Mark</sub> 14:16

a record of a sedition that occurred among the Jews during the passover feast, shortly after the death of Herod the Great. Archelaus had assumed the throne in Judaea, although he had not yet been appointed by Augustus. The Jews lamented the death of Matthias, and those whom Herod had slain with him. An "innumerable multitude" had come up out of the country to keep the feast-one seditious group resorting to the temple for protection, while the masses were without the city in their tents, whom Josephus describes as offering sacrifices "with great alacrity."

Against them, Archelaus sent a regiment of armed men, whom the Jews, with sacrifices in hand, stoned and wounded. "After which they betook them76
selves to their sacrifices, as if they had done no mischief." Finally, Archelaus "sent his whole army upon them, the footmen in great multitudes by way of the city [Jerusalem], and the horsemen by way of the plain, who, falling upon them on a sudden, as they were offering their sacrifices, destroyed about three thousand of them."

In this season, the moon was full, and in that piercingly clear moonlight of the holy land, it was as easy for the army to attack by night as by day. But the important feature is that the Romans surprised the Jews, who were in the very act of offering their paschal lambs. Certainly this was not a temple service, and it is easy to see how, by this method, many lambs could be offered in a very short time!

The position taken in this argument is therefore that the gospel account supports a national Passover only--one that for the most part, in the crucifixion year, was observed on Thursday evening about sunset in the private homes and tents of the Jews. In further confirmation of this interpretation of the crucifixion Passover, attention is called to certain facts in the case:

<sup>75</sup> Josephus, "Antiquities," xvii.9.3.

<sup>76</sup> Josephus, "Wars," II. 2.3.

Idem.

a. The original Passover was a night ceremony only. It was a one-day service even in Josiah's time. 78 Consequently, the national sacrifice had always to be commemorative of that particular night in Egypt, when the destroying angel passed over the doors upon which had been sprinkled the blood. Therefore, to observe the sacrifice on parts of two days instead of in one night, would obviously destroy its spiritual significance. And, if a two-day ceremony had ever been possible, then the law in Numbers 9 would never need to have been given. 79

b. At the crucifixion Passover, both the typical lamb and the Antitypical Lamb were to be sacrificed. It is consistent that the calendar should date both events on one and the same day only--but not necessarily at the same hour. For it would be as reasonable to insist that the barley sheaf had to be waved in the temple at the same time Christ arose, as to maintain that the typical passover lamb must be slain at the same hour the True Lamb died. It seems sufficient that the two were sacrificed on the same day. But it annuls the meaning if the symbolic lamb is represented as being slain on one day, and the real Lamb on the day following.

- c. On the occasion of the Egyptian Passover, the lamb was slain by the individual for the family group. But in later years, sometimes the Levites substituted for people who were unclean. 80 Nevertheless, this was a substitute service only, for the king prayed, "The good Lord pardon every one. 81 In the time of Christ, we read that many--not all--went up before the Passover to purify themselves. 12 These were manifestly the heads of companies upon whom fell the office of slaying the lamb. It is therefore a logical conclusion that priest or Levite did not commonly slay the paschal lamb in the time of Christ.
- d. It has been argued that, even though private passover altars be granted, the disciples would necessarily have to go to the temple sometime on Thursday, either to obtain their lamb, or to have the one selected examined by the priest. But it should be borne in mind that the paschal lambs had already been chosen since the 10th--on Monday--so that there was no necessity of waiting until the last few hours before the ceremony in order that the sacrificial lamb should be passed upon by the priest. Furthermore, it should be remembered that on that particular Thursday, Jesus and the disciples were in hiding outside of the city because of the activity of Judas in seeking to betray his Lord.
- ¿. But perhaps the most valuable witness to the view that John himself is describing the national festival, and not a private supper, is his own testimony that "before the feast of the passover," Jesus knew that His hour had come. Jesus knew from the prophecy in Daniel nine that the fourth Passtover in His public ministry would be His last. But, if He anticipated the national feast upon which the prophecy was based, and subverted the time by a private paschal meal, not coincident with national observance, He could not possibly have insisted to His disciples that His "hour had come!"

<sup>78&</sup>lt;sub>2</sub> Chron. 35:16 79<sub>Num.</sub> 9:10,11 80<sub>2</sub> Chron. 30:17 81<sub>2</sub> Chron. 30:18 82<sub>John</sub> 11:55 83<sub>Dan.</sub> 9:26,27

John's important words are also repeated by Luke, and in harmony with their deep significance, it is a self-evident conclusion that all the Evange-lists must have had only one Passover in view--the national feast.

## III. THE ONLY POSSIBLE DEATH YEAR OF CHRIST ACCORDING TO LUNI-SOLAR CALCULATION

## 1. The Astronomical Principles Governing the Calendar Moon.

Surprising as it may seem, the foregoing Biblical principles, as discussed in Sections I and II, provide a calendar basis for crucifixion chronology. Then Moses said that the Passover should be on the 14th day of Nisan, he thereby exactly measured the paschal interval as 13 days between the moon's phasis and the sunset beginning of the Passover. And when astronomers, by actual observation, and by numerous uniform testimonies, covering a period of many centuries, report that the moon makes her first appearance in from one to four days after the conjunction date-which is the same as one to three days after the day itself of conjunction-they also measure the same paschal period to be 13 days long, in agreement with Moses. And these figures signify that on the meridian of Jerusalem, the paschal moon always fulled on the 13th day of Nisan, or on the day before the Passover. To this, Philo bore witness when he significantly described the Passover day "as full not 86 by day only, but also by night of the most beautiful light!"

This coincidence between the full moon and the first month of the Jewish year in Jerusalem, does not necessarily occur in other months, nor on other meridians, when the moon may full earlier or later. And it makes all the more significant the synthesis that testifies to the Hand that controlled the order of the ancient Jewish feast period. In modern times, the question is asked:

"Who is guiding the stars in their courses with such exactitude and with such scrupulous orderliness? Jupiter's oppositions to the sun occur once in 399 days. He never fails to be on time. . . Mercury's orbit is so inclined to that of the earth that his transits across the sun are relatively rare, but

<sup>84</sup> Luke 22:14
85 Note: Table III illustrates how the Passover keeps away from the day of the full moon.
86 Philo Judaeus, "Life of Moses,"III, p. 291. Tr. by Yonge. London, 1855.

on the average they number thirteen every hundred years, and they always occur in either May or November." 87

The same writer continues:

"Of all the arguments for the existence of God, there is none better than the one based upon the orderliness of the universe. It is shot through and through with the principles of mathematics. The science of numbers dominates everything that the world's Creator has done and is doing." 88

And furthermore, by the one simple command that marked out the 14th of the first month as the passover day, Moses not only determined (1) the relation between the Passover and the full moon; but also (2) the timing of the ancient Jewish phasis; (3) the length of the ancient year; and (4) the length of the months that followed the Jewish feast period. These calendar details being fixed, it is obvious that the whole ancient system of time keeping was founded upon a calculation that agreed best with the observation of the moon. In other words, it was neither calculation alone, nor observation alone, but both together.

The Egyptian calendar was a sufficiently accurate measuring-stick of time for its age; nevertheless, it had not the exactness of the luni-solar system which Moses ordained. Moreover, the agricultural year of Moses had not the variations which would have characterized a calendar based wholly upon observation of the new moon. The Mosaic festivals appointed on certain days of the moon, all had a reference to the harvests of barley, wheat, and wine, respectively. It was field and land that determined Israel's calendar moon. To ascertain when intercalation was due, did not require observation of the "lesser light." This every farmer could decide by looking at the corn (grain) fields in southern Palestine.

And there were always just as many years as there were harvests; and one harvest could not fall over a month earlier or later than another similar

<sup>87</sup> Zion's Herald, August 27, 1941. Page 764. [Italics mine]

Idem.

harvest. By dividing the number of days in a period of lunar years by the number of harvests, the essential length of the solar year could be obtained; and the more numerous the harvests and the longer the period, the more exact the solar constant (Nichaelis).

No single Jewish year taken by itself is a solar year, but is either from 10 to 11 days shorter, or on account of an intercalated moon, 18 to than the solar year.

19 days longer, Moreover, there is no calendar cycle that precisely corresponds to the celestial motions of the moon. And Scaliger testifies that "long before the times of the Messiah, the Hebrews had in books the designated form of the year." He cites the Talmud for the statement that the ancients had a figure of the moon, or lunar cycle to which they resorted whenever "the clouds begrudged the eyes the vision of the new moon."

Saadia Gaon, Albiruni, Maimonides, and Piniles make similar statements.

The outstanding astronomical principles governing the calendar moon are:

a. From a modern standard almanac can be obtained an important calendar relation of the moon, that of course is as old as the earth and her parasite—the moon's perigee relation in the paschal month Nisan. Its importance never fails to be mentioned by those investigating the new moon. This lunar ratio, so useful in determining the position of the lunar phasis, can be nicely demonstrated from the ample figures of a modern standard almanac describing the moon's place in the sky. But, although we do not have such records for early centuries, yet our standard almanacs point out this perigee relation to the Nigan phasis, and reveal how the ratio can be applied to the ancient luni-solar calendar.

The ratio can be defined as an average relation between the moon's perigee, the translation period, and the waxing period. It is the perigee that

<sup>89</sup> Bucherii Aegidii, "De Doctrina Temporum," p. 374. Antverpiae, 1634.

<sup>90</sup> Idem.

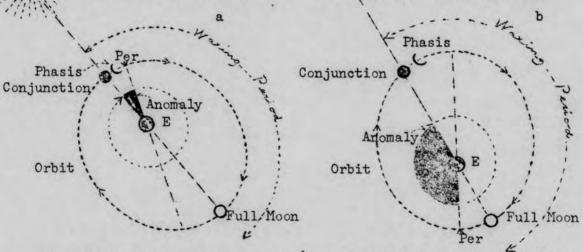
causes the varying relation between these portions of the moon's orbit, and back of that is Newton's law of gravitation between the earth and moon.

The actual working of the perigee law is stated as follows:

"The time required for the moon to reach a given distance east of the sun depends upon her distance from perigeo at the time of conjunction.

This angular distance is called the moon's anomaly. When the anomaly, plus or minus, is small, the waxing period is correspondingly short [See Fig. a]; when the anomaly is large, the waxing period is also long [See Fig. b]."91

The following figures illustrate this variation of the anomaly:



Therefore, by comparing the moon's waxing period, it is possible to determine how long the translation period should be. Tables II and III definitely show that the one varies approximately as the other--that when the waxing period is long or short, the translation period must similarly be long or short. (Factor a)

Other factors governing the Nisan new moon are the following:

- b. The moon's phasis never occurs on the civil date of conjunction.
- c. The position of the phasis must be such as not to distort the length of the lunar year, making it too long, as 385 days, or too short, as 353 days.
- d. There must always be 13 days between the civil date of the phasis, and the sunset beginning of the passover on the Jerusalem meridian.
- e. No two successive years should begin on the same day of the week, as would be the case if the occasional fixed Jewish year of 385 days were em-

<sup>91</sup> Glonn H. Draper, Associate Astronomer, U.S. Naval Observatory, Washington, D.C.

ployed.

- f. Paschal full moon--the first full moon after the equinoctial new moon. g. Passover always on the day after the Jewish day of full moon--never
- g. Passover always on the day after the Jewish day of full moon--never on or before.
  - h. Tisri l counted as the 177th day after the Nisan new year.

The foregoing rules harmonize with the synchronizing dates of the Bible and related literature, as for example, the synchronism in the Sabbath feast of John 5:1, in which the year being known, and the day of the week, the 92 feast is proven to be that of Tabernacles.

# 2. Analysis of the Crucifixion Date

There are two rival dates set forth for the date of the death of Christ --30 and 31 A.D. All of the other years of Daniel's "seventieth-week" period fall out either because their passovers occur on some other day of the week than Friday, or else because the year is wholly out of season with the public ministry of Christ, as 34 A.D. And those who wish to make the crucifixion day coincide with the civil day of full moon, should pause to consider the following series:

PASCHAL FULL MOONS (Jerusalem Civil Time) A.D. Full Moon Day of Week A.D. Full Moon Day of Week 23\* Apr 24.53 Friday 32 Apr 14.47 Monday 24 Apr 12.86 Wednesday-33\* May 3.29 Sunday 25\* May 1.58 Tuesday 34 Apr 22.40 Thursday -26 Apr 20.60 Saturday 35 Apr 11.43 Monday 27 Apr 9.76 Wednesday 36\* Apr. 29.19 Sunday 28\* Apr 27.62 Tuesday 37 Apr 18.59 Thursday -29 Apr 17.21 Sunday 38 Apr 8.23 Tuesday 30 Apr 6.93 Thursday 39\* Apr 27.25 Monday 31\* Apr 25.94 Wednesday - 40 Apr 15.92 Friday Years marked with an asterisk (\*) have a Veadar spring.

Calendar Proof: 1 Nisan in 28 A.D. equals April 15, Thursday (Cf. Table I)

Hence 1 or 15 Tisri equals two days later in the week,

or Sabbath. Therefore the Sabbath healing of the impotent

man must have coincided either with the Feast of Trum
pets on the Tisri new year, or with the Feast of Taber
nacles on 15 Tisri.

The year in John 5 is known because Christ had shortly before attended His first passover, passing through Samaria about four months before the autumn harvest. Jer. 41:1-8 shows that sometimes in Palestine the grain was sown in the spring, to be harvested later in the fall. The feast in John 5 could not have occurred in 29 A.D., for the Baptist was then in prison, while in this chapter, Jesus refers to him as a current witness.

In the foregoing series of years from 24 A.D. to 39 A.D. inclusive, no Julian civil date of full moon occurs on Friday. In the year 33 A.D., the full moon next earlier than May 3.29 was Friday, April 3.71, J.C.T.

But this date was altogether too early for ripe barley in the vicinity of Jerusalem, and consequently, equally too early for this Passover in this year. And yet this is the popular date for those following the lead of the Rabbinical calendar. But, May 3.29 was the true paschal full moon in 33 A.D., as the 19-year cycle shows. Now obviously, if the ancient passover occurred on the civil day itself of full moon, as many insist, then in this 16-year period, in which it is certain that Christ died, some one of these paschal full moon civil dates must of necessity have coincided with Friday. But in no year belonging to this period is there a synchronism between Friday and the civil date of full moon.

However, in this series, the Jewish days of full moon are the same as the civil except in the years 24,27,30,31, and 40, when they are advanced one day because their full moons fall after sunset. Such a change results in a Jewish Friday full moon day in the year 30 A.D. But the year 30 A.D. could not have had a Friday passover for the following reasons:

- a. A Friday passover in 30 A.D., on the basis of the date being 14 Nisan, would signify that the Jews in that year observed their passover before the moon actually fulled--contrary to the Mosaic plan. (Moon fulled on April 6, 10:30 p.m.)
- b. A Friday passover on April 7, 30 A.D., makes the year 30-31 A.D. to be 385 days long, and causes both lunar years to begin on the same day of the week. Saturday.
- c. The year 30 A.D. was a common lunar year, as shown by the position of its full moon. Therefore this year as a crucifixion date, would not harmonize with the Bible demand for a Veadar year.
- d. If 30 A.D. had been the crucifixion year, then the moons of the year 29 A.D. would have to govern the Feast of Tabernacles in John 7, and the Sabbath healing of the blind man four days after the end of the feast. But the year 29 A.D. has no synchronism at all with the Feast of Tabernacles in the pre-crucifixion year, its moons coming on the wrong days of the week.
- e. And finally, the Nisan conjunction in 30 A.D. was in the region of apogee, as has also been recognized by Fotheringham and Schaumberger. There-

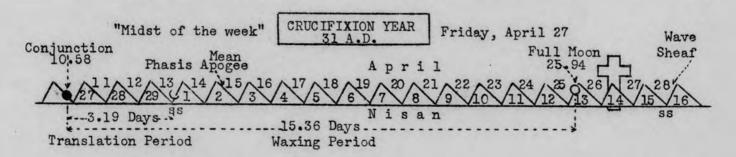
fore its translation period should be as long as possible, and not made shorter by one day. The actual passover in 30 A.D. was consequently on the Sabbath, April 8.

# 3. 31 A.D .-- The True Crucifixion Year

W		l"S	EVEN	TIETH WI	EEK"	(Daniel 9:24-27) *			
A.D.	Full Moon		13	Nisan	14	Nisan			
28	Apr 27.62	Tues	27	Tues	28	Wed		Veadar	
29	Apr 17.21	Sun	17	Sun	18	Mon			
30	Apr 6.93	Thurs	7	Fri ,		Sat			
31	Apr 25.94	Wed	26	Thurs		FRIDAY	"Midst of the week"	Veadar	
32	Apr 14.47	Mon	14	Mon	15	Tues			
33	May 3.29	Sun	3	Sun	4	Mon		Veadar	
34	Apr 22.40	Thurs	22	Thurs	23	Fri	End of "week"		

<sup>\*</sup> Called the "Week" prophecy.

Table "W" represents the seven-year period of Daniel's "seventieth week"—the period in the midst of which the sacrifice of Christ was to be made. All of these years fail of coinciding with a Friday passover except 31 and 34 A.D. But the year 34 A.D., because it came at the end of the period, does not therefore belong to the prophetic "midst;" and it was also a common Jewish year. Thus 31 A.D. is the only year left to conform to the Biblical and astronomical demands with respect to the crucifixion. Its



# SUMMARY OF ARGUMENT FOR 31 A.D. CRUCIFIXION

### Demand

- Daniel's prophetic "midst of the week" -- first "week" of the prophecy being established by eclipses, Assuan synchronisms, and others in Ezra and Nehemiah.
- 2. Biblical demand for a Veadar year
- Nisan conjunction in 31 A.D. was in region of apogee, calling for long translation period. 94
- 4. Moons of 30 A.D. must therefore agree with Feast of Tabernacles in pre-crucifixion year

### Fulfilment

-- Year 31 A.D. is in exact middle of the "seventieth week" period

D da ambaldanda

-- 31 A.D. is embolismic.
-- In 31 A.D., Tr. Period = 3.19 days
Wax. Period=15.36 days

(About the longest periods)
-- In 30 A.D., 1 Nisan = Sunday, March
25

Hence 15 and 22 Tisri

= Tuesday

Blind man was therefore healed
on Sabbath, on the fourth day
after the end of the feast
in harmony with context in
John 8 and 9

Note: From history also comes the confirmation that 31 A.D. was a Veadar year. In the year 1722, Thomas Shaw (Oxford) was travelling through the Holy Land. He noted that "barley, all over the Holy Land, was in full ear in the beginning of April [Julian Calerdar, Old Style]; and about the middle of the month [last of the month, New Style. England did not change her calendarbefore 1752.] It began to turn yellow, particularly in the southern districts." Dr. Shaw also made note that the Boccores, or first ripe figs were hard, and no bigger than common plums. He makes valuable comment upon these facts:

"According therefore to the quality of the season, in the year 1722, the first fruits could not have been offered at the time appointed; and would therefore have required the intercalating of Ve-adar, and the post-poning thereby the passover for at least a month."--"Observations of Barbary and the Levant," p. 137. Edinburgh, 1808.

Dr. Shaw is therefore an eye-witness that the year 1722 demanded a Veadar month in Palestine. But between 1722 and 31 A.D. are 1691 years, or exactly 89 19-year cycles. Therefore, according to the law of embolism, since the year 1722 was embolismic, the year 31 A.D. must have been embolismic also. Thus we have the double witness of history and even nature herself to the barley-harvest law in its relation to the law of the 19-year cycle. This significant historical testimony is a telling argument with reference to the efficiency and accuracy of the Mosaic barley-harvest law. The principles of this regulation of the Jewish year were as potential in Palestine after three thousand years and more as when Moses ordained them. They are a faithful lead to one of the vital features governing the crucifixion date.

The apogee positions of the moon in the years 30 and 31 A.D. were computed by Glen H. Draper, U. S. Naval Observatory, Washington, D. C. (Photostat of this computation in the Advent Source Collection)

			rusalem Civil Time	)		
		Day of	Tr.	in the	From Con.	Year
A.D.	Conjunction 1 Nisan	Teek	Period Full Moon	14 Nisan	to F.M.	Length
		7.7	(Days)		(Days)	(Days)
1*	Apr.12.49Apr 14	Thur	1.28 Apr 26.40	Apr 27	13.91	355
2	Apr 1.72Apr 4	Tues	2.05 Apr 15.91	Apr 17	14.19	384
3*	Apr 20.41Apr 23	Mon	2.36 May 4.90	May 6	14.49	46000000
4	Apr 8.44Apr 11	Fri	2.33 Apr 23.62	Apr 24	15.18	354
5	Mar 28.69Apr 1	Wed	3.07 Apr 13.22	Apr 14	15.53	355
6*	Apr 16.60Apr 20	Tues	3.17 May 2.09	May 3	15.49	384
7	Apr 6.25Apr 9	Sat	2.52 Apr 21.31	Apr 22	15.06	354
8	Mar 25.96Mar 28	Fred	1.80 Apr 9.33	Apr 10	14.37	354
9*	Apr 13.94Apr 16	Tues	1.83 Apr 28.02	Apr 29	14.08	384
10	Apr 3.38Apr 5	Sat	1.39 Apr 17.33	Apr 18	13.95	354
11	Mar 23.53Mar 26	Thur	2.23 Apr 6.90	Apr 8	14.37	355
12*	Apr 10.23Apr 13	Wed	2.54 Apr 24.92	Apr 26	14.69	384
13	Mar 30.28Apr 2	Sun	2.48 Apr 14.61	Apr 15	15.33	354
14*	Apr 18.09Apr 21	Sat	2.68 May 3.58	May 4	15.49	384
15	Apr 7.57Apr 11	Thur		Apr 24		355
16	Mar 27.25Mar 30	Mon	2.51 Apr 11.11		14.86	354
17*	Apr 15.27Apr 18		2.50 Apr 29.78	Apr 12	14.51	384
		Sun		May 1		354
18	Apr 4.89Apr 7	Thur	1.88 Apr 18.89	Apr 20	14.00	354
19 20*	Mar 25.26Mar 27	Mon	1.50 Apr 8.27	Apr 9	14,01	384
	Apr 12.00Apr 14	Sun	1.77 Apr. 26.21	Apr 27	14.21	355
21	Apr 1.03Apr 4	Fri	2.73 Apr 15.92	Apr 17	14.89	384
22*	Apr 19.74Apr 23	Thur	3.03 May 4.93	May 6	15.19	
23	Apr 9.00Apr 12	Mon	2.77 Apr 24.53	Apr 25	15.53	355
5/1	Mar 28.55Apr 1	Sat	3.21 Apr 12.86	Apr 14	15.31	383
25*	Apr 16.57Apr 19	Thur	2.20 May 1.58	May 2	15.01	354
26	Apr 6.28Apr 8	Mon	1.49 Apr 20.60	Apr 21	14.32	355
27	Mar 26.83Mar 29	Sat	1.93 Apr 9.76	Apr 11	13.93	383
28*	Apr 13.68Apr 15	Thur	1.09 Apr 27.62	Apr 28	13.94	355
29	Apr 2.82Apr 5	Tues	1.95 Apr 17.21	Apr 18	14.39	355
30	Mar 22.84Mar 26	Sun	2.93 Apr 6.93	Apr 8	15.09	384
31*	Apr 10.58Apr 14	Sat	3.19 Apr 25.94	Apr 27	15.36	354
32	Mar 29.95Apr 2	red	2.81 Apr 14.47	Apr 15	15.52	
33*	Apr 17.90Apr 21	Tues	2.87 May 3.29	May 4	15.39	384
34	Apr 7.58Apr 10	Sat	2.19 Apr 22.40	Apr 23	14.82	354
35	Mar 28.27Mar 30	rred	1.49 Apr 11.43	Apr 12	14.16	354
36*	Apr 15.21 Apr 17	Tues	1.56 Apr 29.19	Apr 3C	13.98	384
37	Apr 4.56Apr 6	Sat	1.21 Apr 18.59	Apr 19	14.03	354 355
38	Mar 24.62Mar 27	Thur	2.24 Apr 8.23	Apr 9	14.61	355
39*	Apr 12,31Apr 15	Wed	2.46 Apr 27.25	Apr 28	14.94	384
40	Mar 31-46Apr 4	Mon	3.30 Apr 15.92	Apr 17	15.46	355 384
41*	Apr 19.35 Apr 23	Sun	3.44 May 4.85	May 6	15.52	
42	Apr 8.87 Apr 12	Thur	2.90 Apr 24.15	Apr 25	15.28	354
43	Mar 29.58Apr 1	Mon	2.18 Apr 13.21	Apr 14	14.63	354
44*	Apr 16.60Apr 19	Sun	2.17 Apr 30.90	May 2	14.30	384
45	Apr 6.14Apr 8	Thur	1.63 Apr 20.07	Apr 21	13.93	354
46	Mar 26.40Mar 28	Mon	1.42 Apr 9.55	Apr 10	14.15	354
47*	Apr 14.11Apr 16	Sun	1.66 Apr 28.54	Apr 29	14.43	384
48	Apr 2.11Apr 5	Fri	2.63 Apr 17.26	Apr 18	15.12	355
49	Mar 22.35Mar 26	Wed	3.41 Apr 6.88	Apr 8	15.53	355
						384
50*	Apr 10.25Apr 14	Tues	3.52 Apr 25.77	Apr 27	15.52	354
						-

<sup>\*</sup>The asterisk marks the years having a Veadar spring.
Conjunction and Full Moon dates taken from Ginzel's "Chronologie."

	Iyar		Tamm	uz	Elul	Н	esva	n	Tebe	t	Adar	
Nisa	n	Siva	n	Ab		Tisr	i :	Kisl	eu S	heba		eadar
1-	1	1	1	1	1	1						
2	2	2	1 2	2-	2	2	2	- 2	2	2	2	2
3	3	3	3-	3	3	3	3	3-	3	3	3	3
4	4	4	4	4	Ĺ	4	1-	1	Ĺ	Ĺ	L	II-
2 3 4 5 6	3456-	5-	5	5	5	5	5	5	5	5	5-	5
6	6-	6	6	6	6	6-	6	6	6	6	6	6
7	7 8	2 3 4 5 6 7 8	3- 45678	1 2 3 4 5 6 7 8	34567 <del>-</del> 8	1 2 3 4 5 6 7 8	1 2 3 4 - 5 6 7 8	7	7	7-	7	7
8-	8	8	8	8		8	8	12345678	12345678-	8	12345678	8
7 8- 9 10	9	9	9	9-	9	9	9	9	9	1 2 3 4 5 6 7 8 9	9	1 2 3 4- 5 6 7 8 9 10
10	10	10	10-	10	10	10	10	10-	10	10	10	10
11	11	11 12-	11	11	11	11	11-	11	11	11	11	11-
12	12	12-	12	12	12	12	12	12	12	12	12-	12
13 14	13-	13 14	13	13 14	13	13-	13	13	13	13	13	13 14
14	14	14	14	14	14-	14	14	14	14	14-	14	14
15- 16 17	15 16	15	15	15	15 16	15 16 17 18	15	15	15- 16 17	15	15	15 16
16	16	16	16	16-	16	16	16	16	16	16	16	16
17	17	17 18	17-	17	17	17	17	17-	17	17	17	17 18-
18	18	18	18	18	17 18 19	18	18-	18	18	18	18	18-
19	19	19-	19	19	19	19	19	19	19	19	19-	19
20	20-	20	20	20	20	20-	20	20	20	20	20	20
21	21	21	21	21	21-	21	21	21	21	21-	21	21
22 <b>-</b> 23 24 25 26	27	22	22	22 23- 24	22	22	22	22	22-	22	22	22
21	23 24	23 24	23 24-	21.	23 24	23 24	23	23 24-	23 24	23	23 24	23
25	25	25	25	25	25	24	24	24-	511		24	24
26	26	26-	26	26	25 26	25	25-26	25	25 26	25 26	25 26-	25-
27	27-	27	27	27	27	27-	27	27				26
28	28	28	28	28	28-	28	28	28	27	27	27	27
29-	29	29	29	29	29	29	29	29	28	28-29	28	28
30	-/	30	-/	30-	-7		30)	(30)	27-	30 (	29 30)	29
,		,		10-		10	101	()0)		10	101	

From Table II, the day of the week is determined for any Jewish date. Hyphens mark the beginning of the week from the first day of Nisan. The first 235 days of the Jewish year -- to the end of Hesvan -- are always reckoned the same. In this period, the weeks never change their beginning day. Hence, upon whatever day of the week 1 Nisan falls, all the succeeding weeks to the last of Hesvan begin on the same week day. The 15th day of each month, throughout the whole year, is always the same day of the week as the new moon day. These permanent calendar features make it possible easily to compute intervening dates between the marked weeks. If, for example, 1 Nisan is Tuesday, then every hyphened date for the first eight months is Tuesday; and 24 Elul, counting from Tuesday, 21 Elul, would be Friday.

<sup>1.</sup> In a 355-day year, the weeks following Hesvan, which gains a day, begin a day later.

<sup>2.</sup> In embolismic years, the weeks in Veadar begin a day later than the weeks in Adar, to which has been added a day.

<sup>3.</sup> In a 383-day year, the weeks after Kisleu, which loses a day, and on to the end of Adar, begin a day earlier.

<sup>4.</sup> In a 354-day year, the weeks begin on the same day of the week throughout.

must conform is set forth by the prophecy of Daniel, and is confirmed by well authenticated eclipses and synchronisms. The new moon's place in the heavens in the spring of two consecutive years--30 and 31 A.D. has been calculated according to the perigee formula of Brown's lunar tables, and the calendar moon found to be in harmony with her calculated position. The embolismic spring of 31 A.D. in Jerusalem is confirmed by observation at the end of 89 cycles from that point of time on the same meridian. All of these witnesses--prophecy, eclipse, papyrus roll, lunar calculation, and history--bear testimony that April 27, 31 A.D., and this date alone, fully meets all the demands with reference to the death year of Christ.

Prepared for the Class in the History of Prophetic Interpretation by Grace E. Amadon March 11, 1942 31 In Bella Jud. VI. IX.3, Josephus speaks of the "ninth hour to the eleventh" as the time when they sacrifice (thuousin) at the feast called passover. In this text he does not mention the Jewish date of the sacrifices, which necessarily included both evening burnt offerings and paschal lambs. Some try to find evidence in this citation that the date was the afternoon of the Jewish fourteenth of Nisan. But when he wrote "Antiquities" twenty years. later, he made it very plain that such was not his interpretation, as the following translation from his Greek original shows:

"But when the fourteenth day had come, all, ready for departure, sacrificed, and sprinkled their houses with blood using bunches of hyssop, and having supped, burned the remnants of the flesh, as just ready to depart."—Ant.II.XIV.3. Cf. also Ant.III.X.5. He gives only one date for all the episodes!

# DATE AND HOUR OF THE CRUCIFIXION PASSOVER

In mediaeval centuries Jewish manuscripts were still extant with reference to the ancient passover date. Both Albiruni and Maimonides had these sources in hand, although they do not state what they were. In the seventeenth century Bucherius collected all available texts. This historical evidence is valuable, for it reveals a change in date of the ancient biblical passover. To this fact Maimonides is also witness. Questions relative to the passover date still continue to come in: (1) Was the national lamb slain on Thursday afternoon, or at sunset beginning of death Friday or about the made only as same time that Jesus died? The inquiries are both theological and astronomical basis.

In this number we give further evidence with regard to the ancient passover date and hour, leaving for another study the discussion of questions relating to the Johannine passover texts. We review the historical witness regarding the time of slaying the crucifixion passover—the date and hour. Our conclusions are based upon the following sources and authorities, and mainly concern the period of the Second Temple, from Egra to Josephus.

- 1. Pentateuchal Authority. There are altogether six specific examples of passover observance in the period from Moses to Josiah, besides repeated Old Testament instruction concerning the time of celebration. And in each instance the passover lamb was slain on the Jewish "fourteenth" of the first month. This date has never been disproved for the period of the First Temple.
- 2. <u>Current Witness under the Second Temple</u>. The Bible enumerates at least eight passovers in the time of the Second Temple, 7 a for which there are addi-

<sup>1</sup> Alfred Edersheim, "Life and Times of Jesus the Messiah," Vol. II, 481, 482. New York, 1923.

<sup>2</sup> Karaites: A. Reland, "Antiquitates Sacrae Veterum Hebraeorum," p. 275. 1717. 3 Talmudists: San. 43a.

<sup>4</sup> Ex.12:6-28; Num.9:5; Num.9:11; Josh.5:10; 2 Chron.30:15; 2 Chron.35:1. 5 Lev.23:5; Num.9:3; Num.28:16; Ezek.45:21.

<sup>6</sup> Even Maimonides, who dates the Talmudic passover on the fifteenth, writes as fellows regarding the time of Moses: "On the fourteenth day of the first month, when the passover offering was sacrificed," etc.—Tractatus Primus de Sacrificio Paschali, cap. dec. sec. XII. Londini: 1683.

Sacrificio Paschali, cap. dec. sec. XII. Londini; 1683.

7 Ezra 6:19; Luke 11:41; John 2:13; passover during John Baptist's imprisonment (Matt.12:1, Mark 2:23, & Luke 6:1); passover after John's death (John 6:4); crucifixion passover; Peter's passover (Acts 12:3,4); Paul's passover at Philippi (Acts 20:6,7).

apoeraphas literature,

tional sources Aristobulus, Philo, the Gospels, Luke, Paul and Josephus. The New Testament reports seven of these feasts, although no date is given. However, both the crucifixion passover and Paul's festival at Philippi are each tied to a definite day of the week; 8 and these synchronisms, together with the distorical statements, the sacrificial date of the passover as the fourteenth of Misan during the time of the Second Temple.

From these sources it can be demonstrated that the original laws of Moses governed the Jewish feasts until the Romans finally destroyed Jerusalem. And in addition, we are able to distinguish between law and custom in Josephus' own time, and that later enjoined by the Talmud when Jewish independence was gone, and when extreme measures were taken in order to hold the nation together.

### Passover Date Under Second Temple

- 1. We have early and late witnesses for the first passover date in the period time of the Second Temple. The building was finished in the sixth year of Darius I, on the 3rd of Ader (Ezra 6:15).9 In a few weeks the passover was of which celebrated, for whose date we have the following testimonies:
- a. "And the children of the captivity kept the passover upon the fourteenth day of the first month." (Ezra 6:19.)
- b. "And the children of Israel that were of the captivity held the passover the fourteenth day of the first month, after that the priests and the Levites were sanctified." (1 Esdras 7:10.)
- c. "And they offered the sacrifice which was called the Passover, on the fourteenth day of the same month [Nisan]." 10

On this occasion only certain priests and Levites had purified themselves, and they accordingly killed the sacrifices for all the rest of the people. It is significant that they set up the service of God "as it is written in the law of Moses" -- and not according to the new moons of Babylonia, from whence

<sup>8</sup> According to the narrative in Acts 20, the 20th day after Paul's passover at Philippi coincided with Sunday. By means of this synchronism the exact year can be calculated just as in the case of the crucifixion passover which coincided with Friday.

<sup>9</sup> Both the MT and LXX give 3 Adar in the 6th of Darius as the date. 1 Esdras 7:5 has the 23rd of Adar, which probably is the date of the dedication, the same as Josephus gives, although he has a different year. -- Ant. XI. IV. 8.) 10 Ant. XI. IV. 8. (Written about 100 a.D.)

about two decades before,

July 2

the Jews had recently come and by whose kings they were being governed. The Jew,

2. Our next witness is Aristobulus, who lived in the time of Ptolemy Philometor, to whom he dedicated his commentary on the laws of Moses. 11 The entire work is said to have been still extant in a library on Patmos during the Middle Ages. 12 Whether this is true or not, his description and explanation of the passover law and its relation to the full moon is of decisive importance to the ancient Jewish calendar, and has been cited again and again as Jewish authority throughout the Christian era. The following is what Aris
(second century D.C.:

tobulus says with regard to the Jewish passover date; and was written in the

d. "Since there are two equinoxes, spring and autumn, which are separated the first month after the evening when the moon is caught in the region opposite to the sum, just as even the eyes can see, certainly the sum is found holding a part of the vernal equinox, and the moon, on the contrary, a part of the autumnal." 13

The foregoing translation is from a Latin version that is even earlier than that published by Aegidius Bucherius (Antwerp, 1634), which Zahn mainwas in many respects the forerunner of Philo, who lived in the time of Christ. 3. The works of Philo the philosopher give a more complete analysis of the

Jewish feasts and sacrifices than even Josephus the priest. With regard to Philos previously cited, is the slaying of the passover lamb and its Jewish date, his statements, are precise and to the point:

e. "On this day every dwelling-house is invested with the outward semblance and dignity of a temple. The victim is then slaughtered and dressed for the festal meal which befits the occasion. The guests assembled for the banquet have been cleansed by purificatory lustrations, and are there. . . to fulfil with prayers and hymns the custom handed down by their fathers. The day on which this national festivity occurs may very properly be noted. It is the fourteenth of the month . . " 15

New York. 11 Eusebii Pamphili, "Chronici Canones," ed. Fotheringham. Londinii, 1923.
12 Emil Schurer, "History of the Jewish People," sec. div., v. III, p. 242.
13 Nico Nancelii, "Analogia Microcosmi ad Macrocosmon," secunda pars, col. 1204. Lutetiae Parisiorum, 1611. Tr. Amadon. 14 Zahn, "Forschungen zur Gesch. des N.T. Kanons," III. pp. 177-196.
15 Philo, "Special Laws II," sec. 148, 149. Tr. Colson. Loeb Classical Library. Vol. VII. Cambridge, 1935.

Concerning those who, through adverse circumstances, failed to make the paschal sacrifice with the mass of the nation, Philo represents God as vouchsafing an answer to Moses:

f. "'Mourning for kinsfolk,' He said, 'is an affliction which the family cannot avoid, but it does not count as an offence. . . But when its term is finished let not the mourners be denied an equal share in the sacred services, and thus the living be made an appendage to the dead. Let them form a second set to come on the second month and also on the fourteenth day, and sacrifice just as the first set, and observe a similar rule and method in dealing with the victims." 16 (Cf. Num.9:11.)

Philo's testimony is important for two reasons: (1) he says that he discovered his facts by the study of ancient history, necessarily that of his own nation: 17 and (2) he thereby compares festal customs in the time of Moses with those of his own day. Hence his descriptions can consistently be regarded not only as interpretations of ancient Jewish law, but also as an indication that the ancient sacrificial laws were being observed in the first century. If not, his investigation and research would obviously have taken note of the difference. His elucidation of the passover-full-moon relation is of additional importance. This we shall refer to again in a later study.

4. Josephus has several references to the passover "fourteenth" which ke commeets with early Jewish history; and yet they are source statements, for he insists that they represent Jewish practice in his own time. 18 They are therefore important because they are not only an exposition of the original passover law, but also because they agree with the testimony of Philo. In the September number of The Ministry we have cited one of these passages. 19 and the others are as follows:

g. "He commanded Moses to tell the people to have a sacrifice ready after they had prepared themselves on the tenth day of the month Xanthicus [Nisan] against the fourteenth . . " 20

<sup>16</sup> Philo, "De Vita Mosis II," sec. 231. Tr. Colson. Loeb Library, Vol. VI.
17 Philo, "Special Laws II," sec. 146. Loeb Library, Vol. VII.
18 Ant. II.XIV.6; III.X.5.

<sup>19</sup> Ant. III.X.5.

<sup>20</sup> Ant. II.XIV.6.

h. "But when the fourteenth day was come, all, ready for departure, offered the sacrifice and purified their houses with blood, using bunches of
hyssop for the purpose, and, having supped, burned the rest of the flesh, as
just ready to depart." 21 (Italics mine.)

which was written about 75 a.D., a Score of years before autiquities—
In "Wars," Josephus mentions the festal fourteenth just once:

i. "When the day of unleavened bread came round on the fourteenth of the month Xanthicus [Nisan], the reputed anniversary of the Jews' first liberation from Egypt, Eleazar and his men partly opened the gates and admitted citizens desiring to worship within the building." 22

All of these histori, sources.—Ezra, Aristobulus, Philo and Josephus—have the Sacrifical one and the same Jewish date for passover observence, namely, the fourteenth day of the first lunar month. This was the passover date for slaying and eating the lamb in the period of the Second Temple. (Cf. a, b, h, e, f.) It was the same date as commanded by Moses, and it had not changed in the time of Josephus. In the time of Christ, therefore, the national passover must have been ealebrated on the Jewish fourteenth. Let us consider the hour of the sacrifice.

Hour of the Passover Sacrifice

So long as the crucifixion passover is tied to the correct Jewish date the hour of the day when the lamb was slain makes little difference to the calendar problem. For all that the calendar can do is to connect with the Jewish date as a whole; and so far as the calendar dating is concerned, it matters that the whether the sacrifice was slain at the beginning, or in the afternoon of crucifixion Friday. Of the two-date or hour-the Jewish date is of first importance; for upon the date and its relation to the full moon the crucifixion calendar depends. If the Jewish date is wrong, the form of calendar is bound to be wrong. But the hour of day is not consequential to the calendar dark dating.

However, from the standpoint of passover law, and the relation of the antitypical Lamb to the symbolic lamb, it is of the greatest importance to know

<sup>21</sup> Ant. II.XIV.6. With regard to this passage, the Greek text is very revealing. Note the incidents belonging to the "fourtuinth."

22 Wars, V.III.1. This passover marked the beginning of the siege of Titus.

22 The Great Controverse, p. 399.

whether the death of Christ fulfilled the true type or not. And in addition, it is deeply significant whether the ancient sacrificial types had changed in the era of Christ's ministry. The Second Temple sources have clearly shown that the ancient passover date had not changed—even as late as Jose—had phus. But some maintain that the hour of slaying the passover had shifted, and that Talmudic law was operative in the time of Christ. On the contrary, there is evidence that such was not the case. The following is the historical argument:

Originally, the passover lamb was commanded to be slain "at even, at the going down of the sun" (Deut.16:6). The Karaites have always been witness to the plan of an after-sunset paschal sacrifice, 23 and even the few remaining Samaritans of today still slay their lambs about sunset. 24 In the testimony of Philo--citation "c"--it is to be noted that he has both sacrifice and banquet on one and the same Jewish date--the fourteenth. Only an after-sunset sacrifice and supper could agree with Philo's description. If the lamb were slain in the afternoon, it would have then to be roasted and eaten on the subsequent evening. Hence two Jewish dates would be involved--not one date only.

Josephus also follows the analogy that demands an evening sacrifice. In citation "f," he offers the sacrifice, purifies the house with blood, and, after supper, burns the remnants of the feast-all on one date, the Jewish four-teenth. Likewise in Ant. III.X.5, on the same fourteenth day of Nisan, Josephus has the lamb sacrifice offered in Egypt, and then adds, "and just so we keep it in companies, leaving nothing of the sacrifice intil the morning." Again he ties both sacrifice and supper to one single date-the fourteenth. All of these instances imply that the passover lamb was slain about sunset.

We have, however, still another episode. Both "Wars" and "Antiquities"
mention a circumstance as occurring about the time of Jesus' birth. This incident is decisive with regard to the evening sacrifice of the paschal lamb,
The story is as fellows:

Herod the Great had just died, and Archelaus had announced himself as the successor according to the king's testament. He gave a very expensive funeral feast, with public mourning for seven days. Toward the end of this display he went up to the temple to deal with the requests and clamors of the people who had come from far and near to keep the passover. Hereupon many came in crowds toward evening, and at the end of the day when mourning for the dead king had ceased, began to mourn for the priests whom Herod had slain. Their clamors and cries increased, the seditious making for the temple, while the multitude en masse was without the city with lambs in their hands, ready for the sacrifice. Archelaus sent footmen and horsemen to quell the sedition, and they came upon the people in the very act of slaying their passovers.

<sup>22</sup> Reference 2.

24 Palestine Exploration Fund, Quarterly Statement, January, 1902, London.
25 Ant. XVII.IX.3; Wars II.I.2,3.

Although it takes several long paragraphs for Josephus to relate this episode, yet it is all one scene, and that one descriptive of an evening passover ceremony at the very period when Christ was been. Consequently there should but be no question that the sunset sacrifice of the passover was still in practice throughout the period of the Second Temple.

It was highly essential that no change in the passover law should have occurred before the death of the true Passover. If such had happened, then there would have existed confusion in the identification of the Messiah; for the real Christ had to show perfect fulfilment of the original passover law. Jesus therefore celebrated His last passover at the hour ordained by Moses, and He was fully cognizant that "His hour had come" (John 13:1).

Those who insist that the national lamb was accustomed to be slain in the afternoon of the Jewish fourteenth in the time of Christ base their conclusion upon a point of time that would not only have been indifferent to the crucifixion calendar, but also would have had no connection with the original passover law, and could not therefore have been prophetic of the death of the true Messiah.

grass amadore December 5, 1943

The statement of Josephus in Wars VI. IX. 3 is frequently cited as proof that in the time of the Tewish revolt the pasetral lambs were slain in the afternoon of the Jewish fourteently.

#### Insert I

Moreover, the calendar of the Book of Jubilees is based upon a 364-day solar year--exactly fifty-two weeks. According to this inconsistent assumption, each Jewish festival would always have occurred on the same day of the week!

### Insert 2

In Antiquities, Josephus further explains his statement in Wars VI.IX.3, namely, that it was the evening lamb sacrifice that was offered "about the ninth hour" (Ant. XIV.IV.3), or "at the ending of the day" (Ant. III.X.1), after which, obviously, followed the slaying of the paschal lambs at sunset when the lamps were lighted (Ex.30:8) and the incense was burned (Ant. III.VIII.3). This was the hour called ben-ha-arbayim, which did not include the whole afternoon, as in the later Halacha, but only the period from sunset to darkness.—W. Bacher, Jewish Quarterly Review, July, 1893, Vol. 5, pp. 684, 687.

In Matt.12:38-40, the scribes and Pharisees asked a sign of Jesus, and

he gave them one in the language of prophecy. The "sea" in the narrative of

Jonah represents Assyria, the fentile nation whose "heart," or midst (Jonah

2:3, margin), was its capital Nineveh. The antithesis of this language was

God's own nation—the Jews—whose symbol was the "earth," and whose capital

or "heart" was Jerusalem, the seat of Jewish activity. With Isaiah, the compeople, or land,

parison of the Jewish to the human body—head, heart, neck, foot—was a

favorite symbolism. In prophecy, the symbol earth never represents heathen.

powers, all of whom in Daniel's visions, come out of the "seap" or else are

represented by water of some kind, as the various rivers like Nile and Euphra Language.

The argument:

As Jonah was in the "heart" or midst of the sea three days and three nights, he might have taken the same length of time to give the Lord's message to Nineveh, which was "an exceeding great city of three day's journey" (3:3). But instead, he apparently gave the message in one day, whereupon the king of Nineveh and his people repented with fasting and crying unto God.

Accordingly, the contrasting sign which Jesus gave the Pharisees was not altogether based upon Jonah's literal appearance in Nineveh, for he does not appear to have been there three whole days and nights; but instead, upon Jonah's three days and nights in the sea. And on this basis, the argument of Jesus would be as follows:

As Jonas was three days and three nights in the "heart" of the sea, which was a symbol of Assyria and its capital Nineveh, so shall the Son of man be three days and three nights in Jerusalem, the very heart and midst of the Jewish nation.

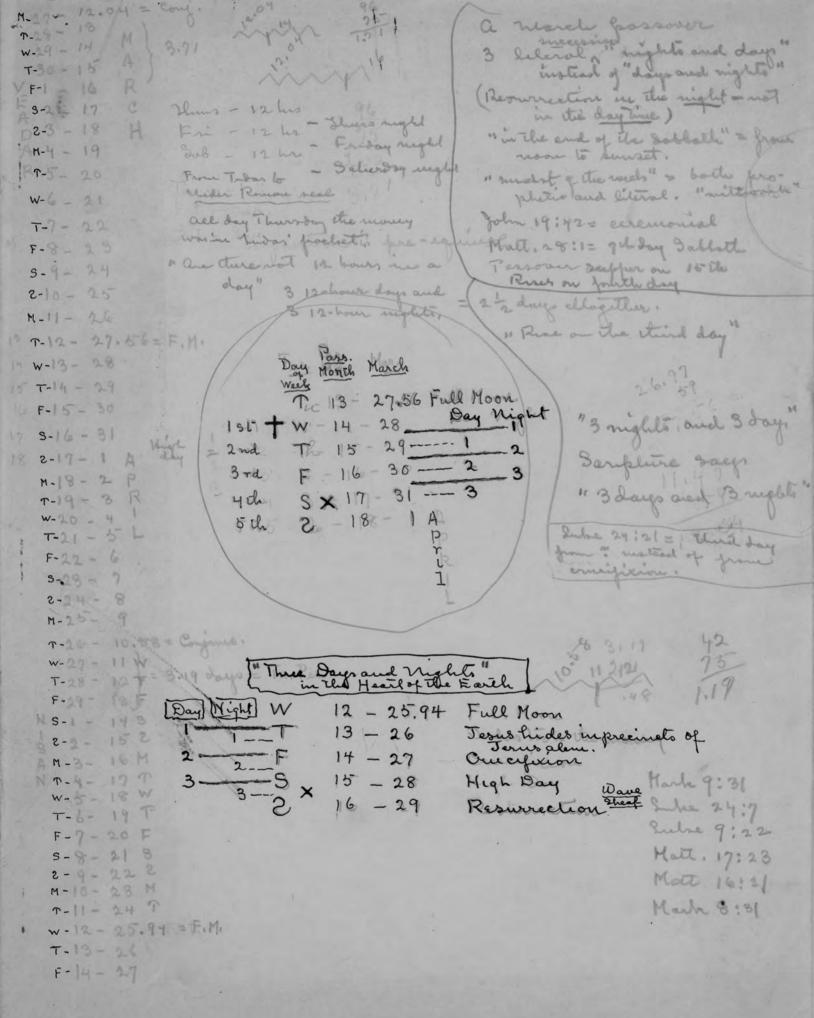
As strange as it may seem, in the entire public ministry of Christ, He accurded never been able to remain three whole consecutive days and nights in Jerusalem or its immediate precincts. Aside from the last passover, Jesus attended four other feasts only that we know of, and in each instance, the or also, as on the occasion of the first passover, Jesus did not give them of fortunity. Jews tried to kill Him almost immediately, During passion week the gospel narrative follows in detail the activities of Jesus up to Wednesday evening.

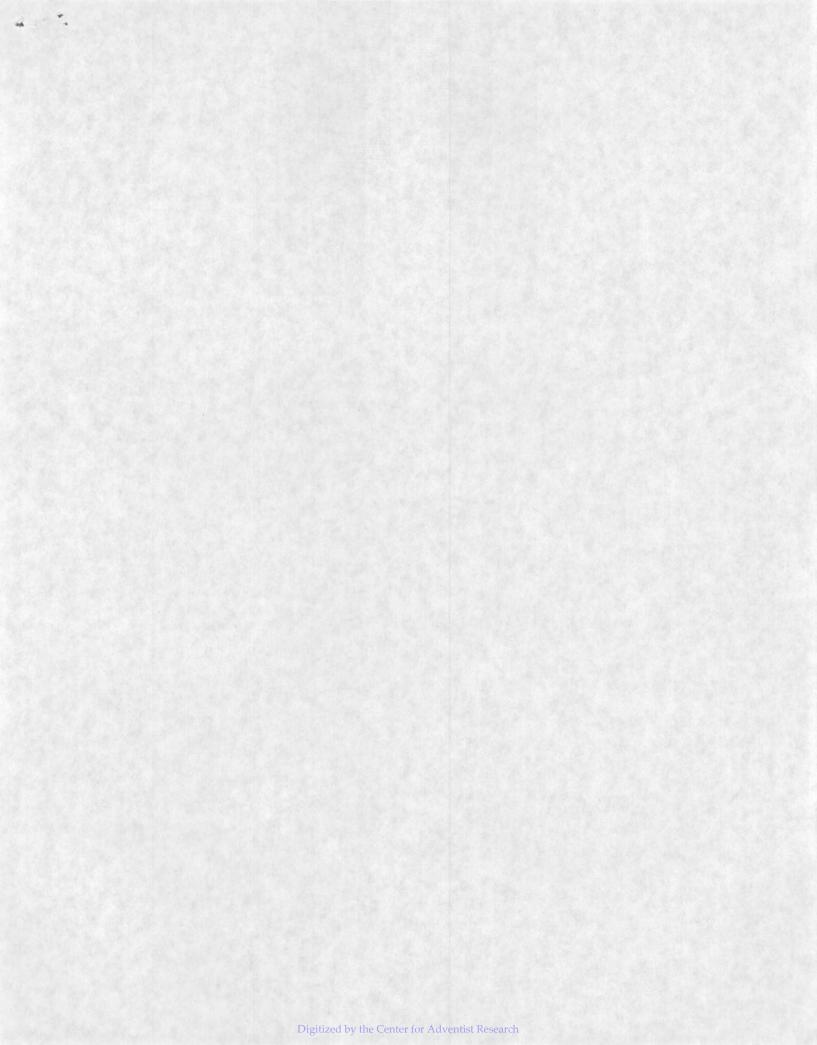
During the day He taught in the temple, and at night He went into the mount of Olives (Luke 21:37). There seems to be no record of His whereabouts on Thursday except that He was incognito (John 12:36), perhaps the same as in John 1 (verse 26). Nevertheless, He was without the city walls when He said to the disciples, "Go ye into the city," etc. (Mark 14:13). But without doubt, He was mingling unrecognized with the multitude assembled to observe the passover.

Obviously, the three days must have been Thursday, Friday, and Saturday; and the three nights, Thursday night, Friday night, and Saturday night. But there is no evidence implying that Jesus was in the grave all this time any more than that Jonah had departed life while in the great fish under the sea.

During the first half of the time outlined by Jesus, He was being trailed by Judas, then placed under arrest, tried, and nailed to the cross. During the day second half He lay in the temb. But at no time was He in the midst or "heart" of the earth, or even under it. For his burial was above the earth in the Funtament, tomb. In no sense is the grave the antitype of the word "heart" (Hebrew

The foregoing is my own personal explanation of Matt.12:40, and does not at all represent any decision on this text by the General Conference.





```
Jerusalem (2nd time) -- "coming in and going out" (Acts 9:28).
                           Paul's second recorded vision (Acts 22:17-21) -- the trance took
                              place while he was praying in the temple.
                  44 Death of Herod Agrippa I (Acts 12:20-23) -- 3rd year of Claudius Cae-
                              sar, who reigned 41-54 A.D. (Century Dictionary).
                          Agrippe obtained sovereignty of Judaea early in the first year of Claudius, and reigned three full years ("Antiquities," XIX, 8.2;
                              XIX.5,1). Hence death must have been in 44 A.D., an important
                              epoch in Paul's ministry; for soon after, the famine began, and
                              Paul and Barnabas go up to Jerusalem with relief.
                           Famine could not yet have begun in Judaea at the time of Herod's when distinct
                              death, for if a shortage of food had prevailed in his jurisdic-
                              tion, it would have been futile for Tyre and Sidon to negotiate
                              peace with him, since their very motive was to obtain food (Acts
tamme = 5-7 of Chamburs
                              12:20). It is logical, therefore, to date Paul's third journey
  Southur 20-2-5 ( Note)
                              to Jerusalem the year after Herod's death, or 45 A.D. or fall of 44
               -¥>45 Jerusalem (3rd time) -- to take relief to Judaea (Acts 11:30; 12:25).
                          Paul's third recorded vision, "how that he was caught up into para-
                              dise"(2 Cor. 12) -- one that was "early in his Christian exper-
                              ience" ("Acts of Apostles," p. 469). This vision was a trance
                              (Greek, exoracia), like Peter's trance in Acts 10, when "he saw
353 83
                              heaven opened." So Paul was caught up "to the third heaven"
                              (2 Cor. 12:2-4) in this vision.
                           Famine began toward end of 4th year of Claudius Caesar ("Antiqui-
                              ties, " XX, 2, 2 -- Dr. Hudson's footnote).
               45-46 First Missionary Journey (Acts 13, 14). Asia Minor.
                           Jerusalem (4th time) -- First Christian Council. Paul's third
                   52
                              trip was just 14 years after the second (Gal. 2:1). again Pauli
                      Second Missionary Journey (Acts 16-18:22). Europe.
                           Corinth -- Paul meets Priscilla and Aquila, who had lately left Rome because of Claudius Caesar's edict against the Jews.
                                      Claudius Caesar dies -- reigned 13 years, 8 months, 20
                                         days ("Antiquities," XX,8,1). Cf. XIX, 5,1 and note. Began to
                                                                                reign soon after baris 24,
                                       Paul's fourth vision (Acts 16:9).
                                                                               Probably died in Outster.
                                       Paul's fifth vision (Acts 18:9).
                                      Paul teaches in Corinth a year and a half (Acts 18:11)
                          Ephesus, where he left Priscilla and Aquila (Acts 18:18). Perhaps work-
                          Jerusalem (5th time) -- End of second tour (Acts 18:22). Spring.
               56-60 Third Missionary Journey (Acts 18:23-Acts 21). Asia and Europe.
                          Felix procurator in Judaea -- appointed by Claudius in 53 A.D., early
                              in 13th year of Claudius ("Antiquities," XX, 7, 1).
                           Galatia and Phrygia (Acts 18:23)
                          Upper Coasts of Asia Minor (Acts 19:1).
                                      Disputing in synagogue three months (Acts 18:8).
                                       Teaches in school of Tyrannus two years (Acts 19:9).
                                       Sends Timothy and Erastus into Macedonia (Acts 19:22).
                                     "Asia for a season." From Ephesus writes first letter to Corinth ("Acts of Apostles," p. 298). A Saller part of May alexa.
"Diana of the Ephesians." "Over three years" ("acis of ap.," p.291)
                          Troas (2 Cor. 2:12; "Acts of Apostles," p. 323). Paul disappointed
                              that Titus had not come (2 Cor. 2:13).
                                       Plans to spend winter in Macedonia (1 Cor. 16:6).
                                       Desires to be in Jerusalem by next Pentecost (1 Cor. 16:
                                        8 and Acts 20:16).
                          Macedonia (Acts 20:1).
                                                                                       150 = 2 Cor. 8:10
                           Illyricum (Romans 15:19-24).
                           Greece -- three months (Acts 20:3).
                                       Letter to Galatians ("Acts of Apostles," p. 383).
                                       Letter to Rome from Corinth ("Acts of Apostles," p. 373,
                                         and Rom. 15:23; 16:1).
                          Philippi -- second letter to Corinth ("Acts of Apostles," p. 324).

Mentions vision "above fourteen years ago" (2 Cor.12:2).

Feast of Passover ("Acts of Apostles," p. 390).

Troas -- five days "after days of unleavened bread" ("Acts of Apostles," p. 391). Remained seven days.
                           Farewell sermon and Communion -- evening after Sabbath.
Jerusalem (6th and last time)
```

In several of the books by Ellen G. White, there are important references to the ancient Jewish passover. But the word passover, as employed, or Nisan is by no means limited to the fourteenth day of the first month Abibrathe OT paschal date—and its true meaning has to be obtained from the context. A similar usage of this word is also true of biblical writers and of Josephus. When Luke wrote his gospel, he took pains to explain that the "feast of unleavened bread" was also called <u>Passover</u> (Luke 22:1). On the contrary, Moses made sharp distinction between these two expressions, stipulating that the passover was to be observed "in the fourteenth day of the first month," and the feast of unleavened bread, "in the fifteenth day of this month." (Sw. 23:5,6)

We shall here examine the key statements in the Spirit of prophecy relatness. ing to the passover, and show their harmony with an ancient historical wit.

The beginning of the passover season is described in "Patriarchs and Prophets," page 537, where obviously the beginning of the month itself--not the passover date--is implied as corresponding to the last of March and the beginning of April. The time limits here mentioned would not cover much more than a week, and they could not therefore signify the whole paschal month, nor even the first half of it ending at full moon. But they can consistently represent that variable period in which the passover month customarily began. However, in certain years, the actual beginning was toward the middle of April, or even as late as the third week. This variation was caused by the nearly eleven days' difference between the common lunar year of 354 days, and the common solar year of 365 days. Every two or three years the accumulated difference difference was added to the lunar year, thus advancing the subsequent new year. In this manner the calendar moon kept pace with the sun, or the lunar year made to agree with the solar.

prior to the feastlis In "Desire of Ages," pages 75, 76, the "time" of the passover journey.

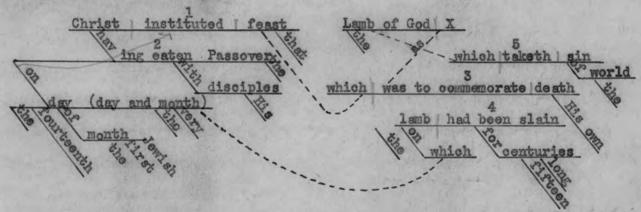
described. The portrayal is similar to the foregoing citation from "Patriarchs and Prophets." The songs are mentioned that beguiled the journey; the evenings are characterized as delightful, for the moon was approaching the

full, as is always the case between conjunction and opposition, or from new and moon to full moon. This pilgrimage was necessarily earlier than the passo-hence therefore the word passover here could not represent the paschal date. In "Desire of Ages," page 703, the whole week of unleavened bread is included in the word passover; while on page 774 of the same book, this word is applied to services that followed the paschal sacrifice, such as are described in Num.28:17025. Frequently, therefore, the word passover is used in a general sense by this author, and it would be inconsistent to read into such language a definite date, unless specifically stated.

But, as an illustration of an exactly dated construction with reference to the word passover, "Great Controversy," page 399 can be cited:

"On the fourteenth day of the first Jewish month, the very day and month on which, for fifteen long centuries, the Passover lamb had been slain, Christ, having eaten the Passover with His disciples, instituted that feast which was to commemorate His own death as 'the Lamb of God, which taketh away the sin of the world.'"

That this important statement may be fully understood, and in order to show what word the phrase "on the fourteenth day" qualifies, the sentence is here presented in diagram:



This sentence is complex, consisting of one principal clause and three subordinate relative clauses. The phrase "on the fourteenth day," etc., is a time phrase, and hence must qualify some werb or participle in the sentence, and that in such a way as to keep the whole sentence intact. There are.

gether five action words in this citation, and these have been numbered 1, 2, 5, 4 and 5 in the diagram. The obvious action word which this time expression should qualify is either "1" or "2", and the chronological meaning to the crucifixion date is the same, whichever word is chosen. But if the phrase in question should be attached to the relative clause "4," this clause would thereby lose its antecedent "day and month," whose office is expressly to the clause "4" to the main sentence, but would fail entirely of so doing unless very anchored in some other place than in the clause itself. In other words, if the time phrase "on the fourteenth day," etc., should be placed with the verb "had been slain," then relative clause "4" would thereby include both the connecting word "which" and its antecedent "day and month," and as a result, all of clause "4" would be out off from the main sentence, and become grammatically distorted. Hence there is no alternative but to leave this time phrase where it has been placed in the diagram.

The foregoing diagram plainly teaches an important fact relating to cruaccording to the Spirit of prophecy,
cifixion chronology, namely, that the Jewish date of the crucifixion was the
fourteenth day of the first Jewish month, and that on this date (1) the lamb
was slain, (2) Jesus ate the passover supper, (3) instituted the communion
feast, and (4) was Himself slain for the sin of the world.

Let us now compare a few statements from Josephus regarding the ancient passover date. He says:

"In the month Kanthieus, which is by us called Nisan, and is the beginning of our year, on the fourteenth day of the lunar month, when the sun is in Aries. . . the law ordained that we should every year slay that sacrifice which I before told you we slew when we came out of Egypt, and which was called the Passover, and so we do celebrate this passover in companies, leaving nothing of what we sacrifice till the day following."

And in this same connection Josephus further states:

"The feast of unleavened bread succeeds that of the passover, and falls on the fifteenth day of the month, and continues seven days . . . " 2

<sup>1</sup> Ant.III.X.5; XI.IV.8; B. V.III.1. These citations will be further analyzed in Part II of this study.

2 Ant.III.X.5.

And then again:

"But on the second day of unleavened bread, which is the sixteenth day of the month, they first partake of the fruits of the earth, for before that time they do not touch them." 3

And these statements from this ancient priest and Pharisee are also in harmony with the following from the "Desire of Ages:"

"The Passover was followed by the seven days' feast of unleavened bread. On the second day of the feast, the first-fruits of the year's harvest, a sheaf of barley, was presented before the Lord . . . The slain lamb, the unleavened bread, the sheaf of first-fruits, represented the Saviour.

"Christ arose from the dead as the first-fruits of those that slept. He was the antitype of the wave-sheaf, and His resurrection took place on the very day when the wave-sheaf was to be presented before the Lord." 5

In other words, the resurrection of Jesus took place on the second day of the feast of unleavened bread when the wave-sheaf was offered. Therefore, according to " Desire of ages," since resurrection Sunday was the second day of the feast, then the Sabbath during which Jesus lay in the grave must have been the first day of the feast, and, according to Lev. 23:6,7, this first day of the feast of unleavened Tervish (Nisan or abib); bread was the fifteenth day of the first month, a holy convocation. Consequently. Friday of the crucifixion was necessarily the fourteenth day of the first month. This argument in the "Desire of Ages" is in perfect agreement with the long sentence from "Great Controversy" which was put into the form of a diagram.

The Spirit of prophecy offers further enlightenment regarding the symbolic wave-sheaf:

"From the harvest fields the first heads of ripened grain were gathered. and when the people went up to Jerusalem to the Passover, the sheaf of firstfruits was waved as a thank-offering before the Lord. Not until this was presented could the sickle be put to the grain, and it be gathered into sheaves."

<sup>3</sup> Ant. III.X.5.

<sup>4</sup> E.G. White, "Desire of Ages," p. 77. Conflict Scries. 5 E.G. White, "Desire of Ages," pp. 785, 786.

<sup>6</sup> Ibidam.

Similarly Josephus says, "for before that time they do not touch them." And so also Leviticus,

"And ye shall eat neither bread, nor parched corn, nor green ears, until the selfsame day that ye have brought an offering unto your God: it shall be a statute for ever throughout your generations in all your dwellings." 7

But after the division of Solomon's kingdom, no passover is recorded in the Bible until the time of Hezekiah -- a period of at least two centuries. And up to the time of Christ there are only two more passovers of record. When the gospels and the apostolic letters were written, changes were over-Imperial taking the Jews and their feast customs. Empirical Rome continued to harass In the third and fourth centuries, and vex them. Under Hadrien and Constantius the persecution became so severe that all religious exercises among the Jewish people, including computation of the of the calendar, were forbidden under penalty of extremes in punishment. The Jews sought refuge in dens and caves, and hence could not announce their feasts. In the words of Sidersky, they went through "iron and fire." As a result, the festal dates became uncertain, for intercalation was irregular. The paschal lambs were no longer sacrificed, and the OT "fourteenth" of the first month was falling into discard.

argumen And when ecclesiastical Rome came into power, the passover problem reached a new peak. Church canons and laws forbade Christians from observing the same passover date as the Jews; Christians were in conflict if they even reor the Eucharist, ceived unleavened bread, from the hand of a Jew! John and his disciples in Asia Minor had observed the passover of the crucifixion on the fourteenth day of the first month, while the Europaeans had come to keep the passover of the resurrection on another date. 10 The Jews challenged the Christians as to the accuracy of their Easter tables. This from Epiphanius in his testi-

Lev. 23:14.

<sup>8</sup> Cf. Jewish Encyclopædia, art. Calendar.

<sup>9</sup> M.D. Sidersky, "Etude sur l'origine astronomique de la chronologie juive,"
Mémoires présentés par divers savants à l'Académie des Inscriptions et belleslettres de l'Institut de France. Vol. XII, Part 2. Paris, 1913, 641.
10 Joseph Scaliger, De Emendatione Temporum, Francofurt, 1593, 105.

mony against the Audians, indicates the existing antagonism:

"For you, brethren, who have been redeemed by the precious blood of Christ, ought to celebrate the passover accurately and with all diligence after the equinox, taking care not to observe the feast with the Jews. For there is now no fellowship for us with them. For they are even mistaken in the very calculation which they think to construct, so that they are found to err in every way, and to depart from the truth."11

The Arabian chronologer Albiruni, about 1000 A.D., produced the first complete record of early Jewish calendation, aside from the Bible and Josephus.

He makes the following statement regarding the Jewish attitude with reference to the Christian passover:

"The followers of Jesus wanted to know beforehand the Passover of the Jews, in order to derive thence the beginning of their lent. So they consulted the Jews, and asked them regarding this subject, but the Jews, guided by the emmity which exists between the two parties, told them lies in order to lead them astray." 12

And with the increase of Jewish sectaries came charges and recriminations in the midst of Jewry itself. We have the testimony of Yefet ben 'Ali the Karaite, who challenges the Rabbanites with an oft-repeated Karaite accusation:

"They have introduced the calculation of the calendar, and changed the divine festivals from their due seasons." 18

And similar testimony comes from Scaliger, who says that he learned the truth from Jews, not from Christians:

"Yet these ancients [the Church], when they used this cycle, thought that they were celebrating the passover in the Jewish Nisan, which instead was the [Jewish] Adar in the years 2,4,5,7,10,12,13,15,16,18, as the Table shows"--10 years out of 19; 14

Under such conditions, it is very simple to account for the almost forgotdisclaimed,
ten OT "fourteenth" of Nisan, which today is more or less challenged by both
Jewish and Christian scholars alike as the ancient passover date. Not only

<sup>11</sup> J.B. Cotelerius, SS. Patrum qui temporibus Apostolicis floruerunt, Amstelaedami, Volumen secundum, 1724, 218.

12 Albîrûnî, The Chronology of Ancient Nations, tr. Sachau, 1879, 302.

13 Philip Birnbaum, The Arabic Commentary of Yefet ben 'Ali the Karaite on the Book of Hosea, Philadelphia, 1942, XXVIII.

14 Scaliger, De Emendatione Temporum, Francofurt, 1593, 107.

is the season and Jewish date of the ancient passover called in question, but the time of day when the lamb was slain, and the hour and date when the lamb was eaten—these are questions which have commonly perplexed and embarrassed students of the Bible.

which periodically averlaps have civil months,

It was the paschal month, however, that complicated the Millerite problem in 1844. These students of prophecy had to choose between a March-April Nisan and an April-May Nisan for a Jewish month of the ancient type. Their argument in lunar time was difficult because it had to be worked out on a meridian far distant from the land where the prophecy had originated, together with the Jewish laws governing the ancient Jewish year. Again and again by millerite leaders the question asked whether barley would be ripe in Judaea in the period ending in March and in early April. The answer to the Millerite quest came in part from a study of husbandry in the Near East. Especially helpful was the ancient Jewish calendar as worked out by John David Michaelis, 15 whom Kugler has recognized as first in the field to investigate the ancient Jewish months. 16 And, by an evaluation contrary to the reckoning of the modern Jewa 30-day period in ish calendar, the paschal month was identified with April-May in 1844, with a resultant "seventh month" in October This conclusion was based upon the pentateuchal passover laws, and upon the laws of agriculture in Palestine. And the season of the "seventh month" thereby harmonized with the "midst of the week" in Daniel nine.

The seriousness of the questions confronting biblical chronology is increasingly recognized by all students of the Bible. The Millerites faced a problem in lunar chronology and solved it. The Spirit of prophecy arose, and has placed on record indisputable principles relating to the ancient Jewish year, including also a remarkable outline of biblical dates and periods. The

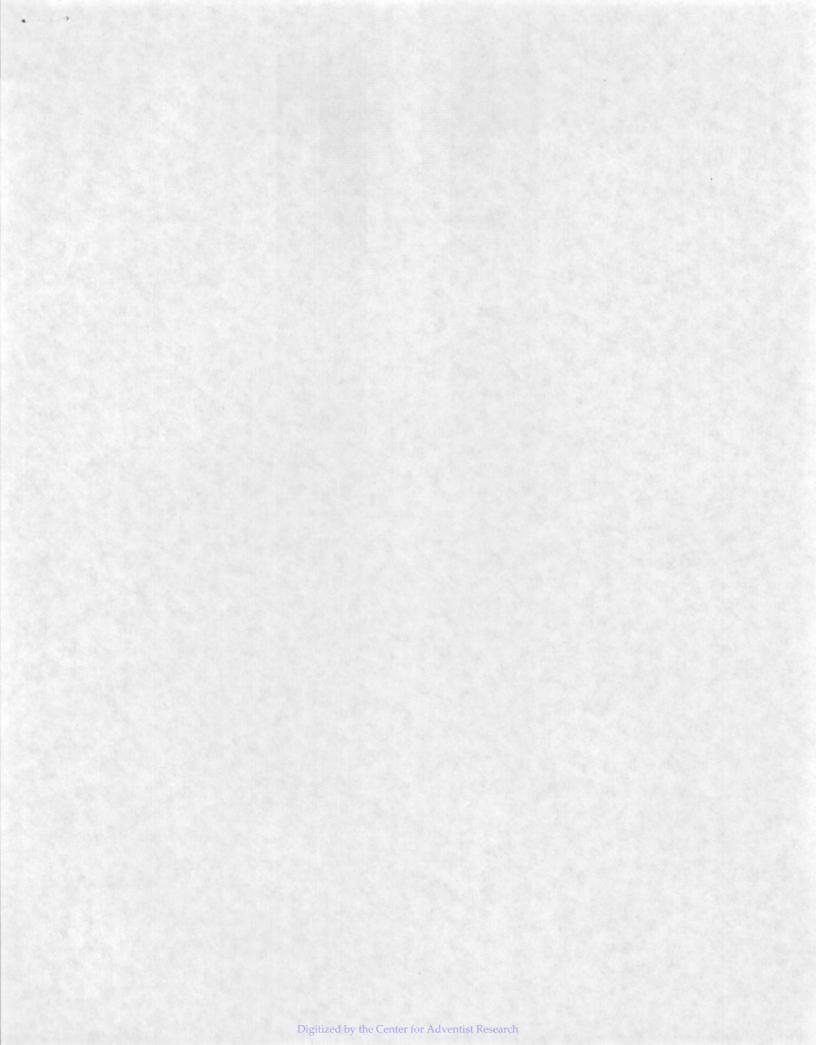
<sup>15</sup> Dissertation on the Hebrew Months, tr. Bowyer, London, 1773.
16 Franz Xaver Kugler, Von Moses bis Paulus, 1922, 134. Munster in Westf.

importance of understanding these principles and dates is suggested in the following admonition from the "Desire of Ages:"

"It would be needful for His church in all succeeding ages to make His death for the sins of the world a subject of deep thought and study. Every fact connected with it should be verified beyond a doubt."

Grace amadon. June 24, 1943.

<sup>17</sup> Ellen G. White, Desire of Ages, 571. Conflict Series.



After the destruction of the second temple in 70 A.D., when the lamb was no longer sacrificed among the scattered Jews, the expressions "passover" and "unleavened bread" came to be used interchangeably. In Josephus we find instances of such usage. But in the OT sense, Greswell, for example, sees an important difference between these two feast terms:

"It is possible to distinguish between the Paschal sacrifice as such, and the feast of unleavened bread. The proper name of the former is to paschathe proper name of the latter, ta azuma; the proper time of the former was the fourteenth of the month Nisan-the proper time of the latter, from the fifteenth to the twenty-first inclusive."

And favoring these time limits, Daniel fasted just twenty-one days in the first month of Cyrus' third year (Dan.10:1-13). Obviously, he must have counted the passover as the fourteenth, and that the additional seven-days' feast reached exactly to the twenty-first day inclusive. This problem was perplexing to early Christianity, and one frequently discussed.

"In the beginning of the Christian church, the Apostles and those who followed them for one hundred years after, kept the passover of the Jews on the fourteenth day of the first month." This statement is by Scaliger and he based his deduction upon "Eusebius, ancient ecclesiastical history, and Nicephorus Callistus." Luke's record shows conclusively that Paul kept the passover and also his churches (Acts 20:6). Doubtless the other apostles did likewise. And two centuries later, in a letter to bishop Victor at Rome, the Christian priest Polycrates, Sirst mentions Philip and his three daughters, John the Beloved, his disciple Polycarp, Thrasus, Saggeris, Papirius, and Melito, and then adds:

<sup>(</sup>Bella) 1 B. Jud. II. I.3; Ant. IX. XIII. 2,3; XVIII. 12, Ele.

2 Greswell, Edward, "Dissertations upon the Harmony of the Gospels," vol. I, p. 71. Oxford, 1850.

3 Scaliger, Joseph, "De Emendatione Temporum," p. 105. Francofurt, 1593.

4 White, E.G., "Acts of the Apostles," pp. 390, 391.

5 So spelled in the original Greek.

"These all observed the fourteenth day of the passover according to the gospel, desisting in no respect, but following the rule of faith." 5

And hence these communicants of western Asia were called Quartodecimans, or "fourteenth-day" people, and they strenuously contended for the paschal institution which the Apostle John had established. Bishop Victor condemned and excommunicated these Asian churches. In response, Irenaeus, Gallic bishop of Lugdun, wrote to Victor, charging him with implety for his wicked deed.

This fourteenth-day controversy continued even as late as the eighth century, especially among the Celtic churches of the north. 8 They claimed origin from the East, and insisted that their forefathers had been taught by the Beloved John with regard to a fourteenth-day paschal celebration. In regulating their feasts they adopted the lunar cycle of Anatolius which was based upon a fourteenth-day passover on any day of the week. Rome protested, and eventual eventually the Celts yielded to her missionaries, who taught the passover "of the resurrection" along with a "fifteenth-day" crucifixion. In fact, many the assumption as factual presbyters in the West accepted a supposed Jemish tembing that Jesus died on the fifteenth day of the first Jewish month. 10

Thus the cycle of Anatolius of Alexandria -- one of the earliest -- did not meet with favor at Rome. At this time nearly every church had its paschal cycle, and every bishop was necessarily a calculator! 11 The council of Nicaea did little more than to stipulate that the passover should occur on the Lord's in aries. day next after the first full moon after the spring equinex. 12 Later on in Gaul, the cycle of Victorius flourished, 13 while Gallican churches under

<sup>6</sup> Eusebius Pamphilus, "Ecclesiastical History," p. 223. Tr. Cruse. London, 1847.
7 Nicephoris Callisti, "Ecclesiasticae Historiae," lib. XII, p. 292. Paris, 1630.

Migne, J.P., "Patrologiae," SL Cursus Completus, tom. IXVII, col. 470. 1848.

Dionysii Petavii, "Animadversiones Epiphanii Opus," p. 195.

To For example, Theophilus and Ambrose. (Aegidii Bucherii, "De Doctrina Temporum," pp. 473, 477. Antverpiae, 1634.)

Migne, tom. LXVII, col. 475 (a).

Migne, col. 459. "First full moon in Quies" is the equimoetial full moon.

<sup>13</sup> Thidem, col. 952.

Gregory of Tours followed Anatolius. 14 In the year 577, for example, Spain kept passever in March, France, in April. 15 But, amid all this confusion, the western church established her canons and missals upon the cycle of Dionysius Exiguus. The Dionysian cycle was built up upon Cyril's Alexandrian tables, which followed those of Theophilus. These were in Greek discourse, and had to be turned into Latin. The problem was further complicated because Cyril's cycle was based upon the Egyptian year, and hence all the new moons and lunar numbers had to be changed over into the Roman form of year. Nevertheless. no cycle was ever more renowned than that of Dionysius, who established a beginning for the Christian era, and a calendar for the church of Rome. 16

This brief outline of the early history of the ecclesiastical cycle indicates how complicated a problem in ancient Jewish time may become, and accounts for the many assumptions by which it is today confronted, some of which are very old. While the Oriental churches, following John the Apostle, kept passover on the fourteenth, and the western church taught that Jesus died on the fifteenth. In the mean time, the Jewish rabbinical calendar, based upon the Talmud, and as later endorsed by Maimonides, introduced a passover on the fifteenth, and changed all its months to a month-earlier season. 17 The exact date of each change is not known. The evidence, however, is unmistakable.

The question of the true paschal month was one of serious consequence to the early church and a change in Jewish practice that resulted repeatedly in twelfth-month passovers ... Adar -- and sometimes even before the equinox, it seems, has left a long record of discussion whether passover should occur before or after the vernal equinox. The Jews appear to have been chiefly respon-

<sup>14</sup> Ibidem, col. 952. 15 Ibidem; 467.

<sup>16</sup> Tbidem, col. 466.
17 Michaelis, John David, "Dissertation on the Hebrew Months," London, 1773.

(The question of the true luner month in 1844 was one of the chief problems, and with regard to this Michaelis were of exceptional importance to the leaders of the "seventh month" movement. He was one of the first to doubt that the modern Jewish months are served as to their season.)

(in harmony with the biblical seasons.)

sible for this agitation. But we should not forget that the Jews at this time were under severe pressure from persecution. However, the ancient biblical laws with respect to the passover season are simple and specific, and the Christian church commonly accepted the biblical view. This is missly expressed in the following words of Theophilus:

"For the month of new fruits, 18 as I before said, is not in the twelfth month [Adar], when winter still hangs on, and when the new fruits are not yet ripe, and when indeed the sickle cannot be put to the harvests. For the divine law has in particular constituted this [the sickle] as the sign of the first month." 19

Nevertheless, many other passover arguments, besides the problem of the true paschal month, are the heritage of twentieth-century students of ancient discussions Jewish time. These for the most part arise (1) from the question as to what event marked the passover date--whether lamb sacrifice or paschal supper; and (2) from the problem of linking the true passover date with the right day of the week in the crucifixion period. And in addition, there is the question as to what day the short period ben ha-arbayim20 belonged-whether to the ensuing day, or to the day before. With the Karaites and Samaritans, this Hebrew phrase represented the time between sunset and twilight; with the Rabbinists, it came before sunset, from about three o'clock and on. 21 Jus was the traditional hour of prayer (acts 3:1). In any event, in this short period, the daily evening offering of the

lamb, the annual elevine of the messever lamb, the lighting of the temple loops, the offering of the emuting incense, and the secting sm--all test

planes for in population with each one of the series, the phrace between the In spite of Talmudist assumptions that on a Friday the Passah lambs were slain at 1:30 p.m. in order that the roasting could be finished before the Sabbath (Pesachim 58 a), Chwolson insists that in ancient time the passovers were slain during the evening twilight, and cites the Samaritans and Karaites as illustration. He also asserts that on Friday afternoon the twilight was already counted the Sabbath in Jewry (D. Chwolson, "Das letzte Passamahl Christi," p. 163. Leipzig, 1908.) This is in harmony with Josephus, who mentions the privilege granted the Jews by Caesar Augustus that "they be not obliged to go before any judge on the Sabbath day, nor on the day of preparation [paraskeue] to it, after the minth hour. (Ant.XVI.VI.2.)

Insert 1 22 Cf. margin of Num. 28:4, Ex. 12:6, Deut. 16:6, and Ex. 30:7, 8. In Deut. 16:6, only "evening" is given in the Hebrew, but Ex. 12:6 supplies the dual form.

25 Philo Judaeus, "Works," Vol. III, p. 218. Tr. Yonge. London, 1855. Cf. Yose-phus, Ant. III. VIII. 5. Talmudic research found in Edershim, Olfred, "The Temple," p. 223. Modder and Stoughton. New York.

sible for this agitation. But we should not forget that the Jews at this time were under severe pressure from persecution. However, the ancient biblical laws with respect to the passover season are simple and specific, and the Christian church commonly accepted the biblical view. This is missiy expressed in the following words of Theophilus:

"For the month of new fruits, 18 as I before said, is not in the twelfth month [Adar], when winter still hangs on, and when the new fruits are not yet ripe, and when indeed the sickle cannot be put to the harvests. For the divine law has in particular constituted this [the sickle] as the sign of the first month." 19

Nevertheless, many other passover arguments, besides the problem of the true paschal month, are the heritage of twentieth-century students of ancient discussions Jewish time. These for the most part arise (1) from the question as to what event marked the passover date--whether lamb sacrifice or paschal supper; and (2) from the problem of linking the true passover date with the right day of the week in the crucifixion period. And in addition, there is the question as to what day the short period ben ha-arbayim20 belonged-whether to the ensuing day, or to the day before. With the Karaites and Samaritans, this Hebrew phrase represented the time between sunset and twilight; with the Rabbinists, it came before sunset, from about three o'clock and on. 21 Jlus was the traditional hour of prayer (acts 3:1).

In any event, in this short period, the daily evening offering of the lamb, the annual slaying of the passover lamb, the lighting of the temple lamps, the offering of the evening incense, and the setting sun--all took place; for in connection with each one of the series, the phrase"between the two evenings" is written in Hebrew in the pentateuch. 22 and in sadition. Philo. Josephus, and the Talmud are in full agreement as to the order of the in-

cidents as here listed. 25

<sup>18</sup> The paschal month Abib signified "green ears," which in the Latin version 19 Aegidii Bucherii, "De Costrina Temporum," p. 472. Antverpiae, 1634.
20 A dual Hebrew phrase meaning "between the two evenings."

<sup>22</sup> Cf. margin of Num. 28:4, Ex. 12:6, Deut. 16:6, and Ex. 30:7, 8. In Deut. 16:6, only "evening" is given in the Hebrew, but Ex. 12:6 supplies the dual form.

25 Philo Judaeus, "Works," Vol. III, p. 213. Tr. Yonge. London, 1855. Cf. Fose-phus, Ant. III. VIII. 5. Talmudic reference found in

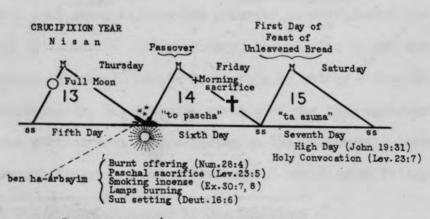
Edershim, Cliffed, "The Temple," p. 223. Hodder and Stoughton. New York.

The Spirit of prophecy unmistakably dates both the slaying and eating of the paschal lamb at the evening incunte of the fourteenth day of Nisan. 24

This argument is apparently confirmed by the character of the events which occurred in the period "between the two evenings"—each one of which pointed toward a day just beginning were than at the day ending. The burnt offering represented consecration of the nation necessarily for the ensuing night; 25

the burning lamps offered light for the approaching darkness; the odour of the burning incense at sunset symbolized the merits of Jesus applied to the prayers then ascending, not to those of the previous day; 26 the sinking sun deep manifestly dated the new day, not the old. It was therefore an event of calendar significance when the paschal lamb was yearly sacrificed in the specific time designated by Moses as ben ha-arbayim. The offering unquestionably must have belonged to a new day, either just begun, or about to begin! And the paschal supper, of course, was served soon after, during the same eve.

And it makes little difference to the involved crucifixion date whether the lamb was slain before or after sunset—whether the argument is rabbinical, or Karaitic. In either case, the lamb was obviously slain as if on the dawning of a new day. The following diagram illustrates:



Therefore ben ha-arbayim of the fourteenth had to come at the end of the thirteenth; and in no case, at the end of the fourteenth, when it would belong to the fifteenth.

death of the Lemb of OT cal lemb on the fourion on the same date.

ly mullifies any argumony also lifts a commonly

and Falashas, the paschal rature, p. 251. Vol. The Spirit of prophecy unmistakably dates both the slaying and eating of the paschal lamb at the evening incunte of the fourteenth day of Nisan. 24

This argument is apparently confirmed by the character of the events which occurred in the period "between the two evenings"—each one of which pointed toward a day just beginning norse than at the day ending. The burnt offering represented consecration of the nation necessarily for the ensuing night; 25

the burning lamps offered light for the approaching darkness; the odour of the burning incense at sunset symbolized the merits of Jesus applied to the prayers then ascending, not to those of the previous day; 26 the sinking sun deep manifestly dated the new day, not the old. It was therefore an event of calendar significance when the paschal lamb was yearly sacrificed in the specific time designated by Moses as ben ha-arbayim. The offering unquestionably must have belonged to a new day, either just begun, or about to begin! And the paschal supper, of course, was served soon after, during the same eve.

And it makes little difference to the involved crucifixion date whether the lamb was slain before or after sunset—whether the argument is rabbinical, or Karaitic. In either case, the lamb was obviously slain as if on the dawning of a new day. The following diagram illustrates:

with reference to the fulfillment of the type, the death alone of the paschal lamb over the supper chal lamb expects to have had priority in prefiguring the death of the Lemb of God (1 Cor.5:7). And therefore, the slaying of the typical lamb on the four-teenth—which all admit—could only be met by a crucifixion on the same date.

Consequently, the symbolic meaning of the type necessarily nullifies any argument that assumes a crucifixion on the fifteenth. Astronomy also lifts a warning finger against a "fifteenth" crucifixion Friday 28 And Scaliger, with

<sup>24</sup> Cf. September number of The Ministry.
25 "Patriarchs and Prophets," p. 352. Conflict of the Ages Series.

<sup>27</sup> According to unanimous practice among both Samaritans and Falashas, the paschal 28 "Ancient Jewish Calendation," Journal of Biblical Literature, p. 251. Vol. IXI, Part IV. December, 1942.

fail to fulfil the type, but the argument also fails of coinciding with the actual crucifixion date. For a paschal sacrifice during the hours of ben haarbayim on Friday afternoon, even two hours before sunset, would obviously have occurred after the death of Christ; and in addition, in harmony with the calendaric significance of this pentateuchal period, would indisputably have been dated on the next day as Sabbath the fifteenth. In other words, the typical lamb would have been slain too late to prefigure the death of the Lamb of God.

The detailed description of the temple service enacted at the very moment of the death of Jesus, as given in the "Desire of Ages," is indeed significant:

"It was the hour of the evening sacrifice. The lamb representing Christ had been brought to be slain. . . With intense interest the people were looking on. But the earth trembles and quakes; for the Lord Himself draws near. . "All is terror and confusion. The priest is about to slay the victim; but the knife drops from his nerveless hand, and the lamb escapes." 32

It is not the passover lamb that escapes when the true Lamb dies--but the sacrificial lamb of the evening burnt offering. The hour of the evening sacrifice has just begun, and the lamb was to have been slain by the temple priest. If it had been the paschal lamb, the hour would have been later, and the sacrifices would have been slain by the people.

A paschal sacrifice in the afternoon of crucifixion Friday is meaningless, for it offers chronology a point of time other than the OT predicts, and other than Jesus Himself pointed out according to His own paschal supper. The only way that the problem can be harmonized is the Spirit-of-prophecy way-a passover sacrifice and supper at the evening beginning of death Friday as the fourteenth of Nisan. By this plan, the ancient passover law and the astronomical laws governing both new and full moon are brought into agreement with

<sup>32</sup> White, E.G., "Desire of Ages," p. 756. Conflict of the Ages Series.

the little Hebrew period translated "between the two evenings."

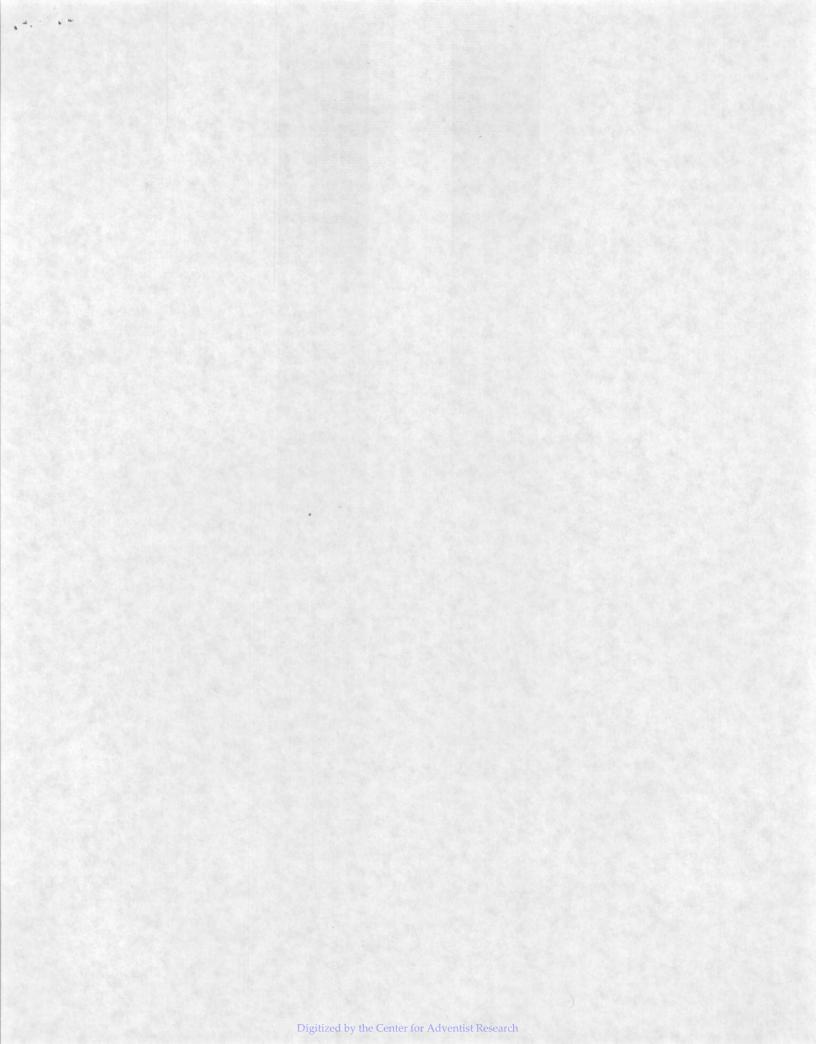
#### CONCLUSION

Moses mentions ben ha-arbayim in nine different texts. He marks its podiurnal sition by burning lamp, smoking incense, and setting sun. Within this landmark of timethe paschal lamb is slain, and the sacrifice obviously must be dated with the setting sun. On whatever Jewish date the sun sets, that day is past, and hence the ensuing day is therefore the passover date. The question has been asked from very early times, "Did Jesus anticipate the passover?"

The answer is that not only Jesus and the disciples, but the whole Jewish nation kept that passover at the only possible ben ha-arbayim that could coincide with the date of His death. 33

53 Cf. Anglican Theological Review, Vol. XXV, No. 4. October, 1943.

grace amadon July 11, 1943



All of the primitive nations that counted time by the moon, in order to keep their lunar festivals in harmony with the solar seasons, had to increase the sher accomplished this by adding a month every two or three years. moon's annual circuit on the calendar at the rate of about ten days per year. As slaves in Egypt, the Israelites became accustomed to the Egyptian month of 30 days, and its consequent 360 days to the year and the five supernumerary days. But, even so, the year was so imperfect, that the Egyptian feasts wandered through for along time the after a far centerials. all the seasons, occurring sometimes in summer, and as often in winter. Moses understood this nature of the Egyptian year. He must also have been acquainted with the relation of the moon to the Egyptian wheat harvest, whose seeding time is annually prepared by the overflow of the Nile. The river begins to rise always at new moon following the summer solstice; Moses gave to Israel a lunar calendar tied to a similar agricultural event. He named the first moon of the year Abib, or "ear-moon," and commanded that the passover, the first month festival, should coincide with the season of ripe barley at full moon. This simple arrangement took care of the whole problem of embelism, or intercalation, and accomplished for Jewish time-keeping a lunar cycle just as accurate in results as those of any committed. cycle mnemonic.

120

The barley harvest limits determined the moon, and the moon, when full, pointed out the day of the feast, all of which identified the first month of the year. Consequently, seeing that there were always just as many harvests as solar years, by using the full moon in barley harvest for the passover festival, the Mosaic lunar cycle periodically adjusted itself to the sun's annual motion. As a result, the full moon of barley harvest, not only designated the passover, but it also determined the correct length of the year, and therefore brought harmony to all the years of the cycle, both common and embolismic. The Millerites understood the foregoing principles, and oft repeated them in their papers. They learned the importance of the relation of the harvests to the Jewish feast period from the Karaites, whose teaching referred them back to the law of Moses.

Leviticus 23 and Deuteronomy 16 are primary sources in reference to the Jewish

### (2) Conditions Governing the First Day of a Lunar Month

In the middle of each lunar revolution around the earth, the moon becomes full of light for about three days; on the other hand, for about the same length of time, at the beginning of each lumation she has no light at all. During this darkness. the "black" moon is between sun and earth, and turns her lighted face wholly to the sum. Consequently, her face toward earth is therefore dark. As the moon travels eastward from conjunction with the sun, she so rotates her body that, within a period of from one to four days, a narrow crescent of light appears. This "new light." or phasis, marked the first day of the month for the ancient peoples; some nations, as the Greeks, employing the very first glimmer of the crescent to mark their months, while the Jews always waited for the "horned" moon, an older and larger form of the crescent, by which to point out their new moon days. The time of the moon's first appearance, or phasis, and of the "horned," or so-called second moon, depends upon the moon's place in the sky, and upon that of the observer upon earth. Consequently, the actual time between conjunction and phasis, or the horned moon, is always changing within certain known limits. And it is important to remember that, as regards Jewish time, the moon had to be of a certain size and shape that was to mark the first day of the month. The following references are offered in support of these statements:

light of the moon. There is, furthermore, full and explicit testimony in the Bible that Christ died on Friday: and to this evidence, both sun and moon and the laws by which they are governed, and almost the whole religious world respond, in hence to their Maker. To a Friday crucifixion, the following argument testifies.

Every common almanac shows, and almost every farmer knows, that the astronomical full moon rises when the sun sets. This is astronomy's definition -- one just as true in the first century as in the twentieth. The event occurs either at the beginning or ending sunset of a Jewish day, depending upon the hour of opposition (full moon). Only one sunset in Nisan could be marked by this phenomenon, for at the sunset succeeding, the rise of the moon would be delayed nearly 50 minutes on the Jerusalem latitude. Both astronomical and Jewish testimony are in agreement as to the importance of this calendar event, which presaged in Israel that the Passover was due on the ensuing day. The accompanying citations are testimonies for this first century regulation:

## (1) Passover Appointed on 14th Day After Evening When Moon Is Opposite Sun.

"Since there are two equinoxes, of the spring and autumn, separated by equal distances, and since the festival was appointed on the 14th day of the first month, after the evening at which time the moon is caught in the region opposite to the sun, as even it is permitted for the eyes to prove; the Sun indeed is found holding a segment of the vernal equinox, but the moon, on the contrary, of the autumnal."-- Nancelii, Nicolai, "Analogia Microcosmi ad Macrocosmon, Secunda Pars, ad Lilios Fratres," Paris, 1611, col. 1204.

"For Theophilos decreed that the fourteenth ought to be seen when the moon in her circuit rises in full at the same moment in which the sun sets." -- Idem.

## (2) Passover on 14th Nisan After Evening When Moon Stands Opposite to Sun.

"Anatolius cites a commentary on the Pentateuch attributed to the two Agathabuli, disciples of Aristobulos, contemporary with Ptolemy Philadelphus. 'Aristobulos,' it is there said, 'maintained . . . that the day of the paschal festival began on the 14th Nisan after the evening, when the moon stands diametrically opposed to the sun, as anyone can see at the time of full moon.'"-- Caspari, Ch. Ed., "Introduction to the Life of Christ," Tr. by M.T. Evans, Edinburgh, 1876, p. 8.

# (3) Sun and Moon Rise Opposite to One Another with Uninterrupted Light

"Again, the beginning of this festival [tabernacles] is appointed for the fifteenth day of the month, on account of the reason which has already been mentioned respecting the spring season [passover], also that the world may be full, not by day only but also by night, of the most beautiful light, the sun and moon on their rising opposite to one another with uninterrupted light, without any darkness interposing itself between so as to divide them."—Philo, Judaeus, "Works of," Tr. from Greek by C.D. Yonge, London, 1855, Vol. III, p. 291.

Note: On the day of full moon, the full moon rises when the sun sets, and in the morning, the full moon sets when the sun rises.

## (4) Easter Rules Follow Ancient Canons by Forbidding Easter on Day of Full Moon.

"The Prutenic Tables were made the basis, and the epacts were all diminished by unity, in other words, Luna XIV was put one day later, to remove all danger of Easter ever being celebrated on the day of astronomical full moon, as was forbidden by the old canons."--Hagen, J.C., (Vatican Observatory), "Catholic Encyclopedia," art. "Lilius." Vol. IX, New York, 1910, p. 251.

Note: In pre-Nicene times, the ancient Church canons followed the Jewish method of computing the Easter feast, and the Jews were exultant in their prerogative, insisting that the Christians could not calculate their festivals without the aid of Jewish rules. Hence, the accompanying statement from the Vatican Observatory offers the important inference that Jewish practice, which the early Church copied, also forbade the passover festival to be celebrated on the day of full moon.

## (3) Conclusions

deap 1

From these ancient Jewish customs, the record of which has passed along from century to century, two precise rules may be formulated by which the crucifixion date can be exactly determined: the one, which ties the month Nisan to an April barley harvest in Judea, and the other, which marks out both the day of full moon, and the day of the paschal offering by the position of the moon at sunset. This is not the only method of demonstrating the crucifixion year, but it appears to be the simplest. It points out that 31 A. D. only, among all the years of "confirming the covenant," had a Friday passover. There are really only two rivals to this 31 date, the years 30 and 33. But they have to be rejected on the following counts:

Note: The Ginzel tables of moons are given in decimal fractions, astronomical mean noon, Greenwich meridian. To get Jerusalem time (civil), add to Greenwich mean noon dates 14 21 , or .597 day.

<sup>(1)</sup> The year 30: The day of the Nisan full moon, Jerusalem civil time, was late Thursday evening, April 6 (Ginzel, p. 573); but, on the Jewish calendar, this aftersinset moon was Friday, April 7, day of full moon in Jewry. Therefore, the passover on Nisan 14, must have been on Sabbath, April 8, the earliest limit for passover in the time of Christ, according to Scaliger and the cycles from which he reckoned.

<sup>(2)</sup> The year 33: The civil full moon day for Nisan in this year was April 3, on Friday, according to Rabbinical reckoning. Since the time of Roger Bacon, this has been the popular crucifixion date; but, although occurring on Friday, it has to be rejected as Nisan 14, both because it was the day of full moon, either civil or Jewish, and because it was too early for ripe barley. The true passover, therefore, in (Ginzel, p. 573.)

The other years of Christ's ministry do not need to be discussed, because their passovers came early in the week, and not on Friday, as their full moons indicate. In the year 31, March 27 could not be a paschal moon date, for it came in the time of rain, and was too early for ripe barley, as has been already been shown. But the succeeding full moon in 31 -- April 25 -- would fit the Scripture demands as follows:

- (1) This moon of April 25, 31 A.D., fulled after sunset, late Wednesday evening, near 11 p.m., Jerusalem civil time. (Ginzel, Band II, p. 573.)
- (2) This after-sunset civil date could only be recorded in Jewish time as Thurs-day, April 26.
- (3) This Thursday, from sunset to sunset, was therefore day of full moon in Jewry.
- (4) This Thursday, day of full moon, was the day preceding the Passover, or Nisan 13, according to Jewish and astronomical testimony.
  - (5) Hence Friday, April 27, was Nisan 14, the death day of Christ in 31 A.D.

0	CHMMADT
	SUMMARY onely astronomical moons not
	No Observe tony or standard toble of moons indicates a packs I feel moons,
	We Observatory, or standard table of moons, indicates a paschal full moon, except by its relation to the barley harvest period. but much an appropriate full moon
	Equinoctia I moons of March and early April neither point out a "Wednesday" nor
	Friday aruestision of passovers & Henre in herfact to a Medicardry critical form
	Only a barley harvest full moon indicates Friday crucifixion, and to this on-
	ly April 27 in the year 31 responds.
	Therefore full moon dates in March and early April do not point out the death
	year of Christ.
	Herein wheret is not the cripefaction whithe neither
	is wedgethan the one I
	Observatory, of other standard tables of monts, merely indicate astronomical moons not passible.
	march world not book emplican mouth, because to mouth
	of rain and not of the hornest, " enterparam, -
wh	en Ward full moons are suplayed in solving the timber
0	they from our three hedres any parsoners for ofrious years in
9	the " Tothe weels " but not me of these and the more distinguish as the
	Therefore any! ( Umant all a sure les When )
100	When barley harven't monto, are used in the problem a single
Fri	day is pouled out for the year Bil and a Medicard for the year 28,
ye	believe barley harvest monts, are used in the problem a single day is powled out for the year BI) and a Wednesday for the year 28, 28, 28, 28, 28, 28, 28, 28, 28, 28,

This statement implies that the Rabbanite New Year in the East is celebrated two days -- a fact that is uniformly confirmed by J wish testimony. On the other hand, in the West, only one New Year's day is observed by the Rabbanite Jews (of the American Jewish Year Book, calendar). This irregularity in the calendar length of the Jewish year between the East and the West corresponds to a similar difference in time in the annual course of the moon, as from full moon to full moon, between the Orient and the Occident, which is caused by the difference in time between meridians and its consequenteeffect upon the new moon dates which start the Jewish year. The Rabbanite computed calendar provides for these variations by its system of postponements, and its double new moon days. The Karaites, on the other hand, had no postponements, nor zo double feast days, and consequently had to adjust their calendar to various meridians wherever they had settled. This very difference in time between the meridian of Babylon and Jerusalem, although only a few minutes, led to the wellknown polemic between the Karaites and Rabbanites of the tenth century, each striving for their own meridian as the fit longitude for reckoning time and the calendar. From which to

The argument is based on the infallibility of the grows malical construction of a sentence. This is claiming verbal inspiration, plus. I suppose Ar. While would be the must astonished person to have her mitings used that may. The argument is based in grammatices perfection. Esu Poul's sentences mill ours stand such a test. and I would ones like to place L. While is a position where ather sen tues might be likewise dia grammed with indifferent success. I think is dangerous. m. 22

I think you en in not presenting both sides of the guestion. a person always frels that this is propaganda, mut a studging of the question but an attempt to min an ang um end. For ony self I shall not be satisfied until I see the whole question, both side, give agual apportunity and I draw the conclusions that seem salisfactory to one, rasher than have them drawn for me. Oshich you have done a good piece of wish, but it is propaganda, not an imported marshalling of facts. Hence I do not fire thus I can draw conclusions. always after readury what you have mitten I admire your ability But it leaves me feeling that I made now like to hear the other

#### Historical Confirmation of Crucifixion Calendar

The Nisan new year dates in Chart C were not based upon any historical date or eclipse, but were computed wholly from the position of the passover, as outlined by the ancient authorities Moses, Aristobulus, Philo, and Anatolius. The following historical events, taken from scripture and history, confirm these calendar dates:

1. 28 A.D. "Feast of the Jews" in John 5:1. St. John's narrative shows that the "feast of the Jews" in his fifth chapter was the feast of harvest (Ex. 23:16), or Tabernacles. After the first passover in Christ's public ministry (John 2), Jesus tarried a little where John was baptizing (John 3:22), and then departed for Galilee, going through Samaria (John 4:1-3). It was therefore summer, and the fields of grain were glistening in the sunshine. From this circumstance, Jesus was enabled to precisely point out the forthcoming harvest of oil and wine, which always preceded the seventh month feast of Tabernacles. The Spirit of Prophecy comments as follows:

"Before Him lay the fields of grain, their tender green lit by the golden sunlight. Viewing the beautiful scene, He employed it as a symbol, 'Say ye not there are yet four months, and then cometh harvest? Behold, I say unto you, Lift up your eyes, and look on the fields; for they are white already to harvest.' He here referred to the gospel field. . . among the poor despised Samaritans. . . they were ready for harvest." -- Spirit of Prophecy, Vol. II, pp. 146, 147.

But the literal harvest that was four months off, could have been no other than the oil and vintage which led up to the feast of ingathering in the seventh month. The feast of Tabernacles must therefore have been the "feast of the Jews" in John 5:1. It began on the Sabbath day, and on this day, Jesus healed the paralytic at Bethesda. Jesus did not return again to Jerusalem until the occasion of another feast of Tabernacles two years later, at which time He referred to the Sabbath healing of the paralytic at His first harvest feast:

"Jesus answered and said unto them, I have done one work, and ye all marvel" (John 7:21) . . . are ye angry at me, because I have made a man every whit whole on the sabbath day?" (verse 23).

The Spirit of Prophecy also comments on the words, "I have done one work:" "Jesus referred to His act of healing the man on the Sabbath" (Vol. II, p. 341), and further adds that ever since the healing of the paralytic at Bethesda, the Pharisees had been determined to kill Jesus (Idem, p. 340). This accounts for the fact that Jesus could not attend the second and third passovers.

As a background, therefore, for the calendation involved, there are two feasts of Tabernacles, two years apart, connected with which are two Sabbath miracles -- the first healing, occurring upon Sabbath, the first day of the feast, and the second, upon Sabbath, the fourth day after the

feast, as the reckoning will show.

In harmony with the foregoing narrative, the year 28 A.D., in Chart C, has Nisan new year on Thursday, April 15 (compare the cycle dates). Tisri new year was therefore on Sabbath, October 9, and hence Tabernacles, or 15 Tisri, necessarily followed on Sabbath, October 23. Consequently, the coincidence between the Tabernacles Sabbath of John 5 and the Tabernacles Sabbath of Chart C, in the year 28 A.D. is exact.

2. 28 A.D. Passover (John 2). At the time of the passover marking the first year of Christ's public ministry, the Jews said to Jesus, "Forty and six years was this temple in building" (John 2:20). Prideaux says that Herod began, after two years of preparation, "just 46 years before the first passover of Christ's personal ministry" ("Connexion," Vol. II, p. 394). And Dr. Smith adds that "it was at the Passover, 46 years previous to the spring feast of 28 A.D., that Herod presented to the Jews his and design for restoring the temple" (Dr. Smith's "New Testament History," Misseler p. 85. New York, 1888). Wow Hales, "Your Guraly sis of Chronology," Vol. , pp. 1853

If, from the spring of 28 A.D., 46 years are counted back on the calendar abacus, one is brought to the spring of 19 B.C., the recorded 18th year of Herod's reign (Josephus, "Antiquities," p. 321). In both years, 19 B.C. and 28 A.D., that the Passover of Chart C was on April 28. Hence the time between these two passover dates was exactly 46 solar years, as the Jews intimated to Jesus. Therefore, their statement and the crucifixion calendation are in perfect agreement.

3. 30 A.D. Feast of Tabernacles. The narrative in John 8 and 9, follows the third feast of Tabernacles in Christ's ministry, and ends with the Sabbath healing of the man born blind. These chapters outline a series of events that harmonize with a Sunday new year in Nisan, 30 A.D., as recorded in Chart C. They line up as follows:

1. Sunday, March 26 -- 1st day of Misan.

Tuesday, September 19 -- 1st day of Tisri.
 Tuesday, October 3 -- 15th Tisri, or Tabernacles.

Scene I 4. Tuesday, October 10 -- last day of feast.

Scene II 5. Wednesday, October 11 (early morn) -- Jesus comes to temple (With the multi- to teach; woman tried for immorality by scribes and tude) Pharisees; all leave (John 8:1-11).

Scene III 6. Thursday, October 12 (early morn) -- "I am the light of the world."

(In the treasury)

"It was morning; the sun had just risen above the mount of Olives, and its rays fell with dazzling brightness on the marble palaces, and lighted up the gold of the temple walls, when Jesus, pointing to it, said, 'I am the light of the world.'" ("Desire of Ages," p. 463).

Jesus teaches all day, until the Jews attempt to

stone Him (John 8:59).

Scene IV 7. Friday, October 13 -- Jesus hides Himself for a whole day, necessarily waiting for Sabbath protection before appearing openly in Jerusalem again. It is implied in John 10:40 that He went beyond Jordan for safety.

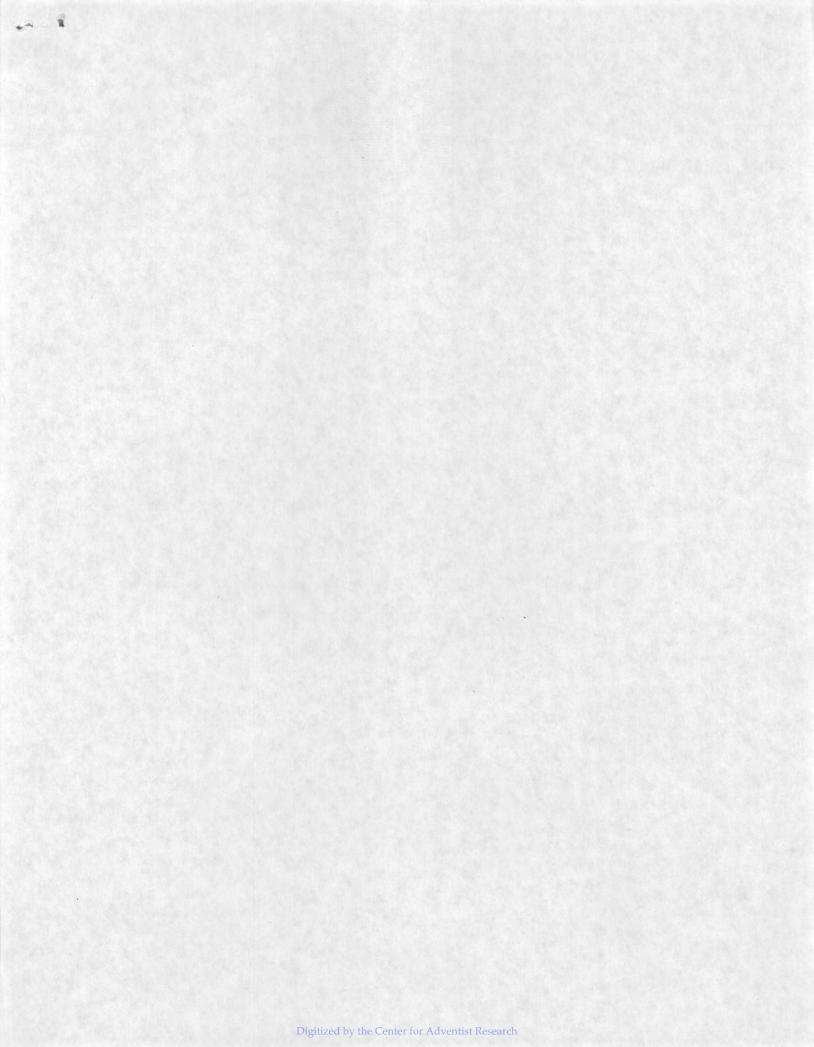
Scene V 8. Sabbath, October 14 (early morn again) -- a second time Jesus said, "I am the light of the world." "And it was the sabbath day when Jesus made the clay, and opened his eyes" (John 9:14).

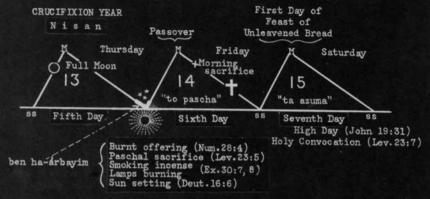
When Jesus said the second time, "I am the light of the world," another new day must have been dawning. He had returned early in the about day from His hiding place, and in passing along, sees the man born blind. It must be remembered that, after the determined outburst of Thursday, which was again renewed on the 25th Kisleu, at the feast of dedication (John 10:22, 31; 1 Mac. 4:59), the Sabbath day, or a crowded feast day, would be the only time that would protect Jesus in public. For, since

the healing of the paralytic on the Sabbath day (John 5), the Jewish leaders had "had a determined purpose to compass His death" ("Spirit of Prophecy," Vol. II, p. 340). If Jesus had appeared openly in Jerusalem on Friday morning, so soon after the attempt to stone Him, it doubtless would have cut short His life and ministry. But on the subsequent Sabbath morning, under the protection of the strict laws govering the Sabbath, He could publicly heal the blind man's eyes, send him out of the city to wash in Siloam, and then fearlessly talk with the Pharisees (John 9:40), to whom it was sin to pick up even a pebble, or a broken piece of pottery on the seventh day of the week (Edersheim, Albert, "Life and Times of the Messiah," Vol. II, p. 784).

Accordingly, the Sabbath healing of the man born blind, leads back day by day to the last day of the feast of Tabernacles, Tuesday, October 3, and further back to the Passover on Sabbath, April 8, and finally to the Nisan new year on Sunday, March 26, in 30 A.D. Thus the validity of the feast dates in Chart C are again established by the chronology of the

week in the Bible narrative.





Therefore ben ha-arbayim of the fourteenth had to come at the end of the thirteenth; and in no case, at the end of the fourteenth, when it would belong to the fifteenth.

The foregoing sentence from "Great Controversy" could have originally been written in several different ways, and yet express the same thought. The statement could have been broken up into two or three short sentences, possibly by an emanuensis, and even some of the words and phrases changed, and still the first meaning of the author be maintained. But, whatever the language employed, it would have to conform with the chronological fact that Jesus ate the paschal supper and instituted the communion feast on the fourteenth day of the first Jewish month. For the Jewish date of the death of the Lamb of God is the central thought of this inspired sentence, and it has been given as a guide to the truth and proof of crucifixion chronology.

"and he [ Pilate] delivered him [ the Sord ] to the people on the day before the nuleavered bread, their feast. "\_
"The Sort anopel according to Peler," in ("The Sort Books of the Bible." I have booked Syndicate. Probleming New york; Peler," New York; Peler, "I would Syndicate. Probleming

#### CHRONOLOGY OF THE SEVENTIETH WEEK

Two epochs in the life of Christ are predicted in the Jewish prophecy in Daniel nine:

- 1. Baptism = 7 weeks + 62 weeks (483 years) after the "going forth of the commandment to restore and build Jerusalem" (autumn).
- 2. Crucifixion =
- a. After 62 weeks shall Messiah be cut off.
  b. In the midst of the week--of confirming the covenant--He shall cause the sacrifice and oblation to cease (spring).

In the second of these predictions, the point of time is given as the "midst of the week," or the middle of the prophetic year. But inasmuch as the event described—the crucifixion—occurred in the spring of the year in the paschal month Nisan, this Jewish month is thereby tied to the "midst" of the prophetic year in question. And since then the midst of the prophetic year was in the spring, the actual beginning of the prophetic year must have occurred six months earlier, or in the autumn. Thus, in Daniel's prophecy, we have a coincidence between two calendars—prophetic and Jewish. The autumn new year in ancient Jewish time was the first of Tisri.

The Tisri beginning of the ancient Jewish year was that which marked the Jewish reckening of a king's reign in the time of Ezra and Nehemiah, and, as has just been shown, the prophetic year of Daniel's Jewish prophecy was coincident with this chronology. Even while Nehemiah was in Babylon, he reckened the 20th year of the king from autumn to autumn; for in his period from Kisleu into Nisan (Neh. 1:1 and 2:1), the 20th year of Artawarkes does not change. The months covered in this interval were Kisleu (9), Tebet (10), Shebat (11) Adar (12), and Nisan (1). In Babylon, the king's year changed in Nisan (2immern, Heinrich, "Zum babylonischen Neujahrsfest," Aus den Berichten der philogisch-historischen Klasse der königlich sächsischen Gesellschaft der Wissenschaften zu Leipzig. Band LVIII, 1905). But Nehemiah did not

change the number of the kmig's reign in Nisan. Hence it is obvious that he must have changed to the 21st of the king in Tisri.

Accordingly, the midst of Daniel's "seventieth week" exactly coincides with the crucifixion paschal month, which, in turn, marks the beginning of the seventieth week and also of each year of the week as concurring with the autumn Tisri. This was one of the first arguments employed by the leaders of the "seventh month movement" in 1844 in determining the October 22 date. (Quote authority.)

And furthermore, it is fitting that the Danielitic prophecy itself, in predicting the ministry of "Messiah the Prince," should incorporate into its chronology the autumn beginning of the civil year that, in Jewry, commonly designated the reigns of kings and princes.

Jeremiah's chronology also follows the autumn beginning of the Jewish civil year (Cf. Jer. 36 and 46). But Esckiel and Zechariah employed the spring beginning of the year, and in this respect agreed with Babylonian custom. The schedule of events which Ezra and Nehemiah carried out after the return—the correction of domestic evils in the camp of Israel, and the building of the wall—agrees with the chronology in Daniel nine, which obviously counts its years from autumn to autumn, and thus marks the season of the baptism of Christ.

In the research of Franz Fraidl covering monographs on the "Week" prophecy, as he calls Daniel nine, he found so many that he had to close his investigation, as reported in his Graz Festival Paper, with the 15th century. With reference to Christian commentators throughout the Christian era, he states that all but one "recognize in the prophecy a Messianic prediction."-"Die Exegese der Siebsig Wochen Daniels in der alten und mittleren Zeit."

Graz, 1883. In nearly all early chronologies and astronomies, the prophetic

periods of Daniel are a part of the discussion. From James Ferguson (astronomer) comes a helpful comment on Daniel nine:

"There is a remarkable Prophecy in Daniel, ch. ix. ver. 26, 27, concerning the year in which the MESSIAH should be cut off. . . Now, as it is generally allowed, that by each of Daniel's prophetic weeks was meant seven years, the middle of the week must be in the fourth year."—"Astronomy Explained upon Sir Isaac Newton's Principles," p. 192. London, 1756.

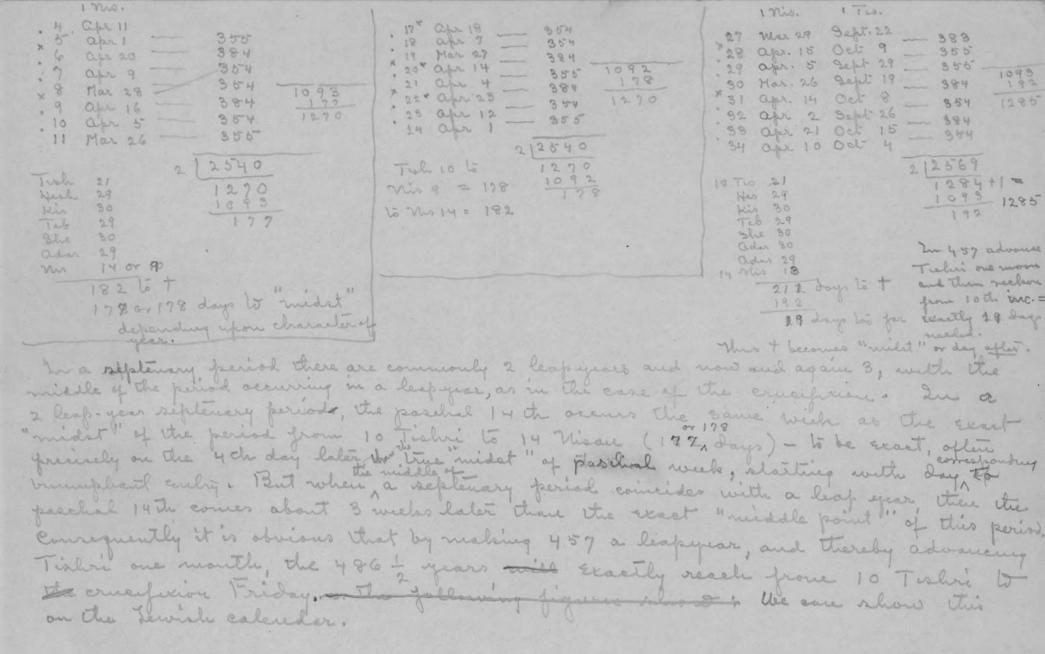
Thus, the Jewish prophecy in Daniel nine has been a true guide to the outline of the public ministry of Christ, which was not one year or two years as frequently insisted in current religious journals, but over three years, including four passovers.

### Suggestive Questions

### (To be written out)

- 1. To what nation does the prophecy in Daniel nine chiefly refer?
- 2. Upon what kind of time is the prophecy based?
- 3. By what event is the calendar Daniel employs tied to the Jewish calendar?
- 4. At what season of the year does this coincidence between the two calendars occur?
- 5. How then is it determined that Daniel counted his prophetic year from autumn to autumn.
- 6. In what season therefore was Jesus baptized. Have you any other proof than Daniel nine? (Look in the New Testament.)

	7 years F	ilal 20 la tall	2 34 = 7 1.		alab win
and the land	"midst if week" es	at with a l.	3 6	cone yes 60	or 39 3 leafs yron
Then pas	shel mouth = 45	mouth otherwise	of gro, + 4 con	mon yrs. 1849	( 1 8 ) = 44 th mo;
	month commency				I doered (87
x 3 13		yr	Wisan		Fall to Fall
383	Tish 30		War 29	Sept 22	
355	kus 30	27	apr 15	oct 9	388
384 1092	Teb 29 .	29	apor 5	Sept 29	355
354 1285	Sha 30 10	2 80		Sept 19,	884 1093
384	2 day 2 9	T# 31	apr 14 3		354 128
	= 1285 ll das	32	apr 2	Sept 26	384 day
1285+1	226 12 +			Oct 15	354
1093	0 et 20 luter 6	34	apr 10	Oct 4	
19427	Sept 8 1		From Sept :	29 lo Mar 20	2 2569
	Oct 31 22 31	31 23 31 16	Sept 1	LX.	1284+1
34	Nov 30 30	30 30 30	0.4-	1.	1093
	Dec 31 31		shal fee	1	192
	Jan 31 31 Feb 29 2828	18 29 28	des 29	18	178 th
28	01	31 31 31	lis 30 Har	91	
	20 30	30 30 20	3he 30	1930	486.5 = 70ch
	May 31 31	31 21 21	alor 29	201	2 69 weeks
	June 30 30	30 20	207 or.	29	
	July 31 3	31 31 31	212 or	321	
	ang 31 3	1 31 31 31	207-192 = 15 00	(1) Company	
	Sept- 80 291	30 26 30	212-192 = 20 oa	L. L.	
	001-9	8			
	383 355	5 354			
		Digitized by the Center for A	Adventist Research		



```
[490] years = 178968.677 days, or 178969 days
   1 misane, 34 a.D. = april 10 8
   10 Tishri = October 13 W = 1733762 W = 10 Tishri in 34 a.D.
                                   178968
                                 1 554798 = 14 days short of
                                 back to 1554807.
   :. 490 years ended 17 days before 10 Tishri, or 28 Elul =
                                J.D. N: 155 4793 = Thursday, Wednesday
Stephen
   27 a.D., 1 Wisan = March 29 3
               Sept. 22 = J.D.N 1731184 : 10Tw. = 1734193
    1 Tishie =
   483 years = 176411.98 (ald 196411 only)
                1554807.68 = Oct. 30, 10 Tohi = $ in 457
                             = date of baptism = Friday
                1731193
                             = 25 days after 10 Tishrie =
Baptism
                                 October 26, or 5 Hesvan
      178968.677
                     365,24253
      126411.98
                    2556.6975
        2556.69
 8.89 or Way 8.42
                                                          10
                                                          14
                                                          15-
                                                          18
                                                          19
                                                          13
                                                          28
                                                          29-
454
```

### Chronology of Paul's Last Journey From Europe Into Asia -- 60 A.D. --

Luke gives the chronological details of this journey in Acts 20:5-7, and the text reads as follows:

"And we sailed from Phillipi after the days of unleavened bread, and came un-

to them to Troas in five days; where we abode seven days.

"And upon the first day of the week, when the disciples came together to break bread. Paul preached unto them, ready to depart on the morrow; and he continued his speech until midnight."--Acts 20:5-7.

The Spirit of Prophecy throws light upon the passover feast mentioned in this Scripture, and points out with exactness its relation to the apostle's journey:

"At Philippi Paul tarried to keep the Passover. Only Luke remained with him there. The Phillipians were the most loving and true-hearted of the apostle's converts, and during the eight days of the feast he enjoyed peaceful and happy communion with them.

"Sailing from Philippi, Paul and Luke reached their companions at Troas five days later, and remained for seven days with the believers in that place.

"Upon the last evening of his stay the brethren came together to break bread. "-- "Acts of the Apostles," pp. 390, 391.

The chronological setting of this passover and its relation to Paul's journey into Asia is quite clear. At Philippi, he "tarried to keep the Passover," and staid eight days. He came to Troas "five days later," and tarried there seven days with the believers. Upon the "last evening of his stay," Paul preached until midnight, "ready to depart on the morrow," which Luke calls the "first day of the week." From this record in Acts, it can be concluded that the seventh and last day of the apostle's tarry at Troas was the Sabbath day. The year seems to have been 60 A.D., for about a month later Paul was arrested at Jerusalem, and then two years afterward appeared before Festus, who had just taken office in 62 A.D. Therefore it must have been 60 A.D. when Paul was in Troas. The following is the calendar setting for this luni-solar event in the life of Paul: year 60

#### 21 59 was year Will I Musau 60 A.D. Felix--Procurator Chart C and Events in Acts 20:5-7

```
= Cephin, Weel.
                                                        22 - Tues
Cor 22 N 1 - Tues New Year 11 - Fri
                                                                      "Came to Troas Poor
        I 2 - Wedrs
                            12 - Sabbath
                                                        23 - Wed
        SS 3 - Thurs
                         M 13 - Sun Full Moon -
                                                       24 - Thurs
                                                                       in five days"
                            14 - Mon
                                          (1) Passover 25 - Fri
        A 4 - Fri
                                         (2)
        N 5 - Sabbath
                          15 - Tues
                                                       26 - Sabbath
                                         (3) 8 days 27 - Sun
(4) of unleav- 28 - Mon
                            16 - Wed
          6 - Sun
                            17 - Thurs
           7 - Mon
          8 - Tues
                                                                        "where we abode
                            18 - Fri
                                          (5) ened bread 29 - Tues
          9 - Wed
                            19 - Sabbath
                                          (6) at Philip-130 - Wed
                                                                          seven days"
                            20 - Sun
                                                pi II 1 - Thurs
          10 - Thurs
                                           (8)
                             21 - Mon
                                                         Y 2 - Fri
                                                         A 3 - Sabbath / Last day at Troas
  Sunday = 20th day after passever
                                                                        "Last evening of his
                                                         R.4 - Sunday
                                                                          stay," Paul preached
                                                                          until midnight.
```

in 62 A.D. In office two years.

Smith's "New Testament History," pp. 122, 123, places death in 61 or 62 (probably).

Shurer (Div. I, Part II, pp. 182-4) gives summary of recent researches. Many insist on earlier date, but Paul's ministry seems to equal 25 years at least.

Margin of Acts 20 = 60 A.D. Cf. acts 24: 27 with regard to Feelins. Porcius Festius -- "Roman procurator in Palestine about 60-62 A.D." (Cent. Dict.) Millman (Hist. of Jews" Vols. II, III, p. 183. N.Y., 1881) places death of Festus

During The latter foot of Paul's slag at Ephenes ( acti 130) Paul wrote at Cornelina letter, the planned to be an terms by of pollowing Paulinest 1 Cor. 16: 3). Between his two-letters Odo-Cornelle about a year must reacted there first letter was written soon after Perlate that he Ret 20!/6

It has N-3:08 states int gourney the state of the flavor of the Section of the During This year he wrote Romans Andalasson 200 letter to days of unleavened break to the to the days of unleavened break to the days of unleavened break to the days of the total the tot stoomed relational also arrained but hely seement in relating of providing of providing and presched unto them, ready to depart on the morrow; and he continued speech until midnight." -- Acts 20:5-7. The Spirit of Prophecy throwt Tightnuchen the Bessenby Constitutioned in the Sorie Color to the apostle's journey: coasts of love remor, "At Bhilippi Paul terried to keep the Passover. Only Luke demained with him there. The Phillipians were the most loving and true-hearted of the apostle's converts, and during the eight days of the feast and and red converts, and during the eight days of communion with them. "Sailing from Philippi, Paul and Luke reached their companions at Troas five later, and remained for seven days with the believers in that place, a "upon the last evening of his stay the methien came together to brook bread." -- "Acts of the Apostles," pp. 390, 391. 1 Leasters The chronological setting of this passover and its relation to Faul's journey into Asia is quite clear. At Philippi, he "tarried to reep the Passover," and steld oight days to discovered and steld oight days to discovered and the steld of the stell of with the believers, upen the last evening of his stay, " Paul preached until mid-fight, "read work on the morrow, which lake calls the "Thest day of the week." From this record in Acts, it can be concluded that the severth and restrant of the apostle's tarry at Trees was the Sabbeth day. The year seems to have been 60 - D. for about a month later Paul many ested at reasson, the when two years afterward appeared before Festus, who had dust baken office in 63 A.J. Therefore it must have been found when Paul was in trees: The rottowing is the calefdar fewting leacher herrifation det get rigtgeve isla-inua stationer de la servicione herd Town through to Polation, on largope and water coasts N 1 - Tues New Year 11 - Fri 23 - Wed ... "Selected Troas" 24 - Thurs in fave days" 12 - Sabbath unbew - S IS - Sun S 5 - Thurs Personer 25 - Fre 14 - 1400 Hopingofusor teller from from William (4) of holesy- 28/ - Mon of Island of Dream of Blicker shods we abode essect by Tarrover willed ross alor seven days" Confullyeurs and afragainte togthe spring from Pauls first working at Country, stay," Paul pres the openion to all as in labour as og a. O. as Parely Feeting Atrack Commistate attended to the Parely of the Period of Porteins Festius -- "Roman procurator in Falestine about 60162 M.D." (Cent. Dict.) at a fin a state of the state o Shurer (Div. I. Part II. pp. 182-4) given sugmered of pecentic detribed libbuilties on earlier date, historyk with the first decided of sold 22 years at least.

#### THE PROPHETIC ERA

The number "2300," representing the longest period of prophecy, has a three-fold character. It is prophetic in that its time is reckoned on the year-day principle, as given to the prophet Ezekiel (Ezek.4:5,6); it is symbolic for the reason that it is exactly equal to 46 jubilees (45 times 50), thereby partaking of the nature of a jubilee, and in this way acquiring a starting point as provided for every jubilee year, the tenth day of the seventh month (Lev.25:9); it is also a secret number as indicated by the reason of the one who gave it - Palmoni, the numberer of secrets (Dan. 8:13, margin). The length of a prophetic year can be determined by comparing verses 2 and 3 in Revelation 11; here it may be observed that two concurrent events of the Dark Ages, (1) the treading down or persecution of God's children, and (2) the clothing of His two witnesses - the Holy Scriptures - in sackcloth, are described under two different, but equal symbols of time, - 42 months and 1260 days. Since, therefore, 42 months equal: 1260 days, 1 month equals 30 days, and 12 months, or 1 year, equal 360 days. Thus prophecy defines its own symbols of time.

Because the years of the 2300-period are all equal in length - 360 days - and because its first year begins on the tenth day of the seventh month, or 10 Tisri of the Hebrew calendar, therefore each one of its years must begin on 10 Tisri, and they would all end on 9 Tisri. In 1844 William Miller and his associates found the initial year of this period by turning to Ezra a:1 and noting the date in the margin, 457 B.C. This is the date referred to in Dan.9:25, but it is one which can be determined in several ways. Perhaps of equal importance with the historical references are certain confirming features mentioned by the Bible itself. The whole line of the prophecy

is sealed by three oaths. They are: -

1. Oath of the Angel . . "That there should be time no long(Rev.10:6) er," the end of the 2300 years.

2. Oath of Christ . . . That the "time, times, and an half"
(Dan.12:7) should reach to the time of the end, in reply to Daniel's question in Dan.12:6.

3. Oath of God . . . . Inaugurating the priesthood in heav(Heb.7:21) en on the day of Pentecost just
50 days after the resurrection.
Lev.23:16. Cf Pat.and Proph.,
p.539 and Des. of Ages. p.785.

The first oath was made in reference to a movement known to a the world, the stirring preaching in 1844 announcing the coming of Christ. One day only was set for this event, Oct.22, 1844. Life of William Miller, James White, pp.298, 299. To this date the Angel referred when he took the oath that time should be no longer, but he signified the end of prophetic time, and not the end of the world. There are no more time prophecies to be fulfilled.

The second oath confirms that starting and finishing event in prophecy known as the "time of the end," the date of which is marked out by the angel Gabriel in his outline of history in Daniel 11. Verse 40 describes the well known controversy between three kings, two against one, the king of the north (Turkey), and the king of the south (Egypt), against the king of verse 36 (France). The bat-

the of the Pyramids, July 21, 1798, was the opening engagement, but by Aug. I the French ships were completely annihilated in the harbor of Alexandria, and in the following spring the Turkish forces, aided by the English navy repulsed Napoleon at Acre. History of Western Europe, Robinson, p.598. This famous battle scene dates the beginning of the "time of the end" as late summer of the year 1798, to which time the oath of Christ declared that the "time, t' times, and an helf," or 1260 years, should reach. No other powers but France, Turkey and Egypt can answer to these symbols. Early in the year, in February, the Papacy had received a deadly wound at the hand of France; the crown and marriage ring were taken from Pope Pius VI, and in the eyes of Europe the Papacy was dead! In such a manner, anticipating the event over two thousand years, the oath of Christ fixes an important landmark in prophecy and history.

The third oath relates to the opening scene of the ministry of Christ in heaven on the day of Pentecost, when He was ordained and anointed High Priest by the oath of God (Heb.7:21). On this occasion the Holy Place of the heavenly sanctuary was opened, and the event took place fifty days after the sheaf of first ripe grain had been waved before the veil on the second day of the feast of unleavened bread (Lev.23:16). In the year of the crucifixion, the offering of the wave sheaf, if presented at all after the rending of the veil, would be at the time of the first sacrifice on Nisan 16, the day of the Resurrection. The oath, therefore, which confirmed the priesthood of Christ, also had a direct relation to the time of the crucifixion, and had been on record for many centuries (Ps.110:4).

All the other periods of prophecy are each a part of the long line of the 2300 years: the seventy weeks of Daniel 9 begin this prophetic era; the 541 years and 15 days of Revelation 9 end it; to the great tribulation in church and state known as the Dark Ages, a three-fold series of symbolic time is applied. The following is a

complete list:-

Dan,8:14	The 2300 years, extending from 10 Tisri, 457 B.C. to the "cleansing of the sanctuary" in 1844.				
Dan.9:24	The 70 weeks, or 490 years, from 457 B.C. to 34 A.D.				
Dan.9:25	The 69 weeks, or 483 years, from 457 B.C. to 27 A.D.				
Dan.9:27	"Midst of the week," or 486 and 1/2 years from 457 B.C. to 9-10 Nisan. 31 A.D.				
Dan.7:25 )					
Rev.11:2,3 ) " 12:6,14) " 13:5	The 1260-year period of the papal horn, from 538 A.D. to 1798 A.D.				
Dan.12:11	The 1290-year period relating to those horns which clung to the Papacy, and set her up - from				

Dan.12:12 The 1335-year period relating to the Propestant powers which separated from Rome and became a

blessing to the world, from 508 A.D. to 1843 A.D.

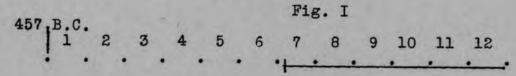
Rev. 9:5,15 The 541 years and 15 days, the Muslim Period, from 1299 to 1840, or 1303 to 1844.

The first four periods in the list given above cross over from B.C. to A.D. They each start in the fall of the year 457 B.C. when Fzra had begun his reform in Jerusalem. The temple had already been finished for nearly sixty years (Ezra 6:15), but the sins of the people had caused the sanctuary service to fall into neglect; the priests, princes and rulers had intermarried with the heathen tribes, and were worshiping their gods (Ezra 9:1,2). Ezra had arrived in Jerusalem on the first day of the fifth month, but it took all the rest of the year to clean up the distressed condition in the homes of Israel (Ezra 10:17). The Day of Atonement came, and his revival marked the beginning of the 70 weeks of Daniel 9, the first companion prophecy of the 2300 years.

of Daniel 9, the first companion prophecy of the 2300 years.

The date 10 Tisri, 457 B.C. means that prophetic time did not begin until the 10th day of the 7th month of the year 457. In so doing it thereby cut off 6 months and 9 days from the first part of this year, leaving a balance of 456 full years, 5 full months, and 21 full days. Fig. I below represents this portion marked with a heavy line, and it is the equivalent period B.C. of

the important date under consideration.



5 mos. 21 days plus 456 years

For convenience it should be written (456-5-21). When subtracted from 2300, 490, and 483, it will leave the periods (1843-6-9), (33-6-9), and (26-6-9). These are the complementary portions A.D., and can readily be translated into their corresponding dates:

(1843-6-9) equals 1843 full years, 6 full months, and 9
full days, and therefore reaches to the 10th
day of the 7th month, 1844, or 10 Tisri, 1844.

In like manner the periods
(33-6-9) extends to 10 Tisri, 34 A.D., Gospel to the Gentiles.
(26-6-9) " 10 Tisri, 27 A.D., Baptism of Jesus.

The fourth period. the one continuing to the "midst of the week," equals 486 and 1/2 years, being equivalent to 69 weeks, or 483 years, plus 3 and 1/2 years more, the first half of the 70th week. This period should be written (486-6-0). Subtracting it from the period (456-5-21), we get (30-0-9) for the balance, or 10 Nisan, 31 A.D. Nisan is the name for the first Jewish month, and the 10th day of this month was the time set apart for the selection of the Passover Lamb (Ex.12:3). The "midst of the week" ended on that day, a day of omen, for fifteen long centuries marking time when the great antitypical Lamb should be chosen for the sacrifice. At this very time He was to cause the sacrifice and oblation to cease. Never before had Jesus assumed such kingly authority as on those first days of Passion Week. With glad and thrilling voices the multitudes sang His praise; the hosannas of the royal triumph on Sunday were repeated on Monday, and the palm branches waved again before Him (Desire of Ages, p. 592).

"Never before in His earthly life had Jesus permitted such a demonstration. He clearly foresaw the result. It would bring Him to the cross. But it was His purpose thus publicly to present Himself as the Redeemer. . . While the people were assembling at Jerusalem to celebrate the Passover, He, the antitypical Lamb, by a voluntary act set Himself apart as an oblation." Desire of Ages, p. 571.

The priests and scribes had said, "Not on the feast day," but they became so confused over the triumph of Christ that they decided to wait no longer, and gave Judas the money for the betrayal of His Master. Judas had been ready since the supper at Simon's house. And in this manner was prophecy fulfilled. The royal entry on Sunday, the continued demonstration of victory carried over into Monday, another cleansing of the temple, followed by the healing of the side and dying, Jesus had taken command of the temple, all these things united to stir the leaders unknowingly to choose Him as the sacrificial Lamb, and to precipitate the event of the Cross, when the Hebrew system of ceremonies would actually be made to cease by the death of the Saviour. How wonderful the meaning of those words, "the midst of the week!" And how the enemy of truth would try to show that they are yet future!

The 70 weeks of Daniel 9, though important in their relation to Daniel's own people, yet are of greatest portent in pertaining to the ministry of Christ both on earth and in heaven. These fea-

tures are:-

1. That the 69 weeks were to lead up to the Baptism, or anointing of the Messiah.

2. That the "midst of the week" - the 70th - was to set
Him apart like the lamb chosen on 10 Nisan; the
day was to be Monday. of Passion Week.

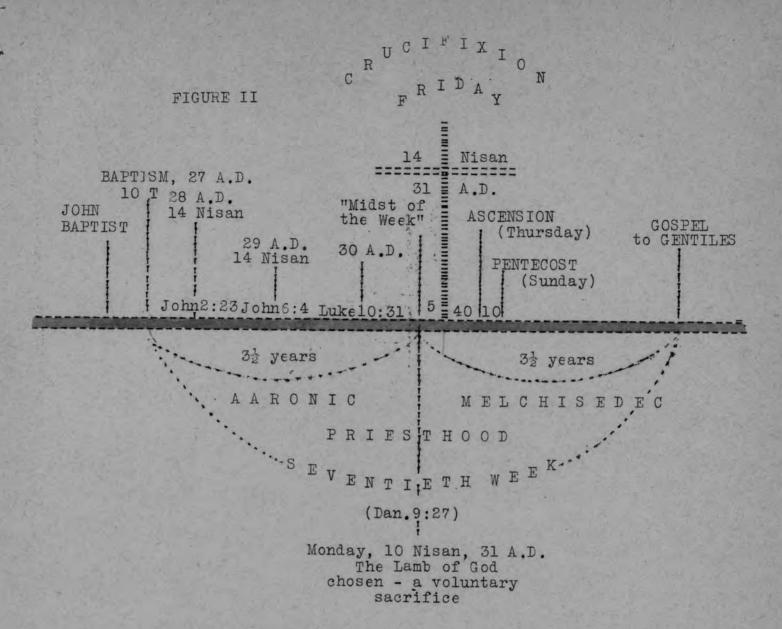
day was to be Monday, of Passion Week.

3. That the Crucifixion was to be days after the "midst of the week," or 14 Nisan, in harmony

with the law of the Passover.

4. And finally, that the 70 weeks were to anoint a Most Holy Place, as declared in Dan. 9:24 (A.R.V).

This last mission of the prophecy directly connects it with the 2300-year period at the end of which was to come this very event, also described as the "cleansing of the sanctuary" (Dan. 8:14). In ancient times the cleansing and the amointing went together (2 Chron. 29:16,17), and just so do these two prophecies belong to each other. For how could the 70 weeks, or 490 years, anoint a Most Holy Place, the cleansing of which was to occur far down the stream of time in 1844 A.D., unless it became a part of a time period which should reach to that very year? The 2300 years are that time period, and how intimately are the 70 weeks connected with it! They not only begin it, but by virtue of presenting the ministry of Christ on earth, they are also able to point their finger at the very end of the longest time prophecy, and at the very act of cleansing and anointing the Most Holy Place of the temple of God in heaven. Not much is said in the Bible about the 2300-year prophecy itself, but the other periods of time, that are companions to it, enlarge its meaning and purpose, and are themselves definitely described.



Before attempting to mark the calendar time of the crucifixion, it is necessary to understand not only the leading events of
the last week, known as Passion Week, but also a general outline
of Christ's whole ministry. Some writers of the harmony of the
gospels have spent a whole life time trying to work this out, their
conclusions still being uncertain. One reason for this confusion
of thought is that the prophecy of the ministry of Christ in Dan:
9:24-27 is seldom connected with the gospel story. Without this
support the orderly record of Christ's life here on earth is difficult to arrange. The three synoptists, Matthew, Mark and Luke,
largely describe the travels of Jesus around Galilee, and do not
mention any feasts at all except the fourth Passover. John, on
the other hand, groups his events as related to six feasts, and so
the major part of his gospel concerns the work of Christ in and out
of Jerusalem. As a result, with the exception of the trial and
death of the Saviour, John apparently has only one event in common with the other evangelists. But the feasts which he mentions
(Cf. Fig. II) constitute an important framework of chronology, and
along with these there should go the prophecy in Daniel 9, which
declares that Messiah the Prince was to confirm the covenant with

many for one week. This was the "seventieth week," the last one of the prophecy, a period of seven literal years. Half of this time, and five days more, the Lord Himself used in confirming the covenant with Israel and ending the Aaronic system, while the balance of the time marked the beginning of the order of Melchisedec (Heb.5:10), under which Jesus entered into the ministry of the heavenly sanctuary. During this latter time the disciples, endowed with spiritual fire, finished the covenant work at Jerusalem.

We can therefore ascribe a definite length of time to the earthly part of Christ's ministry, - 3 years, 6 months and 5 days, or (3-6-5). This period began at His baptism, in the fall of the year, on 10 Tisri, A.D. 27. The whole time would therefore include four fassovers. Three of these are plainly named by John, the first two and the last; and they mark off the years of the Lord's evangelism as one, two and four. The third year is introduced by Luke as the "time" that He should be received up. As in another place, Luke 21:24, Luke used the word "time" as the prophetic symbol for Year. It seems that Jesus did not attend but two of the Passovers, the first and the last. This was evidently on account of the constant effort made to take His life.

With the exception of the brief record given by John in his first two chapters, there is almost complete silence concerning any public activity of the Messiah during the six months between the baptism and the first Passover. This quiet, pacific entrance into His work was outlined by prophecy. Unlike John the Baptist, who was himself a "cry in the wilderness," Jesus was not to cry, nor was His voice to be heard in the streets (Isa.42:2). On His journey to the Passover He mingled unnoticed with the throng (Desire of Ages, p.154). His plan of work lay out before Him, perfect in every detail. His mother had urged Him to give evidence of His Messianic claim. He would not hesitate to act at the appointed time; but with submission He would wait for the time! To her He answered, "Mine hour is not yet come." Every act was to be in fulfilment of the plan laid in eternity. He had not yet publicly declared His mission. The hour had not quite struck. several centuries the sons of Kohath, in symbol, had prophesied of this very Passover. A Levite could take up his work in the tabernacle at the age of twenty-five, or even twenty, as in David's time; but not so the Levite who was to bear on his shoulders the holy things, - the ark, the altar of incense, the candlestick. A son of Kohath must be thirty years of age when he entered into his ministry (Num.4:3). Jesus Himself had directed this very ordinance, and it was a picture of His own public ministry, and of the time at which He would enter it. As we behold Him in the only description given of this paschal feast, suddenly He steps forth with the authority of a King! The divine Life and Light of the whole Hebrew service has come to His temple! He is the Temple, He declares.

This was Christ's first public announcement of His work, and He was, by ancient prophecy, and by Luke's declaration, about thirty years old. However, out of consideration for John the Baptist, He does not begin openly to preach until after the imprisonment of His faithful herald. Then He returns in the power of the spirit into Galilee, preaching the gospel of the kingdom of God.

"It would be needful for His church in all succeeding ages to make His death for the sins of the world a subject of deep thought and study. Every fact connected with it should be verified beyond a doubt." Desire of Ages, p.571. As the most important landmark of chronology we present the outline of events occurring during Passion Week:

- 1. Friday: Six days before the Passover Jesus came to Bethany. John 12 fixes the time.
- 2. Sabbath Night: Supper at Simon's house. Then a Council of the chief priests (John 12:10), and Judas met with them (Matt. 26:14; Mark 14:10).
- 3. Sunday: Triumphant Entry, an all-day's journey from Bethany (Mark 11:11). "The priests at the temple sound the trumpet for evening service, but there are few to respond.." Desire of Ages, p.571.
- 4. Monday: The fig tree cursed. The temple cleansed.
- 5. Tuesday: Peter next morning notices the withered tree (Mark 11:20). Jesus teaches all day in the temple—His last appeal. The Greeks seek Him (John 12:20). Woes on the Pharisees (Matthew 23). He departs from the temple (Mark 13:3), goes to the mount of Olives on the east, like as the Shekinah in Fzek—iel 11, and instructs His disciples. At the end He mentions that the Passover is two days off (Matt. 26:2). The Council at the palace of Caiaphas (verse 3) doubtless took place soon after Jesus left the temple, for His Woes against the leaders would stir them up. Judas met with them (Luke 22:1-6). Jesus hides Himself (John 12:36).
- 6. Wednesday: No record of any public appearance of Jesus.
- 7. Thursday ("between the evenings," as in Ex.12:4): Peter and John sent to prepare the Passover (Luke 22:8) in the room already furnished (verse 12). Passover Supper (Matt.26:20) and Communion Supper (John 13:1). Gethsemene- the Arrest- Annas- Caiaphas- Pilate (before he had arisen, John 18:28; Des.of Ages, p. 723).
- 8. Friday Morning: Jesus brought before the Council in the temple. Judas returns the money (Matt.27:3). Jesus is bound and taken again before Pilate (verse 2); then before Herod (Luke 23:13); and finally for the third time to Pilate (Luke 23:13); then, third hoursixth hour-nineth hour-His last words-His death!

To establish the day of the week upon which the Saviour died is of more importance than to discuss the much-disputed 14 or 15 Nisan. The quotations below confirm the Bible record that 14 Nisan was the day ordained for the Passover.

#### REFERENCES ON THE PASSOVER

On the fourteenth day of the month, at even, the Passover was celebrated, its solemn, impressive ceremonies commemorating the deliverance from bondage in Egypt, and pointing forward to the sacrifice that should deliver from the bondage of sin. Pat.

and Proph., p. 539.

The Passover was followed by the seven days' feast of unleavened bread. The first and the seventh day were days of holy convocation, when no servile work was to be performed. On the second day of the feast, the first-fruits of the year's harvest were presented before God. Barley was the earliest grain in Palestine, and at the opening of the feast it was beginning to ripen. A sheaf of this grain was waved by the priest before the altar of God, as an acknowledgment that all was His. Not until this ceremony had been performed was the harvest to be gathered. Pat. and Proph., p. 539.

Christ arose from the dead as the first-fruits of those that He was the antitype of the wave-sheaf, and His resurrection took place on the very day when the wave-sheaf was to be pre-

sented before the Lord. Desire of Ages, p.785.

Fifty days from the offering of the first-fruits came the Pentecost, called also the feast of harvest and the feast of weeks.

Pat. and Proph., p. 540.

These types were fulfilled, not only as to the event, but as to the time. On the fourteenth day of the first Jewish month, the very day and month on which, for fifteen long centuries, the Passover lamb had been slain, Christ, having eaten the Passover with His disciples, instituted that feast which was to commemorate His own death as "the Lamb of God, which taketh away the sin of the world." That same night He was taken by wicked hands, to be crucified and slain. Great Cont., p. 399.

The Saviour knew that His hour was come; He Himself was the true paschal lamb, and on the day the Passover was eaten, He was to

be sacrificed. Desire of Ages, p. 642.

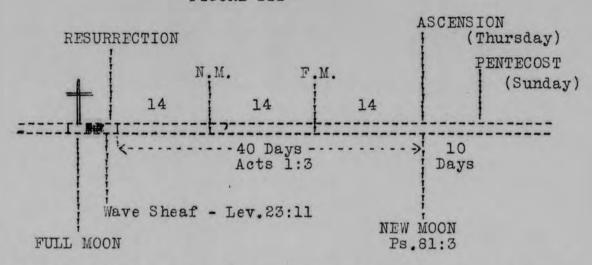
Christ was standing at the point of transition between two economies and their two great festivals. . . As He ate the Passover with His disciples, He instituted in its place the service that was to be the memorial of His great sacrifice. Desire of Ages. p.652.

That was a never-to-be-forgotten Sabbath to the sorrowing disciples, and also to the priests, rulers, scribes, and people. At the setting of the sun on the evening of the preparation day the trumpets sounded, signifying that the Sabbath had begun. The Passover was observed as it had been for centuries, while He to whom it pointed had been slain by wicked hands, and lay in Joseph's tomb. Desire of Ages, p.774.

In Chull.83 a it is noted in connection with offerings, that as in the history of Creation the day always belonged to the previous night ("one day"); it was always to be reckoned in the same manner. Again, in Pes. 2 a it is stated that the day lasted till three stars became visible. Lastly, and most important in regard to the Passover, it is distinctly stated (Jer.Pes.27 c, below), that it began with the darkness on the 14th Nisan. Edersheim, Vol.II,p.469.

Jer.Pes.27 d, line before last: "What means: On the Pesach?

Answer: On the 14th (Nisan)." Edersheim, Vol. II.p. 479.



We know that the Ascension occurred at New Moon from several sources. An ordinance relating to it was given by Joseph to Israel way back in Egypt (Ps. 81:5). He did this to encourage his brethren that the Lord would surely come; "He will surely visit you," he said in Gen. 50:24, and at every new moon the people were to prophecy of this glad event by blowing the trumpet. We also have a parable based on this circumstance. The "loud and stubborn harlot" in Solomon's proverb entices a simple youth with these words:

For the goodman is not at home, he is gone a long journey:

He hath taken a bag of money with him, and will come home at the new moon. Prov. 7:19,20 (margin).

Lest we forget, prophecy connected this sign of Joseph's faith with one of Solomon's proverbs, in whose days "coming home at the new moon" had become a legend; but his fable is to us the strongest kind of evidence, because founded on the story of Joseph. We have therefore (see Figure III) just 42 days reaching back from the New Moon of the Ascension to Friday of the Crucifixion, - from New Moon to the Passover Moon. These 42 days represent one and one-half revolutions of the moon, or four conjunctions with the sun:

- 1. Full Moon ---Crucifixion.
- 2. New Moon ---14 days afterward. 3. Full Moon ---
- End of another 14 days. 4. New Moon of Ascension --- End of still 14 days more.

The 40 days in Acts 1:3 do not begin until Jesus first presented Himself to the apostles, which was at the end of Sunday (John 20:19). The 42 days then include Luke's 40 days, the Resurrection day, and the Sabbath that Jesus was in the grave.

This sacred chronology shows the relation of the moon's phases to the history in hand. The mean length of the lunar month is about 28 days. If the moon's revolution is figured from a fixed star, or a fixed point on the ecliptic, as the vernal equinox, its time is a little over 27 days; but when the moon's revolution is figured in respect to the sun, which also moves in the same direction (about 1 degree a day), it takes 2 days longer for the moon to catch up with the sun, making this revolution a little over 29 days. Its average time then is about 28 days, slightly more than 7 days to each phase; and this is evidently the foundation figure of the Passover, for the command was:

And in the fourteenth day of the first month is the passover of the Lord. Num. 28:7.

. . thou shalt sacrifice the passover at even, at the going down of the sun, at the season that thou camest forth out of Egypt. Deut. 16:6.

When the ordinance of the Passover was first given to Israel, Moses said, "This month shall be unto you the beginning of months" (Ex.12:2), their first new moon of the year. Hence it must have been a full moon that 14 days later lighted the path of Israel out of Egypt on the night of 15th Abib, or Nisan. Num. 33:3. And this day was always to be remembered by a special festival (Num.28:17), but it was not the passover day. It was the morrow after the passover. And so, at the time of the crucifixion we should expect the full moon to enter the scene sometime on

Friday afternoon, or between 14 and 15 Nisan.

In the time of David (1 Sam.20:24-27) we find the nation observing the occasion of the new moon, and it is especially noted as occurring on the first day of the month (verse 27). The Jewish calendar was timed to the moon's behaviour by intercalating a month every three years. But a more accurate treatment of the calendar was yet to come. In the fourth century before Christ one Meton, an Athenian, discovered the 19-year cycle of the sun and moon, known as the Metonic Cycle. In this period of 19 years 19 apparent revolutions of the sun, within about 2 hours, are equal to 235 revolutions of the moon. This discovery of Meton was brought into use July 16, 433, and was adopted in all the colonies of the Greeks. It was also engraved in golden letters on tables of brass, and has been the basis of the calendars of all the nations of modern Europe.

The 19 years, or golden numbers, of each Metonic Cycle are numbered consecutively 1 to 19. The year 1 of the Christian era is No. 2 of the Cycle, and the year 31 is No. 13, as the table be-

low represents:

on represe.	TT OP .			
C.Era	G.N.	C.Era G.N.	C.Era G.N.	C. Era G.N.
B.C. 1	1	8 9	16 17	24 6
A.D. 1	2	9 10	17 18	25 7
2	3	10 11	18 19	26 8
3	4	11 12	19 1	27 9
4	5	12 13	20 2	28 10
5		13 14	21 3	29 11
6	7	14 15	22 4	30 12
7	8	15 16	23 5	31 13

Every year in the Christian era divisible by 19 is always No. 1 of the Cycle, and by computation it may be observed that the

year 1931 is No. 13 the same as the year 31. This fact is of significance also because in the year 1931 three of the Jewish feast days had eclipses:

Passover (April 2) --- Total eclipse of the moon. New Year (Sept.12) --- Partial eclipse of the sun. Feast of Tab- (Sept.26) --- Total eclipse of moon. ernacles

Cf. Nautical Almanac, 1931

It is particularly the eclipse of the moon on April 2 that claims our attention. This was Thursday, the first full moon following the vernal equinox in 1931. It therefore was the original day for the passover. The Nautical Almanac gives the exact time of the occurrence as April 2 -20 hrs.-5.5 m. at Greenwich. The time at Jerusalem would be 2 hrs.-20.89 m. later, or April 2-22 hrs.-26.39 m. civil time, that is, from midnight to midnight. To obtain the time of the passover moon in 31 A.D. we have

To obtain the time of the passover moon in 31 A.D. we have recourse to the law of the moon's motion in the Metonic Cycle. The whole period between 31 A.D. and 1931 A.D. is 1900 years, or 100 cycles of 19 years each. The sun and moon travel this distance in entirely different fashion. While the sun is apparently racing around the sky, marking off our years, 1900 of them, the moon is circuiting the earth 23500 times, outlining our lunar months, each one being 29.530588 days long. The sun's year consists of 365.24219689 days (this figure is corrected according to Nautical Almanac). And the moon's performance lags the sun's by a few days. The difference is not great, however, for the

Moon equals 23500 times 29.530588 or 693968.818 days Sun " 1900 " 365.24219689 " 693960.174 "

Moon's Lag equals 8.644 days

In common language these figures mean this: On April 2, 1931 the sun and moon are in conjunction. It is the Passover Full Moon both by the almanac and the Jewish calendar. The sun has just finished its nineteen hundredth round of the heavens, a series started April 2, 31 A.D. The moon has run around the earth for the last one of her 23500 revolutions. Since the year 31 the moon has lagged the sun about 2 hours every nineteenth year. These cyclic delays amount to 8.644 days in all, or 8 days 15 hrs.-27.36 m. The problem is: On what day in 31 A.D. shall the moon start her 23500 lunar revolutions so that both moon and sun shall be in conjunction on April 2, 1931? There is only one answer. If the moon should start with the sun on April 2, 31, (that date would then be a full moon) she would be 8.644 days behind the sun on April 2, 1931, and Full Moon would occur on April 11. Therefore, to come out even, she must start this side of the sun's starting point by 8.644 days. We add as follows:

Sun's Start equals A.D. 31 4th mo. 2 nd day 22 hrs. 26.39 m. Moon's Lag " 8 " 15 " 27.36 "

Moon's Start A.D. 31 April 11 13 hrs. 53.75 m. or April 11, 1:53 P.M., 31 A.D.

The next step in this important chronology is to determine on what day of the week April 11 fell in 31 A.D. Chronologic treatises give the information that the Christian era began on Monday. This can easily be proved by reckoning from a known date of modern times if the leap days are placed in proper order, one for every year divisible by 4, except the centuries, which must be divisible by 400. Such a table will show a sequence of the days of the week for every 4 centuries:

### NEW YEAR'S DAY FOR YEARS LISTED

	m	-M	onday	S	-58	aturda	ау			TThursd	la	У	tTuesd	la	V
	301			701			1101	-	t	1501	-	t	1901	-	t
	201		-	601			1001	-	T	1401	-	T	1801	-	T
	101			501		7.5	901	-	S	1301	-	S	1701	-	S
A	D. 1			401	-	m	801	-	m	1201	-	m	1501	-	m

The Christian era has in no way changed its days of the week in its course of time; otherwise it could not present such a sequence. Since therefore the year 1 A.D. began on Monday, count the New Year's days forward to the year 31:

Jan.l m t w T S s m t T f S s t w T f s m t w f S A.D. 
$$1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22$$
 s m w T f S m t w  $23-24-25-26-27-28-29-30-31$  Numbers underlined are leap years.

So January 1 for the year 31 A.D. was Wednesday. And April 11 was Friday - count the days off on the table below:

W Mar. W 14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-W

Now we can understand David when he called the moon a faithful witness in the sky! and his inspired description of the sun rejoicing in his race in the heavens! Ps.19:5. It is only since the year 1750 that accurate observations of the sun's position have been known, but even now corrections of these early tables have to be made. The number 29.530588 has been obtained from many observations, or occultations, of ancient and modern eclipses, yet this figure offers an uncertainty of about one tenth of a second (Moulton, p.189). If only 17 hundredths of a second were added to this constant, it would bring the time of the full moon on this Friday of A.D. 31 just as Jesus was dying on the cross! This observation, if accepted by astronomy, would be without a peer in the field of science.

From the problem worked out on page 11 a rule may be deduced which will apply to any full-moon date of the twentieth century, and obtain the corresponding full moon of the first:

Rule. To any full-moon date of the twentieth century simply add the amount of lag the full moon makes between this date and the same date of the first century, which is always a period of 1900 years. This lag is 8.644 days, or 8 days-15 hrs.-27.36 m. as explained above. To get Jerusalem time 2 hrs.-20.89 m. must be added to the dates recorded at Greenwich.

## TABLE I PASSOVER MOON DATES AT GREFNWICH -- TWENTIETH CENTURY

Year	Go	ld.No.	Day of Week		Date		
1927		9	 Sunday		April 17-	3 -	35.4
1928		10	 Thursday		April 5-		
1929		11	 Monday		Mar. 25 -	7 -	45
1930		12	 Sunday		April 13-		
1931		13	 Thursday		April 2-		
1932		14	 Wednesday	y	April 20-		- No. 1 (100 )
1933		15	 Monday		April 10-		COLUMN TO STATE OF THE PARTY OF
1934		16			Mar. 31 -		

## TABLE II PASSOVER MOON DATES AT JERUSALEM -- FIRST CENTURY

Year	G	old.No.	1	Day of Week	I	ate		
A.D. 27		9		Sunday	 April	25-	21-	23.55
28		10		Thursday	 April	13-	21-	25.25
29		11		Tuesday	 April	3-	1-	34.25
30		12		Sunday	 April	21-	23-	35.75
31		13		FRIDAY	APRIL			
32		14		Wednesday				
33		15			April			
34		16		Saturday				

And so, during the seven years of the seventieth week of the first century, there was only ONE FRIDAY on which the passover moon occurred. This year, 31 A.D., stands forth as the year of the Crucifixion. The early records of Christianity were largely destroyed by the pagan persecution. The Alexandrian library, which contained the valuable rolls of the ages long past, was burned by the Christians themselves in the sixth century A.D. The Voice of history is silent concerning the date of the Vicarious Sacrifice. The Bible records the day, but the Faithful Moon declares both! - Friday, April 11, 1:53 P.M., A.D.31. Her Creator was dying on the Cross.

The dates in Table I were taken from the Nautical Almanac. The passover moon should be the first full moon after the vernal equnox, but this rule is not always adhered to by the modern calendar of the Jews. They observe no aniversary of their first festival on Monday, Wednesday or Friday. If the full moon occurs on these days their ceremonies are conducted on the next day, or, if the time is very early, on the next ensuing full moon.

		31 A.D.	CHAPI	330 U	538	OFTHERE	E V.E.L.A.T. I O N 1798	18/14
PERIODS	С	ONE	TWO	THREE	FOUR	FIVE	SIX	SEVEN
		OUR HIGH PRIEST						
	2	EPHESUS	SMYRNA	PERGAMOS	THYATIRA			
CHURCHES	3					SARDIS	PHILADELPHIA	LAODICEA
SEVEN	4	THRONE OF	GOD	ТН	E H O	L Y P L	A C E	
SEALS	5	-		DIAGN	IDATE	11 7	***	
DEME	6	HORSE	HORSE	HORSE	IHORSE)	How Lord?	Signs in the Sun, Moon, Stars	GDYTDATE GDAY
	1							SEVENTH SEAL THE SEALING
	8							
SEVEN -	-	TRUMPET 1	TRUMPET 2	TRUMPET 3	TRUMPET 4	W O E	Colden Alter	11 MEACHER MEMBER
TRUMP-				•	*	TRUMPET 5		11-MEASURE TEMPLE, ALTAR, WORSHIPERS
ETS								MOST HOLY PLACE
							IS PAST	w TRUMPETE 7
mina		GREAT	RED DR	AGON	- 10 (C 97)	December 19 and 19	THE RESERVE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN COLUMN TW	DRAGON WROTH
					THE	BEAST		HER BEAST
END	14						MESSAGES	Third Angel's MESSAGE
OF	15							SEA OF GLASS
THE	16.							SEVEN LAST PLAGUES
WORLD	17	"Wilder- ness" Vis	lon		WAS	3	The BEAS!	T that thou sawest T Y E T I S
	18							LAST CALL
ADVENT	19							WHITE HORSE
1000 Yrs.	20							JUDGMENT
HOLY CITY	21	1						NEW JERUSALEM
BENISON	22	Blessed a	are they the	at do his	commandment	s that	they may enter in t	through the GATES
	SEVEN CHURCHES  SEVEN SEALS  SEVEN TRUMP- ETS  THE E N D OF THE W O R L D  ADVENT 1000 Yrs. HOLY CITY	1   2   3   3   4   5   5   6   7   7   7   7   7   7   7   7   7	PERIODS         C         O N E           SEVEN         1         OUR HIGH           SEVEN         2         EPHESUS           SEVEN         4         THRONE OF           SEALS         6         WHITE HORSE           6         WHITE HORSE         7           SEVEN         "         TRUMPET 1           TRUMP         9         10           ETS         10         11           THE         13         2           GREAT         1           THE         13         14           OF         15         16           WORLD         17         "Wilderness" Vis           18         ADVENT         19           1000 Yrs         20         1000 Yrs	PERIODS C ONE TWO  SEVEN CHURCHES 3  SEVEN SEALS 6 WHITE HORSE 7  8 ALTAR OF INCENSE  TRUMP- 9 ETS 10  12 GREAT RED DE THE 13 END 14 OF 15 THE 16 WORLD 17 "Wilder-ness" Vision 18  ADVENT 19 1000 Yrs. 20 HOLY CITY 21	PERIODS   C   O N E	PERIODS C ONE TWO THREE FOUR  SEVEN CHURCHES  SEVEN SEVEN SEVEN SEALS  6 WHITE HORSE TRUMPET 1 TRUMPET 2 TRUMPET 3 TRUMPET 4  TRUMP BTS  12 GREAT RED DR AGON WILD OF 15 THE 13 END 14 WORLD 17 "Wilder- ness" Vision NA ADVENT 19 1000 Yrs. 20 HOLY CITY 21	PERIODS C O N E T W O T H R E E F O U R F I V E  SEVEN CHURCHES 2 EPHESUS SMYRNA PERGAMOS THYATIRA  SEVEN SEVEN SEVEN 5 THE SEALED BOOK 6 WHITE HORSE HORSE HORSE HORSE HORSE 7 TRUMPET 1 TRUMPET 2 TRUMPET 3 TRUMPET 4  TRULP- ETS 10 11  12 G R B A T R E D D A A G O N W I L D E R N E S S 1  THE 13 THE 14  W O R L D 17 "Wilder-  ness" Vis on 18  ADVENT 19 1000 Yrs. 20 HOLY CITY 21	PERIODS C ONE TWO THREE FOUR FIVE SIX  SEVEN CHURCHES 3  SEVEN CHURCHES 3  SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN SEALS 6 MINITE SERVEN SEALS 6 WHITE SEALED BOOK SEALS 7  SEVEN SEALS 8 ALTAR OF INCENSE SEVEN WITHOUT SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN WITHOUT SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN WITHOUT SEVEN SEVEN SEVEN SEVEN SEVEN SEVEN WITHOUT SEVEN

Meton found that after a lapse of 19 years the phases of the moon recurred on the same days of the same months, except that they were 2.074 hrs. later each time. However, in spite of this simple relationship between the month and the year, the moon is really more complex in her motion than any other body in the heavens, Were the moon's orbit a true circle or a true elipse, the theory of this motion would be easy to solve; but the variations, which in the case of the planets produce a sensible and marked change only after many revolutions, cause in a single revolution of the moon distinct and definite deviations from her previous course. The recession of her nodes along the ecliptic results in a continual change in the plane of her orbit, so that if, during one revolution around the earth she occults, or passes by, certain stars, at the next revolution she will pass to one side of them, and will remove further and further from them each time around. Eventually she will pass over every star revolving across her belt of travel. For this reason the conclusion cannot be far from right that on the day of the Crucifixion there may have been certain planets which coincided with the moon.

Two or three years before the nativity a most remarkable conjunction of planets occurred - that of Jupiter and Saturn in the constellation Pises. This is admitted by all astronomers. It presented the most brilliant spectacle in the night-sky, such as could not but attract the attention of those who watched the stars in their courses. The next year the planet Mars joined the conjunction. The merit of discovering these facts belongs to the great Kepler. His book, De Stella Nova, was published at Prague in 1606. He showed that this planetary display occurs once in every 800 years. Quoted from Life and Times of Jesus, Albert Edersheim, pp.212, 213. Though this conjunction was not the angel Star which guided the wise men to Jesus, yet it probably stirred them to discover if possible the Star of which Balaam prophesied.

The three-hour darkness at the time of the crucifixion stands out alone as supernatural. It could not have been an eclipse of the sun, for solar eclipses do not last so long. Nor could it have related to the moon, for this darkness was in the day time. Eclipses are regular in occurrence, somewhat like the moon in the Metonic Cycle. They return periodically after the same relative position of sun, moon and node. This period is called the Saros. equivalent to 18 years and 11 days. It was used by the Chaldeans in predicting eclipses; it is still used today in connection with modern methods. Although the ancients had no tables of the sun and moon, yet they could foretell with considerable accuracy the time of an eclipse. After the period of the Saros eclipses repeat themselves in pretty much the same order.

The only solar eclipse on record which was visible at Jerusalem during the public ministry of Christ was on Nov.24, A.D.29. It happened at noon, and the stars were seen. But there is no warrant at all for associating it with the crucifixion. Also April 3, A.D.33 has been offered as a possible date, because it is claimed that this day was an eclipse of the moon. But April 3 in the year 33 was on Sunday, and the full moon in that month was on the 19th, according to the reckoning on page 13 of this Syllabus.

Though the perturbations of the moon have for ages taxed the efforts of science to analyze and tabulate the moon's motion in the heavens, yet the standard almanac of the twentieth century is based upon most complete tables relating to her position. They are almost entirely founded upon analysis, and present an error which rarely amounts to a second of arc. From them the moon's place in her orbit can be predicted years ahead with a precision that could not be obtained with observation. This is true proof that science has discovered the important laws of the moon's motion, laws which came into action at Creation, principles of physics by which she was commanded to rule the night. And thus

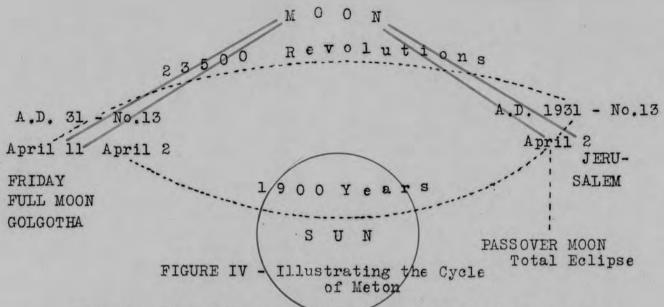
mere man approaches the mind of God!

It would seem as if the eclipsed moon herself were trying to call attention to that day in 1931 -- Thursday, April 2. Spring had come, and shortly all Christendom was hailing the Easter dawn by various rites, though mostly pagan in origin. The Hebrew Passover too had not only lost its form, but its meaning was gone. The first festival was to be both a memorial of deliverance from Egypt, and a type of the greater deliverance from sin. To show this the blood of the sacrifice had to be sprinkled upon the posts of the doors. One man--human effort -- could have saved Israel from Egyptian slavery, but only God could deliver from sin. The communion feast of Christianity, which was ordained as a substitute for the ancient rite inherited this holy meaning. The worshiper who accepts communion sees in its symbols a representation

of the Lamb of God "that taketh away the sin of the world."

All the years of the twentieth century are in a peculiar sense related to the Metonic principle. Each year not only belongs to the 19-year Cycle of Meton, but it is also one of a 1900year Cycle which is governed by the same law. Each one of the 1900 years is exactly 100 cycles (100 times 19) distant from its corresponding year of the first century. Furthermore the moon covers this same period of time in just 23500 revolutions lacking 8.644 days. No other century of the Christian era is like this; for the cycle number 19 is not an aliquot part of any century previous to 1900. The twentieth century is the only one since the Metonic law was discovered that represents an even number of Meton's Cycles, and because of this it is specially marked. By simple computation it can point the way back to the Cross of Calvary. At a time when the world needs most to know about the sacrifice of Christ the heavens declare the glory of God!

And in this manner the long line of the periods of prophecy is sealed fast. They are as sure as the course of the sun, moon and stars can make them. And concerning these Isaiah calls across the years, "Not one faileth." When Gabriel told Daniel that the "seventy weeks" were decreed to seal up the vision, he was in reality announcing the death of the Messiah. If that event had come to pass, all prophecy would have failed.



THEORY: With the Full Moon advanced to April 11 in A.D. 31, from that point on, her place on the moon's orbit slips behind the sun 2.074 hrs. every 19 years. By the time the sun and moon have reached April 2, 1931, the full-moon place has receded the amount of 100 X 2.074 hrs., or 207.4 hrs., or 8.644 days. Therefore on this date at the end of 1900 years the Full Moon has receded just as many days as she was advanced on April 11 in 31. Hence the Sun and Full Moon must exactly coincide on April 2, 1931 if they start at Full Moon in April 11, 31. By adding 8.644 days and the difference in time between Greenwich and Jerusalem, or 2 hrs. - 20.89 m., to April 2 we get the date of the Passover Moon in 31, or April 11-13-53.75 (Cf. page 11).

## ASTRONOMICAL TERMS

CONJUNCTION: At conjunction the Moon is between the earth and the Sun, and the longitudes of the Sun and Moon are equal. The motion of the Moon is so rapid that it constantly overtakes and passes the Sun in its eastward travel among the stars.

OPPOSITION: At opposition the earth is between the Sun and the Moon. They are practically in one straight line.

NODES: The two points in which the orbit of the Moon cuts the path of the Sun, known as the Ecliptic, are called the nodes. There is an ascending node, and a descending node.

> SYLLABUS ON CHRONOLOGY End of Chapter One

relation to new and full moons) isties of mosais Juni The historical dates of prophecy are nearly all connected with luni-solar time. It is the purpose of this demonstration and confirmation of a true lunar (a divinely instituted calendar to present not only the early descriptions of this ingenious system of . Some time=measurement, but to set forth the underlying principles some of which have not been hitherto defined, and others not generally mentioned by various chronol-(not only ogers. It is essential to understand what was primitively known with reference to luni-solar reckoning, but also to comprehend why) the modern rabbinical form of Early Tenole history and cannot identify the dates of prophecy. Our sources include the ancient writ-(teshmony. ings, and also those that are recent, Archeology presents/its clues, and the , witness. Bible itself is not silent, The subject, as here discussed, covers the following outline: I. Ine Hebrew new year.

CHARACTERISTICS OF A TRUE LUNI-SOLAR CALENDAR

Involved to the 2300 H

Primitive month -- both computed and observed.

Nisan festival moons brought into agreement by passover principle, Allustrated by Confirmation of Passover calendar

V 5. Laws governing the moon's phasis -- their gen-

eral agreement with rassover calendation.

## I The Hebrew New Year

Moses said to Israel, at the time of the Exodus, "This month [Abib] . . .

shall be the first month of the year to you." The word Abib signifies "ear of the first corn," and this meaning corresponds with the fact that when Israel left Egypt, "the barley was in the ear." In commemoration of this crisis in Jewish history,

God commanded that a sheaf of barley be always offered in the temple during the first month. It is anid that the divine law especially constituted the sickle was a sign of the first month."

The Jewish months were at first designated by number, although, in early times, a few names were also introduced. These were Abib (first), Zif, (second), ergrowth of reverse (or placed) go names apparently taken from agriculture. Ethanim (seventh), and Bul, (eighth) The numbers began with the spring month,

<sup>1</sup>Ex. 12:2 2Ex. 9:31. 3Lev. 23:10,11,14; Deut. 16:9,10. 4Bucherii, Aegidii, "De Doctrina Temporum," p. 7472. Antverpiae, 1634. 5Deut. 16:1. 71 Kings 8:2. 1 Kings 6:38.

Abib, and this system of numbering was never interrupted, even after the return from Babylon. This conclusion is confirmed by Ezra, who describes the Hebrew ninth month as one of "great rain." Such would not have been true of Sivan, the ninth month from Tisri in a common year like 457 B.C.

The Jewish feast period extended from spring to fall, or from Nisan to Tisri inclusive. Nisan marked the beginning of the sacred year, as Moses commanded, but, ultimately, the first day of Tisri became a new year also. The time of the change is not generally readed, although it may have been introduced shortly after the reign of Solomon, as the beginning of the regnal year in the northern kingdom.

Saul was anointed king in the spring, two or three weeks before wheat harvest. 10

But after Israel was divided into two kingdoms, the king of Judah began his reign at a different time of year from the king of Israel, concerning which the record menually reads as follows:

"Now it came to pass in the third year of Hoshea son of Elah king of Israel, that Hezekiah son of Ahaz king of Judah began to reign."11

The regnal years of Artaxerxes, as designated by both Ezra and Nehemiah, did not begin or end in the interval from Kisleu to Ab, that is, from the ninth month to the following fifth month, a period that passed error the Nisan new year. 12 In By Jewish time, therefore, the Persian regnal years must have been taken to begin in the autumn. Later on, the Alexandrian Jews are found to have appointed their magistrates, called archons, in September. This title is met with in Antioch, Alexandria, and Berenice. It occurs upon Jewish epitaphs outside of Rome. 13 In a "Homilia in S. Johannis Natalem," ascribed to Chrysostom, September is called the beginning of the civil year of the Jews. The following is a translation of this interesting passage from Chrysostom:

"Among the things to be looked into are the customs of the times, and the nature of the laws; and first of all, the perfidy of the Jews, who ever stood out boldly against God and Moses -- who, exercising an edict of perversity or pride, name the month of September as the new year itself, in which also they appoint magistrates for themselves, whom they call archons, although they received from God through Moses, the month of March as the beginning of the year." 14

<sup>9</sup>Ezra 10:9. 101 Sam. 10-12. 112 Kings 18:1. 12Ezra 7:7-9; Neh. 1:1 & 2:1. 13Shurer, Emil, "Jewish People in the Time of Christ," Sec. Div. II, pp. 249, 250. 14Chrysostom, "Opera," vol.gii, ed. Paris, Ad687. Research [Scribner's, N.Y.

When the Jews returned from Babylon, they brought with them Babylonian names for their months. 15 Most of these names are found in the Bible, but the three not mentioned are given in the records of the Aramaic papyri. This fact is significant, and is one of several indicating that the Aramaeans probably reckoned time with the Jerusalem Jews.

We have, therefore, two new years as a feature of early Hebrew time -- Nisan new year, the new year and Tisri -- Nisan, representing the beginning of the festival period, and Tisri, the beginning of the civil year. The astronomical difference between these two new years will become more plain after the principles governing the moon's phasis | here been set forth.

# II, Month Both Computed and Observed

It is requestly said that the primitive Hebrew month depended wholly upon observation of the moon. The moon was created to rule the night, and both sun and moon were to be for signs, seasons, days, and years. A similar thought is also written in Ecclesiasticus:

"He made the moon also to serve in her season for a declaration of times," and a sign of the world.

"From the moon is the sign of feasts, a light that decreaseth in her perfection.

"The month is called after her name, increasing wonderfully in her changing, being an instrument of the armies above, shining in the firmament of heaven;

"The heavy of heaven the glory of the sters an expense giving light in

"The beauty of heaven, the glory of the stars, an ornament giving light in the highest places of the Lord.

"At the commandment of the Holy One they will stand in their order, and never faint in their watches."17

And yet, probably the same hand that wrote the preceding verses, which glorify the light of the moon, also wrote the following:

"For he hath given me certain knowledge of the things that are, namely, to know . . .
"The beginning, ending, and midst of the times; the alterations of the turning of the sun, and the change of seasons;
"The circuits of years, and the positions of stars."

Certainly the last three verses imply more than lunar observation alone.

<sup>15</sup> Scaliger, "De Emendatione Temporum," p. 79. "The conquered received the law from the conquerors."
16 Gen. 1:14,16. 17 Eccles. 44:6-10. 18 Sapientia 7:17-19.

The new month. This forwilege

revogative of determining

Certain sacrifices were always to be offered on the first day of each month, and over them, it was commanded, that the trumpet be blown. Even in Egypt, the trumpet had been used to announce the month, although doubtless the sacrifices had to be omitted on account of Egyptian prejudice. After the return from Babylon, the initial service consisted in gathering together en masse at Jerusalem to dedicate with solemnity the first day of Tisri.

The yearly new moon feast, celebrated during the reign of Saul, seems to have occurred at the Nisan new moon, for about this very time Saul had been honored by the ancinting of Samuel. If so, at that time, the month of Nisan was dedicated by double feast days. At the beginning of the month, both the royal family and the country firesides to observe the first appearance of the new moon, for it was "when the new moon was come," that the feast was served. The festival was further continued on the evening of hodesh sheni, the second day of the new moon. That this was an evening meal may be concluded from verse 35.

The phrase "as at other times," in verse 25, shows that this was a customary feast in Saul's day. So much in the second's observation!

But the fact should not go unnoticed that David knew the exact time of the feast, both in Gibeah, where Saul lived, and in Bethlehem, the home of David. David said with finality to Jonathan, "Behold, to morrow is the new moon, and I should not fail to sit with the king at meat." Jonathan also said about the same, but gives added information that David had been commanded by his brother to come home for the yearly sacrifice. These details indicate that not only David, Jonathan, and the royal court knew in advance the precise time of the Nisan new year, but the country-side also had like wise to be informed. Saler in history, great censure was pronounced upon one who assume

It was of first importance that the matter of the new year should be well known by Israel generally. The appointment of a festival, upon which all the

<sup>19</sup>Num. 10:10 221 Sam. 20:24 25 1 Sam 20:5

<sup>20</sup>ps. 81:3-5 231 Sam. 20:27 17 Hoffman, David, "Mar-Samuel," p. 19:

<sup>21&</sup>lt;sub>Ezra</sub> 3:6 241 Sam. 15:34 241 Sam. 20:29

sacred feasts depended, could not have been left to individual observation of the moon over various sections of the land. It was therefore a question for authority to determine. When David was king, according to Abendana, "it seems to have been the peculiar office and employment of the tribe of Issachar, to watch the lunar changes, and they are said to be men that had understanding of the times." The same thing was said of the wise men in the court of Ahasuerus.29

In the time of Christ, the members of the Sanhedrin, as we learn from history, 30 were possessed of great astronomical knowledge, being obliged by their office to apply themselves to astronomical calculations of a complicated charachter. It is said that the Beth Din knew beforehand the answers that the witnesses should give to the questions asked them. 31 Of necessity, this last statement is the truth, for how could the priests, or members of the Sanhedrin conduct such a court of astronomical witness unless they themselves were fully informed with reference to the exact position of the moon?

Albiruni refers the beginning of Jewish calendar computation to the second century B.C., but it is evident from the Bible instances cited above, and from the historical evidence, that Jewish calculation goes back much farther in point of time. Sidersky agrees with this conclusion in the following statement:

"As this Arab author of the Xth century has proved himself one of the best informed in the various systems of chronology in use with the ancient nations, and had particularly good documents with regard to the Jews, we are therefore authorized to depend upon the date he indicated, the year 200 of the Seleucid era, or 112-111 B.C."33

Consequently, it seems reasonable to conclude, that very early in Jewish history, the time of new moons was both computed and observed, and that lunisolar time, even anciently, could not have been the result of observation alone, as is so frequently declared by various writers on this subject.

<sup>281</sup> Chron. 12:32 . 29Esther 1:13

<sup>30</sup> Hoffman, David, "Mar Samuel," p.

<sup>32</sup> Albîrûnî, "Chronology of Ancient Nations," p. 68. Tr. by Sachau. London, 1879. 33 Sidersky, David, "Etude sur l'origine astronomique de la chronologie," p. 632.

# III, Agreement Between Nisan Festival Moons

It was, of course, imperative that the date of the Nisan new year should harmonize with the paschal l4th, But since the Nisan phasis was dependent upon definite rules pertaining to the moon's visibility, it may also be inferred that the date, 14 Nisan, had likewise to agree with these same rules. Inasmuch, however, as the paschal date can be fixed by distinctive rules of its own, independent of the new moon, it is essential to inquire whether these paschal rules, which have come down to this century from very early times, are also in agreement with the astronomical principles controlling the first appearance of the new moon. First, as to the rules governing the paschal l4th, or 14 Nisan. These relate to the paschal month, and to the passover day. The paschal month has already been touched upon in the first paragraphs, but its identifying features will now be more fully outlined:

## (1) Passover Month Follows the Spring Rains

"My beloved spake, and said unto me, Rise up my love, my fair one, and come away.

"For, lo, the winter is past, the rain is over and gone;

The fig tree putteth forth her green figs, and the vines with the tender grape give a good smell. Arise, my love, my fair one, and come away."34

# (2) Comment by Ellen G. White on Foregoing Scripture

"The first of these festivals, the Passover, the feast of unleavened bread, occurred in Abib, the first month of the Jewish year, corresponding to the last of March and the beginning of April. The cold of winter was past, the latter rain had ended, and all nature rejoiced in the fresh-

valleys, and wild-flowers everywhere brightened the fields. The moon,

"With the Jews these calculations were in use since the IInd century B.C.

until the end of the IInd century A.D. according to the testimony of several

ancient authors. But it is probable that these calculations go back

much farther."—Sidersky, Idem, p. 597.

Page 7 bollow 33

### (4) First Fruits Not Ripe in Adar

"For the month of new fruits is not located in the twelfth month, when the time of winter still hangs on, as I have before said, since the new fruits are not yet ripe, and since indeed the sickles cannot be put to the harvest. For this has the divine law especially constituted as a sign of the first month." 37

Digitized by the Center for Adventist Research

<sup>34</sup>Cant. 2:11,13
35Patriarchs and Prophets, p. 537.
36Maimonidae, Mosis, "De Jejunie," p. 43. Ex Hebraeo Latine conversi a Ludovico De Compiegne. Parisiis, 1667.
37Bucherii, Aegidii, "Commentarius De Docfrina Temporum," p. 472. Antverpiae, 1634.

[Adar],

# III, Agreement Between Nisan Festival Moons

It was, of course, imperative that the date of the Nisan new year should harmonize with the paschal 14th, But since the Nisan phasis was dependent upon definite rules pertaining to the moon's visibility, it may also be inferred that the date, 14 Nisan, had likewise to agree with these same rules. Inasmuch, however, as the paschal date can be fixed by distinctive rules of its own, independent of the new moon, it is essential to inquire whether these paschal rules, which have come down to this century from very early times, are also in agreement with the astronomical principles controlling the first appearance of the new moon. First, as to the rules governing the paschal 14th, or 14 Nisan. These relate to the paschal month, and to the passover day. The paschal month has already been touched upon in the first paragraphs, but its identifying features will now be more fully outlined:

## (1) Passover Month Follows the Spring Rains

"My beloved spake, and said unto me, Rise up my love, my fair one, and come away.

For, lo, the winter is past, the rain is over and gone;

The fig tree putteth forth her green figs, and the vines with the tender grape give a good smell. Arise, my love, my fair one, and come away."34

# (2) Comment by Ellen G. White on Foregoing Scripture

"The first of these festivals, the Passover, the feast of unleavened bread, occurred in Abib, the first month of the Jewish year, corresponding to the last of March and the beginning of April. The cold of winter was past, the latter rain had ended, and all nature rejoiced in the freshness and beauty of the springtime. The grass was green on the hills and valleys, and wild-flowers everywhere brightened the fields. The moon, now approaching the full, made the evenings delightful. It was the season so beautifully pictured by the sacred singer (Cant. 2:11-13, Rev. Ver.). 35

# (3) Rain Ends in Palestine After March

"When the March period is over, indeed, when the sun enters that sign which is called Taurus, then no fast is appointed: for rain at this time is for an evil sign, since it should not rain straight on [that is, continuously] from the beginning of the year."

## (4) First Fruits Not Ripe in Adar

"For the month of new fruits is not located in the twelfth month, when the time of winter still hangs on, as I have before said, since the new fruits are not yet ripe, and since indeed the sickles cannot be put to the harvest. For this has the divine Law especially constituted as a sign of the first month." The since the twelfth month as a sign of the first month.

<sup>34</sup> Cant. 2:11,13
36 Maimonidae, Mosis, "De Jejunie," p. 43. Ex Hebraeo Latine conversi a Ludovico De Compiegne. Parisiis, 1667.
37 Bucherii, Aegidii, "Commentarius De Doctrina Temporum," p. 472. Antverpiae. 1634.

Turet fletcheele upon passover reckoning afforded by the aramaic dates of the 5 the century B. C., V Trustoes this form of a moone calendar not only valid for the luni- solar problem of the first century, but also for ) the millerite dales and conclusions itations the same internance a neconstruction of lunisolar true in 1844. first century and produces, but also

cases, the Passover were not retarded a day, then the Nisan phasis. in certain years, would occur on the very day of conjunction, at the end of too short a for the new moon to be seen. Thus the calendar would not harmonize with the moon's place translation period in the sky. Sidersky comments on this anomaly as follows:

"Indeed we know that the evening of the Jewish Passah must coincide with the full moon. . . Sometimes it can happen. . . that the Passover is celebrated 24 hours after the full moon, but the contrary is impossible."48

The foregoing passover regulations can all be summarized into one simple Statement that the Jewish passover in Jerusalem always began in barley harpostulate vest, at the first sunset following the full moon. On the basis of this alone, a complete luni-solar calendar can be built up, and it will be in harmony with the laws that govern the moon's visibility. The 14th Nisan having been determined, it is then possible to compute any other date, either backward or for-The interval between two consecutive Visan new years - or passovers+ ward the length of the year, according to which the length of each month is A mown. On this basis, Charts A D, and E have been constructed, covering about eight centuries in all. These include

1. Ezra-Nehemiah century.

2. Four centuries from Ezra to beginning of Christian era.

3. Century of the crucifixion.

4. Century covering 1844 period.

5. Twentieth century.

The chief characteristics of passover calendation may be outlined as follows:

- (comprising 1. The Nisan translation periods run in 62-year cycles, each covering a sercurves, or (Similar 162-year ies of seven, waves, with distinct peaks and valleys, that correspond to a cycle of the moon's velocity.
- 2. The translation waves are usually nine years in length, but in every eye cycle, there will always be a characteristic short wave of eight years, which corresponds in point of time to a similar short period in the moon's velocity cycle. This short translation wave is commonly smaller, and is usually found at the 62= year same place in each cycle. The much cited "

3. The translation periods, individually, run from ) to 4 days in length,

<sup>48</sup> Sidersky, "Etude sur l'origine," p. 636.

Digitized by the Center for Adventist Research

いる。日、

w

the longest period of each wave commonly ends on the third day after conjunction. These long third-day translation periods always occur about the middle of each wave, never toward the beginning or end.

- 4. The beginning and end periods of the translation wave are always short, each consisting of one day only, plus a medium decimal fraction, representing hours and minutes. Consequently, the short Nisan translation periods do not end on the day itself of conjunction.
  - 5. Length of lunar year equals difference between two consecutive new years.

    Common year = 354 or 355 days.

    Embolismic year = 383 or 384 days.
  - 6. Length of month -Consider an alternate 30- and 29- day sequence of months as characteristic of every year, and then make following corrections:
    - a. Insert a 30-day month after Shebat for 384- or 383- day year.
    - b. In 355-day year, add 1 day to Hesvan.
    - c. In 383-day year, take away 1 day from Kisleu.
  - Inasmuch as the long and short translation periods maintain particular positions in each wave, they are therefore frequently a check upon the validity of luni-solar time.

7. A fixed interval of 177 days between Nisan and Tisri new years,

"In the modern Jewish calendar, greater variations are found in the lengths of the ordinary and embolismic years, respectively, especially the ordinary short year of 353 days, and the abundant embolismic year of 385 days, issues of the system of postponements, inaugurated later by the Jewish doctors of Babylon, logic but which did not yet exist in the first century."--Sidersky, "Etude...chrono, juive," p. 633.

Note: Although Shurer admits "that in actual practice, months of 29 and months of 30 days must pretty regularly alternate with one another, " yet he produces a citation from the Mishna [Arachin ii.2], dated in the 2nd century A.D., and from it concludes that the lunar year might vary "from 352 to 356 days." This irregular length of the Jewish year might have been possible during the 2ndcentury Roman persecution of the Jews, who were not allowed to announce their feast days. We have records of those times, during which three successive intercalations were ordered by Rabbi Adda ("Hastings' Encyclopedia of Religion and Ethics," Vol. III, art. Jewish Calendar, p. 117). These instances are recorded in the Talmud (Sanhadrin, 12 a), and plainly show under what duress Jewish calendation had to operate in period after fall of second temple. Albiruni also hands down information that Jews of this time "told them lies" in order to lead the Christians astray regarding their calendar methods ("Chronology of Ancient Nations," p. 302.) The Jews also had two systems of reckoning the tekufoth, one secret, and one commonly known (Sidersky, "Etude. . . chronologie juive," p. 624). But from these methods of abnormal times it would be unreasonable to draw conclusions relating to the ancient system, . long established, and operating in the first century Digitized by the Center for Adventist Research

Vietor

min (1800 A.D.

The following references relate to Point 7 -- the "fixed interval" of 177 Tisri, Hesvan, and Kislen in 355-day year. days between the Nisan and Tisri new years:

a. Sequence of Months Controlled by Velocity of Sun and Moon - Albrunt ( "Three months which are perfect, according to the appearance of the new moon, can follow each other. . . And their following each other is possible only in consequence of the variations of the motions of the two great luminaries (sun and moon), and of the variation of the setting of the zodiacal signs (i.e. the varying velocity with which the sun moves through the various signs of the Ecliptic)."51

b. Always a "Fixed Interval" Between Nisan and Tisri- Scaliger (1600 A.D.) "From Nisan to Tisri are 177 days. But there are not always 177 days from Tisri to Nisan in a common year, and neither in an embolismic year, are there always 207 days."52 · [ last six months]

Summer Months an Alternate 30 and 29 days - Sidersley (1900 A.D.) The six summer months have 30 and 29 days alternately . . . "53

d. Calendar Months Alternate 30 and 29 Days Pliny (20 B.C.)

"Her revolutions, too, will occupy thirty days one month, and twenty-nine the next, and so on alternately."54 [mean]

Time from Conjunction to Conjunction Always 29 Days and a Fraction - Co

"The month of the Jews was, as we have said, a lunar month, and extended from one appearing of the new moon to another. The time elapsing between one astronomical new moon and another consists of 29 1/2 days [29.530588 days]. But since the month consisted of entire days, they counted it with pretty regular alternation as 29 or 30 days . . . The Jewish month could never have been more than 30 days, and never fewer than 29."55

f. Two Lunations Count 59 Days - Germinus (70 B.C.)

"On which account they reckon a lunar month to be 29 1/2 days, but the time of two moons, 59 days; whence they alternately keep a deficient and full month, for the reason that a two-moon period is 59 days. Therefore, in a year, there happen six full and six deficient months, and they amount to 354 days: so month after month, they keep full and deficient."56

g. In Actual Practice 29- and 30-Day Months Alternate - Shurer (1900 A.D.)

"Since the astronomical length of a month is equivalent to 29 days, 12 hours, 44 minutes, 3 seconds (Ideler, Handbuch der Chronologie, 1. 43), then it must follow that in actual practice, months of 29 and months of 30 days must pretty regularly alternate with one another."57

51 Albiruni, "Chronology of Ancient Nations," p. 153.
52 Scaliger, "De Emendatione Temporum," p. 85.
53 Sidersky, "Etude. . . chronologie juive," p. 601.

Pliny, "Natural History," p. 112. Tr. by Bostock and Riley. London, 1855.

logion," cura & studio Dionysii Petavii. Paris, 1630 Shurer, Emil, "History of the Jewish People," First Div. Vol. II, p. 365.

Caspari, Ch. Ed., "Introduction to the Life of Christ," p. 5. Gemini, "Elementa Astronomiae," p. 35. Interprete Edone Hilderico, In "Urano-

## IV. Confirmation of the Passover Calendar

( Evidence of History, astronomy and archeology The long and short translation periods of the moon are mentioned by many. among whom are Aratus, Pliny, Geminus, Scaliger, Hevelius, and Hales, The following are some of their statements:

# 1. Moon's Horns Identify Her Age - Oralus

"Scan first the horns on either side the Moon. For with varying hue from time to time the evening paints her, and of different shape are her horns at different times as the Moon is waxing -- one form on the third day and other on the fourth. From them thou canst learn touching the month that is begun."58

# 2. When the Moon is Four Days Old - Cratus

"Whenever the Moon with slender horns shines forth in the West, she tells of a new month beginning: when first her rays are shed abroad just enough to cast a shadow, she is going to the fourth day."

# The Moon in Conjunction - Pliny

"When the moon has ceased to be visible, she is in conjunction, a period known to us as 'interlunium,' [Translation period.] During the conjunction, the moon will be above the horizon the same time as the sun, for the whole of the first day; on the second she will advance upon the night ten-twelfths of an hour and one of ourth of a twelfth; on the third day, the same as on the second, etc."

of an hour and one fourth of a twelfth; on the third day, the same as on the second, etc."

4. Eight Different Epochs of the Moon — Pliny between luminaries angle of a makes certain angles of incidence with the sun. . . The period of these angles are the third day the seventh, the eleventh, the fifteenth the twenty-third, the twenty-seventh, and that of conjunction "

"On the fifteenth day [from conjunction she will be above the horizon all night, and below it all day." (She then makes a straight angle with the sun.)

for 13th of the linear mouthe]

# 5. Fastest and Slowest Moon\_ Germinus

"For when the moon is fastest, she appears sickle-shape on the very day itself of conjunction; when slowest, on the third day, and remains sickle-shape, meanwhile, even to the fifth day." [Cited by Willerites]

"The old and the new moon are visible on the same day or night in no other sign except Aries and indeed it has happened very seldom to any one to have witnessed it."64 to have witnessed it."64 Love of two pasehal signs of translation Period -- One to Four Days - Hevelins

"But the first rising of the moon does not commonly happen on the first day after conjunction; but at length on the second, often even on the third and fourth -- this is apparent to all observing her."55

Aratus, "Phaenomena," p. 441. Tr. by Mair. London, 1921.

59 Aratus, Idem, p. 437.

60 Pliny, "Natural History," Vol. IV, p. 112. Bostock

<sup>61</sup> Pliny, Idem, p. 120. [ and Riley. London, 1890. 62 Pliny, Idem, p. 112.

<sup>63</sup> Geminus, "Elementa Astronomiae," p. 40. Lutetiae Parisiorum, 1630.
64 Pliny, "Natural History," Vol. 1, p. 49 vent 65 Hevelius, "Selenographia," p. 273.

"But the Jewish, Arabic, and Samaritan new moons commonly exceed the size of the phasis, so that the civil new moon of the lunar months are of a three-fold kind: the Attic, from the conjunction, the Calippic, from the waxing moon [earliest phasis], and the Jewish, Samaritan, and Arabic, from the shape of the moon from the third day, I say."

The length of the translation period, therefore, is an identifying feature of the Passover calendar, for it is in full agreement with the requirements of (a) historical sources, both early and late.

ports a computed lunar calendar, is the moon's velocity cycle which coincides with an almost identical translation cycle. They are both 62 years in length; they both comprise seven waves, with marked high and low points; the short wave, in each case is almost coincident; but more than all else, the Nisan perigee a year in the moon's cycle, always contacts the translation cycle at definite and constant place. This fact enables one to determine the approximate location of the moon's perigee in early centuries for which no figures are available without exacting calculation. Consequently the translation cycle greatly assists in checking lunar dates from the standpoint of the moon's visibility. This is in the charmony with Albîrûnî's law that the length of the lunar month varies according to the variation in motion of both sun and moon.

Passover calendation can be further identified by the pisterior records of the Assuan papyri, which provide the double-dated business contracts that were discovered in Egypt about 1900. They were found tied up and sealed, just as they were buried over 2000 years ago. These papyri, therefore, offer first hand evidence with regard to Jewish reckoning in the Ezra-Nehemiah century. The Passover calendar, as outlined in Charts A, B, C, and E, and in Chart D for the fifth century B.C., presents the one method, which has thus far demonstrated a constant relation between these double dates. It has also shows that with the present

<sup>66</sup> Scaliger, "De Emendatione Temporum," p. 6. 67 Albiruni, "Chronology of Ancient Nations," p. 153.

understanding of Ptolemy's figures, and of the beginning of the Egyptian civi day, an exact coincidence is impossible.

Nevertheless, the Aramaic dates -- some of which occurred after the Tisri new year, others before -- offer a substantial and harmonious check upon the calendation by which they have been solved. For, unless a constant period between Nisan and Tisri existed in ancient times, the pre-Tisri dates would show a relation to the Egyptian calendar different from the post-Tisri dates. But that but one Geresented, luni-solar the calendation here demonstrates all of the Aramaic dates -- both before dates and after Tisri -- into one and the same relation with the Egyptian This 1 in testimony that the Nisan and Tisri new years, in ancient times, were a moore fixed number of days aparta) for the use of this ment, both in the first century A

# Passover Principle Confirmed by New Moon

It yet remains to be shown whether the dates of a luni-solar calendar. computed on the basis of the passover principle, are in full harmony with the dates determined by the astronomical rules governing the moon's phasis, and with the primitive Jewish method of observing the moon. First, as to the character of the moon's phasis, which the early Hebrews employed to begin their year.

The questions asked the witnesses by the Beth Din in the court in ancient Jerusalem, called Beth Yangzek, related particularly to the moon's size and shape. The questions were somewhat as follows:

- 1. What shape was the moon?
- 2. Were her horns turned toward the sun, or away from it?
- 3. How high above the horizon was the moon?
- 4. Toward which side was her declination?
   5. How wide was the moon's disk? 68

According to this examination, the moon had size, shape, and horns. The moon was a disk, that had definite width. She had altitude above the horizon.

Lyons, Jacques, "Jewish Calendar," p. 13. Montreal, 1854.

and the greater the height, the older the moon. All of these features are indicative of the fact that the Beth Din, employed an older moon for the starting of the year, as has been suggested by the previous citations. The question relating to the horns shows this, for very young moons do not have horns - they often as fine as a thread, are simply a streak in the skyll and often hard to differentiate from twilight, atmosphere and cloud. In the spring, a fine, bright, colored, horizontal cloud stripe may be mistaken for the crescent moon. So Schoch wrote to Schaumberger. There the importance of understanding the relations of an older further.

A few excerpts will explain the horned moon -- giving definition and the time of her appearance. Johannis Hevelius speaks first:

,1. Definition of the Horned Moon - Hevelins

"But we call the horned moon that phasis, which to some of the ancients is the second moon, because, that on the second day after conjunction of luminaries she is earliest seen, and follows the first moon."69

2. Time of Appearance of Horned Moon - Heveling

"But because she is not always able to be seen on the second day, all of those causes can hinder which do not allow the first moon to be seen on the first day after conjunction. Yet the special obstacle is when she is turned about in the signs of short settings, of which kind are Cancer, Leo, Virgo, Libra, Scorpio, and Sagittarius. For, although the moon may be in perigee, and around the northern border, yet if she does not draw near to a sign of long setting, in vain is the horned moon awaited on the second day." To

3. Jews Usually Begin Month from Horned Moon - Scaliger

"The new moon of the first Calippic Hecatombaeon begins on the 30th day of the Jewish month Sivan, since the Jews begin not only from the phasis, but also from the horned moon . . . as I said, the Calippic new moons are from the waxing crescent, not from the horned moon."

But passover reckoning fully meets the demands of the horned moon, since all the long translation periods end in a horned phasis that is two or three days old. The younger moons begin and end each translation wave, being the "first" moons which Hevelius describes, because they appear on the first day after conjunction. In the last citation, Scaliger mentions this earlier phasis.

Hevelii, Johannis, "Selenographia," p. 281.
Hevelii, Johannis, "Selenographia," Idem.
Scaliger, "De Emendatione Temporum," p. 71.

Consequently, according to historical demand, and the astronomical laws pertaining to the Nisan moon's visibility and its relation to the Passover, there is no principle involved, whose operation is disturbed or defeated by paschal calculation of the full moon of barley harvest. Agreement between observation and computation of the moon is here demonstrated by the Bible itself, by history, archeology and astronomy.

Digitized by the Center for Adventist Research

#### SUMMARY

The foregoing facts relating to primitive luni-solar time have been obtained from the Bible, history, archeologic sources, and calendricand astronomical records. The following is the argument deduced:

- l. That a calculated system of time-reckoning was of necessity employed by the Hebrews much earlier than is generally admitted.
- 2. That the passover principle of lunar time calculation, as here presented, is a simple and logical form of luni-solar reckoning, and is one that satisfies the demands of the Mosaic institutions, and is confirmed by archeology, astronomy, and calendar science.
- 3. That the check upon passover reckoning, afforded by the dates of the Assuan papyri of the 5th century B.C., makes available a form of lunar calmant endation for identifying the important dates of the 2300-year prophecy of Daniel.



The Andrews University Center for Adventist Research is happy to make this item available for your private scholarly use. We trust this will help to deepen your understanding of the topic.

#### Warning Concerning Copyright Restrictions

This document may be protected by one or more United States or other nation's copyright laws. The copyright law of the United States allows, under certain conditions, for libraries and archives to furnish a photocopy or other reproduction to scholars for their private use. One of these specified conditions is that the photocopy or reproduction is not to be used for any purpose other than private study, scholarship, or research. This document's presence in digital format does not mean you have permission to publish, duplicate, or circulate it in any additional way. Any further use, beyond your own private scholarly use, is your responsibility, and must be in conformity to applicable laws. If you wish to reproduce or publish this document you will need to determine the copyright holder (usually the author or publisher, if any) and seek authorization from them. The Center for Adventist Research provides this document for your private scholarly use only.

#### The Center for Adventist Research

James White Library Andrews University 4190 Administration Drive Berrien Springs, MI 49104-1440 USA +001 269 471 3209 www.andrews.edu/library/car car@andrews.edu

#### **Disclaimer on Physical Condition**

By their very nature many older books and other text materials may not reproduce well for any number of reasons. These may include

- the binding being too tight thus impacting how well the text in the center of the page may be read,
- the text may not be totally straight,
- the printing may not be as sharp and crisp as we are used to today,
- the margins of pages may be less consistent and smaller than typical today.

This book or other text material may be subject to these or other limitations. We are sorry if the digitized result is less than excellent. We are doing the best we can, and trust you will still be able to read the text enough to aid your research. Note that the digitized items are rendered in black and white to reduce the file size. If you would like to see the full color/grayscale images, please contact the Center.

#### **Disclaimer on Document Items**

The views expressed in any term paper(s) in this file may or may not accurately use sources or contain sound scholarship. Furthermore, the views may or may not reflect the matured view of the author(s).