Translation

From

① Gerhardt

" Messias' Star "

Leipzig 1922.

p. 139 - 140

Summary

(on the Date of the Crucifixion)

Summary of the Certain Results.

1/ The crucifixion of Jesus took place under Pontius Pilate, who was procurator in Syria from 26 to 36 AD, on a Passafeast.

2/ According to the sources: Luke, John, Paul - stone of Delphi, Velleius Paterculus, Dio Cassius and Josephus (none but) only the years 29-32 come into consideration. //

3/ In order to find the right year & date of the (within this period) month, we must not proceed from the full moon, but rather from the new moon and the new light. /

4/ The moon as the shaper (former) basis for the Jewish months - the law fixing the Passover meal to the evening of the 14 Nisan - and the gospel which names Friday as the day of the crucifixion,

are reliable bases to ~~solve~~
for solving the problem by way
of astronomy. /

5/ a) In the year to be determined
the 14 Nisan must fall on a
Thursday, the 15 on a Friday;
the latter was the day of the
death.

b) Differing from this some
interpret the report in John's gospel
that the crucifixion took place
on Friday, 14. Nisan; according
to this the synoptic report should
be corrected.

6/. The first day of the Jewish
month was determined by
the new light. We do not have
an absolutely certain way to
determine this phase of the moon
in each (every) single case. Here
and there a ~~fluctuation~~ (variation)
an uncertainty remains but, at
the most one day. //   (it covers)

The reconstruction of the Jewish calendar is dependent on (restricted by) fixed rules: The dates of the new moons, the duration of the course of the moon (29 days, 12 hrs, 44 min.), the length of the month (30 or 29 days) the length of the year (the maximum (most) 356 days). Thus the fluctuation or variation ~~connected with~~ due to fixing the new light is being so compensated that it cannot amount to more than one day. (at the most it can amount to one day).

7./ The fact that in this way a double date is possible for the beginning of the month, fortunately ~~does not~~ is no hindrance in solving the problem. //

8/ a) Taking into consideration all possibilities, the astronomical basis of the calculation furnishes the proof for the interpretation (version) of the Biblical reports we admit (recognize) to be correct that

the 15 Nisan coincided with
April 7. 30 — perhaps also with
April 27. 31. ||

6/ Whoever holds Friday, the 14. Nisan
to be the correct day — a disputed
(contestable) view — has but the one
date: April 7, 30 according to the
astronomical elements (rudiments,
ruler principles of the calendar.

The more important
astronomical points according to
the synoptic report are for
April 7, 30).

9./ The date : 15 Nisan = Apr 27. 31
completely lacks historical
support and inasmuch as it
rests on the most weak imaginary
astronomical assumption, it has
merely calculating value, see
p. 132. ||

10/ The traditional dates of the old church with one exception are untenable because they do not name ~~one~~ a day of the Passahfeast nor one Friday either. The only date which has come down in history and from the earliest ~~oldest~~ times at that according to careful investigation, and which simultaneously refers to a Friday in the Passoverfeast, is April 7. 30.

11/ The schism (~~disunion~~ contradiction?) between Friday the 15 and Friday the 14 Nisan is removed by the two possibilities in the new light and the beginning of the month. It is therefore proved by astronomy ~~by astronomy~~ as well as historically ~~by history~~ that the day of Golgatha was Friday, April 7, 30.

Translation from

(Photostat

O. Gerhardt,

"Messias' Star"

Leipzig, 1922

pp. 129 – 131

(On the date of the crucifixion)

Therefore the year 29 is not
what we are looking for. //

The year 30: On Febr. 21, ~~early~~ 4:25
in the morning was new moon in
Jerusalem; on the next evening the
young moon was 26 hours (at sundown)
old and was visible. Therefore,
Febr. 23 = 1. Adar; as from 1. Schebat it
was the 30th or 31st day. The next
new moon was on March 22, 8:21 in
the evening; on the next evening
(March 23 = 29. Adar) sunset was at
6:15. Fotheringham in his paper on
the date of the crucifixion proceeded
from his table on the height of the
moon and the Azimuth difference:
at 5° Azimuth difference, the necessary moon height is 11.9°
" 10°   "   "   "   "   " 11.4°
in order to ~~see~~ sight the moon.
But since on March 23, the Azimuth
difference was 5,4 and the height
of the moon 9,3, therefore on that
evening ~~night~~, in Fotheringham's opinion the new
light could not be seen. Consequently

he places
the 1. Nisan = March 25, Saturday and
" 14 " = April 7, Friday,
stating that "the synoptic date of
the crucifixion must be abandoned",
that the one of the gospel according
to John fares better and that thus
the date of Friday, April 7, "is now
~~astronomically~~ confirmed by astronomy."

His decision about the in-
visibility of the new light on the
eve of March 23 <u>can</u> be right,
yet it is not <u>compelling</u>?
The basis thought of his theory
of the reciprocal relationship
between height of the moon and
~~Azimuthdifference~~ is right of course,
but that his table was not ;
~~dependable~~ reliable, (certain?) is
shown above on p. 121. Besides,
it was not known to Fothering-
ham that the result of sighting
the new light in the evening hour
under certain conditions was that
the closing day would yet be

sanctified as the first day of the month; see next page. //

Under favourable conditions in the transparent air above the Mediterranean the new light on March 23 – 22 hours after the conjunction – could very well be seen. That was the conviction of Wurm, Richter, Houtheim, and the Holland astronomer Oudeman ① [note 1, p. 129: This note according to Jos. Bach, p. 45 – 47. I remind of the fact, that in Aleppo and environments an interval from new moon to new light of 20 hours, in Babylon of 18,8 and 19 hours has often be found (established)] Of the same opinion is Neugebauer with whom I have repeatedly discussed this point. That interval of 22 hours is due to the following: Newmoon on March 22, 8:21 in the evening; sunset on March 23, at

the appearance of 2 medium
sized stars about 20 - 50 minutes
later. // This uncertainty, however,
does not settle the important
case. It is very well conceivable
that the witnesses who observed on the
mountains west of Jerusalem having
the clear horizon of the Medi-
terranean before in front of them,
could see the longed for star
on March 23 in the evening; their
testimony was accepted the next
day, March 24, and the sancti-
fication of this day sanctified
as the beginning of Nisan.
Furthermore! on the evening of
this March 24th the moon went
down (set) as late as 1 hour 34 minutes
after sunset ⊙ [Note 1, p. 130: Kritzinger
has used special care was especially
careful in establishing this because
of its importance; see "Reform-
ation " 1915.] so she was high in
the sky at sunset; on this evening
she was as old as 46 - 47 hours,
had gained considerably in width

so that it is incontestable that she was seen not only at sunset but even shortly before sunset ②

[Note 2, p. 130: The appearance of the new light during and before sunset was reported to me in April and May 1915 by five observers from Nazareth, Damaskus and Aleppo.] From the express statement of Maimonides " even if the witnesses came at the end of the 30th day near sunset., their testimony was accepted and the 30th day was sanctified " ③

[Note 3, p. 130: In such cases the sacrifice was offered only the next day.] ~~it is evident~~ follows that ~~here,~~ on 30. Adar, where the court of justice itself could see the moon, it proceeded to sanctify this day (March 24) as the first Nisan; for it was known to the court that since the new moon considered more than 24 hours had elapsed which fact obliged it not to obligated prolong by one day this surplus? excess.

in the course of the moon.

A One calendar principle read
(Maimonides 1,3):

"The moon is darkened
every month and is not seen for
almost two days, about one day before
the conjunction and about one day
after the conjunction. She is seen again
towards evening (in the west); and the
night when she is seen again after she
was hidden is the beginning of the
month. From then on 29 days are counted
and if in the 30th night the moon
is seen again, then the 30th day is the
first of the new month." According
to this we have a decision beyond
any doubt, against which but one
objection is thinkable, and that is
that for several evenings in succession
the sky was overcast; about this
see p. 135 and on. //

Thus on March 22, at evening,
new moon; March 23 was the 29. Adar,
March 24 = 30. Adar;
1. Nisan = March 24, Friday
14. " = April 6, Thursday
15. " = " 7, Friday

<u>This corresponds exactly with the Biblical report of the Lord's Passion, and these are days we have been looking for.</u> //

The last possibility we have to weigh here is that in the year 30 was an intercalary year. In that case the new moon of April 21, noon 12:26 introduced the Nisan. Then the 1. Nisan would correspond to April 23 or 24 and we would have the following dates:

1 Nisan = April 23, Sunday or = April 24, Monday
14 " = May 6 Saturday " = May 6, Sunday

Thus no relationship to Passion week. But the necessity for intercalation does not exist. //

<u>The year 31</u>. If we proceed from the new moon of March 12, 1:9 o'clock at night then surely it can be accepted the new light was visible on the evening of the 13th i.e. after 40 hours. Consequently on March 14, Wednesday, the new moon began; was it Veadar or Nisan?

In the latter case the 14 would have been Tuesday, the 27., the 15th on Wednesday, March 28 which precludes any relationship to the crucifixion. We would have the same result if — which is quite possible theoretically — the month started began one day earlier. The next new moon was on April 10, 2:7 o'clock in the afternoon. On April 11 the sun set 6:25 o'clock; at that time the young moon was 28¼ hours old, her Azimuth difference to the sun was 4°, her height 12°; the latter need have been but 11,9° – 12° according to above diagram? On the strength of all these reasons the new light on this evening must be taken for sure so that we have the following dates:

1 Nisan = April 12 - Thursday
14 " = " 25 Wednesday
15 " = " 26 Thursday

The same dates would result if the new light

had been seen on the evening
of April 12 - after an interval
of 52 hours! - and that so early
that the closing (current) day
yet could be sanctified as the
1. Nisan.

The third supposition: [assumption]

The new light appeared on April
12 so late that the 1. Nisan corresponded
to the 13th April - because of all
this has but very little probability.
Its order would be: 14. Nisan =
April 26, thursday, 15 = April 27,
Friday. Then, again, we would
have the days of the Passion;
but according to the four different
possibilities just explained
these two dates are to be eliminated
on the basis [grounds] of the astronomical
conditions. //

Brief Information
on the Karaite Calendar

The Karaites reckon from
the creation of the world, which
took place 3760 B.C.E. Consequently
from creation until 1880,
5640 years have passed. They
have the lunar year, so that
new year is at new moon, i.e.,
the month begins with new moon.
The years have 12 or 13 months;
the former are called common
years, the latter leap years.

Their names are:

1	Tishri ⊛	7	Nisan
2	Marcheswan	8	Iyar
3	Kislev	9	Sivan
4	Tebet	10	Tammuz
5	Shebat	11	Ab
6	Adar	12	Elul

And in the leap year another full
month is added before Nisan
and it is named Adar II.

[⊛ Note: Properly speaking the Karaites

have two beginnings of the year:
the first is reckoned as from the
month Nisan, which is considered
the beginning of the sacred
months, but the real new year
is the civil as from the first day
of the month Tishri.]
The beginning of the year usually
comes in September and very
seldom the end of August. The
common lunar year has 12 months,
or 354 days, 8 hours, 48 minutes
and 34 seconds, and the leap
year has 13 months, or 383 days,
21 hours 32 minutes and 36 seconds;
thus the Karaites' common lunar
year is shorter than the Julian
solar year (of 365 days and six
hours) by 10 days, 21 hours, 11 minutes
and 26 seconds. The months
consist of 29 or 30 days, the
former are called insufficient
months while the latter - full months.
According to circumstances,
sometimes two or three months of

29 or 30 days follow each other;
at other times they
alternate. Every 1st day is
~~reckoned~~ considered the new month.
The day begins in the evening
at sunset when the stars
begin to be visible. //

According to the law
of Moses, the celebration of
Passah <u>must</u> be in the
middle of the month Nisan
and in the beginning of
spring; therefore the Karaites
are compelled to coordinate
the lunar year with the solar
year. As the lunar year
ordinarily is shorter than
the solar by 10 days, 21 hours,
11 minutes and 26 seconds, so
it is evident that after an
elapse of three lunar years the

solar year will differ from
the lunar over a whole month.
Therefore ~~the time was~~ .
19-year cycles were ~~arranged~~
where there had to be 12 common
and 7 leap years. Thus in each
~~(every)~~ cycle the leap years were:
3, 6, 8, 11, 14, 17 and the 19th year,
while the common years -
1, 2, 4, 5, 7, 9, 10, 12, 13, 15, 16 and 18th year.
As a rule the intercallary months
~~were~~ are added before the month
Nisan when Passah is due.
So to make the lunar year
agree with the solar year to
every period of 19 lunar years
7 months ~~were~~ must be added,
for the difference between
the 19 solar and lunar years
is almost exactly 7 months
while the whole 19-year cycle
of the Karaites is by 1½ hours
shorter than 19 Julian years.

5. The periods reckoned as from creation of the world. In order to learn to what year of the lunar cycle a given year belongs, one should divide the given Karaite year into 19 parts and the remainder (balance?) will show what year of the period (cycle) this given year is, for instance, if you divide the Karaite year 5640 by 19, the quotient will show that from the beginning of the era 296 cycles have elapsed passed, and the remainder 16 shows means, that the given year is the 16th of the current lunar period. (cycle). #

⁜ The Karaites reckon the 1st day of every month as from the new moon which is first seen with the naked eye in the west. For this they have

astronom. tables from astronomers
: of the orient partly corrected
by the Karaites astronomers
themselves made up at the
Meridian of the Crimean pen-
insula 45° northern latitude;
From these tables the first of
the month is found according
to the following rules:

1/ For each month of the calendar
the true astronomical new moon (conjunction)
is figured out, as well as the hour
of sunset on the day of new moon.
Then it is established: If the
age of the moon as from the true
new moon to the hour of sunset
(conjunction)
is under 8 hours, then the
1st is always postponed to
the next evening on the
grounds, that due to the short
(conjunction)
time between new moon and
sunset even under the best

most favorable

circumstances the moon cannot be visible the first evening. (Favorable circumstances are (now) considered : (a) ~~if~~ in case the moon at the time of the new moon (con.) has the greatest northern latitude; (b) ~~if~~ in case the moon is nearest to its perigee, i. e. nearest to the earth; (c) ~~if~~ in case the moon is at the time of new moon (conjunction) is in the northern zodiak, while the contrary conditions are considered unfavourable). //

2/ After determining the true new moon (conjunction) and the hour of sunset for the day of the new moon, in case the age of the moon as from new moon to the hour of sunset is between 8 and 22 hours then the 1st (of the month?) cannot be determined by the age of the new moon

because at the age of this many
hours the ~~the~~ moon can or can
not be seen on the first evening.
Therefore, in such a case
they must resort to another
method of determining, i.e.
first of all from the tables it
must be figured out (1) the degree
of the distance between the moon
and the sun to the east at the
moment of sunset on the
first evening; 2/ It ~~must be~~
~~found out~~ is necessary to
determine the degree of the
height the moon will be at the
(above the horizon)
moment of sunset, and
further whether the total of
the moon's distance from the
sun and the moon's height
above the horizon together
amounts to 13 degrees, then
the first of the month is

is reckoned from the first
(conjunction)
? evening of the new moon,^
but in case the total is less
than 13 degrees, then the first
is postponed until the
following evening //

3/ After, determining the true new
moon and the hour of sunset
(conjunction)
for the day of new moon,^
in case the age of the moon
as from the new moon until
the hour of sunset is over
22 hours, then the first of
the month always is counted
the first evening — on the grounds
that the moon at an age of
over 22 hours from the new
(conjunction)
moon, ^receives a great share
of its light from the sun,
so that it can be seen even
simultaneously with the sun
on the horizon at sunset

on the first evening. //

The foregoing is the
main basis of the Karaite
calendar. As is evident from this,
the determining of the months
of the Karaite calendar
represents a colossal task.
Besides there is this incon-
venience that the moon
which will show herself
the first night after new moon
in the Crimea, cannot appear
the same evening everywhere,
therefore not all Karaite scientists
share the opinion of determining
the months of the calendar
~~through~~ by this method. Thus in the
near future is to be expected
a simplified Karaite calendar
in the sense that out of three
rules only one will be made,
i.e. the first of the month

will always be the first evening
following the true new moon,
for much already has been
written about this in the past
and present centuries and
until 1780 (Christian era) the
Karaites used still another
method to determine the
months of the Karaite calendar.

Jufuda Kokisoff.

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No indication on photocopy
where this article
appeared. — EB., Transl.

1./

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Translation from Russian (p.154

from "Hebrew Encyclopedia"

(Collection of Knowledge on ~
~~Jewry~~ ~~Hebrewism~~ Hebraism
and its Culture ~~in the~~ Past
                    and Present.

———

                              Harkavi
Dr. of Oriental History A. ~~Harkavi~~

and Dr. L. Katzenelson

            Vol 9.
        (Judan - Ladenburg)

        by the
Publ.^ Soc. for Scientif. Hebrew Editions
                    and
        Publishers Brockhaus - Ephron.
            St. Petersburg.

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The Karaite Calendar differs
only a little from the Rabbanite.
Like the latter it is based
on the lunar calculation
from the Moled (new moon)
to the Moled. The Karaites
reckon the first new moon
of the same Hebrew - Rabbanite
era since the creation of the
world on Monday 5 o'clock
and 204 parts ('ד'י.'ד ב), but
their (Karaite) hour is divided differently:
it has 60 minutes, the minute –
X 60 seconds, and the second –
60 terties. They have the same
19-year cycle with the same
arrangement of the common
and leap years. But their
calculation of the new moons
is different: After having

figured out the Moled
by the same method which
exists with the Rabbanites, the
Karaites first correct it
according to special tables
and then according to
observation. The tables show
corrections to the calculations
of the new moons for each
location where the Karaites live.
From the tables can be
learned that moment
when ~~the observation~~ to start
to look for the appearance
of the moon. If one succeeds
in seeing her in the evening
before the 30th day, then the
first day of the month
is considered the ~~one~~ day following
this evening; otherwise the
31th day is reckoned as the first

of the month, as it was
also with the Hebrews..
during the period of observ-
ation". With regard to
festivals and fasts, the
Karaite calendar differs
from the Hebrew in the
following: New year can
come on any day of the
week, for the Karaites do
not adhere to the
four exceptions (אדחו)
of the Hebrew calendar.
New Year, like all other new months
is celebrated only one day.
Yom Kippur is also held, on the 10th
Tishri, but not the same
day as the Rabbanites. Passah
and the feast of tabernacles
is celebrated only 7 days.
Pentecost (Shebuot) is
celebrated on the 50th day

reckoning from Sunday which comes on ~~Pascha~~. Passah (השבת ממחרת;(Levit. 23:11) and not from the 1st day of Passah, as is done by the Hebrew-Rabbanites. Pentecost always comes on a Sunday.

Chanuka (the festival of the Maccabees) is not observed by the Karaites at all. However, they do observe Purim, but without the fast of Esther. The fast of Gedalia is not observed on the 3rd Tishri but on the 24th of this month, as was done by the Hebrews at their return from the Babylonian exile. Though the remaining fast days are observed, they do not co-incide with these fasts of the Rabbanites. An exception

is the fast of the 10th Tebet.

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Russ: | Hebrew Writers on Calendar, aside
from what is stated in the Talmud:

~~Hebrew~~ .... ____

Known: Mashula (753 - 813)
     Al Talari (800)
     S. Donnolo (949)
     Chasan Gadayan (972)
     Abr. b. Chia Hanasi (1136)
     Abr. Ibn - Esra (1168)
     Maimonid (Kidush Hach - 1205)
     Isaak Israeli (1310).
     E. Missrachi (1490)
     Abr. Sakuto (1492)
   M. Isserles (1573)
   D. Hans (1613) and others.

In the Hebrew (Calendar) of Curland [2]
is given a bibliogr. list of Hebrew
astron. literat. until 1880.
(comp. J. E. III, 498 - 508]

          D. Seltzer.

p. 90-94 : Theodore Reinach:

"The Calendar of the Greek of
Babylonia

and the Origin of the Jewish Calendar".

The propagation of the metonian
calendar — the most perfect of
the luni-solar calendars —
met with the ancient Grecians, with obstacles
of the same kind as were those

those of the Gregorian calendar
met with the modern nations. The
scholars opposed it with rival
systems, as the one of Eudoxe, the
ignorant with their inertness, or of routine
indolence, the pious with superstitious
prejudices. In course of time,
however, the Meton calendar was
~~introduced~~ (imposed) itself on the most
civilized Greek states of the world
but the chronologers do not agree
as to the ~~definitive~~ exact extent
of these conquests. The ancient
witnesses themselves are rather con-
tradictory with regard to this
subject. "The majority of the Greek,
writes Diodore of Sicily in the 1st
century B.C., until my time used
the ennéa-decaeteride (i.e. the
Meton cycle) and were well
satisfied with it." ① [Diodore de
Sicile XII, 36]. 250 years later, the
Christian chronicler Sextus Julius

Africanus declares with the same
assurance that "the Greec and
the Jews have the custom of
inserting three intercalary months
in eight years ②"; [Note 2, p 90:

Africanus by Georges Sycelle,
p. 611: διὰ τοῦτο καὶ ῞Ελληνες καὶ
᾽Ιουδαῖοι τρεῖς μῆνας εμβολίμους
᾽ετεσιν ὀκτὼ παρεμβαλλουσιν.

It is extraordinary that
this text was not quoted by
the Hebrew historians of the
calendar, nor the ch 74 of
the "Book of Enoc" which
testifies but very vaguely
of the ancient knowledge
of the octaeteride by the Jews.
This latter text was pointed
out to me by M Joseph
Halévy.] in other words, they
were using the "octaeteride".
All the conclusions that can
be made drawn there two

assertions is that the eight-year cycle and the 19-year cycle continued, to share, until a very advanced period, probably until the general adoption of the solar calendar, the favour of the Greco-oriental world. But f. 91 in what proportions did this division (dividing?) take place? Where is the exact demarcation line for these two domains? That is difficult to determine a priori, (without investigation? offhand?) The problem should be examined for each nation, for each city in particular, and here the (hémérologe), inscriptions, and medals offer more help (are more helpful?) than the historical texts or literature. With these aids it was possible to make sure that beginning with the middle of the 4th century B.C.

Athens adopted the Metonian reform while in most of the cities of Syria and Palestine the octaeteride prevailed until the Roman era when it gave way to the solar calendar. ①

[Note 1, p. 91: On this point see Unger, "Time-computation of the Greek"; also Iwan Müller, Handbook of Science of Classical Antiquity" I /601.]

What was, with regard to this, the system followed in the Arsacide monarchy, or, to be more exact, in the Greek colonies of Babylon from where the Parthian kings took over (enprunter - borrowed) the language and the calendar on their moneys and their official records? //

To solve this little (small) problem, we first point to two theorems the demonstration of

Which is almost useless for it
merely means to translate into the
language of mathematics the
fundamental principles of the
whole luni-solar calendar be
it ever so little scientific. /

Theorem $\bar{I}$. In every luni-
solar calendar based on a cycle
of N years, in case the year ε is
embolismic ② it is the same with
every year the date ^of which^ differs (from) ~~that of~~ ε by
~~being over or short~~
an exact multiple of N. //

[Note 1, p 91: On this point see
Unger, "Time-computation with the
Greek"; Ivan Muller, "Handbook of
Science on Classical Antiquity" I, 601.]

[Note 2, p. 91: Years ~~composed~~ of
thirteen, ^lunar^ months are called embolismic,
and "common" those with but twelve
months.]

If, for instance, in an
octaétérique calendar, the year
1870 is ~~embolismic~~, it will be

the same with the years 1862, 1854...
1878, 1886, 1894.... In the ennea-deca-
eteric calendar, in the contrary, the
embolismic (~~have the date~~ are) 1870,
1851, 1832,... 1889, 1908 etc. This theorem
proves that the embolismic years
are reproduced at periodic inter-
vals: as known the same rule
serves to determine the leap-years
in the Julian calendar. //

   Theorem II. In no luni-solar
calendar there can be two con-
secutive embolismic years nor
two consecutive common years. //
   This theorem is formulated
expressly by the astronomer
Geminus ③ and is easy to verify
with: in (?) all known calendars.
[Note 3, p 91: Geminus, Introduction
   to Phenomena, ch. VI.] It signifies
that the aim in inserting the intercalary
month is solely to prevent that the
New Year's day of the lunar year ever is

put off
~~retarded~~ delayed by a complete
lunation from the astronomical
point — equinox or solstice —
chosen as the beginning of the solar year.
The year of 12 lunar months
(of 29 days and a half on the
average) is 11¼ days shorter than
the solar year; in admitting there-
fore, that in the beginning of the
cycles, the initial new moon comes
precisely at the astronomical point,
the delay will be 22½ days at the
end of 2 years, 33¾ days at the
end of 3 years, i.e. more than
one lunation: thus at least one
intercalary year in three is
needed. Similarly, the succession
of two embolismic years is not
only unnecessary and asymetrical
but it would also almost always
advance new year's day of the lunar
year over new year's day of the solar
year by more than one lunation, which

is just as irritating as a delay
of the same length of time.
For better reasons the succession
of three embolismic years is
absolutely impossible. //

This being granted, we
come to our Greco-Babylonian
calendar. On a great number of
tetradrachmas coined by the kings
Arsacides, not only the year
(reckoned according to the Seleucides
era, Sept. 312 BC.) but also the
month is given. Contrary to the
Pontique? and Athenian series where
the month (or the prytanie) is
expressed (designated?) by a numeral
letter, the Arsacides months are in-
dicated by their first letters: the
names of the months are those of
the Macedonian calendar, intro-
duced in Babylon by Alexander
the Great; the intercalary month is
simply called EMB or EM for

Ἐμβολίμος "intercalary". All coins
dated with this month reveal to us
an embolismic year of the Greco-
Babylonian calendar, the date
of which is supplied by the
corresponding Seleucidas date.
So far, to my knowledge only three pieces of this
kind have been found. They are:

1. A tetradrachma of the year
   287 Sel. (British Museum);

2. A tetradrachma of the year
   317 Sél. (Berlin Cabinet – Percy
   Gardner, Parthian Coinage, p. 46.);

3. A tetradrachma of the year
   390 Sel. (Legoy, Review Numismatic
   1855 = Percy Gardner, op. cit. p. 62).

Thanks to our two theorems it
will be seen that these three
coins – though spaced over a
period of more than a
century – allow make it possible

to determine the nature of the arsacide calendar with certitude.//

Let us first see whether the indications of our tetra-drachmas are compatible with the hypothesis of an octaeteric calendar.//

The year 287 being embolismic, it will be the same (Theorem I) with the years 287 + 32 (the exact multiple of 8), i.e. 319.//

Similarly, 390 being embolismic, it will be the same with 390 - 72 (exact multiple of 8, i.e. 318.//

On the other hand, the tetradrachma of Berlin teaches us that the year 317 was embolismic. We have therefore the years 317, 318, 319, as embolismic i.e. not only two but three embolismic years in succession,

which is absolutely impossible
according to theorem $\overline{II}$. //

Hence, ~~it is proper~~ one can
affirm that the Greco-Babylonian
calendar during ~~in~~ the period of the
Arsacides, was not based on the
octaeteride. //

Let us see now whether
the system ennéa-deca-éteric
can be applied to our tetra-
drachmas. //

In this system, if you
add 19 to the embolismic 287, you
~~find~~ arrive at the embolismic
306. //

Likewise, if you deduct
of the embolismic year 390
76 (= 19 × 4) you arrive at the
embolismic 314. //

Thus, in the period of
19 years beginning, for instance,
in 301 Sel., there are three ~~sure~~
~~(certain?)~~ embolismic years (which are) 306,
314, 317. Now, this succession is not
only not at all absurd but

it also coincides exactly with
the results (received) be that from
the Christian Pascha cycle, or the type of
the metonian cycle in use with customary
the Jews. Indeed, these two calendars,
in
the seven embolismic years of each
cycle have the numbers 3, 6, 8, 11, 14,
17, 19 ①. [Note 1, p. 93: It is easy to
see that this distribution of em-
bolismic years is the most natural
and most symmetrical of all
when, at the beginning of the
cycle, the days of the lunar and
solar year coincide exactly or
almost so. In the Pasha cycle
this is the necessary consequence
of the principle of the celebration
of Pascha (Sunday after the full
moon which follows immediately
the spring equinox) and the year
arbitrarily chosen as the beginning
start (285 A.D.).]

You see how the years 6, 14, 17 correspond precisely to the three embolismic years attested by the tetradrachmas arsacides. //

It probably will not be audacious (bold?) to draw the following conclusions from this reasoning:

1/ The arsacide calendar or properly speaking, the calendar of the Greek of Babylon was based on the Meton cycle. //

2/ Taking as the beginning (arbitrary) of the cycles, the year 301 Sel., the embolismic years very likely ~~occupied~~ came in the following order in each cycle: 3, 6, 8, 11, 14, 17, 19.

3/ When the Jews in the IV th century A.D. adopted the Metonian calendar, they arranged it after the Greco-

Babylonian model. So this
calendar, in all probability
came to them not from Palestine
where the octaeteride had held
its own, but from Babylon:
This hypothesis is confirmed
by the fact that the astronomical
studies, according to the testimony
of the Talmud flourished
more in the schools of Babylonia
than in those of Tiberiad. If
asked to designate the true in-
ventor of the present Jewish
calendar, I would choose the
famous Babylonian Rabbi
Samuel, known by his astro-
nomical researches①. [Note 1,
p. 94: Talmud of Babylon, Rosch
ha Schanah, 20 b; Hulin, 95 b
(according to Graetz "History of the Jews"
IV, 289 and note 21).] The patriarch
Hillel II, to whom tradition

attributes (ascribes?) the manufacturing
(making? confection?) of the
calendar ② [Note 2, p. 94 :
R Haï Gaon, with Abraham ben
Hiyya, Ibbour, p. 97.] no doubt
did nothing else than to
give legal consecration and
publicity to a private work,
spread since long among the
Rabbis of Babylon who en-
deavoured to free themselves
from the tutelage of the Tiberiade
patriarchat in what concerns
the intercalation.

          Theodore Reinach.

Translation from French

p. 293 - 296   D. Sidersky :

" The Pretended Intercalation
    of a Second Eloul
in the Ancient Hebrew Calendar."

It is known that, in the luni-
solar calendar of the Babylonians
the intercalary month was ~~placed~~
inserted sometimes before the one
of Nisan (Adar $\overline{II}$) or sometimes
before the one of Tishri (Eloul $\overline{II}$) ①

[Note 1, p. 293 : V. Ginzel, Handbook

of mathemat. and technical Chronology, Vol I (Leipzig) 1906, chap. II.] It was the same with the calendar of the Samaritans[1]

[Note 1, p. 294; V. Basnage, History of the Jews, Paris 1710, Vol. VI, p 167 (Reproduction of a letter from the Samaritans to M. Huntington).]

While in the computation of the Jews there was nothing similar, and, according to all appearances, the intercalary month was always the one of Adar II. Indeed, nothing in Jewish literature justifies the supposition that they inter-calated formerly a second Eloul. There even are grave reasons that such an intercalation was impossible being contrary to the mosaic prescriptions which

ordered to count the month of Abib (Nisan) as the first of the year, and to celebrate in a special manner the first day of the seventh month (Tishri). This has not prevented certain insufficiently ~~badly~~ informed authors to state that in the ancient Hebrew calendar (the one in use in the 1st century of our era) the intercalary month was sometimes Eloul II, placed accordingly between Eloul and Tishri. This thesis, supported by several scientists (scholars?) was ardently defended by the abbot Memain in his "Study on the Unification of the Calendar" (Annals of the Bureau of Longitudes, Vol. VIII, supplementary note); then in a memorial under the title "The Hebrew Calendar before the Ruin of Jerusalem" (Cosmos, July 21 and 28, August 4 and 11, 1906).

To support his thesis the ecclesiastical scholar quotes several passages from Josephus (War? II, 37) to show that in the year 66, Passah fell on March 29 and that the feast of the tabernacles was celebrated Oct. 22, or seven months later. //

It is especially in his "Study on the Unification of the Calendar" – a scholarly work – that abbot Memain reproduces the historical details on which he leans as regards the date of the first day of Passah which coincides with March 29, 66, a date which to us seems correct. On the contrary, with regard to the feast of tabernacles which he sets on Oct. 22, he contents himself to state in his supplementary note terminating the referred to study that this results from the text of Josephus (War? II, 37, 39 and 40). //

In view of the strangeness of this fact we have thought it proper

to verify the facts before discussing
them. Will, we know that the
feast of tabernacles, i.e 15 Tishri,
must coincide with the astronom-
ical full moon or follow her
in one or two days but that it
can never precede her. As a matter
of fact, in the 1st century of the
Christian era, the official fixation
of the new moons was made
either by direct observation in
Jerusalem of the first appearance
of the crescent (about 20 hours
at the minimum after the (con-
junction (true astronomical)),
or by the astronomical calculat-
ion of this physical (?) phenomenon,
Now, in October 66 the average
mean:
conjunction (מלאך) took place
Tuesday Oct 7, at 5 o'clock, 48 m. 20.3,
(in the evening)
and the true astronomical
conjunction, calculated with
the aid of the tables of syzygies

of Largeteau (Knowledge of the
Times, 1846) took place the same
day at 8h. 8m. 20s in the evening.
Under these conditions the
visibility of the new moon could
be at the earliest the next day
Oct. 8 after sunset; thus the
first of the month was Thursday
Oct. 9 and, consequently, the
15 of this same Jewish month
fell on Thursday Oct. 23 while
Wednesday Oct. 22, the day
alleged pointed out (?) by abbot
Memain coinciding with the 14th
of the lunar month could not
be the one of the feast of taber-
nacles.

    Let us now look at the
text of Josephus on which
abbot Memain relies. This
scholar expresses himself as
follows:

    " With regard to the attack

of the Jews against the army of Cestius, Josephus (War, II, 37) after having told that at that time the feast of tabernacles was being celebrated he adds by speaking even of the very day of the attack: "Now, this was the day of rest most piously guarded (observed!) by the Jews." According to Josephus, Cestius in the course of this day stopped for three days at Betharon, attacked the Jews on the fourth, and then went to camp at Scopus where he stopped again for three days and finally, on the fourth day of this new halt he attacked the city. "Now, says the historian, this was the 30 Hyperberetee (October)." —

[Note 1, p. 295: The abbot (priest?)
Mémain in his "Study on the
Unification of the Calendar"
referred to above (in his first note
to prove the point) with the aid of
the inscription of Bérénice published
in the Memoirs of the Academy of for?
Inscriptions (Vol. $\overline{XXI}$, p. 225) shows that
in the year 21 before (prior to) the
Christian era the Jewish Passah had
to come on April 20. After discussing
at length the text of this inscription
(which is quoted by Ideler in his
Chronology, Berlin 1825-6) in order to
~~show~~ prove that the 22 Tishri (the festival
of Schemini Acéret) coincided with
the 21st October of the proleptic
year 21, the scholar - clergyman
does not hesitate to conclude that
the 1st Tishri was the 30th September,
and that consequently the month
of Nisan which comes six months
earlier (177 days) coincided with

the lunation as from April 5
to May 4, and the Jewish Passah
(15 Nisan) similarly coincided
with the full moon of April 20.
This method of reasoning pre-
supposes that the Hebrew calendar
in the first century before the
Christian era was absolutely identical
with the one in use at present;
accordingly the interval from
Nisan to Tishri is fixed not only
as to the number of months but
even its number of days while
in the first century of the
Christian era (87 years later) this
interval between Nisan and Tishri
varied even in the number of
~~yea~~ months which is an apparent
contradiction. In reality, the
interval between Nisan and Tishri
was always six months but the
number of days in this interval was

not fixed before the definitif
establishment of the present
Jewish calendar, which is based
on the calculations of the
average conjunctions, the Moledot.]
(fictitious)

From "Revue des Études Juives"

Vol. 58,

Paris, A. Durlacher, 1909

pp 293 - 296: D. Sidersky,
"The Pretended Intercalation of a
Second Eloul in the Ancient
Hebrew Calendar."

DS
101
R45

&c.

Thus eight days had ~~passed~~ elapsed
~~beginning with~~ between this
latter and the first attack;
hence this one must have
taken place Oct. 22, and that
was the first day of the feast
(15 Tischri) ①.

[Note 1, p 295:

(Insert here Note written
in ink ——)

As is evident, there is in the
demonstration of this scholar
a hypothesis to verify which
will be proper in order to verify
whether the Macedonian month
hyperbirétie of which Josephus
speaks was synonymous (identical
with the Roman month October?
Now, this application of Maced-
onian names to solar months
of the Roman calendar was
not at all uniform in the 1st
century, and with regard to this
we find in the "Chronology of
Ptolemee" (publ. by Halma, Paris,
1819), p. 89 instructive information
In his "Histor. Researches on
the Observations of the Ancients"
the author says, according to
Noris that since the time of
Galien the Macedonians had a
solar year which began at the

autumn equinox:

Dius = Sept. 24,

Apellaeus = Oct. 24 ....

Hyperberetaeus = Aug. 24.

this solar year was introduced throughout Asia Minor. //

According to this indication the 30 Hyperberetaeus coincided rather with the 23th Sept. than with Oct. 30; and it is evident that the calendar of Josephus was by no means the one of the Romans. //

We are of the opinion that Josephus in "War" designated with. (tyi) Macedonian names the Jewish lunar months ① [Note 1, p. 296: So Josephus tells (War VI, 4 and 5) that the Romans have destroyed the temple on 10th hour, the same day as the destruction of the first temple by the Babylonians. This (took place) occurred ‡ according

to Jeremia (52:12) the 10th of the fifth month (Ab). V. Ideler, Chronology (Jewish), Berlin, 1825-6, Vol I, p.401.] like he did in "Antiquities" (III, 10, 35) in speaking of the Passah festival celebrated on the evening of the 14th of Xantique so that the month Hyperberetaeus designates the one of Tishri and the (religious) sacred feast of the 22th of this month was the one of Schemini Aceret, following the one of the tabernacles. //

M. Schürer in his "History of the Jews at the Time of Jesus Christ" Vol.I, 3rd ed. p 604, has pointed to the same passage of Josephus in these words: "Four days later, on the 30th Hyperberetaeus (Tishri, about Oct.) he occupied...." // ³

Under these circumstances

there is no serious (valid?)
∴ reason left to ~~support~~ uphold
that in the year 66 or in any
other year there was an inter-
val of ✗ seven months between
the feast of Passah (15 Nisan)
and that of the tabernacles.
(15 Tishri); consequently the
intercalary month was —
until the contrary is proved —
always the one of Adar II.

D Sidersky.
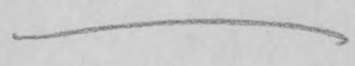
More Recent Works on the Date of
the Crucifixion of Christ.

1/ Gustav Baron Bedeus von Scharberg:
"Chronology of the Life of Christ" I
(80 pp octavo) Hermannstadt (~~& now hausd~~
~~Sibiu in ~~~~~~~~ EB)~~ II Supplements
to the Historical Part. Ibid. 1929 (p 81-192)
With Addenda. Ibid. 1930

2/ Oswald Gerhardt: "The Date of the
Crucifixion of Christ" In: Astronomische
Nachrichten (Astronomical News) 240 Nr 5745/6
Oct 1930, Column 137-62 [1]
[O. Gerhardt already earlier has ~~set~~
~~estab up~~ stated ("The Date of Christ's
Crucifixion", Berlin 1914) his thesis (theory!)
: "15 Nisan = April 7, 30". In recent times
he has repeatedly ~~pointed~~ referred to his
thesis, as in "Research & Advance" 7 (1931)
83. Even in the "German-Chinese News"
2. Volume, Tientsin) on April 5, 1931 p. 10 there
appeared an article: The Date of the
Crucifixion of Christ determined astro-
nomically". Two addenda against
E Dittrich & K Hennig (see note 2)

2/ by him later were printed in
· the "Astronomical News" 242 (1931, Ⅱ)
· Nr. 5790, 127 f. Nr. 5801, 305-10.]

3_ J. M. Van den Veu, "Day & Year
of Christ's Crucifixion", a Chrono-
logical Study. S-'Hertogenbosch
(1930). S Mosmans Zoon. 74 p. fl 1.75.

4/ J. Sickenberger, "Chronology of
the N.T." a/ Life of Christ.
Lexicon for Theology and Church
2 (Freiburg 1931. Herder) 330 f. ②

[Note 2, p 93: Here reference is made
to a few more of recent works
on the year of the Lord's death,
which cannot be discussed
here in detail. Robert
Eisler has set the day of the
crucifixion of the Lord
arbitrarily on April 15, 21. (Christos
basileus as 2, 144 and 163 - 204;
Revue archéologique Ⅴ/32 (1930ⅱ)
116 - 26); in the "Astronomical
News" (Nr. 5458 [1930, Ⅲ] 405 f) is a note

3/ on this by Fr. Wünschmann.
. In the same magazine 241
. (1931, I) Nr. 5784, column 401-8
[Dittrich states that Christ was
crucified on 14 Nisan, April
15, 29 after a very brief
period of ministry. While
R Heinig recommends the
year 33 and the 14 Nisan —
242 (1931 II) Nr 5.789, 110-3.
Based on the so-called
tradition of the year of
Gemini Ricc. G. Villoslada
in " Verbum Domini" 9 (1929)
322 - 33; 10 (1930) 10-15 has
recommended the date of March
18, 29 formerly so common
in use.]   p. 94

        The works before us
agree insofar as they sub-
ordinate the chronological
problems of the life of Christ—
which are very contradicted — to the
solution of the main question

4/ which has as its subject the
. date of the death of Christ.
. So the work named first
is aiming at this goal
making the fixing of the
date of his birth and of
the beginning of Christ's
public ministry entirely
dependent on the determin-
ation of his death. Together
with Van der Ven, Bedeus
accepts April 3, 33 thus being
in contraposition to © Gerhardt
who is taking Apr 7, 30.
J. Sickenberger differs from
both in that he is leaving
open all four years as from 30
to 33, abandoning the in-
vestigation of all monthly
dates. / I. The solution of the
question of the day of the
Lord's crucifixion as is recognized

is made difficult by the
fact that different solutions
arrived at in different ways.
present ~~itself~~ themselves which directly
contradict each other. Aside
from tradition, which has
spoken up, energetically — though in this
historical question without autho-
ritative right — astronomy presents
firm, though not quite unequivocal
results. Still more it is being
emphasized that the gospel itself
determines the end of the Lord's
ministry by fixing the beginning and
duration of it. The beginning
is ~~placed in~~ into the fifteenth year of
Cesar Tiberius (Luc 3:1). Right from
the start it must remain
doubtful, whether the time as from
August 19, 28 until the same day of
29 is meant or whether this year
is to be reckoned as from Oct. 1, 27.
Furthermore, it ~~can be taken~~ presumed
for granted that the Lord taught
at least three years, and it is most

likely that his ministry
covered fully three full years.
All four authors named above
accept the three-year theory.
Thus we would have to accept
one of the Passah festivals of
the years 31 or 32 as the "Crucifixion
Pascha". Yet J. Sickenberger wishes
to leave open four Easter festivals
30, 31, 32 & 33 while the other three
works agree that only two years
enter into consideration - and
in ~~there~~ each but one certain day -
as the Good Friday, that is, the
year 30, ~~and there~~ April 7; and the
year 33, ~~which offer~~ April 3 as
the date for Good Friday. /
~~For a long time~~
~~Since long~~, however,
some adherents to the 3-year-theory
have corrected the date of Luke 3:1
~~insofar as~~ in that they did not reckon
the imperial days of Tiberius

from the death of Augustus (p 95
but from that earlier time
when Tiberius was appointed
to the "collega imperii", which
hypothesis is often denoted
a "Crownprince-era". //

II. The variety

("30-33" & "30 or 33") can be ex-
plained by the different
answers given to the question:
" Has astronomy a word to say in
this question or not?" Is it
possible⊗ to determine those
years of Pilate's administration
(26-36)⊗ from the fact that
today we can figure out the
astronomical new moons
within a range of "a few
minutes") in which the 14. or 15
day of the Jewish spring
month came on a Friday?

8/ To this question J. Sickenberger gives a decidedly negative answer: " It is impossible to transfer this Jewish date of the month (14 or 15 Nisan) into our way of ~~dating~~ reckoning because with the Jews the observation of the new moon (conjunction) was made according to the ~~obviousness~~ (appearance, ~~evidence?~~) and the insertion of an intercalary month was practiced with certain freedom, so that astronomical calculations cannot lead to the goal." (p 331).

Yet the investigations of recent years, especially the works presented in "Biblica" 9 (1928) 48-56, 466-8 ~~by~~ astronomer K Schoch - who in the meantime

9/ was much too early lost
· (snatched away) to science —
· do not justify such reserve.
It is possible to prove for the
evenings following the conjunction
of sun and moon whether
the narrow moon crescent
already became visible or
whether this was impossible;.
only in few cases the result
remains doubtful. ⊗ [Note 2:
P.V. Neugebauer, "Tables to Astro-
nomical Chronology" 3, Leipzig
1922 XXVIII - XXXI; 50; Astr. Chron. I,
79-85]. — First of all it is
possible to eliminate all those
years in which neither the 14 nor
the 15 Nisan fell on a Friday.
The (fact) certainly conspicuous
that only the two named
dates remain as likely cannot
lose of its value because
the intercalary months were

10/ inserted not according
: to fixed rules. Under this
· supposition simply both
months in question for the
Nisan must be ~~examined~~
investigated. Thus it is
evident that the negative
method here offers a very
palpable result — the year
32 is completely out because
in it the 14 and 15 Nisan
could only come on a
Monday, Tuesday or Wednesday;
in no case on a Friday.
The same can be proved
of the preceding year 31, p. 96
I ... offering a rather unlikely
date in Friday, April 27, which
is practically ~~in~~ out (of the question)

With regard to the year 30, below
on p 101 and on a calculation,
supplementary to the usual,
procedure in proving is

11/ given. The year 29 also ~~must~~
is completely out. /

III. The second question
dividing the four authors
named is the "Crownprince-
era". While all others
emphatically reject it, O.
Gerhardt just as sure states
it to be proved that Luke3:1,
the first Passover of the
Lord's public ministry,
~~is applies~~ is ~~being~~ shifted
into the year 27. The truth,
however, here, too, will be
~~in~~ the ~~middle~~ happy ~~mean~~ medium.
Of the four reasons brought
forward by Gerhardt (p 138 f.)
three fail completely:
the report of Velleius Paterculus
(2, 121, 3) the Silanus coins
of Antiochia and the

by Hippolytus [1] [Note 1, p 96: In Dan 4: 23, 3. Bonwetsch 1, 242] and Tertullian [2] [Note 2, p 96: Adv. Marc. 1, 15 Pl. 2, 288; CSEL 47, 309.] About the coins in question compare Van der Ven p. 29, who quotes throughout rejecting (negative) opinions (judgments) of prominent numismatics. Yet the fact remains intact that Luke 3:1 designates the administration of Tiberius and of Pilate with the same expressions ἡγεμονεύειν and ἡγεμονία. Thus the possibility remains that the Evangelist reckons the whole time when Tiberius held supreme power over the provinces, especially the orient, although for about 2 ½

13/ years he did not rule alone
. but together with Augustus. //

Here, however, it
should be noticed that the
opponents of the crownprince
era, who ~~consider~~ take the year 33
as the year of the death, also
cannot explain incontestably
the date Luke 3:1. ~~According~~
to them the Passover of the
year 30 must be ~~explained~~ designated
- because of ^their accepted ~~the~~ 3-year-theory -
as the first in the public
life of the Lord. Yet ~~nobody~~ no one
explains the obvious difficulty:
How then is it possible to set
the beginning of the Baptist
sermon still in the year 15 of
the emperor Tiberius, i. e. in
the time before Aug. 19, 29? The
end of this year of the emperor _

during the tropical heat
of the Jordan valley John
hardly could ~~start~~ begin
his preaching in summer.
But if we go ~~as far~~ back
into spring 29 or ~~fall~~ autumn
28, great difficulties arise
from the fact that the
baptism of the Lord took
place a few months before
the first Passover – either on
Jan 6 (30) recommended by [p97]
tradition, or somewhat earlier.
~~For one~~ For one thing, the duration of John's
penitential sermon is extended
unseemly; furthermore the date
of Luke 3:1 would merely de-
termine the beginning of John's
preaching but not ~~apply to~~ fit the
beginning of the ministry

15/ of the Lord. Yet it surely
was the intention of St. Luke
to fix chronologically the
latter and not the former.
The way out (expedient?)
once tried by Scaliger [De note:
emendatione temporum
1598, p 562-7] by accepting
four years of ministry of
the Lord (Easter 29 - 33) must
be considered as excluded.
                . - We do not
wish to ascribe to these views
decisive conclusiveness. Yet
it is to be hoped that a clear
answer will be presented
to show why the unproved
supposition of the crownprince
era presents causes a greater
difficulty than those

16/ assumptions which take
the year 33 for the statement
Luke 3:1. //

IV. After having proved
that merely the years 30 and 33
come into consideration, it
remains to determine, which
of the two years ~~is the more~~
~~likely one~~ has the odds more
in its favour, or whether the
early dating (30) or the late
dating (33) is ~~to~~ preferable.

Now this investigation
with Gerhardt has turned
out conspicuously short — he
believes to have proved, also the
year 30. [With the crown prince
era]. Since the text in Luke 3:1,
as the main reason for the late
date, has been discussed
and evaluated above (p. 96)
~~we~~ here the remaining

.17/ . aspects are briefly put
together. They prove that rather
the year 30 than its rival 33
comes into consideration. //

1. First of all it should
be noticed that in order to
defend the year 33, the three-
year-theory should be pre-
supposed as definitely proved.
Yet this is not the case;
the interpretation of M. Meinertz [2]

[Note 2, p. 97: Biblische Zeitschrift
14 (1916/7) 119-39; 236-49; compare
F. Tillmann, Joh² 3. St.] [3]
and M.-J. Lagrange

[Note 3, p. 97: S. Jean³ C XXVI-CXXXI;
Synopsis Evangelica, p. XVI.]
to reverse chapter 5 and 6
of the fourth evangelist
thus reducing the time to
two years, cannot be
eliminated with the desired

.18/ complete certainty even
though the three-year-theory
is rather favoured.

2/ Then on the whole it
is conceeded, that the report
in Luke 3:23 — Christ at his
baptism was about 30 years
old — agrees much better
with the early ~~dating~~. date.
For if we accept the year
7 or 8. prior to our time — (p.98
computation according
to the view prevalent today
as the probable time of the
birth of the Saviour (¹)

[Note 1, p.98: E Ruffini, Chronologia
119–124. 138; L. Fonck in "Verbum
Domini 7 (1927) 363-72. — It is complete
failure, when Bedeus 157-154. 186. transfers
the birth of the Lord into the year
12 B.C., his public ~~ministry~~ appearance

19 / into the year 19 A.D. thus
ascribing to him in the year
33 an age of 44 years.]
setting it in winter, — ~~at~~ ~~twen~~
although not exactly on Dec. 25 —
the Saviour on Jan. 6, 27
was somewhat over 32 or 33
years old, while at the beginning
of the year 30 he was already
35 or 36 years old. It surely
must be admitted that this
calculation, too, still is
compatible— with Luke 3:23;
the early date, however,
corresponds much better
with this text. //

3/ It should also be
conceded that the "Pauline
Chronology" rather recommends
the early date. For if we

have to set the council of
the apostles according to the
Gallio - inscription into the
year 49 or 50, then the conversion
of St Paul - in case we count
let pass the 3 years in Gal 1:18 and
the 14 years in Gal 2:1 as full
years counting them in succession
- falls in the years 32 or 33.
Both suppositions are impossible
if Christ was crucified only
in the year 33. The supposition
of Bedeus: "Conversion soon
after) December 26 (!) 33
the martyrdom of St. Stephen"
does not allow sufficient
time for the events related
in Acts 2-7. In any case an
advocate of the late dating
must abandon the wording
tenor suggesting itself in the
two figure

21/ reckon) merely 13-16 years
. (instead of 17 years) by declaring
the years as incomplete or
by including the three years
in the fourteen. //

4 One reason advanced
by Gerhardt for the year 30
will be discussed on p 99 and ff.

5 Finally, one viewpoint
repeatedly advanced by
Bedeus for in favour of
the late date is to be re-
examined (p 39-43; 176-182).
It is taken from the history
of the tetrarch Herodes Antipas.
The fact that his father-in-
law Arethas IV avenged the
wrong done to his daughter
through by the adultery with
Herodias not before only in
the year 36 in the defeat
at Gamala (2) certainly

2²/ rather recommends the late
dating. [Note 2, p. 98: Josephus,
Ant. 18, 5, 1, n. 113 f.] But the
other by him strongly
emphasized view seems
insignificant: Antipas
was accused to have
taken part in the conspiracy
of Sejanus (3) [Note 3, p 98:
Josephus, Ant. 18, 7, 2, n. 250.]
(p. 99)
This took place in the year
30 and 31; consequently the
tetrarch at that time was
in Rome and the adultery
committed by him upon
return from Rome (1) falls in
these years, i. e. not in the
preceding years 27 or 28, as
should be figured in the
early dating (2).
[Note 1, p. 99: Josephus, Ant. 18, 5, 1, n. 110 s.]

23/.

[Note 2, p. 99: Also like this
Van der Ven, p. 38-40.] —

But for two reasons this
argument is rather dubious
(uncertain): a. It is not certain
whether the accusation raised
against Herodes Antipas was
based on truth or represented
merely libel (calumny).
The fact that Sejanus was
an avowed enemy of the
Jews (3) [Note 3, p. 99: Philo, Legatio
ad Gaium 24, 159 f., Cohn-Reiter
6, 185.] does not speak for
the truth (of this accusation).

b. ~~It was possible for~~
Antipas could have been
allied with Sejanus before
and from Palestine, for the
latter had been a traitor in
earlier years: as early as in

24/ the year 33 he had poisoned
the young Drusus, the son of
the emperor. //

Still there is to be con-
sidered that another point
decidedly speaks for the early
dating, how much Bedeus
(no matter)
p 180-2 wishes to reject it.
Salome, Herodias' daughter
in the gospel is always
called a "young girl" (Mt. 14:11;
Mark 6:22. 28). Now we know
that she became the wife
of the tetrarch Phillipus (4)
[Note 4, p 99: Josephus, Ant 18,
5, 4, n. 137.] and that he
died already "in the 20th
year of Tiberius" (5) [Note 5, p. 99:
Ant. 18, 4, 6, n 106.] i.e. in the
time between Aug 33 to 34.
Now in the late dating the

25. / three events: Martyrdom of
John, marriage of Herodias,
death of Philipp would
fall in the time between
end of 31 or beginning of
32 until 33/34; thus they
were but 1-3 years apart.
In this way they are brought
too close together. It is not
to be assumed that the
reigning princess (sovereign)
one or two years earlier
still was a "young girl".
But everything agrees in
the early dating, where for
the three events a period
of from 4-6 years is at dis-
posal (28/29 - 33/34). //
          In view of these
arguments recommending the
year 30, two viewpoints em-

26/ phasized by Bedeus (Supplements
p. 8) are of no significance.
To begin with against Apr. 7, 30
it is being pointed out
that Apr. 7, 30 for the Romans
was a "dies nefastus", on
which proceedings of the
court (trials) were avoided
(6) [Note 6, p. 99: The same E Dittrich,
p. 402 and R. Hennig p. 112.]
Yet first it remains to be
proved that the governors
of the provinces too were
respecting and were able to
respect this superstition.
Then the calendar   (p 100
made up (computed by
D Petavius containing the
13 dies nefasti in April (')
should be reexamined
investigated again.

27/ [Note 1, p 100; Pauly, Realen-
zyklopaedie², 2, 67.]; none
of the texts cited in
"Thesaurus linguae latinae"[2]
contains a detailed
statement of the "black-
days" (bad luck days)[3]
[Note 2, p 100: "Dies nefastus",
4, 1058, 60-2.]
[Note 3, p 100: Compare J. Schaum-
berger in Biblica 9 (1928) 61 on.]
                    Still less the year
33 and its April 3 is recommended
on account of the lunar
eclipse which took place on
the day named[4] [Note 4, p 100:
Th. Oppolzer, "Canon of Eclipses"
p. 344 n. 1914. J. Scaliger had ~~pointed
it out~~ referred to it (De emend. temp.,
p 561.) In favour of it are especially
Bedens(?)(8?) and R. Henning.]

28/ The report of the synoptics
reads of a solar eclipse
taking place in the noon
hours. As for the rest Besides,
at the time of its rising the
eclipse was but slight small
(2 inches, or merely one sixth of
the diameter).

V. A last questionable
item question concerns the
Jewish date of the Lord's day
of death. The old point of
controversy, whether the 14 or
15 Nisan until this day is
not quite clear. Van der Ven and
E Dittrich decided for the 14 Nisan,
Bedeus is undecided, while
the other authors accept the
15 Nisan. But Van der Ven too
does not pay sufficient attention
to the decisive argument:

According to the testimony of
St Irenaeus (5) [Note 5, p 100:

Eusebius, HE 5, 24, 16, PG. 20, 508A;
Schwartz 496.] St Polykarp un-
swervingly defended 14 Nisan as
the day of the Easter festival,
"because together with the Lord's
disciple John and the other apostles
he always had observed it
(the Easter festival).". By this we
have a quite incontestable
testimony that the apostle regarded
the 14 Nisan as the day of the Lord's
death and consequently that it
was the real day of the death. For
through the "Epistola Apostolorum"
(6) [Note 6, p.100: 15 (26) Aeth. = Coptic text,
Texts and Unt. 43, 52.] it is made
certain that in Asia Minor about
the middle of the second century
on the 14 Nisan the memory of the
death of Christe was celebrated;
"But you celebrate the commemoration

30/ day of my death, ~~that~~ which
is the Pascha " (7) [Note 7, p. 100:
Compare C. Schmidt, TU 43, 597-611.]
So ~~Me~~thodically ~~that~~ it is a failure
when Gerhardt "derives farreaching
consequences from his opinions
of the 15 Nisan as the day of death,
for instance that the year 33 is
out of question if for no other
reason because Friday, April 3,
33 was not the 15. Nisan but only
the 14 (8) [Note 8, p 100: Neugebauer,
"Tables for astronom. Chronology",
3, XIX s.; Astr. Chron. 1, 81 - 85.] //
              Special reference is
made to the attempt of Ger-
hardt to prove the date accepted
by him, Friday, April 7, 30, on
astronomical grounds as the
                                    p. 101
15 Nisan. C. Schoch in ~~a detailed~~
an exact calculation given in
(1) "Biblica" has ~~proved~~ that
according to the conjunction
[(1) IX (1928), 53]

31/ (which) starting in Jerusalem March 22, 30
at evening 20, 22, the new light
was visible not already on the
following evening, March 23,
but only March 24, and that
consequently March 25 was the
1. Nisan, i, e. April 7 could not
be the 15 but merely the 14 Nisan.
This reckoning calculation had earlier
repeatedly been presented by
Fatheringham (2) [Note 2, p 101;
Journal of Philol. Studies 29
(1903) 100/18; Journal of Theol.
Studies 12 (1910/11) 120/7 and others.]

G., too, joining Neugebauer
must admit: "Theoretically the
new light was not visible
March 23...." But, according to
G, Neugebauer adds: "According
to the new table of Schoch the
moon approaches the theoretically

required
~~demanded~~ boarder only up
to 0.5. This difference of a
lunar semi diameter is so
small, that one could say
the crescent could be seen
under favorable conditions."

(3) [Note 3, p. 101: Astron. Nachrichten
Nr. 5745/6, p 156.] This rather
inexact conclusion, however, cannot
be accepted without further
proof. Besides, Gerhardt's proof
is an unjustifiable conclusion
" a posse ad esse" from a
possibility - not yet proved -
to a reality (fact?). //

And what is the
result, if the alldecisive March 23,
30 ~~were~~ only the 28th day of the
closing month Adar because
the new light preceding this
month could not be observed? //

But exactly this
preceding new light is very

significant for our question
and deserves special investig-
ation. According to Ginzel (4)
[Note 4, p 101: Chronologie 2, 548; a
correction of 9 minutes according
to Neugebauer, Astron. Chronologie
(1,75; 2, 84) does not ~~change~~
alter the result.] the conjunction
took place ~~Feb. 21,~~ 2,24 early at
(" Ⅱ 20, 60"). this is expressed
in Jerusalem time Febr. 21,
early at 4,45 (36). Now the
new light could not possibly
be visible the same day at
eve (about 18:30 o'clock) — the
lowest time intervall, which
could be determined is
15½ hours (5) [Note 5, p 101: F. X. Kugler,
" From Moses to Paul" p 35. Neuge-
bauer 1, 81: "at the earliest 17 hours"].
while here hardly 14 hours
have elapsed. All the more
sure was the new light to

34/ be seen
the next evening, Febr. 22.
Accordingly the 1. Adar was
on Febr. 23; Febr 28 was the
6. Adar, March 1 the 7. Adar and
therefore March 24 was the 30
Adar. Thus So the month (p. 102)
Nisan must have started
March 25 even though the
sky was cloudy, and there-
fore April 7 is the 14 Nisan.
The possibility that due to
cloudiness the new light
was invisible on both
evenings – Febr 22 as well as
March 24 – thus the shifted
beginning of the month
making the whole calcul-
ation impossible; is ex-
empted even by Gerhardt. //
"When the monthly
observation was frustrated

35/ (on account of) by the
weather it was customary
to have a 29-day month
follow a 30-day month.
That is evident from the
tracts "Roš haš" and
"Eruchin"[1] [Astr. Nachrichten,
S 149.] //
Unfortunately G.
here, as often elsewhere, has
omitted to precisely quote
(cite?) his sources. As is
known, it is not the same
thing whether Mišna or
Tosephta is meant or one
of the two Talmuds; the
latter, as is known, belong
to the time, when the Jews
determined the beginning
of the month by (through)
with the help of a calculating

calendar while in the second and third centuries everything still was being settled by observing ~~ation~~ of the new light. Furthermore it is certain (~~well established~~ indisputable that occasionally two (full) months of 30 days did follow immediately each other: "The year has at least ~~four~~ full months and at the most eight." (2) [Note 2, p. 102; M. Arachin 2, 2 Surenhusius 5, 195; Ginzel 2, 42.] Pentecost normally celebrated on the 6 Sivan, could come also on the 5. or 7 Sivan (3) [Note 3, p. 102; 6. Roš haššana 66 Goldschmidt 3, 304]; the former implies that Nisan as well as Ijar each ~~had~~ numbered (counted) 30 days. But the fact

3/ that the synodic month,
i.e. the time from one new
moon to the next does not
amount to exactly 29 days
12 hours but, ^{to} 29, 53059 days,
or 29 days 12 hours 44 minutes
2,9 seconds, requires that
occasionally two adjoining
months had to have 30
days. P.V. Neugebauer was
able to point out [5] [Note 5,p
102: Orientalist. Literaturzeitung
32 (1929) 919.] that among
of 100 months determined by
calculation reckoning 53
were found to be full months. //

Considering all
the circumstances it follows
that the two possibilities:
April 7, 30 = 15. Nisan and

38/ April 7, 30 = 14 Nisan are
as one to hundred. /

In this connection
reference is made to a
more recent hypothesis,
from which ~~serves~~ O. Gerhardt (6)
derives proof for the year 30:
"The one who ~~is~~ defending the
view that in the N.T. are ~~named~~
given two dates for the Friday
of the crucifixion, the 15 Nisan,...
and the 14. Nisan ...., is finding
this double date realized
only in the year 30." As is
known, in order to solve the
old controversial ~~point~~ question
a rather simple assumption
was suggested: both reckonings
were supposed to have been in
use in the year of Christ's death,

39/ ~~because~~ since the pharisees
started the month Nisan one
day earlier than the Sadducees.
(1) [Note 1, p 103: So Jechiel Lichtenstein
in his Hebrew Mt. Commentary
(Leipzig 1913, p 122 on.); H. L. Strack
has explained (amplified) it in
Strack - Billerbeck 2, 812 - 53. M.-J.
Lagrange has presented a similar
view as early as 1911 in the first
edition of the Mk - Commentary
(p 339, ³360-3). This hypothesis was
accepted by J. Schaumberger
(Biblica 9 (1928) 74-77), H. Simón
(Praelectiones bibl. ³1, 518; ⁴1, 518),
J. Vosté (Studia Joannea², p 311-3).]
~~So~~ Showing the effort to
avoid (~~evade~~) acceptance of
an anticipationtheory, the
possibility of which after all
cannot be proved ~~directly~~
historically. //

Here

. . . This is not the place to
make an all-round investigat-
ion of this assumption (hypothesis)
and especially to examine the
possibility that the Pascha
festival in the temple at Jeru-
salem could be celebrated on two
days. ~~Suffice it to mention
here~~ But one very obvious
objection against this hypothesis
~~may be mentioned here~~
If the day preceding the
death of Christ according to
the view represented by the
Pharisees really was already
the 14. Nisan but according
to the understanding of the Sadducees
only the 13 Nisan, then the Saviour,
in case he held Passover on
the eve of this day, must have
acknowledged the first
method of reckoning, for

the legitimate Passover
was none other than the
14 Nisan. But, then, according
to _his_ opinion the day of
his death was the 15. Nisan
and his Evangelist John
would never have thought
to acknowledge any other
reckoning and write: "it
was the day — — — — —
(19:14) [2] [Note 2, p 103: Impossible
is Simons assumption [3.4] (p.518):
"Jesus et Synoptici Pharisaeorum,
Is, vero in sua relatione
Sadducaeorum agendi ratio
nem secutus esset."]
Still less possible would
it have been to fix the 14. Nisan
in tradition, as we find it
in the ~~of~~ tradition of John
by (~~with~~) Polykarp and others
(p.100) [3]. [Note 3, p.103: Supplement.

Of the four works which appeared (during the printing of this report) in "Astronom. Nachrichten" the one by R Hennig deserves attention. One of the statements (assertions) made by him has been rejected above on p 100; one more also needs a refutation (rebuttal). According to R Hennig Pilate is supposed to have been deposed in the year 37; consequently his ten years of administration (service) could have begun only in the year 27. Thus it would be impossible according to Luke 3:1 to defend the three-year-theory and accept the year 30 as the year of the Lord's death. But against this can be said that according to the decisive texts of Josephus (A 18, 4, 3 n.

43/ 90-95; 5,3 n 123 on) it is com-
pletely ~~out of question~~ beside
the point to transfer the
~~deposing deposition dismissal~~
removal of Pilate in the
year 37. As commonly accepted
his time in office rather
covered the years 26-36.
Therefore ~~an adherent~~ a supporter
of the three-year-system
without difficulty can
decide for 30 as the year of
the Lord's death even though
for this ~~same~~ one reason he has
to abandon the "year of the
Gemini" 29. Proof for this
will be given shortly.]

Rome, June 1931.

U. Holzmeister, S.J.

Karl Manitius: Des Claudius Ptolemäus
Handbuch der Astronomie .

Claudius Ptolemaeus Manual for Astronomy.

p. 190: "Now in order to ~~transfer~~ *ascribe* once and fo
for all the (civil) solar days given for any
~~chosen~~ *specified* intervall -- I mean those figured as
from noon or midnight until again noon or
midnight (according to local time) -- we shall
determine for the first as well as for the
last ~~period~~ *epoch nychtemeron* of the given intervall of the
(civil) solar day in what degree of the
ecliptic the sun stands according to the
uniform as well as the not uniform (i.e.
the one provided with the anomaly differ-
ence) ~~movement~~ *motion* ."

Translation from French.

"Revue des Etudes Juives"

Quarterly Publication of the
Soc. for Jewish Studies

Vol. 57

Publ.; Paris, Librarie A. Durlacher, 1909

pp. 98-100:   D. Sidersky,

The Origin of the Lunar Cycle
and the Order of the Embolismic Years
of the Jewish Calendar.

In the lunar cycle of 19 years
which is the basis of the Jewish
calendar, the embolismic are
intercalary in the following order:
3, 6, 8, 11, 14, 17, 19, the order designated
in Hebrew as follows: א"דז ט"רה ה"דר.
Modern authors agree that the
institution of this lunar cycle
was inspired by an identical
cycle of Meton (V th century B.C.),

/1 though the order of intercalation
.. adopted by the astronomer of Athens
is not the same. As a matter of
fact in the Meton cycle the
embolismic years are: 3, 5, 8, 11, 14,
16, 17 in Hebrew writing: גו"ח אדז"ט.

In his "Note on the Talmud
Calender" (Bible of S. Cahen, III, Levit,
p 170-193), Terquem states this difference
without explaining it. Schwarz
in his work "The Jewish Calendar"
(Breslau, 1872, p 76) explains this
difference as an improvement
2) = with the aim to realize (make real) –
1) = towards the middle of the century,
the concord (harmony) of the solar
and lunar years. The theory of this
author amounts to this: The cycle
of Meton is based on the fact
that 235 synodic months make 19
tropic years; consequently, the lunar
year is shorter than the solar
year by 7/19th of a month and at
the end of the 8th year the lateness

reaches 18/19 th of a month; Now, as the first mol**e**d precedes the first Tekufa by several hours, the year is made embolismic while at the end of the 5th and the 16th year respectively, the difference attains (~~reaches~~) not more than 16/19 and 17/19 months; consequently, the intercalation of a third month did not take place. //

To support his thesis Schwarz quotes a formula invented by Creizenach (Annales, 1840, p. 131) making it possible to know whether a year n of a cycle is embolismic or not. The year is embolismic when one of the numerical values included in $(7n+1)$ and $(7n-6)$ is divisible by 19 and the quotient simultaneously indicates the number of embolismic years as from the beginning of the cycle. //

Slonimsky in his book "Yessodè Haïbour" (3rd edition, Warsaw, 1888, p.35) quotes the passage of Pirkè d. R. Eliézer with regard to the lunar cycle stating that there

is mentioned גה"ח אדר"ט instead
of the usual customary order גר"ח אדר"ט. From
this he concluded that the establishment
of the Jewish calendar in its
definite form is of a later date
that this work.//

Some more ancient
authors have constructed still
less tenable theories with regard
to the order גר"ח אדד"ט and there is no
space to reproduce them here. As for
the rest, the origin of the form order
adopted has been is shown by
Th. Reinach in his article "On the
Calendar of the Greek of Babylonia"
(Revue, Vol. XVIII, p. 90-94) with the help by means
of some several ancient inscriptions
in accordance with the system
גר"ח אדד"ט.//

This system does not agree
with the order originally indicated by
Meton which is precisely the one
mentioned by "Pirké de R. Eliezer" ①
Hebrew

making the years 5 and 16 embolis-
mic instead of 6 and 17 of the cycle.
Well, this is rather logical in as
much as the differences with the
solar years (attains) at the end of
the 5th year (61 months) = 24 days 21 hrs,
227 ch. and and the end of the 16th year,
(197 months) = 26 days, 11 hrs 379 ch. or
almost a whole month. If a thirteenth
month is inserted, the month of Nisan
of the 5th year will begin 4 days
15 hours, 566 ch, and the one of the
16th year = 3 days, 1 hour, 414 ch. after
the equinox of the spring, and Passah
will be celebrated in the month of
Abib in accordance with tradition.)

We are of the opinion
that the form #2 came after the
period of establishing the Jewish calendar
was established and that in the
beginning the form order as indicated
by Meton was in use which corresponds
to the formula #1 mentioned in

"Pirké de R. Eliezer".//

As a matter of fact, the date
when the Athenian astronomer
began his lunar cycle was June 28
(= 13 Scirrophorion) of the year 432
BC, at noon, ~~even at~~ exactly at the moment
of) the summer solstice.//

Now, the year 432 BC
(4281 of the Julian period) corresponds
the the year 3328 ~~of~~ since creation.
It is the 3rd year of the 176 cycle (lunar)
reckoned from creation.
It was when establishing
the era of creation long after
the establishment of the calendar,
that the primitive formula #1
was modified by changing it
into #2 beginning the cycle with
the 17ᵗʰ year of the one of Meton,
i. e., by adding to Meton's cycle

three years in order to get as
the origin of the system the first
year of creation. The dates of the
Greek inscriptions mentioned
by M. Th. Reinach (l.c.) ~~also~~ agree
(with the formula of #2 as with the
just as well) one #1 of Pirké de R. Eliezer.

Thus the origin of the formula #2
is the era of creation taken as the
starting point by applying Meton's
system with his order of intercalation
of embolismic years ~~in concordance~~ which agree
with those of the calendar of the
Greek of Babylonia. //
    Neither #2 nor the era of
creation are found in the Talmud
literature; they are of more
recent date. //   D. Sidersky.

Concerning The Seventy Hebdomads--by the Venerable Bede

The seventh form of the week is that which the prophet Daniel uses, indeed,
representing the individual weeks by the use of the principle for seven years
each, but by a new plan which shortens the years themselves, in fact determin-
ing the single years by twelve months of the moon. But not adding the indi-
vidual embolismic months, by the ancient principle for a third or second year,
which are accustomed to increase by an annual eleven days of the epacts, but
by making the addition as soon as they arrive at the twelfth number, inserting
equally for the whole year. But he [Daniel] does not present this knowledge
in envy of the seekers for truth, but by the custom of prophecy in exercising
the genius itself of those seeking: preferring at least that the pearls hid-
den by men be sought out in fruitful labor, than in abundance to be trodden
under foot by swine in loathing contempt. But that these things may shine out
more openly, let us look at the words themsleves of the angel to the prophet:

Seventy weeks, he says, are shortened upon thy people, and upon thy holy
city, that transgression may be finished, and make an end of sins, and that in-
iquity be destroyed, and everlasting justice be brought in, and the vision and
prophecy be fulfilled, and the holy of holies be anointed. There is no doubt
but that these words signify the incarnation of Christ, who bore the sins of
the world, fulfilled the law and the prophets, was anointed with the oil of
gladness before His fellows, and that the seventy distinct weeks, by seven
years each, imply 490 years. But it must be noted that these same weeks are
not simply the well known or computed weeks, for he asserts shortened: indeed,
occultly warning the reader that he may know that years customarily shorter
are indicated. Know therefore, he says, and understand, that from the going
forth of the discourse [that is, the prophecy] in order that Jerusalem may be
built again, there shall be even up to Christ the Prince seven weeks and sixty-
two weeks, and the street and walls shall be built again in a time of distress.

From Ezra's narrative we have learned that when Nehemiah was cupbearer of
the king Artaxerxes in the twentieth year of his reign in the month Nisan, he
sought from him that the walls of Jerusalem be restored, the temple having
been constructed long before by the permission of Cyrus: also that he [Nehemi-
ah] has accomplished the work itslef in a time of distress, having been opposed
by the neighboring nations to the extent that the individual builders are said
to have fought with one hand, girded with a sword on their loins, and to have
built the wall with the other. From this time therefore even to Christ the
Prince, seventy weeks are computed, that is, 490 years of twelve lunar months
each, which are 475 solar years. [This, of course is an error. G.A.] But if
indeed from the afore-mentioned 20th year of king Artaxerxes even to the death   445-
of Darius, the Persians ruled 116 years; and from thence even to the death of   444
Cleopatra, the Macedonians, 300 years; and then the Romans even to the 17th of   B.C
Tiberius Caesar held the empire for 59 years; these are all one and the same,
as we have said, 475 years. And they are comprised by 25 19-year cycles, for
20 cycles and 5 cycles make 475 years. And since seven embolisms increase
each one of the cycles, multiply 25 by 7 and get 175, which are the embolismic
months of the 475 years. If therefore you wish to know how many lunar years
they can make, divide 175 by 12, equals 12 times 10 and 12 times 4, or 168.
They therefore make 14 lunar years and 7 months remain; add these to the 475
written above, and they make at the same time 489 years: even add the extra
7 months and you arrive at a part of the 18th year of the emperor Tiberius, in

which the Lord suffered, and you find that from the appointed time even to
His passion were seventy shortened weeks, that 490 lunar years [?]. But to
His baptism, when the holy of holies was anointed, the holy spirit descending
upon Him as a dove, not only were the 7 weeks and 62 weeks completed, but
even the part of the seventieth week was begun.

And after the 62 weeks, he says, Christ is slain, and the people shall not
be His that will deny Him. Not immediately after the 62 weeks, but in the
end of the seventieth week Christ is killed, which even, as we can conjecture,
He separated from the rest, since He would in many ways be related to it. For
Christ was both crucified in that week, and was denied by a perfidious people,
not only during the passion, but continuously from the time in which He began
to be foretold by John. But this follows: And both the city and the sanctu-
ary the people will destroy with the coming of the Prince, and the end of it
will be with devastation, and after the end of the war, desolation is appoint-
ed: this does not pertain to the seventy weeks, for the prophecy was that the
weeks themselves should reach even up to the leadership of Christ, but the
Scripture shows by the predicted advent even of the passion itself what also
would happen after this to the people who were unwilling to receive Him. For
it calls Titus the leader to come, who, in the fortieth year of the Lord's
passion, with the Roman people, thus destroyed both the city and the sanctu-
ary that not a stone above a stone remained. But these things having been
tasted through anticipation, then the prophecy returns to the explanation of
the event of the week which it had laid aside. For the seventieth week con-
firms the covenant with many. That is, in the last week itself, in which
either John the Baptist, or the Lord and the Apostles, converted many to the
faith by preaching. And in the middle of the week the sin-offering and the
sacrifice cease. The middle of the week was the 15th year of Tiberius Caesar,
when from the beginning of the baptism of Christ, the purification of the
sacrifices began little by little to be of little value to the faithful.

Likewise this follows: And in the temple will be the abomination of desola-
lation, and even to the consummation and end desolation will persist: fate
looks back to the succeeding times to the truth of which prophecy both the
history of the ancients and of our times testifies today. So, laying down the
whole testimony of the prophet, we have explained such as our power is in
store: since we have known that this is ignored by many readers, and demands
a special kind of week. For they are mistaken who think that the Hebrews used
such years, for otherwise the whole series of the ancient instrument [the
prophecy] totters, and no such age as was written ought to be understood, ex-
cept to be restricted according to the course of the moon. For indeed we
have read that the ancient Greeks, computing the year by 354 days, according
to the course of the moon, intercalate in like manner in the eighth year the
ninety days which arise, if a fourth part be added eight times with the
eleven days of the epacts, in fact, that they were distributed into three
months of thirty days each. But that the Jews are never accustomed to insert
the thirteenth month of the moon, which we call embolismic, except in the sec-
ond or third year, just as the best known computation of the fourteenth of
the paschal moon shows openly. But certainly it must be known that Afri-
canus thinks that the course of the seventy weeks was completed, which we have
deduced according to the Chronicle of Eusebius, to the 17th or 18th year of
Tiberius, in which we believe that the Lord suffered; but he, commencing from
the same beginning as we, to the 15th year of the same Imperator, in which he
believes that He died, and placing the years of the Persian kingdom at 115;
of the Macedonians at 300; and of the Romans at 60. But the diligent reader
may choose what he has thought is the better to be followed. Venerabilis
Bedae, Opera Quae Supersunt, Vol.VI, ch. IX. Ed. Giles. London, 1843.

Translation from German.

"The Exegesis of the
Seventy Weeks of Daniel
in Ancient Time and the Middle Ages."

by Dr. Franz Fraidl.

Graz, (Austria) 1883.

! Excerpts !

I - Jewry in the pre-Christian Era.

1. The Alexandrinic Translation. - The oldest attempt to explain our prophecy is found in its oldest translation, the Septuagint. As is known, the Church rjected the Septuagint text of the book of Daniel and used instead the translation of *Theodotion*, because the former gives translates the original text too freely, contains remarks and gaps so that in some places it rather deserves the name of a paraphrase instead of a translation. . . . . .

II Jewry in the first two centuries.

p. 23: We have seen so far. that the week prophecy before and immediately after Christ was much thought of among the Jews because it was imitated much and in different ways in the Apocryphas.

1. Book of Jubilees
2. "Assumptio Mosis"
3. The 4th Book of Ezra
4. Josephus Flavius
5. The Peschittho - & Theodotion "

<u>1st Stage of Week Proph. in Christian Literature</u>

p. 26. The first ~~evidences of~~ references to the week
prophecy by Christian writers is found
in two papers which originated between
the destruction of Jerusalem by Titus and
the Hadrian war:

rather dark — a) The "Epistles of Barnabas" chap. XVI
& the "Testamenta Patriarcharum
(see Joan. Alb. Fabricius: "Codex Pseud-
epigraphus Veteris Testamenti")

p. 28. — b) They applied the prophecy to the
Messias.

p. 29. — Some reference to the week
prophecy found in the "clementinic
Recognitions (ascribed to Clemens but
written only about 170 A.D.)

p. 29 — Irenaeus — quotes in his great work
"Contra Haereses" a few sentences of
Vers 27 applying it to the Antichrist

p. 30 — Irenaeus teacher of Hippolyt

figure year weeks and 7 + 62 + 1 week.

Dr. F. Fraidl: "The Exegesis of the 70 Weeks of Daniel"

p. 2 & p. 30: 2nd to 5th cent. = the zenith of patristic literature
Clemens Alexandrinus, Tertullian, Hippolyten, Africanus
p. 45   Origines, Eusebius of Cesarca
Africanus, called "the father of Christian
   Chronology". He said that the 70 weeks
   must be reckoned until the
   coming of the Messias.

p. 46: He counts: 70 weeks = 490 lunar yrs = 475 solar yrs
   beginning with the 20th yr. of Artaxerxes
   Longimanus until the death of Christ,
   16 yr of Tiberius

p. 48:   Ol. CCII. 2 = 5532 A.M. = 16th yr. of Tiberius
      = 30 A.D.

" Africanus divides into 7, 62 and 1.

p. 156 — Death of Christ at end of last week.

Eusebius of Cesarca —
   p. 58 — he refers to four different calculations
         of the weeks.

p. 50 — Origenes   Week = decade = 7×10 = 70 yrs.
      70 weeks = 4900 yrs since Adam.

Eusebius — cont'd
p. 65 — Christ ministered 3½ yrs.
      Euseb. refers to Joannes (John?) as proof
— " —   Christ's death — Eucharist — sacrifice

Eusebius - cont'd

p. 68 - "he is the first who applied the "one week" to the coming of Christ."......

p.68 - "We can justly say that in the exegesis of the week prophecy among the scholars of the Orient Eusebius deserves the greatest merit."...Without Chronology an exegesis of the week prophecy is impossible; now it was the Chronicon of Eusebius which has - thanks to the translation of Hieronymus- ~~common~~ become common property of the Occident so that all expounders of the occident of ancient times and the middle ages have based their interpretations of the week prophecy on Eusebius' Chronicon.

p 68 - Chronicon Paschale - see footnote 2)
[The II pt of this work which contains the week prophecy~~,~~ ~~was writt~~ originated in the time of Constantin. See Ducange, Praefatio de auctore Chronici Paschalis. Migne, ser. gr. xci. p. 22.]

~~Euseb.~~ cont'd.

p. 68   The *Chronicon Paschale* brings
nothing new on the calculation
of the week proph. but as the
whole work represents a conglo-
meration of different chronologies
there are given three different
computations on the week proph.
i. e. the 2 of Eusebius, without
naming their author, and the
calculation of Africanus.

26. Ephraens   p. 70.
        uses Peschittho text.
p. 71. "sealing" means "fulfilled"
   " Vers 26 - refers to crucifixion

p. 72 ~~his~~ calcul. not known. Probably
he followed Eusebius whose
computations have found
most followers.

Chrysostomus (p. 79)

on the whole he followed Africanus
(p. 82). His (Chrysost.) calculation not
very clear. We have but parts of
his Daniel-Commentary. (p. 83)

Hieronymus (p. 83) quotes _nine_
different calculations: Africanus,
3 of Eusebius, Hippolytus, Apollinaris,
Clemens Alex., Tertullian, and one
of the Hebraei. He does not
state which of these he accepts.

p. 85 - H. chief merit with regard
to this prophecy is his _translation_
which gives the original text
much more perfect than the
Theodotion translation used so
far by Greek & Latins. Note that
in the middle ages it was not
easy to have access to the original
text so that Hieronymus' translation
was used for exegesis. Hieronymus
also translated the Chronic of

Eusebius into Latin thus making
(this work) available to the
occident which in ancient
times and the middle ages
served as the only source for
chronology.

35. Hesychius - p. 85 - cotemporary of Augustin
   He applies the 70 weeks to until the
2nd coming of Christ but says
that still it is impossible to give
the exact day or year because
the time of the last the
will be "cut short" or shortened.
If not for that the week prophecy
would give the exact time of
Christs second coming.