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A CRITICISM OF THE NEW CHRONOLOGY OF
PAUL.

II.

WE have seen that the positive argument of O. Holtzmann is worthless.¹ Those of Harnack and McGiffert, in so far as they rest upon it, must of course be equally so. But is Holtzmann's negative argument trustworthy, which dismisses as unavailable all other synchronisms than his own? for herein he is again followed by Harnack and McGiffert. If so, then we have no more to do than simply to weigh the authority of Eusebius in the form of text established by Harnack against the objections of Lightfoot, Schürer and others and decide accordingly. If, however, we are convinced, with Ramsay, that there is light to be had from the synchronisms of the older chronographers, when properly employed, our decision may be modified, or even wholly determined by these.

A synchronism, for example, which might well seem utterly fatal to the Eusebian chronology, is that of 2 Corinthians xi. 32, 33, taken together with Acts ix. 23-25 and Galatians i. 18, and adjusted to the known facts regarding Aretas IV., surnamed *עמך עמך* = *Φιλόλαος*, king of the Nabateans, who reigned from B.C. 9 till A.D. 40. As to these facts we cannot do better than to transcribe from the careful excursus of Schürer (*l.c.* I. ii. p. 357) on the History of the Nabatean Kings: "From the long reign of Aretas only a few incidents belonging to its latest period have come down to us. The tetrarch Herod Antipas had

¹ Since the MS. of the preceding article left my hands I have found a review of Harnack's *Chronologie* by Prof. Christie in the current (September) number of *The New World*, and one of McGiffert's "Apostolic Age," by Prof. Shailer Mathews in that of *The Biblical World* (November, 1897), which offer criticisms in a measure coincident with my own upon the new chronology.

a daughter of Aretas for his wife, and her he subsequently divorced in order to marry Herodias. The enmity occasioned thereby between the two princes was further inflamed by disputes regarding boundaries. An open conflict followed, in which the army of Herod was defeated by the troops of Aretas. Owing to his having proceeded at his own instance, Aretas was to have been chastised by the governor Vitellius at the instigation of the Emperor Tiberius. But when Vitellius, on his march against Petra, received in Jerusalem the tidings of the death of Tiberius he turned back, leaving his task unperformed (*Antiq.* xviii. 5, 1 and 3). These events, therefore, belong to the latest years of the reign of Tiberius, A.D. 36-37. At a period not much later occurred Paul's flight from Damascus, at which time Damascus was under a governor (ἑθναρχῆς) of King Aretas (2 Cor. xi. 32). We learn from this statement that now again Damascus belonged to the domain of the Arabian king. This is also confirmed by the fact that from the time of Caligula and Claudius no coins of Damascus are known having the image of the Roman emperor. Probably Caligula, who was induced to the performance of such acts of grace,¹ had restored the city to Aretas." The concluding sentence implies acceptance of the verdict of Wieseler (*Chron. d. Apost. Zeitalt.* pp. 167 ff.) upon the theory of Heyne (*De ethnarcha Aretas Arabum regis*, 1755), still maintained by Hausrath (*Ntl. Ztggesch.* Bd. II. p. 209), that Aretas actually took Damascus out of Roman control by force. But one can hardly read Wieseler's discussion and not agree with Schürer (*l.c.* p. 358) that any theory of Aretas' occupation of Damascus by force is "very improbable. . . . Such an attack upon Roman territory

¹ He was very friendly to Agrippa, who in turn was on the worst of terms with his brother-in-law, the adulterer and murderer Antipas. Vitellius also, if we may trust Josephus, was only too glad to be quit of the uncongenial task of delivering the detestable sycophant Antipas from the just vengeance of his injured father-in-law.

could not have been left unheeded. The coins of Damascus with the image of Tiberius come down to the year A.D. 33-34; those of Nero begin with the year A.D. 62-63. In the interval Damascus may have been in the possession of the Arabian king." But such a change in the last years of Tiberius at the very time of Vitellius' mission to the East (A.D. 35) is very improbable, and of course out of the question in A.D. 36, when Aretas was already in arms against Antipas in practical rebellion against Rome. The earliest date at all probable for the occupation of Damascus by Aretas is the reign of Caligula (March A.D. 37 to January A.D. 41), more exactly A.D. 38, when Iturea Libani was given to Soemus, Armenia Minor and some parts of Arabia to Cotys, parts of Thrace which had belonged to Cotys to Rumetalces, and Pontus, Colchis and Bosphorus to Polemo II. (See Lewin, *Fasti Sacri*, p. 256, § 1533; and Dion, lix. 12.)

Aretas, therefore, was probably not in control of Damascus before the latter part of 38 A.D.¹ But according to Acts ix. 22-26, compared with Galatians i. 18 and 2 Corinthians xi. 32, 33, this cannot have been more than three years after Paul's conversion, and to place the conversion so late as 35-36 A.D. is fatal to the Eusebian chronology.

The objection, however, is dismissed by Holtzmann and his followers as insignificant. According to the former (*l.c.* p. 97) "the expression ἡ πόλις Δαμασκηῶν in 1 Corinthians xi. 32 seems to hint at autonomy. Again Paul goes away from Damascus to Arabia, and returns thence to Damascus

¹ No aid is afforded by the Damascus coin inscribed ΒΑΣΙΛΕΥΣ ΑΡΕΤΟΥ ΦΙΛΕΛΛΗΝΟΥΣ with the date ΑΡ=101; for the title Φιλέλληνος is incompatible with המלך ארת (= Φιλόλαος), which was that of Aretas IV. The note in Schürer, div. I. vol. ii. Appendix ii. 11, is misleading through an inversion of the facts. By some oversight the inscription on the coin is said to be המלך ארת . If this were so, the coin would belong to Aretas IV.; but it is certainly of Aretas III., *i.e.*, Φιλέλληνος, as Schürer rightly maintains.

(Gal. i. 17), so that Damascus does not belong to Arabia." The *ἐθνάρχης Ἀρέτα τοῦ βασιλέως* is therefore in Holtzmann's view only "the representative of Arabian interests in Damascus appointed by Aretas." Opinions will doubtless differ as to the likelihood of the supposition that an appointee of Aretas corresponding to the modern consul could "guard the city of the Damascenes," while it was under Roman control, in order to prevent the egress of a Roman citizen. Until there is a more unanimous consent to it than at present, Holtzmann's reply to the objection must be regarded as inadequate.

The case is different with the supposition of Weizsäcker (*Apost. Zeitalter*,² p. 81,¹ Engl. transl. p. 98), made without any consideration of possible chronological inferences, that the escape from Damascus of 2 Corinthians xi. 32 marks neither the beginning (Hausrath), nor the end of the three-years period of Galatians i. 18, but rather the violent end of the first half of another period, viz., that of Paul's missionary activity "in the regions of Syria and Cilicia" (Gal. i. 21). During his evangelistic work "in Syria," before going to Tarsus (Acts xi. 25), Damascus, the scene of Paul's earliest preaching, would naturally be his base of operations, where under Roman control he would be safe. But when *circa* 39 A.D. the city passed under the control of Aretas, Jewish opposition (cf. 1 Thess. ii. 15), exerted through the Jewish ethnarch appointed by Aretas, would be able to drive Paul out if not to kill him. His escape will then have been wrongly dated by the author of Acts ix. 23-25. If its proper position is after Galatians i. 18, we may cease to wonder that in Galatians i. 17

¹ There is an unexplained contradiction between copies of the "second edition" printed in 1890, p. 83, which place the escape of Paul in the three-year period of Galatians i. 18, and copies of the "second edition" printed in 1892, which place the escape during a *second* visit of Paul to Damascus, during the period of his activity "in the regions of Syria and Cilicia" (Gal. i. 21).

Damascus should be spoken of as no part of Arabia and the motive for the visit to Jerusalem as simply *ἵστορησαι Κηφᾶν*, since the city was not as yet "under Aretas the king." The objection that Acts ix. 23-25 places the escape before the visit to Jerusalem is not serious, since this author is certainly at fault in regard to the whole period in question; not only *uninformed* as to Paul's earlier career, but positively *misinformed* as to Paul's activity in Damascus and visit to Jerusalem, the latter being placed by him so soon after the conversion that the disciples in Jerusalem have not yet heard of it when Paul arrives. The difficulty of placing the escape from Damascus earlier than *circa* 39 A.D. will therefore perhaps outweigh the testimony of this author, who places it, be it observed, *immediately* after Paul's conversion, apparently unaware of any other time when Paul could have been labouring in Damascus. If so, this obstacle to the Eusebian dating will really disappear, though not as Holtzmann proposes. As the reign of Aretas IV. does not extend beyond A.D. 40, Paul's escape, and perhaps the end of his missionary career "in the region of Syria," might therefore even be positively dated A.D. 39 or 40; but this date, unfortunately, would have no determining effect upon the relative chronology, falling as it does at an indefinite time between the first and second visits to Jerusalem spoken of in Galatians.

The same must be said of the synchronism of the death of Agrippa I. That it occurred in the summer of 44 A.D. is certain. This was before the famine in Judæa, for the Phœnician coast was still dependent as ever on the *hinterland* for its supplies of grain (Acts xii. 20). The martyrdom of James the son of Zebedee and imprisonment of Peter may therefore be dated in the early months of the same year. But the general phrase *κατ' ἐκείνον δὲ τὸν καιρὸν* (Acts xii. 1), which connects the story chronologically with the account in xi. 27-30, xii. 25 of the famine-relief visit of

Paul and Barnabas to Jerusalem, is too vague to make it of much practical worth for the life of Paul. The indefiniteness of the writer's chronological information is apparent from the statement that the famine predicted by Agabus took place "in the days of Claudius" (A.D. 41-54). We only know from the statements of Josephus (*Ant.* iii. 15, 3; xx. 2, 5 and 5, 2) and Orosius (vii. 6) that the famine cannot have begun before the fall of 45 A.D., and it is probable that the prediction of Agabus was made in that year after the failure of the fall rains, for a failure of the fall rains invariably entails such results. The height of the famine, during which the *διακομία* of Paul and Barnabas will have taken place (see Ramsay, *Paul the Traveller*, chapter iii.) may have been during the winter of 46-47, or even 47-48 A.D., but cannot well have been earlier. This again is undoubtedly a valuable datum; but until the apparent denial of such a visit to Jerusalem as that of Acts xi. 27-30, xii. 25 is removed from Galatians i. 17-ii. 10, it cannot be used in determining the chronology of Paul's life.

It would seem necessary, therefore, to concede to the supporters of the Eusebian chronology that the attempted synchronisms from Paul's escape from Damascus and from the famine-relief visit to Jerusalem are here inapplicable. But Prof. Ramsay is convinced that the same cannot be said of the date given by Orosius (*Hist.* vii. 6), on the authority of a no longer extant passage of Josephus, for the edict of Claudius referred to in Acts xvii. 2. Paul's first arrival in Corinth must be placed after—but only shortly after (*προσφάτως*)—this edict. According to Holtzmann the authority of Orosius, who dates it "in the ninth year of Claudius," is too slight to enable us to say more than that the edict belongs somewhere between A.D. 44 and 50, when Claudius' attitude toward the Jews was hostile. But Ramsay (*EXPOSITOR*, vol. v. p. 208) has shown that,

excepting the error of dating the accession of Claudius in A.U.C. 795 (=A.D. 42), Orosius' dates for this reign are correct; so that Orosius' real date for the edict is A.D. 50, to which we must grant as much weight as his general authority permits; for the *fact* of the edict is witnessed to by both Suetonius and Dion.¹ We must therefore allow this item of positive testimony—whatever its worth—for the year 50 as that of Paul's arrival in Corinth, as against 49 (Holtzmann 48), which the Eusebian reckoning requires.

Another synchronism, which, according to Ramsay, bears with some weight in the same direction against the Eusebian reckoning, is the accession of Gallio to the proconsulship of Achaia, something over a year, as we should infer from Acts xviii. 11–18, after Paul's arrival in Corinth. On account of the probability that Gallio's career of promotion in office was arrested during the exile of his younger brother Seneca, it is commonly assumed that Gallio's proconsulship could not have begun earlier than A.D. 50, "probably in May" (Ramsay); for Seneca's exile lasted until A.D. 49. A further indication is found by Ramsay (*l.c.* p. 206) in the fact that Seneca's treatise *On Anger* was addressed to his brother under his original name, Novatus, implying that at that time he had not yet been adopted by the wealthy Gallio the elder. But Lehmann,² according to Ramsay, has made it very probable that the treatise *On Anger* was written by Seneca after his return to Rome. "It is there-

¹ Dion does not deny the edict, as is sometimes stated, but only that it went to the extent of an actual banishment. Herein he is doubtless right, for so radical a measure, even if undertaken, cannot have been actually carried out. The edict may have been modified from this form into that which Dion represents, of a mere prohibition of assembling in the synagogues. This testimony, however, as being independent of Suetonius, is all the more valuable to prove that there was an actual edict hostile to the Jews at about this time, which is not to be explained away as a mere misinterpretation of the edict spoken of by Tacitus, against the mathematici, in A.D. 52. See Dion, lx. 6; Suet. *Claud.* 25; Tac. *Annal.* xii. 52.

² *Claudius und seine Zeit*, pp. 315 ff. See Ramsay, *l.c.* p. 206, note.

fore probable that the adoption did not take place earlier than A.D. 49, too late for the newly-adopted son to go as governor to Achaia in that year.”¹ With this reinforcement from the date of the treatise *On Anger*, the synchronism from the appointment of Gallio must be admitted to be of value, against Holtzmann and McGiffert, in determining the first arrival of Paul in Corinth as *not earlier* than the beginning of A.D. 49. Harnack’s dating would, of course, be still admissible.

But the argument for a later date than the Eusebian, which to Prof. Ramsay seems “conclusive,” is the reference by the chiliarch in Acts xxi. 38 to the revolt of the Sicarii under the “Egyptian.” That “the Sicarii did not arise till the reign of Nero” is an overstatement of the case from Josephus (*Ant.* xx. 8, 5), where their origin is merely traced to the misrule of Felix, at least as probably in the latter years of Claudius. It should be remembered, moreover, that Josephus misapprehends the period of Felix’s activity, placing it too exclusively under Nero.² But while there is no reason in *Ant.* xx. 8, 5 for saying “the Sicarii did not arise till the reign of Nero” it is doubtless the intention of Josephus in xx. 8, 6, *κατὰ τοῦτον τὸν καιρὸν*, to date the appearance of the Egyptian “false prophet” under Nero; so that unless Josephus is singularly in error, or the author of Acts guilty of a slight anachronism in the speech put in the mouth of the chiliarch, the Pentecost of Paul’s arrest cannot have been earlier than 55 A.D. Prof. Ramsay “would be glad to know how Prof. Harnack would dispose of this difficulty.” We cannot answer, of course, for Harnack, but inasmuch as we must pronounce a judgment on the validity or invalidity of the objection to the Eusebian reckoning we assume that the Eusebian chronologists would either, with Jerome, impute an implied ana-

¹ Expos. v. 5, p. 206.

² See the preceding article, vol. vii. p. 135, and Article III.

chronism to Josephus by dating the revolt of the Egyptian under Claudius;¹ or with Harnack, who seems to admit at least the possibility that the revolt took place under Nero (*l.c.* p. 236), impute an explicit anachronism to the author of Acts. In view of Acts v. 36, 37 there is nothing impossible in the latter supposition, any more than in the former; but in the absence of proof either imputation is inadmissible. We have here a second² instance of testimony which requires to be set aside before the Eusebian chronology, as it stands, can be adopted. The testimony is not unimpeachable, but until it is invalidated it calls upon us in each case to bring down the dating of Eusebius by at least one year.

The negative argument of Holtzmann and his followers must be admitted to be inadequate in at least three particulars, two of which apply also to Eusebius. This we must grant to Prof. Ramsay. But Prof. Ramsay's own chronology is not based on a mere rebuttal of the Eusebian, and a falling back upon the older view of Lightfoot and Schürer. On the contrary, he has struck out a line for himself, reverting to what may be called the "calendar" argument of Wurm and Anger, Wieseler and Lewin.³

The calendar argument, so far as it applies to the chronology of Paul, depends mainly on the passage Acts xx. 6-13, where we learn that Paul sailed from Troas on a Monday

¹ So Blass (*Acta*, p. 22), who calls this "alterum indiligentiæ Josephi specimen." McGiffert (*l.c.* p. 358): "Josephus' apparent ignorance touching Felix's presence and authority in Palestine before the year 52 probably explains the fact that he relates most of the deeds which he ascribes to Felix, including his victory over the Egyptian referred to in Acts xxi. 38, in connection with the reign of Nero."

² In the case of Holtzmann and McGiffert a third.

³ See the articles by the elder Wurm in Bengel's *Archiv für die Theologie*, II. (1816-1817), *Astronomische Beiträge*, pp. 1-39 and 261-313; and by the younger in *Tübinger Ztschr. f. Th.*, 1833, I. pp. 3-103; Anger's pamphlet *De Temporum in Actis Apost. Ratione*, Lips., 1833; Wieseler, *Chronol. Synopse d. Vier Evangelien* (Engl. transl. by Venables, 1864), and *Chronol. d. Apg.*, 1848; also Lewin, *Fasti Sacri*, London, 1865.

morning after having spent "seven days" in Troas, and five on the journey thither from Philippi, which he left *μετὰ τὰς ἡμέρας τῶν ἀζύμων*. Assuming that there was no delay about the departure—and Paul "was hastening (v. 16) if it were possible for him to be at Jerusalem the day of Pentecost"—Paul must have left Philippi on the 22 Nisan, though Wieseler (*Apg.* pp. 99–115) thinks it possible, if not probable, that the departure did not take place till the twenty-third. Ramsay's understanding of the passage, in which he not only insists that the 22 Nisan must have been the day of departure from Philippi, against Wieseler, but maintains, in opposition to all the older exponents of this argument, including his principal authority Lewin, that in both the five-days and seven-days period *both termini* must be counted, in accordance with the general practice of antiquity and that of the author of Acts himself, is probably correct. Thus the day of Paul's arrival in Troas was probably the 26 Nisan in the year in question; and if there were no further ambiguity of the text, and it were also possible to establish astronomically from the incidence of Passover on what day of the week in any given year A.D. 53–60 the 26 Nisan fell, it is clear we might establish a reasonable probability in favour of certain of these years and against others. Unfortunately Prof. Ramsay is himself obliged to admit an ambiguity of the text, inasmuch as the author may or may not have counted the Monday of departure among the "seven" days of Paul's stay in Troas. If he followed the current Macedonian reckoning from sunrise to sunrise, he could not have included it, nor would he be likely to if he followed the Roman Civil Day from midnight to midnight, for the ship sailed at dawn, or earlier, and to speak of the period from some time on Tuesday till some time between midnight and dawn the next Monday morning as "seven days" seems forced. If, however, he reckoned according to the

Greek and Hebrew Sacred Day from sunset to sunset, he might count the portion of Monday as the seventh day of Paul's stay.

But in addition there is unfortunately a very serious error in Lewin's determination of the incidence of Passover, which Prof. Ramsay seems not to have observed. His authority is in fact most misleading in this respect, and needs to be corrected by the careful researches of the astronomer Wurm. The error of Lewin, for whose otherwise admirable work we share the respect of Prof. Ramsay, lies in his attempt to make the Passover full moon (astronomic) "the pivot of the whole year" (*l.c.* p. xxxvi.). It is perfectly manifest on the contrary that even if it were possible, or permissible, for the priests to fix the date of the (astronomic) full moon of Nisan, this would be of no service for those who on the tenth (Exod. xii. 3) must have the passover lamb ready, on the thirteenth must "purge out the old leaven," and in the afternoon of the fourteenth must have the lamb slaughtered (Philo, *de Septen.*, § 18; Jos., *Bell.* vi. 9, 3). Especially would it be impossible for Jews at a distance from Jerusalem, like Paul, to know anything of these vitally important dates unless first the New Year's Day of 1 Nisan had been fixed. Who can read the Book of Jubilees or the Talmudic treatise *Rosh ha-Shanah*, or even Exodus xii. 1-6, and not see that the "pivot of the whole calendar" is, of necessity, not the *full* moon of Nisan,¹ but the *new* moon of Nisan, the observation of which had to be certified by witnesses before the Sanhedrin, and was therefore proclaimed far and wide, at first by fire signals, afterwards by special messengers despatched from Jerusalem.

How then was the *Rosh ha-Shanah*, New Year's Day, or 1 Nisan determined? "Unless all indications are deceitful,

¹ Philo in the passages cited by Lewin is not speaking of the *astronomic* full moon, or "opposition," but merely in the ordinary sense.

they did not in the time of Jesus Christ possess as yet any fixed calendar, but on the basis of a purely empirical observation, on each occasion they began a new month with the appearing of the new moon, and likewise on the basis of each repeated observation intercalated a month in the spring of every third and second year, in accordance with the rule that the Passover under all circumstances must fall after the vernal equinox."¹ Now the astronomer Wurm (Bengel's *Archiv.* § 25) has accumulated a mass of testimony, ancient and modern, for solution of the question, "How great an interval must be allowed between true (astronomic) conjunction, when the moon is invisible, and the first observable phasis or appearance of the moon's disk?" According to the rabbis 27½ hours, at the most, would suffice. Wurm's conclusion is, however, that even under favourable conditions of weather from twenty-four to forty-eight hours must be allowed, or on the average thirty-six hours between conjunction and visibility. If we reflect that the "witnesses of the moon" had to come to Jerusalem, appear and be examined before the authorities, and that testimony was not received after the hour of evening sacrifice, as leaving too little time for the "sanctification" of the new moon, it will be apparent that we cannot allow less than an average of thirty-six hours between the conjunction and the "sanctification," even for favourable conditions of weather. But this is just double what Lewin allows uniformly for all cases. At any time, of course, a cloudy sky might produce further delay, although not more than some hours; for the new moon was sanctified, even though no witnesses had appeared, after the preceding month had attained to its fullest complement of thirty days. The rule, therefore, by which our

¹ Schürer, *l.c.* I. ii., p. 366. This whole excursus of Schürer—Appendix III., the Jewish and Macedonian Months compared with the Julian Calendar—with the authorities cited, is of the greatest service.

table of the incidence of Jewish dates must be prepared is that of Wurm: "We must calculate from our astronomical tables for the meridian of Jerusalem, the true astronomical new moon which immediately precedes the spring full moon, *i.e.* the full moon next after the vernal equinox, *i.e.* in the first century, March 23.¹ To the date of the true conjunction, *i.e.* the first new moon, when found, we must add from about twenty-four to forty-eight hours, or on an average a day and a half, and we shall then have determined the ancient Jewish 1 Nisan, after the phasis, *i.e.* after the first appearance of the moon's disk. If to this 1 Nisan fourteen more days are added, we shall reach the 15 Nisan, or the day of the Jewish Easter Festival."²

It is easy to see that Prof. Ramsay's statement (*l.c.* p. 203) that "The one point of uncertainty in the argument [the "calendar" argument] is whether Monday was counted [in Acts xx. 6] as one of the seven days," is, to say the least, an overstatement; and this fact is quite sufficient to account for the otherwise universal neglect into which this once favourite argument has now fallen. Nevertheless, Prof. Ramsay has undoubtedly diminished the ambiguities of the text, and in spite of the lamentable uncertainties of the calendar reckonings, it is possible to frame a table which will include all the reasonable probabilities, though by no means such a table as Lewin and Wieseler afford. We append a table of this character.

In regard to the table given below the following points must be noted in explanation.

1. It includes all the reasonable probabilities. Thus the new moon before the vernal equinox of A.D. 53 was theoretically visible at thirty-five minutes after three o'clock on the afternoon of March 10. This allows

¹ In practice the vernal equinox had been fixed by Julius Cæsar as March 25, and was so reckoned, Plin. *N.H.* xviii. 66, 1.

² Wurm, *l.c.* p. 279.

INCIDENCE OF JEWISH (LUNAR) DATES A.D. 53-60.

A.D.	NEW MOON.		NISAN 1.		NISAN 15.	PAUL IN TROAS.	
	Conjunction.	Phasis.	6 p.m.—6 p.m.	Day of Week.	6 p.m.—6 p.m.	Nis. 26—Iy. 2 (3).	Nis. 26—Iy. 3 (4).
53	Mar. 9, 3.35 a.m. Apr. 7, 1.56 p.m.	Mar. 10, 3.35 p.m. Apr. 9, 1.56 a.m.	Mar. 10-11 Apr. 9-10	7 3	Mar. 24-25 ¹ Apr. 23-24 ²	Tues.—Mon.	Mon.—Mon.
54	Mar. 28, 1.17 a.m.	Mar. 29, 1.17 p.m.	Mar. 29-30	7	Apr. 12-13		
55	Mar. 17, 6.27 a.m.	Mar. 18, 6.27 p.m.	Mar. 18-19 ¹ 19-30 ³	4 5	Apr. 1-2 2-3		
56	Apr. 15, 9.12 p.m.	Apr. 17, 9.12 a.m.	Apr. 17-18	6	Mar. 1-2 ²		
	Mar. 6, 5.34 a.m.	Mar. 7, 5.34 p.m.	Mar. 7-8 ¹ 8-9 ²	2 3	Mar. 21-22 22-23		
57	Apr. 3, 9.54 p.m.	Apr. 5, 9.54 a.m.	Apr. 5-6	3	Apr. 19-20 ³		
58	Mar. 23, 10.47 p.m. Mar. 13, 6.03 a.m.	Mar. 25, 10.47 a.m. Mar. 14, 6.03 p.m.	Mar. 25-26 Mar. 14-15 ¹ 15-16 ³	7 4 5	Apr. 8-9 Mar. 28-29 29-30	Tues.—Mon.	Mon.—Mon.
59	Apr. 11, 5.45 p.m. Apr. 1, 4.39 a.m.	Apr. 13, 5.45 a.m. Apr. 2, 4.39 p.m.	Apr. 13-14 Apr. 2-3 ¹ 3-4 ²	6 3 4	Apr. 27-28 ² Apr. 16-17 17-18		
60	Mar. 20, 8.49 p.m.	Mar. 22, 8.49 a.m.	Mar. 22-23	1	Apr. 5-6		

Besides the authorities above cited I have used in the preparation of this table De Morgan's *Book of Almanacks*, and the table of eclipses of sun and moon given by Lewin (*l.c.* pp. 371-375) from *L'Art de Vérifier les Dates*. The dates of conjunctions of the moon in col. 1 were kindly reckoned for me independently by Prof. W. Beebe of the Astronomical Department of this University from the lunar and solar tables. They may be relied upon as correct for the meridian of Jerusalem within a very few minutes.

The last double column is intended to cover the alternative admitted by Prof. Ramsay that the day of Paul's departure from Troas might have been either the seventh or eighth from his arrival (counting both termini), thus including in the table all possibilities. The "seventh" day from Nisan 26th would be Iyyar 2d or 3d by lunar reckoning, according as Nisan was given 29 or 30 days; but the ambiguity does not affect us, as either is equivalent to Nisan 32d. The "eighth" day similarly would be Iyyar 3d or 4th, but in either case = Nisan 33d. The *terminus ad quem* being fixed as a Monday, the seven days' stay in Troas is not reckoned out for the years in which its terminus would fall on some other week-day.

ample time for the "sanctification" on the same evening, whence the *Rosh ha-Shanah* or New Year's Day would begin. Moreover, it is not likely that it would be delayed another twenty-four hours, even if, through unfavourable weather conditions or other cause, no "witnesses of the moon" appeared; for the conjunction was so much earlier, that the outer limit of thirty days for the preceding month Adar would have been passed in the meantime. On the other hand, to suppose that the new moon was sanctified on the evening of March 9 requires the improbable supposition that the new moon was seen in broad daylight within twelve or fifteen hours after conjunction! But again, the sanctification of this new moon as that of Nisan would bring the Passover to the earliest possible limit, whereas it was not only necessary that it should fall after the equinox, but even more needful that the season should be sufficiently advanced for the gathering of ripe ears of wheat for the sheaf-offering on Nisan 16¹ and this could rarely take place before the first week in April; it is therefore, on the whole, more probable that this new moon was sanctified as "Second Adar," *i.e.* the month was called the thirteenth of the preceding year, which thus became intercalary. Accordingly a second possible date is added in the table for 1 Nisan, *viz.* April 9-10, and in this case again it is practically certain that the new moon was sanctified by the evening of the ninth, since this was 52½ hours after conjunction. Moreover, it should be observed that even if for any cause the new moon was sanctified a day later, still the year would not be among those on which 1 Nisan could fall on Thursday or Friday. In the years 54, 57 and 60 but a single date is open, which by no reasonable supposition could fall on the fifth or sixth day of the week. In the year 59 1 Nisan may have been sanctified on

¹ See the Talmudic and other references in Schürer's *Excursus* above referred to, I. ii. p. 371 [Engl. Tr.]

the evening of April 2; more probably its sanctification went over until the evening of the third, but it is not reasonably supposable that it went over till the fourth. In the year 56 three dates are open, but by no possibility could any of them fall on the fifth or sixth days of the week, as according to Prof. Ramsay's exegesis they must ¹ in order that the day of Paul's departure from Troas should be a Monday. In the case of A.D. 55 and 58 alone could 1 Nisan have fallen on the fifth or sixth day of the week.

2. Relative probability has been indicated by suspended numerals, ¹ indicating the lowest and ³ the highest probability. Thus in A.D. 55 and 58 it is just possible that the new moon may have been observed early enough for the sanctification of 1 Nisan to have taken place on the date first given, but far more probably on the day following. But as the Passover would then fall in both years at an unusually early time there is an intermediate probability in favour of the date given third in order of time but marked ², as second in order of probability.

Perhaps the only thing that the table can be said to establish with entire certainty is the fact that the only two dates which Prof. Ramsay by his calculations finds admissible, one his own, viz. the year 56, the other that of the Eusebians, A.D. 54, together with Holtzmann's, A.D. 53, are just the three which the calendar argument in all its phases and possibilities is irreconcilably opposed to. If anything at all can be proved by this method, it is that we are shut up to a choice between the date 58 for Paul's arrest which the older chronographers, Wieseler and Lewin, had previously reckoned up by a curious counteraction of errors of calculation through errors of exegesis in coincidence with ourselves; and which is perhaps for that reason the year adopted by Schürer, Lightfoot, and the

¹ "Fourth or fifth" Prof. Ramsay would say; for he speaks of the 14 Nisan, whereas we reckon by 15 Nisan, the first day of Unleavened Bread.

dominant school of modern chronographers; or else the year 55, one year later than the Eusebian dating. As between the years 55 and 58 the preponderance of evidence in favour of the former by this method is so slight as not to enter into consideration. So far, then, as the exact year is concerned, the effect of the calendar argument on the Eusebian dating will be the same as that of the three synchronisms already discussed, viz. to bring it down one year later. So far as regards deciding between the Eusebian dating *as thus modified*, and the dating of Lightfoot, Schürer, Ewald and other recent authorities, it leaves the choice absolutely open.

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