

MDPI

Article

On the Origins of the Hijrī Calendar: A Multi-Faceted Perspective Based on the Covenants of the Prophet and Specific Date Verification

Ibrahim Zein and Ahmed El-Wakil *

College of Islamic Studies, Hamad Bin Khalifa University, Ar-Rayyan 36623, Qatar; izain@hbku.edu.qa * Correspondence: ahmed.a.elwakil@gmail.com

Abstract: There has been much speculation as to the type of calendar that was used by the pre-Islamic Arabs and the early Muslim community. The Hijrī calendar is said to have been adopted by 'Umar b. al-Khaṭṭāb during his Caliphate despite evidence suggesting that it was instituted as soon as the Prophet emigrated to Madīnah. In this paper, we argue that a number of competing Arabian calendars existed up until 17 AH/AD 638, after which the Hijrī calendar was adopted as the definitive calendar of the Muslims. We propose that attempts at reconciling dates emanating from different calendars for major events in the Prophet's life led to miscalculations which subsequently affected the chronology of the *sīrah*. This study ultimately argues that a purely lunar calendar was used by the pre-Islamic Arabs in parallel to a lunisolar calendar, and that specific dates reported in the covenants of the Prophet and in the historical works could shed new light in reconstructing the chronology of major events in the Prophet's life.

Keywords: calendar; Islamic; Julian; Hebrew; Specific Date Verification; Hijrah; covenant; Prophet Muhammad

1. Introduction

Al-Bīrūnī's (d. 440 AH/1048 CE) *Kitāb al-Āthār al-Bāqiyah 'an al-Qurūn al-Khāliyah* is perhaps the first major book by a Muslim scholar to conduct an in-depth study of the various calendars. Other than being the most important source available to us on the origins of the pre-Islamic and Hijrī calendars, his work also attempted to verify the accuracy of major historical events by determining whether they matched on more than one calendar. The most important scholarly attempt at reconstructing the pre-Islamic calendar was conducted by Caussin de Perceval, who believed it was based on a system of intercalation that took place every three years. Mahmoud Effendi's study later followed, in which he utilized astronomical data to determine the birth and death dates of the Prophet, the date of the Hijrah, and the year in which the Prophet's son Ibrahīm died. Contrary to Perceval, Effendi concluded based on the calculations which he effected that "the Makkans employed in the fifty years before the Hijrah a calendar that was entirely lunar."

Henri Lammens went on to comment that Effendi's efforts had been painstakingly unnecessary. To him, the time periods relayed in the Islamic sources, which include the age of the Prophet at various points in his life, including that of his Companions, represent a purely symbolic topoi of little historical value. According to Lammens, the primitive Arabs could not possibly have maintained any concise record of events, because "the calendar loses its value for these men constantly living in the immutable desert." Other than pointing out discrepancies in the Muslim literature concerning the age of the Prophet,



Citation: Zein, Ibrahim, and Ahmed El-Wakil. 2021. On the Origins of the Hijrī Calendar: A Multi-Faceted Perspective Based on the Covenants of the Prophet and Specific Date Verification. *Religions* 12: 42. https://doi.org/10.3390/rel12010042

Received: 14 November 2020 Accepted: 17 December 2020 Published: 8 January 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https://creativecommons.org/licenses/by/4.0/).

¹ See (de Perceval 1843).

² (Effendi 1858, p. 147).

³ (Lammens 1911, p. 224).

Religions **2021**, 12, 42 2 of 21

his death, and the periods which he spent in Makkah and Madīnah, Lammens' study hardly sheds any light on the pre-Islamic calendar.

Amīr 'Alī,⁴ Hideyuki Ioh,⁵ and particularly Ben Abrahamson⁶ have noted important parallels between the Jewish calendar and the pre-Islamic calendar. 'Alī argued that the pre-Islamic Arabs "intercalated the thirteenth month 7 times in every cycle of 19 years even as the Jews did." F. A. Shamsi wrote a number of articles in the journal *Islamic Studies* in which he provided his own insights on the pre-Islamic calendar,⁸ the date of the Hijrah,⁹ and the meaning of the *nasī* '10 in Q9:37. Maurice McPartlan conducted a thorough survey of all available literature for his PhD thesis on early Islamic chronology making it a worthwhile reference on the subject matter,¹¹ but yet, despite his and others' efforts, scholars have still to reach a consensus over the nature of both the pre-Islamic and early Islamic calendars.

Shamsi was particularly adamant that the pre-Islamic calendar before Islam was lunisolar and that it was maintained until the eighth year of the Hijrah. He criticized Perceval's reconstruction of the pre-Islamic calendar; the possibility of a strictly lunar calendar having been observed in Makkah before the Hijrah as proposed by Effendi; and the relationship between the Islamic and Jewish calendars that was advanced by 'Alī. Unlike Muhammad Hamidullah, who at least attempted to provide a framework for reconstructing the pre-Islamic calendar by proposing that it was lunisolar "in resemblance with the Hammurabian formula," Shamsi did not offer any concrete views of his own as to what kind of lunisolar calendar the pre-Islamic Arabs used.

Having conducted a literature review of all of these different theories, we contend that Effendi and Abrahamson are correct in their observation that a strictly lunar calendrical system was observed in Makkah before Islam. We further argue that this lunar calendar was used in conjunction with a lunisolar calendar which was adopted from the Jewish calendar as 'Alī and Ioh have proposed. We challenge the positions of Perceval, Hamidullah and Shamsi and suggest instead that the Hijrī calendar began being observed as soon as the Prophet moved to Madīnah, but that a number of competing lunar calendars were also in existence with different year dates. Most significantly, we argue based on a revision of early Islamic chronology that the dating of the covenants, starting from 2 AH, is not as implausible as scholars in the past have asserted. Our conclusions are based on date matching calculations using a methodology which we have coined 'Specific Date Verification', an examination of Sunni and Shī'a historical works, and an analysis of new sources which have become available such as the covenants of the Prophet, archaeological evidence, and various non-Muslim testimonies.

2. The Pre-Islamic Calendar

In his study of the pre-Islamic calendar, Perceval hypothesized that the Arabs had initially adopted a lunar calendar, and with time, when its observance became impractical, substituted it with a lunisolar calendar. Perceval noted that when the month of harvest coincided with the pilgrimage, pilgrims found it particularly difficult to make their way to Makkah because of a lack of available supplies. The system of intercalation was therefore adopted in order to ensure the pilgrimage season would always fall in the month of

⁴ See ('Alī 1954).

⁵ See (Ioh 2014).

⁶ See (Abrahamson n.d.).

⁷ ('Alī 1954, p. 127).

⁸ See (Shamsi 1998).

⁹ See (Shamsi 1984).

¹⁰ See (Shamsi 1987).

¹¹ See (McPartlan 1997).

¹² (Hamidullah 1969, p. 6).

Religions **2021**, 12, 42 3 of 21

harvest.¹³ An intercalary month was eventually inserted between the months of Dhū al-Ḥijjah and Muḥarram in a similar fashion to how the thirteenth month of Adar II is inserted seven times in the Hebrew calendar during a 19 year cycle.

Perceval suggested that the abolition of the intercalary month took place during the Prophet's Farewell Pilgrimage which subsequently led to the adoption of a purely lunar calendar. The Prophet famously uttered on Friday 9 Dhū al-Ḥijjah 10 AH "Indeed, time has completed its cycle as it was on the day Allāh created the heavens and the earth." This utterance is, in all likelihood, a reference to the calendrical alignments of the Jewish and Islamic calendars. As the 9th of Dhū al-Ḥijjah 10 AH was the equivalent of the 9th of Adar II AM 4392—which is the thirteenth intercalary month of the Hebrew calendar and which was the equivalent of 7 March AD 632—the 1st of Muḥarram for the year 11 AH would have fallen on the 1st of Nisan AM 4392. Though Hamidullah conceded that in 10 AH "months had returned to their original position . . . and the Prophet could without the least complication abolish the <code>nasī'," 16</code> it is nevertheless odd that he never considered the possibility of the Arabs having adopted the Jewish calendar, despite tracing the origins of the lunisolar calendar of the Makkans to the possibly Jewish branch of the tribe of Kindah.

That the Muslims were aware of different calendars is alluded in the Qur'ān. Q18:25 tells us that the Companions of the Cave "remained in their cave for 300 years, and [some] add nine years." Clearly the interlocutors of the Qur'ān would have understood the reference to 300 years as an allusion to the solar calendar and the 309 years to have been the equivalent period of time in lunar years. The Persian, Ethiopian and Julian calendars are all solar in nature, and the presence of Nestorian, Miaphysite and Chalcedonian Christian communities in the Arabian Peninsula suggests that the Arabs had some broad knowledge of these solar calendrical systems before Islam.

The observance of the lunar calendar is clearly mentioned in the Qur'ān: "It is He who made the sun a shining light and the moon a derived light. He has determined the lunar phases that you may know the number of years and account for time [Q10:5]." Perceval's observation that the lunar calendar was completely abandoned by the Arabs and instead substituted by a lunisolar calendar is therefore contestable. Though he is certainly correct in noting that a lunisolar calendar was adopted, the claim that the lunar calendar stopped being observed is highly subjective, and so we here propose that both a lunar calendar and a lunisolar calendar were concurrently being maintained by the pre-Islamic Arabs.

The second contention we have to Perceval's study is his suggestion that the Pre-Islamic calendar intercalated a month every three years, which is not entirely convincing. After all, why would the Arabs have come up with their own system of intercalation from scratch while it would have been far easier for them to adopt the tried-and-tested lunisolar calendar of the Jews? It therefore seems more realistic to postulate that the Quraysh had adopted the Jewish calendar in which intercalation was already embedded by giving Arabian names to Hebrew months, in what presumably was a "Jewish Arabian" calendar. After all, it seems highly implausible that the Quraysh would have embraced the system of intercalation (embolism) from the Jews without following the latter's methodology. As the great polymath al-Bīrūnī observed, the system of intercalation "was borrowed from the Jews approximately 200 years before Islam" by Ḥudhayfah, the first intercalator of the tribe of Kinānah. Al-Bīrūnī adds that the addition of an intercalary month was "administered by the *nasa'a* (i.e., the intercalators) of the tribe of Kinānah who were known

¹³ (de Perceval 1843, pp. 346–47).

¹⁴ (al-Wāqidī 1966, vol. 3, p. 1112; al-Ṭabarī 1879, vol. 2, p. 403).

As we shall see, the month of Dhū al-Qa'dah in 10 AH was 29 days and Dhū al-Ḥijjah was 30 days. This would mean that the 1st of Muḥarram 11 AH would have fallen on the 28th of March AD 632 which presumably would have been the 1st of Nisan AM 4392.

¹⁶ (Hamidullah 1969, p. 7).

¹⁷ (al-Bīrūnī 2000, p. 16).

Religions **2021**, 12, 42 4 of 21

as 'the Qalāmis.'"¹⁸ It is therefore plausible that the Quraysh transposed the Hebrew months to Arabian months following the below sequence:

No.	Hebrew Month	Arabian Month
1	Nisan	Muḥarram
2	Iyyar	Ṣafar
3	Sivan	Rabī' al-Awwal
4	Tammuz	Rabī' al-Ākhir
5	Av	Jumādā al-Awwal
6	Elul	Jumādā al-Ākhir
7	Tishri	Rajab
8	Marḥeshvan	Sha'bān
9	Kislev	Ramaḍān
10	Tevet	Shawwāl
11	Shvat	Dhū al-Qa'dah
12	Adar I	Dhū al-Ḥijjah
13	Adar II	nasī′

Whenever an embolism was applied, the intercalary month of Adar II would have become the equivalent of the month of $nas\bar{\imath}$ in the Jewish-Arabian calendar. With the passage of time, there would have been a gap between the actual lunar month of Dhū al-Ḥijjah and the lunisolar month of Dhū al-Ḥijja. When the Muslims performed the lesser pilgrimage in the month of Dhū al-Qa'dah 9 AH on the strictly lunar Hijrī calendar, it fell as the month of Dhū al-Ḥijjah on the Jewish-Arabian calendar. In 10 AH, the month of Adar II would have been the month of Dhū al-Ḥijjah on the Hijrī calendar and the additional month of $nas\bar{\imath}$ on the Jewish-Arabian calendar. The very fact that the Prophet knew that the Farewell Pilgrimage in Dhū al-Ḥijja 10 AH was the correct date for the pilgrimage, clearly demonstrates knowledge and observance of a lunar calendar alongside a lunisolar Jewish-Arabian calendar.

Another reason why we consider the theory of the Jewish-Arabian calendar having been a mirror of the Jewish calendar is that two of the Jewish pilgrimage months, the Passover which falls in the month of Nisan, and the Tabernacles which falls in the month of Tishri, would have definitively been fixed in the Jewish-Arabian calendar as the sacred months of Muḥarram and Rajab, respectively. Jews who had emigrated to the Arabian Peninsula after the destruction of the First Temple may have differed from those who emigrated there after the destruction of the Second Temple on whether the Jewish calendar ought to be strictly lunar or lunisolar. Jews who believed their festivities should be based on a purely lunar calendar would have eventually came to follow the Prophet. The fast on the 10th of Muḥarram, which would have at some point been the equivalent of the day of Yom Kippur on the strictly lunar calendar, is perhaps one of those Jewish practices which came to be inherited by the Islamic tradition. Needless to say, it appears that there were three pilgrimages whose observance all Arabian Jews agreed upon: the Passover, Tabernacles, and the pilgrimage on the 9th of Dhū al-Ḥijjah, which may have been instituted

⁽al-Bīrūnī 2000, p. 14). The very term used for the intercalator, the nāsī' (pl. nasa'a) may have been borrowed from the High Priest of the Sanhedrin. See (Abrahamson and Katz n.d., p. 2).

Religions **2021**, 12, 42 5 of 21

to commemorate the destruction of the First Temple.¹⁹ As there is in principle no harm in the system of intercalation, we consider the Qur'ān's condemnation of the *nasī'* to follow our following interpretation of Q9:37:

The *nasī'* is an increase in unbelief by which those who have disbelieved are further led astray. They render the shedding of blood permissible during the month of *nasī'* in one embolismic year and render the month of *nasī'* sacred in another embolismic year. When they render the month of *nasī'* sacred in one of the embolismic years, they in turn profane one of the sacred months [either Muḥarram, Rajab, Dhū al-Qa'dah, Dhū al-Ḥijjah] to make the total number of months during that embolismic year in which bloodshed is prohibited four months. In that way they have made permissible what Allāh has prohibited [i.e., the profaning of one of the sacred months]. Pleasing to them is their evil deeds, and Allāh does not guide the disbelieving people.

As the month of Muḥarram would have coincided with the month of <code>nasī'</code>, the intercalary month that was added during the embolismic year was either called Safar al-Awwal or Safar al-Ākhir. The <code>nasī'</code> would therefore have been the addition of the intercalary month along with the commutation of one of the sacred months to the intercalary month. Once one of the sacred months had been commuted to the intercalary month, the Quraysh could declare war during that sacred month and thus render it profane. In light of this, al-Majlisī reports this very interesting tradition which cannot be found in any of the Sunni books of Qur'ānic exegesis:

The reason behind the revelation of the verse stating that "the *nasī*' is an increase in unbelief [Q9:37]" is as follows: A man of the tribe of Kinānah used to proclaim during the Ḥajj season: "I have made the shedding of blood lawful for those who belong to the tribes of Ṭay' and Khath'am in the month of Muḥarram. I have hereby commuted the sacred month (*ansā'tuhu*) to the month of Ṣafar." In the next [embolismic] year he would say: "I have made [the shedding of blood] lawful in the month of Ṣafar and commuted the sacred month (*ansā'tuhu*) to the month of Muḥarram."

The commutation of a sacred month to another in order to justify a declaration of war during an embolismic year was, in all likelihood, the notion of the *nasī'* which was condemned by the Qur'ān.

3. The Establishment of the Hijrī Calendar

Al-Bīrūnī explains how the pre-Islamic Arabs were in the habit of keeping a number of competing calendars and would institute a new calendar whenever a significant event would occur. He lists as examples the year when the Ka'bah was built by the prophets Abraham and Ishmael; the year when 'Amr b. Lu'ay became chief of the Arabs; the Year of Treason; and the Year of the Elephant. Evidence of this was brought forth by Michael Lecker in his important study on a pre-Islamic deed of endowment from Marzūqī's Kitāb al-Azminah wa al-Amkinah which was inscribed "thirty five years after the Year of the Elephant." Al-Bīrūnī goes on to explain how four calendars were instituted by the Quraysh during the Prophet Muḥammad's lifetime. The major events that led to the start of these calendars are: 1) the year of the sacrilegious war; 2) the year when the confederacy of al-Fuḍūl was established; 3) the year of the death of Ḥishām b. al-Mughīrah al-Makhzūmī;

The link between the Jewish and the pre-Islamic calendar may even be older than previously considered. It is indeed surprising to find how the destruction of the Temple of Solomon by Nebuchadnezzar in 587 BCE falls as Saturday 9 Av 3174 AM/8 Dhū al-Ḥijjah 1245 BH. This one-day margin of error may perhaps shed light as to why the yearly date of the pilgrimage fell on the 9th of Dhū al-Ḥijjah, namely to commemorate the destruction of the Temple and the adoption of the Ka'ba as the new temple.

²⁰ (al-Majlisī 1983, vol. 22, pp. 67–68).

²¹ (Lecker 2005, p. 5).

Religions **2021**, 12, 42 6 of 21

and 4) the year of the reconstruction of the Ka'bah through the arbitration of the Prophet.²² An event as important as the Hijrah would have certainly led to the establishment of a new calendar, and a tradition in al-Ṭabarī confirms this when it states: "When the Prophet came to Madīnah, which was in Rabī' al-Awwal, he ordered the establishment of the calendar."²³

In a recent study of 'Papyrus Louvre inv. J. David-Weill 20' from early Muslim Egypt, Mehdy Shaddel concluded that its "enigmatic phrase *snh qaḍā' al-mu'minīn*" should be understood as "the year according to the reckoning of the believers." Based on the testimony of this phrase, Shaddel argues that "What the early Muslims had in mind was apparently the beginning of their polity, which in their view was the dawn of a new age that witnessed the establishment of God's rule (*amr allāh*) on earth, hence the reference to it in our papyrus as 'the year per the reckoning of the believers." The epoch of the Muslim calendar was, according to Shaddel, "in all likelihood, originally meant to count the years from Muḥammad's foundation of a new community and polity at Medina, a momentous event that the early Muslims conceived of as the dawn of a new age." Hence, the Hijrah must have led to the establishment of the Hijrī calendar on a strictly lunar basis as soon as the Prophet emigrated to Madīnah.²⁷

4. Specific Date Verification

Specific Date Verification examines the specific dates recorded for a particular event in the Prophet's life by assuming that the day of the week and month are accurate, but the year not necessarily so due to miscalculations in the year date. Hamidullah was the first to note that discrepancies in reporting a particular event in different years was not because of a difference of opinion as to whether or not the event occurred in different year dates, but rather due to differences in calculations. He lists as an example the raid of Banū Musṭaliq and notes how Mūsā b. 'Uqbah reported that it occurred in 4 AH; al-Wāqidī in 5 AH; and Ibn Isḥāq in 6 AH. Hamidullah reconciles these three different opinions by postulating that the early biographers differed in their calculation of the Hijrah: some calculated it in the year of the pledge of 'Aqaba, others in the year of the Prophet's emigration, and others still in the first year after his emigration. ²⁸

Hamidullah's main premise, as we shall argue, is correct, but he unfortunately never developed it as an alternative to his theory of the Hammurabian calendar being the basis of the Quraysh calendar. Hamidullah noticed how the Islamic sources record "not only the date but also the day"²⁹ of particular events in the Prophet's life, and how the "dates given in extant concordances do not tally."³⁰ Hamidullah argued that the reason for this is because the Prophet was using a lunisolar calendar until 10 AH. Ironically enough, Hamidullah did not at any point entertain the possibility that the Prophet was using a lunar calendar as soon as he arrived in Madīnah, and that the reason why there may have been discrepancies in tallying the days of the week is because—as he himself had argued—there may have been inconsistencies in how the year dates were calculated.

As specific dates for events in the Prophet's life have mainly been recorded in three works, namely al-Wāqidī's (d. 207/823 CE) *Kitāb al-Maghāzī*; Ibn Sa'd's (d. 230 AH/845

```
<sup>22</sup> (al-Bīrūnī 2000, pp. 36–37).
```

²³ (al-Ṭabarī 1879, vol. 2, p. 110; 1999b, vol. 6, p. 57).

²⁴ (Shaddel 2018, p. 291).

²⁵ (Shaddel 2018, pp. 305–6).

²⁶ (Shaddel 2018, p. 291).

Shaddel's conclusions have been contested by Mathieu Tillier and Naïm Ventehieghem. One of the dates which they record is from a papyrus stored at the J. Willards Marriott Library at the University of Utah entitled 'P. Utah 520' which has a specific date of Monday 14 or 15 Rabī' al-Awwal 57 AH, and which also bears the expression "snh qaḍā' al-mu' minīn." If this expression was a reference to a calendar other than the Hijrī calendar as Tillier and Ventehieghem propose, then how come the specific date conversion on the Standard Civil Calendar is accurate, returning as Monday 26 January AD 677? If anything, this is evidence that Shaddel's conclusions are correct. See (Tillier and Ventehieghem 2019, pp. 148–88).

²⁸ (Hamidullah 1965, p. 57).

²⁹ (Hamidullah 1969, p. 7).

³⁰ (Hamidullah 1969, p. 7).

Religions **2021**, 12, 42 7 of 21

CE) al-Ṭabaqāt al-Kubrā'; and Muḥammad b. Ḥabīb al-Baghdādī's (d. 245 AH/559 CE) Kitāb al-Muḥabbar, we will use these to build on Hamidullah's initial observation. The specific verification of dates will subsequently entail checking the day of the week and month using calendar converters to determine the actual year dates of these events on the official Hijrī calendar.

A good book which has reported an accurate arithmetical record of the week day for the first day of every Hijrī month along with its Julian equivalent until October 1582 CE, after which it adopts the Gregorian calendar, is *Kitāb al-Tawfīqāt al-Ilhāmiyyah* by Muḥammad Mukhtār Bāshā published in 1311 AH/ c. a. 1893 CE.³¹ Nowadays there a number of Hijrī calendar converters which use computational algorithms, the most accurate being the 'Standard' algorithm devised by Edward Reingold and Nachum Dershowitz in their book *Calendrical Calculations*.

The lunar year comprises of 354 days, but in a 30 year cycle, the lunar year is made up of 355 days on 11 occasions. This means that an extra day must be added 11 times every 30 years. Reingold and Dershowitz' algorithm therefore adds an extra day to the month of Dhū al-Ḥijjah so that it comprises of 30 days instead of the usual 29 days during the following years in a 30 year cycle: years 2, 5, 7, 10, 13, 16, 18, 21, 24, 26, and 29. Furthermore, Reingold and Dershowitz' algorithm calculates the 1st of Muḥarram 1 AH as Friday 16 July AD 622, which is the 'civil' epoch, meaning that their calendar can be labelled as the 'Standard Civil Calendar'. ³³

The 'astronomical' calendar on the other hand begins a day earlier and regards the 1st of Muḥarram 1 AH as Thursday 15 July AD 622. The reason being is that, like the Jewish calendar, the new day in the Islamic calendar begins at sunset, not after midnight. The 'Standard Astronomical Calendar' therefore applies the same algorithm as the 'Standard Civil Calendar' except that the Hijrī date, along with its Julian equivalent, is one day earlier.

Though the Standard Astronomical and Civil Calendars have been used in this paper, we have also consulted the 'Kuwaiti' and 'Fāṭimīd' algorithms.³⁵ The Kuwaiti algorithm adds an extra day to the month of Dhū al-Ḥijjah in the 15th rather than in the 16th year of the 30 year lunar cycle. As for the 'Fāṭimīd' algorithm, it adds an extra day to the month of Dhū al-Ḥijjah in the 8th, 19th and the 27th years of the 30 year lunar cycle instead of the 7th, 18th and 26th years as per the Standard algorithm. We will always specify whether a date returns accurately based on the Standard Astronomical Calendar (SAC) or the Standard Civil Calendar (SCC).³⁶

The methodology of Specific Date Verification does of course possess a number of flaws. To begin with, one would expect a writer to occasionally make a mistake when recording a specific day of the week or month when writing his historical works, and so one recorded date can neither conclusively prove nor disprove the occurrence of a particular historical event for a particular year. Secondly, the Prophet's biographers did not always agree on the specific date, let alone the month or the year when certain events occurred in his life. Thirdly, the conversion of Hijrī dates to the Julian calendar on the SAC and SCC always bears a one-day margin of error which can open the door to speculation. Fourthly, calendar converters assume particular months to always be 29 or 30 days and do not take into consideration natural phenomenon which means that due diligence needs to be applied when reverting to the methodology of Specific Date Verification.

³¹ See (Bāshā 1311).

^{32 (}Reingold and Dershowitz 2018, pp. 105–10).

³³ See (Fourmilab Calendar Converter n.d.). This is most reliable calendar converter for the SCC.

See (Amazigh Date Converter n.d.). We have used the 'Amazigh Date Converter' developed by Madghis Afulay which we downloaded from the App Store to enable date conversions using the SAC. We have detected some shortcomings in the App and so it needs to be used with caution. Although conversions of pre-Hijrī dates to the Julian calendar are inaccurate, conversions from the Julian to the pre-Hijrī calendar are on the other hand correct.

See (Keisan Online Calculator 2020).

We have consulted the 'Kuwaiti' and 'Fāṭimīd' algorithms for this paper but have not referred to them for any calendrical date conversions. See (Keisan Online Calculator 2020).

Religions **2021**, 12, 42 8 of 21

The event of the Farewell Pilgrimage which we have briefly touched upon is a case in point. According to SAC, the 9th of Dhū al-Ḥijjah 10 AH returns as Friday 6 March AD 632 which is the correct day of the week according to all available reports, while on the SCC it returns as Saturday 7 March AD 632, reflecting a one-day margin of error which we are bound to encounter when dealing with date conversions. Yet, despite this shortcoming, Specific Date Verification can provide us with reliable results when more than one specific date has been recorded for a particular historical event, especially when the data is repeatable and quantifiable, thus rendering the verification of the event being analyzed all the more credible.

If we continue our examination of the Farewell Pilgrimage, we find that its historical dating is validated by a report relayed by al-Wāqidī and later by his secretary Ibn Sa'd, that the Prophet departed from Madīnah "on Saturday, five nights remaining in Dhū al-Qa'dah." When we apply a Hijrī–Julian conversion, we find that Saturday 25 Dhū al-Qa'dah 10 AH returns as Saturday 22 February AD 632 on the SCC. Furthermore, Ibn Kathīr commented that the Prophet arrived in Makkah in the year of the Farewell Pilgrimage "on the morning of the fourth of Dhū al-Ḥijjah. That was a Sunday, when daytime came, at dawn, because the first day of Dhū al-Ḥijjah that year was indisputably a Thursday." Indeed, both Thursday 1 Dhū al-Ḥijjah and Sunday 4 Dhū al-Ḥijjah 10 AH return accurately as Thursday 27 February and Sunday 1 March AD 632, respectively, on the SAC.

We here have four specific dates, albeit on two different calendar converters, which means that the month of Dhū al-Qa'dah in the year 10 AH was 29 days instead of 30 days, a natural irregularity not accounted for in the algorithms. The specific dates therefore confirm that the event of the Farewell Pilgrimage began on Saturday 25 Dhū al-Qa'dah 10 AH/22 February AD 632 when the Prophet left Madīnah; that the first date of the month when the Ḥajj was to take place was Thursday 1 Dhū al-Ḥijjah 10 AH/27 February AD 632; that the Prophet arrived in Makkah on Sunday 4 Dhū al-Ḥijjah 10 AH/1 March AD 632; and that he stood on Mount 'Arafat on Friday 9 Dhū al-Ḥijjah 10 AH/6 March AD 632. All of these specific dates align themselves to the Julian calendar for the year 10 AH, validating the accuracy of the dates reported in the historical works for this particular event.

There are other events in the Prophet's life which have more than one specific date attached to them and which we have recorded in Appendix A Table A1. We will revert to these in the article to identify the precise dates of the Hijrah, the Battle of Badr, and to explain the early dating of the covenants. We will also examine the events reported in the year the Prophet passed away such as his last illness, the expedition he ordered against the Byzantines, and Fāṭima's death to offer different possibilities for the year in which he died.

5. The Evidence from Archaeology

Evidence that the Hijrī calendar was instituted during the early Caliphate is attested in an inscription found in the restored baths of Ḥammat Gader which lie approximately 7 kilometers east of the southern end of the Sea of Galilee. The inscription, preceded by a cross, reads:

- 1. In the days of the Servant of Allāh Muʿāwiyah (abdalla Maavia), Commander
- 2. of the Believers (amēra almoumenēn), the hot baths of the
- 3. people there were saved and rebuilt
- 4. by 'Abdullāh son of Abū Hāshim (Abuasemos), the
- 5. governor, on the fifth of the month of December,
- 6. on the second day [of the week], in the sixth year of the indiction,
- 7. in the year seven-hundred and twenty-six of the colony, according to the Arabs (*kata Arabas*) the forty-second year,
- 8. for the healing of the sick, under the care of Joannes,

³⁷ (al-Wāqidī 1966, vol. 2, p. 131).

³⁸ (Ibn Kathīr, vol. 4, p. 239).

Religions **2021**, 12, 42 9 of 21

9. the official of Gadara.³⁹

The inscription bears a specific date: the second day of the week is a Monday and the 6th year of the indiction, year 726 of the colony, is AD 662. When we verify the date on the SCC, we find that Monday 17 Sha'bān 42 AH does accurately return as Monday 5 December AD 662. Another inscription discovered in Jerusalem commemorating the capitulation of the Holy City, and which according to Moshe Sharon is "probably one of the oldest inscriptions hitherto uncovered," 40 is even more telling. It reads:

- 1. In the name of Allāh, the Most Gracious, the Most Merciful
- 2. ...
- 3. ...
- 4. The protection of Allāh and the security of His messenger (*dhimmat Allāh wa ḍamān rasūlihi*)
- 5. ...
- 6. It was witnessed by 'Abd al-Rahmān b. 'Awf
- 7. al-Zuhrī and Abū 'Ubayda b. al-Jarrāḥ.
- 8. Its scribe is Mu'āwiyah ...
- 9. The year thirty-two.⁴¹

The parallels between this inscription and the covenants are astonishing. The statement that the people of Jerusalem have been granted "the protection of Allāh and the security of His messenger," the presence of witnesses, Muʻāwiyah as scribe, and a year date at the end all conform to how the covenants were written. Our two inscriptions therefore support the view that the Hijrī calendar was instituted by the Prophet, and that the Hijrī dates found in the covenants accurately reflect the specific date when they were written.

6. The Dating of the Covenants

The *Prophet's Covenant with the Christians of the World*, which was written by Muʻāwiyah on Monday 29 Rabī' al-Ākhir 4 AH, has been extensively documented through a series of manuscripts. It is one of those rare covenants which has the specific date of the week appended to it and when we apply Specific Date Verification, we find that it accurately returns as Monday 7 October AD 625 on the SAC. This is a strong piece of evidence for its authenticity as it is highly unlikely that Christians unfamiliar with the Hijrī calendar would have forged a document of this nature by being correct to the day of the week. We were able to find eight transmissions of this covenant with the accurate date appended to it.

- 1. MS 358 in the Matenadaran, in Armenia, is a 17th century copy of the *Covenant with the Christians of the World* which has been extensively studied by Dr. Gayane Mkrtumyan from Yerevan State University.⁴²
- 2. The Monastery of St. George al-Ḥumayra in Syria had on public display a copy of the Covenant with the Christians of the World, dating from Ottoman times, which pilgrims could view but which was removed to a safe location following the tragic events that have unfolded in Syria. The text of this covenant was brought to light by Dr. John Andrew Morrow in the second volume of his work Islām and the People of the Book. 43
- 3. GAMS (Sbath) 1123 at the Hill Museum & Manuscript Library is undated but probably stems from the 19th century.

See (Hirschfeld and Solar 1981, pp. 203–4; Green and Tsafrir 1982, pp. 94–95). The authors' translation relied on the translation of the website Islamic Awareness. See (Islamic Awareness 2007).

⁴⁰ (Sharon 2018, p. 109).

^{41 (}Sharon 2018, p. 101). For online information about the inscription, see (Islamic Awareness 2020).

See (Mkrtumyan 2015, pp. 8–25). We would like to give special thanks to Dr. Mkrtumyan for having provided us with a copy of the covenant for us to analyze.

See (Morrow 2017, vol. 2, pp. 355–76).

Religions **2021**, 12, 42 10 of 21

4. Dossier 27 No. 27 which is part of the Ottoman holdings at St. John's Monastery in Patmos and which is based on a copy made by the judge Burhān al-Dīn al-Shāfi'ī. 44 We were able to find two copies of this manuscript. The first is in the Greek Orthodox Patriarchate of Jerusalem which we were able to examine thanks to Father Makarios Mavrogiannakis, the Archbishop of the Greek Orthodox community in Qatar. The second copy has been documented by Father Gabriel Akyüz in his recently published book, *Hz. Muhammed'in Ahidnameleri ve Osmanlı Fermanları*. 45

- 5. Gabriel Sionita reproduced the entire covenant in his *Testamentum et Pactiones Initae inter Mohamedem et Chritianae Fidei Cultores* which was published in 1630 CE.⁴⁶
- 6. Louis Cheikho reproduced the entire *Covenant with the Christians of the World* in his article "'*Uhūd Nabī al-Islām wa al-Khulafā' al-Rāshidīn li-l-Naṣārā*" and which was published in 1909 CE. Cheikho informs us that he copied the text from volume 13 of the journal *Rawḍat al-Ma'ārif*.⁴⁷
- 7. George David Malech published in 1910 CE a Persian recension of the *Covenant with* the Christians of the World in his History of the Syrian Nation and the Old Evangelical-Apostolic Church of the East. Malech's text differs quite radically to the other recensions of the Covenant but the names of witnesses and the date are the same.⁴⁸
- 8. Leon Arpee reproduced an English translation of the Covenant with the Christians of the World in A History of Armenian Christianity: From the Beginning to Our Own Time which was originally published in 1946 CE. Unlike Malech, Arpee did not include a facsimile of the Persian manuscript which he consulted and so we are only left with the English translation.⁴⁹

All of the recensions of the *Covenant with the Christians of the World* agree on the date despite the slight variations in wording. The Sionita and the St. George al-Ḥumayra recensions read "yawm al-athnayn tamām arba'at ashhur min al-sanah al-rābi'ah min al-hijrah bi-l-Madīnah;"⁵⁰ GAMS 1123 reads "yawm al-athnayn li-tamām arba'at ashhur min al-sanah al-rābi'ah min hijraht al-Madīnah;"⁵¹ the copy in the Greek Orthodox Patriarchate of Jerusalem and that documented by Father Gabriel Akyüz reads "yawm al-athnayn li-tamām arba'at ashhur min al-sanah al-rābi'ah min hijraht al-Madīnah;" Cheikho's "yawm al-athnayn fī khitām arba'at ashhur min al-sanah al-rābi'ah min al-hijrah bi-l-Madīnah;"⁵² and MS 358 in the Matanedaran "yawm al-athnayn al-tamām arba'at ashhur min al-sanah al-rābi'ah min al-hijrah bi-l-Madīnah." The Persian manuscript reproduced by Malech reads "rūz'i dūshanbah ākhir-I māh-i chahārum az sāl-i chahārum az Hijraht bi-Madīnah,"⁵³ while Arpee's translation of the Persian manuscript in New Julfa, Iran, reads "this Treaty was drawn up on the Monday following the first four months of the Fourth Year of the Hegira."⁵⁴

The Covenant with the Jews of Khaybar and Maqnā which was discovered in the Cairo Genizah and documented by Hartwig Hirschfeld is dated to Friday 3 Ramaḍān 5 AH. Hirschfeld correctly noted that "the date given at the end of the letter [i.e., the Covenant] is, indeed, not quite correct, the third of Ramadhan, A[H]. 5, having been a Monday." It is our contention that the date in the original *Treaty* was erroneously copied out as '5 AH'

```
45 (Akyüz 2020, p. 9).
46 See (Sionita 1630).
47 (Cheikho 1909, pp. 609–18). Also see (Hamidullah 1987, pp. 553–55).
48 (Malech [1910] 2006, pp. 222–27).
49 (Arpee 1946, pp. 356–60).
50 (Morrow 2017, p. 367; Sionita 1630, pp. 15–16).
51 (GAMS n.d.).
52 (Cheikho 1909, p. 614). Also see (Hamidullah 1987, p. 554).
53 (Malech [1910] 2006, p. 222).
54 (Arpee 1946, p. 360).
```

(Ursinus 2019, p. 111).

(Hirschfeld 1903, p. 172).

Religions **2021**, 12, 42 11 of 21

when in fact the actual date was '9 AH'. ⁵⁶ The evidence for this comes from al-Balādhurī's recension of the *Treaty*, which reads at the end "it was written by 'Alī b. Abū Ṭālib in 9 AH." ⁵⁷ When we apply a Hijri–Julian conversion we find that 3 Ramaḍān 9 AH returns as Friday 14 December AD 630 on the SCC. By transposing the year date of 9 AH to 5 AH, we find that the day of the week falls on a Friday, making it highly unlikely that the original document was forgery. The dating of the covenants and the inscription of Ḥammat Gader therefore place the first year of the Hijrah on the official Hijrī calendar as having begun either on Thursday or Friday 1 Muḥarram 1 AH/15 or 16 July AD 622.

7. The Prophet's Day Was a Monday

When a Bedouin asked the Prophet what his opinion was about fasting on a Monday, he replied to him "This is the day in which I was born and the day in which the Qur'ān was first revealed."⁵⁸ The importance of Monday is stressed by Ibn 'Abbās in another report: "The Messenger of Allāh was born on a Monday, he became a prophet on a Monday, he emigrated from Makkah on a Monday, he arrived in Madīnah on a Monday, he died on a Monday, and he lifted the black stone [when the Ka'bah was being reconstructed] on a Monday."⁵⁹ Another tradition on the authority of Jābir b. 'Abdullāh and Ibn 'Abbās states: "The Messenger of Allāh was born in the Year of the Elephant on Monday 12 Rabī' al-Awwal. It was on that same day that his ascension to heaven took place, that he emigrated to Madīnah, and the day in which he died."⁶⁰ Rather than disregarding all of these traditions as mythical, we will here attempt to determine whether there is any truth to them.

7.1. The Prophet's Birth

Al-Ṭabarī provides the following report about the Prophet's birth:

The birth of the Messenger of God took place during the reign of Kisrā Anūsharwān, in the year when Abrahah al-Ashram Abū Yaksūm marched against Mecca with the Abyssinians, bringing with him the elephant, having the intention of demolishing the Holy House of God. It happened after forty-two years of Kisrā Anūsharwān's reign had elapsed.⁶¹

As Khosrow I's reign began on 18 August AD 531,⁶² Abraha's entry into Makkah would have been in AD 573 according to the solar Julian calendar. However, according to the purely lunar calendar, the 18 August AD 531 is the equivalent of 17 Rabī' al-Ākhir 93 BH on the SCC. When we add 42 lunar years, the year that returns is 17 Rabī' al-Ākhir 51 BH which is the equivalent of 17 May AD 572 on the SCC. This was the Year of the Elephant, for which Ibn 'Abd al-Barr provides us the following specific dates:

Al-Khawārizmī Muḥammad b. Mūsā said: "The arrival of the elephant in Makkah along with its companions was 13 nights having passed in the month of Muḥarram." Others also said the same, but he added that this was on a Sunday.

For a similar conclusion see (El-Wakil 2016, p. 311).

⁵⁷ (al-Balādhurī 1987, p. 81).

⁵⁸ (Muslim 2017, p. 483). Also see (al-Tabarī 1999b, vol. 6, p. 62).

⁽Ibn Kathīr 1990, vol. 2, pp. 259–60). Though we have reverted to the Arabic for our translation, to consult the English text, see (Ibn Kathīr 2000, vol. 1, p. 141).

^{60 (}Ibn Kathīr 2000, vol. 1, p. 142); (Ibn Kathīr 1990, vol. 2, p. 260).

^{61 (}al-Ṭabarī 1999a, vol. 5, p. 266). The date of Abraha's expedition to Makkah has also been placed to AD 552 which would imply he was deceased by the time the Prophet was born. See (Kister 1965, p. 428). A report in Ibn Kathīr states that the Prophet was born 23 [lunar] years "after the attack on Mecca by the troops with elephants." See (Ibn Kathīr 2000, vol. 1, p. 143). If correct this would place the Year of the Elephant in AD 549. Mohammed Lamsiah has argued that the story of the elephant in the Qur'ān recounts the defeat of Khosrow I by his general Vardan after he rebelled against him. See (Lamsiah 2017, pp. 817–49); and Sebeos 1999, pp. 6–8). A more recent study has argued that there is no reason to doubt the Islamic narrative because Abraha was an ally of Justin II and that his expedition against Makkah was to limit the sphere of influence of the Lakhmīds in Arabia. See (Mishin 2020). Whatever be the case may be, the specific dates do not detract us from the Prophet's birth having been in AD 572/51 BH.

⁶² (Taqizadeh 1937, p. 129).

Religions **2021**, 12, 42 12 of 21

Al-Khawārizmī also said: "The first of the month of Muḥarram in that year was a Friday." 63

The date Sunday 13 Muḥarram 51 BH falls as Sunday 14 February AD 572 on the SCC. It was therefore the day when Abraha conducted his expedition against Makkah. The day of the week for 1 Muḥarram 51 BH was either a Monday or a Tuesday, and so al-Khawārizmī's observation that 1 Muḥarram 51 BH fell on a Friday is incorrect. The Prophet's birth would therefore have been approximately two months after the day of the elephant on Monday 12 Rabī' al-Awwal 51 BH/11 April AD 572 according to the SAC.

7.2. The Date of the First Revelation

The Prophet is said to have become a prophet on *yawm al-bi'tha* (the day of the call), and Muslim scholars are generally in agreement that the Prophet was 40 years old when he received his first revelation. ⁶⁴ If we accept that this was according to the lunar calendar, then the year of the call would have been in 11 BH, with the Prophet's 40th lunar birthday that year having been on Monday 12 Rabī' al-Awwal 11 BH/1 February AD 611 on the SAC. Though Muslim tradition is unanimous that his first revelation came to him during the month Ramaḍān while he was in Makkah, Shī'a tradition adds that he became a prophet on 27 Rajab⁶⁵ which for the year 11 BH returns as Monday 14 June AD 611 on the SAC. Some traditions state that he became a prophet when he was 40 years old but that the revelation of the Qur'ān first came to him when he was 43 years old⁶⁶ which would have been on Monday 12 Rabī' al-Awwal 8 BH/31 December AD 613 on the SCC. One tradition on the authority of Qatāda b. Di'āmah (d. 117 AH/AD 735) states that the Qur'ān was revealed for a period of eight years in Makkah which would render his emigration exactly 8 years later in the year zero AH/AD 621.⁶⁷

The fact that the Qur'ān makes a reference to the lunar calendar by recounting the Prophet's first revelation in the month of Ramaḍān indicates that it was observed as a parallel calendar to the Jewish-Arabian calendar which the Quraysh had adopted. The Qur'ān therefore seems to suggest that the Hijrī calendar was a continuation of the Makkan lunar calendar:

The month of Ramaḍān is the month in which the Qur'ān was revealed, a guidance for mankind with clear proofs of guidance and a criterion (*al-furqān*) [between right and wrong]. So whoever of you has observed the month should fast during it. As for any of you who are sick or on a journey, then you should fast the remaining number of days at a later date in order to complete the prescribed period of fasting. Allāh desires for you ease, not hardship, and He wants you to complete the prescribed period. Therefore glorify Allāh for having guided you so that you may be grateful (Q2:185).

According to al-Ṭabarī, there is a difference of opinion among scholars whether the first revelation came down to the Prophet on Monday the 17th, 18th or 24th of Ramaḍān. ⁶⁸ It is usually accepted that the Prophet received his first revelation 13 years before his emigration to Madīnah. The 18th of Ramaḍān 13 BH returns as Monday 24 August AD 609 on the SCC but this would mean he would have been 38 lunar years old at the time. The dates Monday 17 Ramaḍān 11 BH/2 August AD 611 and Monday 24 Ramaḍān 11 BH/9 August AD 611 on the other hand return accurately on the SAC when he would have been 40 lunar years old. As, according to the Qur'ān, the day of *al-furqān* was when the first revelation came down to the Prophet and when the Battle of Badr occurred, it does

^{63 (}al-Qurtubī 2010, p. 137).

⁶⁴ (al-Ṭabarī 1999b, vol. 6, pp. 60–61).

^{65 (}al-Majlisī 1983, vol. 18, p. 189).

^{66 (}al-Ṭabarī 1999b, vol. 6, pp. 153–66).

^{67 (}al-Tabarī 1999b, vol. 6, p. 156).

⁶⁸ (al-Ṭabarī 1999b, vol. 6, pp. 62–63).

Religions **2021**, 12, 42 13 of 21

seem as though the 17th of Ramaḍān is the most likely date for when both of these events took place.

8. The Prophet's Hijrah

Though a number of different dates have been proposed for the Prophet's emigration from Makkah to Madīnah, al-Wāqidī expresses certainty over the date of Monday 12 Rabī' al-Awwal. As he explains:

The Messenger of Allāh—peace and blessings be upon him—arrived in Madīnah on Monday 12 Rabī' al-Awwal. Some say on 2 Rabī' al-Awwal, but the twelfth is what has been confirmed.⁶⁹

The problem with the date of 12 Rabī' al-Awwal is that it does not accurately return as a Monday for the year 1 AH, falling instead on a Thursday or a Friday on the SAC and SCC, respectively. Despite this discrepancy having been noted by various scholars, there is one possibility to resolving this problem which has until now been ignored. It is indeed very plausible that the Prophet arrived in Madīnah in year zero, in other words on Monday 12 Rabī' al-Awwal 0 AH/5 October AD 621,⁷⁰ meaning that the calendar officially began in the year 1 AH, the year following his arrival. Ibn Sa'd reports how "the Messenger of Allāh—peace and blessings be upon him—went out of the cave [on the Mount of Thawr] on Monday night, four nights having elapsed in the month of Rabī' al-Awwal, and it is said that on Tuesday [he was] in Qudayd."⁷¹ As the 4th of Rabī' al-Awwal 0 AH returns as Sunday 27 September AD 621 on the SCC, there is a gap of one day in the calculation which appears to be an honest mistake. The narrator most likely meant that 4 days had passed in Rabī' al-Awwal, with the 5th of the month having begun after sunset on Sunday, i.e., on Monday night.

The problem of the Prophet's arrival in Madīnah was thoroughly examined by Shamsi, who proposed that a copyist confused its date with his arrival in Qubā'. Shamsi thereby suggested that the Prophet arrived in Qubā' on Monday 8 Rabī' al-Awwal⁷² 1 AH/20 September AD 622, remained among the Banū 'Amr b. 'Awf for the Monday, Tuesday, Wednesday, and Thursday, and finally, departed from Qubā' to arrive in in Madīnah on Friday 12 Rabī' al-Awwal 1 AH/24 September AD 622. His assertion is however not supported by Ibn Isḥāq, who meticulously comments that the guide who assisted the Prophet and Abū Bakr "brought them down to the valley of Ri'm; thence to Qubā' to B. 'Amr b. 'Auf on Monday 12th Rabī'u'l-awwal at high noon."⁷³

A tradition reported by al-Bukhārī states that "When the Prophet arrived in Madīnah, he noticed that some people among the Jews used to uphold the fast of 'Āshūra'. He then said to them: 'We have more right to observe the fast on this day than you'. He then ordered that the Muslims also fast on that day."⁷⁴ The fast referred to here could not have been that of 'Āshūra', as it takes place on the 10th of Muḥarram, but rather to that of Yom Kippur which is the Day of Atonement and which takes place on the 10th of the Jewish month of Tishri. Had the Prophet arrived in Qubā' on Monday 8 Rabī' al-Awwal 1 AH/20 September AD 622, then it would have been on 10 Tishri AM 4383, on the day of Yom Kippur. If, however, he arrived on Monday 12 Rabī' al-Awwal 0 AH/5 October AD 621, then this would have been after Yom Kippur, on Monday 14 Tishri AM 4382.

Al-Ṭabarī makes no mention of a Jewish fast having been observed upon the Prophet's arrival in Qubā', even though "the first person to see him was one of the Jews, who

⁶⁹ (al-Wāqidī 1966, vol. 1, p. 2).

⁷⁰ (ibid.).

⁷¹ (Ibn Sa'd 1990, vol. 1, p. 179).

⁽al-Bīrūnī 2000, p. 32). Al-Bīrūnī appears to be the only Muslim writer to record this date, perhaps based on a correction that he made to make the date conform to the fast on Yom Kippur.

⁷³ (Guillaume 2006, p. 227).

^{74 (}al-'Asqalānī 1379, pp. 214-15). Ibn Hajar goes into extensive details to provide explanations for the hadīth and one possibility which he proposes is that the 10th of Muharram coincided with the Jews' day of fasting on their calendar which is incorrect.

Religions **2021**, 12, 42 14 of 21

had observed what we were doing and knew that we were expecting the arrival of the Messenger of Allāh. He shouted out at the top of his voice, 'Banū Qayla, here is your good fortune who has come!'"⁷⁵ This may suggest that the Prophet, along with some Arabian Jews, may have considered that Yom Kippur should be observed on the 10th of the month of Muḥarram on the lunar calendar, i.e., on the day of 'Āshūra'. As such, the Prophet could have instituted the practice of fasting on the day of 'Āshūra' in the following year to commemorate the Day of Atonement according to its lunar calculation.

The alternative date offered by al-Wāqidī for the Prophet's arrival in Madīnah is that of 2 Rabī' al-Awwal which falls for the year zero as either Thursday 24 or Friday 25 September AD 621, and for the year 1 AH as either Monday 13 or Tuesday 14 September AD 622. Though it is a possibility that the Prophet arrived in Madīnah on 2 Rabī' al-Awwal 1 AH/Monday 13 September AD 622, this date is nevertheless undermined by the possibility of him having departed from the cave on the Mount of Thawr on Monday 5 Rabī' al-Awwal 0 AH/29 September AD 621. Bearing in mind how Qubā' was considered part of Madīnah, lying within its periphery, we see no reason why we cannot accept at face value al-Wāqidī's confirmed report, meaning that the Prophet arrived in Madīnah on Monday 12 Rabī' al-Awwal 0 AH/5 October AD 621.

9. The Battle of Badr

The Islamic sources have reported six specific dates for the Battle of Badr, all of which seem to describe different episodes in the Muslims' confrontation with the Quraysh, and which all return accurately for the year 1 AH. These range from the specific date the Prophet left Madīnah in preparation for the battle, the date of the battle itself, and the specific date of the Prophet's return. These specific dates have been reproduced below in their chronological order:

1 Ibn Ḥabīb al-Baghdādī:

"He [i.e., the Prophet] went out on Wednesday eight days having passed in the month of Ramaḍān." Specific date: Wednesday 8 Ramaḍān.

2. Ibn Sa'd:

"The Messenger of Allāh went out from Madīnah on Saturday twelve nights having passed in the month of Ramaḍān, 19 months after his emigration." Specific date: Saturday 12 Ramaḍān.

3. al-Wāqidī:

"The Messenger of Allāh—peace and blessings be upon him—departed on Sunday evening twelve nights having passed in the month of Ramaḍān from Buyūt al-Suqyā." Specific date: Sunday 12 Ramaḍān.

4. al-Wāqidī:

"The Messenger of Allāh—peace and blessings be upon him—marched until he arrived at al-Rawḥā on the night of Wednesday, in the middle of the month of Ramaḍān." Specific date: Wednesday 15 Ramaḍān.

5. Ibn Sa'd:

"I asked Abu Bakr b. 'Abd al-Raḥmān al-Ḥārith b. Hishām about the night of Badr. He said: It was on Friday night, 17 [nights] having passed in the month of

⁷⁵ (al-'Asqalānī 1379, p. 151).

⁷⁶ For a good discussion, see (al-'Asqalānī 1379, p. 151).

⁷⁷ (al-Baghdādī n.d., p. 111).

⁷⁸ (Ibn Sa'd 1990, vol. 2, p. 8).

⁷⁹ (al-Wāqidī 1966, vol. 1, p. 23).

^{80 (}al-Wāqidī 1966, vol. 1, p. 46).

Religions **2021**, 12, 42 15 of 21

Ramaḍān . . . The attack on the people of Badr was on Friday 17 [nights] having passed in the month of Ramaḍān."81 Specific date: Friday 17 Ramaḍān.

6. Ibn Ḥabīb al-Baghdādī:

"He [i.e., the Prophet] returned successfully with booty on Wednesday eight days remaining in the month of Ramaḍān." Specific date: Wednesday 22 Ramaḍān.

Though Ibn Ḥabīb and Ibn Sa'd seem to disagree on the date when the Prophet departed from Madīnah (though they may have also referred to two different events), the specific dates of Wednesday 8 Ramaḍān and Saturday 12 Ramaḍān both return accurately for 1 AH. Although an alternative specific date has been reported claiming that the Battle of Badr took place on Monday 17 Ramaḍān, this seems to have been a corrective by later scholars to make it fit the calendar for the year 2 AH. The date of Friday 17 Ramaḍān was so entrenched in the Muslims' consciousness that an early authority, Muḥammad b. Ṣāliḥ b. Dīnār al-Tamār (d. 168 AH), was dumbfounded as to how anyone could even express doubt concerning its date. Al-Ṭabarī records how Ibn Sa'd commented from al-Wāqidī:

I mentioned this to Muḥammad b. Ṣāliḥ, and he said: "This is the most amazing thing! I never supposed that anyone in the world would doubt this! It was on the morning of 17 Ramaḍān, on Friday."

Muḥammad b. Ṣāliḥ said to me (and I heard 'Āṣim b. 'Umar b. Qatāda and Yazīd b. Rumān saying this), "O my nephew, what need have you to name authorities on this subject? This is too obvious for that. Even the women in their houses are not ignorant of this!"⁸³

An account found in *al-Istī'āb* also supports the event having taken place on a Friday:

Abū 'Umar said: The majority say that the Battle of Badr took place on Friday morning, on the seventeenth of the month of Ramaḍān, and I have not heard anyone say that it was on a Monday. 84

It is significant that the Battle of Badr is supposed to have taken place on the day of al-furq $\bar{a}n$, 85 as the Qur' \bar{a} n attests:

And know that anything you obtain of war booty—then for Allāh is one fifth of it, and for the Messenger, his near relatives, the orphans, the needy, and the traveler, if you believe in Allāh and in that which We sent down to Our servant on the day of *al-furqān*, that is the day when the two armies met. And Allāh, over all things, is able. (Q8:41)

The Battle of Badr is said to have occurred one year after the Prophet's emigration, yet it cannot be coincidental for six specific dates to all accurately return for the year 1 AH. It is therefore very plausible that the Hijrah occurred on Monday 12 Rabī' al-Awwal 0 AH/5 October AD 621 and that the Battle of Badr happened one year later on Friday 17 Ramaḍān 1 AH/25 March AD 623. Finally, it is particularly noteworthy how Nektarios, Patriarch of Jerusalem (d. 1676 CE) records in his *Epitomē* how the *Covenant with the Monks of Mount Sinai* was issued after the Battle of Badr, before the end of AD 623.⁸⁶

10. The Prophet's Death

In his book *The Death of a Prophet*, Stephen Schumacher proposed a later date for the Prophet's death based on a number of non-Muslim sources, most notably the *Doctrina*

^{81 (}Ibn Sa'd 1990, vol. 2, p. 15). For more references about this specific date, see (al-Wāqidī 1966, vol. 1, pp. 2, 51).

^{82 (}al-Baghdādī n.d., p. 111).

^{83 (}al-Ṭabarī 1987, pp. 27–28).

⁸⁴ (al-Qurtubī 2010, p. 137).

^{85 (}al-Ţabarī 1999b, vol. 6, pp. 62–63).

⁸⁶ (Nektarios of Jerusalem [1680] 1980, pp. 269–70).

Religions **2021**, 12, 42 16 of 21

Jacobi whose terminus post quem is 13 July AD 634⁸⁷ and which records a dialogue between Jacob, a recent convert to Christianity, and several Jews. The account takes place after the forced conversion of Jews and Samaritans in Carthage which began in Spring AD 632. Another source is Thomas the Presbyter who, writing in the 640s, tells us that on "Friday 4 February (634) [i.e., 29 Dhū al-Qa'dah 12 AH on the SCC] at the ninth hour, there was a battle between the Romans and the Arabs of Muḥammad," potentially alluding to a later date for the Prophet's death. Are these accounts then, and their interpretation by Schumacher, credible in any way?

The date when the Prophet passed away is usually believed to have been Monday 12 Rabī' al-Awwal but it is inaccurate for the year 11 AH. It does, however, return accurately for the year 13 AH as Monday 16 May AD 634 on the SCC. A number of specific dates also support a later date for the Prophet's death. Ibn Sa'd reports how Usāma's expedition began "on Saturday, ten days having passed in Rabī' al-Awwal." He adds that "The Muslims who were coming out with Usāma were bidding their farewell to the Messenger of Allāh, joining the remainder of the soldiers who were stationed in al-Jaraf." The date Saturday 10 Rabī' al-Awwal is inaccurate for 11 AH but returns accurately for 13 AH as Saturday 14 May AD 634 on the SCC. A letter written by the Prophet addressed "to the Kings of Ḥimyar, al-Ḥārith b. 'Abd Kalāl and to Nu'mān known as Dhū Ru'ayn and Ma'āfir and Ḥamdān" is dated to "10 days having passed in the month of Rabī' al-Ākhir in the year 12." Hamidullah obviously considered the letter a forgery as he did not envisage the possibility of the Prophet having died on Monday 12 Rabī' al-Awwal 13 AH.

Needless to say, there are more specific dates that return accurately for the Prophet's death in the year 12 AH than for the year 13 AH. Ibn Sa'd recounts a report in which the Prophet "died on Monday two days having passed in Rabī' al-Awwal." Monday 2 Rabī' al-Awwal 12 AH returns accurately as Monday 17 May AD 633 on the SCC. Ibn Sa'd also reports that on "Monday, four nights remaining in the month of Ṣafar" the Prophet had instructed his troops to attack the Byzantines, a date which also returns accurately for the year 12 AH as Monday 10 May AD 633.

Three dates have also been reported for the date of the Prophet's last illness, "Wednesday eleven nights remaining in Ṣafar [i.e., 18 Ṣafar];"⁹⁶ "Wednesday two nights remaining in Ṣafar [i.e., 27 Ṣafar];"⁹⁷ and "Wednesday one night remaining in Ṣafar [i.e., 28 Ṣafar]."⁹⁸ None of these dates return accurately for the years 11 AH and 13 AH, but Wednesday 27 Ṣafar returns accurately for the year 12 AH as Wednesday 12 May AD 633 on the SAC. Furthermore, three dates have been reported for Fāṭima's death who is said to have passed away shortly after her father's demise. The first is Tuesday 3 Ramaḍān⁹⁹ which does not coincide with the years 11, 12 and 13 AH. The second is Tuesday 3 Jumādā al-Ākhir,¹⁰⁰ which returns accurately for the year 11 AH as Tuesday 25 August AD 632 on the SAC. The third tells us that she died 40 days later "on Sunday night, thirteen nights having passed in

```
(Schumacher 2011, pp. 20-27). Also see (Kaegi 1969, p. 141; Boudignon 2013).
88
    (Hoyland 1997, p. 120). This date is according to the SCC.
    (Ibn Sa'd 1990, vol. 2, p. 146).
91
    (Hamidullah 1987, p. 224).
    (Hamidullah 1987, p. 225).
    (Hamidullah 1987, p. 226).
    (Ibn Sa'd 1990, vol. 2, p. 208).
    (Ibn Sa'd 1990, vol. 2, p. 145).
    (Ibn Sa'd 1990, vol. 2, p. 208).
97
    (Ibn Sa'd 1990, vol. 3, p. 5).
    (Ibn Sa'd 1990, vol. 2, p. 209).
    (al-Majlisī 1983, vol. 43, p. 189).
    (al-Majlisī 1983, vol. 43, p. 170).
```

Religions **2021**, 12, 42 17 of 21

Rabī' al-Ākhir,"¹⁰¹ which returns accurately for the year 12 AH as Sunday 30 June AD 633 on the SCC, implying that the Prophet passed away on Monday 12 Rabī' al-Awwal of that same year.

The only specific date for the Prophet's death which returns accurately for the year 11 AH is found in Shī'a sources, that of Monday 28 Ṣafar 11 AH/25 May AD 632 on the SCC¹⁰² and which coincides with the reported death date of Fāṭima on Tuesday 3 Jumādā al-Ākhir/25 August AD 632 on the SAC.

If the Prophet died on Monday 28 Ṣafar 11 AH/25 May AD 632, then his age would have been 60 solar years and 62 lunar years (being 13 days before his 63rd lunar birthday). If he died on Monday 2 Rabī' al-Awwal 12 AH/17 May AD 633, then he would have been 61 solar years old and 63 lunar years old (being 10 days before his 64th lunar birthday). Had his death been on Monday 12 Rabī' al-Awwal 13 AH/16 May AD 634, then he would have been 62 solar years old, with his death being on the day of his 65th lunar birthday.

The early Muslims may have initially used a calendar that began on yawm al-bi'tha, i.e., on Monday 12 Rabī' al-Awwal 11 BH/1 February AD 611 and which, for a reason that is not clear at this moment in time, ended on Monday 12 Rabī' al-Awwal 2 AH/12 September AD 623 on the SAC. The cycle of 13 years mentioned by the biographers would have thus been completed in 2 AH and the Prophet's stay in Madīnah would have been calculated from that point on, being a period of 10 years, which would support his death in 12 AH. These miscalculations would most likely have been due to the use of competing calendars which may explain some of the discrepancies between the actual specific dates of events and the reported dates as to when they purportedly occurred. As a number of different calendars were used in Arabia at the time of the Prophet, it appears that chroniclers relied on dates emanating from different calendrical systems when making their calculations. Mistakes in the early Muslims' recollection of particular events and erroneous calculations for the year of the Hijrah would certainly have led to these discrepancies.

11. The Early Issue of the Covenants: A Historical Plausibility?

The early dating of the covenants has been used by critics to completely discredit them. However, it appears that as soon as the Prophet moved to Madīnah, he sought to establish treaties with local tribes through a series of diplomatic initiatives. This was clearly noted by Safwān b. Umayya when he observed:

Muḥammad and his companions have indeed made our trading difficult. We do not know what to do with his companions. They are permanently stationed by the coastline. He [i.e., Muḥammad] has entered into an agreement with the people of the coast and the majority of them have joined him. 103

If the Islamic state gained recognition after the Battle of Badr as an emerging power, is it then completely far-fetched that communities who believed the Prophet's movement would eventually succeed, and who personally knew him from his days as a merchant, had perhaps requested a covenant of protection from him starting in the year 2 AH? Or could it be that the Prophet, being himself convinced that the religion of Islam would one day spread far and wide, took it upon himself to dispatch these important political documents to the various Christian communities of his time? The *Covenant with the Monks of Mount Sinai*, which is dated 3 Muḥarram 2 AH/7 July AD 623 on the SCC, ¹⁰⁴ is the first covenant to have been issued. The second is the *Covenant with the Armenian Christians*, which is dated to a Monday in the month of Dhū al-Ḥijjah/c.a. May–June AD 624. In light of the specific dates presented in this study, these early dates at the end of the covenants may not be so far-fetched after all.

101

⁽al-Majlisī 1983, vol. 43, p. 181).

¹⁰² (al-Mufīd 1413, pp. 46–47).

¹⁰³ (al-Wāqidī 1966, vol. 1, p. 197).

¹⁰⁴ (Hamidullah 1987, p. 563).

Religions **2021**, 12, 42 18 of 21

12. Conclusions

This study has validated Mahmoud Effendi's conclusions that the pre-Islamic Arabs were in the habit of observing a purely lunar calendar. This study has also argued that the Makkans had adopted a lunisolar calendar that was most likely based on the Jewish calendar. Using the methodology of Specific Date Verification, we have argued that the Prophet's birth was most likely on Monday 12 Rabī' al-Awwal 51 BH/11 April AD 572; his first revelation on Monday 17 Ramaḍān 11 BH/2 August AD 611; his Hijrah on Monday 12 Rabī' al-Awwal 0 AH/5 October AD 621; the Battle of Badr on Friday 17 Ramaḍān 1 AH/25 March AD 623; and his death either on Monday 28 Ṣafar 11 AH/25 May AD 632, Monday 2 Rabī' al-Awwal 12 AH/17 May AD 633, or Monday 12 Rabī' al-Awwal 13 AH/16 May AD 634.

The official Hijrī calendar was instituted the year following his arrival in Madīnah, and it began in 1 AH. This is confirmed by the specific dates found in the *Covenant with the Christians of the World* and the *Covenant with the Jews of Khaybar and Maqnā*, as well as the inscription of Ḥammat Gader. All other competing calendars which the Arabs were in the habit of observing were, in all likelihood, abrogated by 'Umar b. al-Kaṭṭāb in 17 AH/AD 638. The Prophet's position as head of state in Madīnah was firmly consolidated by the end of 1 AH following the Battle of Badr, after which he forged a number of political alliances with local tribes. It is therefore not so far-fetched that Christian communities who knew and trusted him, and who believed Islam would eventually spread far and wide, requested from him a covenant of protection as early as 2 AH.

Author Contributions: Both authors contributed equally to the writing of this paper in terms of conceptualization, investigation, and development of methodology. Data collection of the specific dates and consultation of French resources was done by Ahmed El-Wakil. Both authors have read and agree to the published version of the manuscript.

Funding: This research was funded by the College of Islamic Studies, Hamad Bin Khalifa University.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable. **Data Availability Statement:** Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

Appendix A

Table A1. Specific Date Verification of Major Events. Matching date calculations for days of the week are in bold and with grey shaded background.

1. The Hijrah							
No.	Specific Date	Hijrī Date	0 AH	1 AH	2 AH	3 AH	
1	Monday 2 Rabī' al-Awwal	SAC	Thursday 24 Sep. 621	Monday 13 Sep. 622	Friday 2 Sep. 623	Wednesday 22 Aug. 624	
		SCC	Friday 25 Sep. 621	Tuesday 14 Sep. 622	Saturday 3 Sep. 623	Thursday 23 Aug. 624	
2	Monday 4 Rabī' al-Awwal	SAC	Saturday 26 Sep. 621	Wednesday 15 Sep. 622	Sunday 4 Sep. 623	Friday 24 Aug. 624	
		SCC	Sunday 27 Sep. 621	Thursday 16 Sep. 622	Monday 5 Sep. 623	Saturday 25 Aug. 624	
3	Monday 8 Rabī' al-Awwal	SAC	Wednesday 30 Sep. 621	Sunday 19 Sep. 622	Thursday 8 Sep. 623	Tuesday 28 Aug. 624	
		SCC	Thursday 1 Oct. 621	Monday 20 Sep. 622	Friday 9 Sep. 623	Wednesday 29 Aug. 624	
4	Monday 12 Rabī' al-Awwal	SAC	Sunday 4 Oct. 621	Thursday 23 Sep. 622	Monday 12 Sep. 623	Saturday 1 Sep. 624	
		SCC	Monday 5 Oct. 621	Friday 24 Sep. 622	Tuesday 13 Sep. 623	Sunday 2 Sep. 624	

Religions **2021**, 12, 42 19 of 21

Table A1. Cont.

No.	e Battle of Badr Specific Date	Hijrī Date	0 AH	1 AH	2 AH	3 A	H
110.	*						
1	Wednesday 8 Ramaḍān	SAC	Monday 10 Feb. 626 Tuesday 11 Feb. 626	Tuesday 15 Mar. 623 Wednesday 16 Mar. 623	Saturday 3 Mar. 624 Sunday 4 Mar. 624	Thursday 2 Friday 22	
	·	SAC			,		
2	Saturday 12 Ramadān	SCC	Friday 14 Feb. 626	Saturday 19 Mar. 623	Wednesday 7 Mar. 624	Monday 25	
			Saturday 15 Feb. 626	Sunday 20 Mar. 623	Thursday 8 Mar. 624	Tuesday 26 Feb. 625 Monday 25 Feb. 625	
3	Sunday 12 Ramaḍān.	SAC	Friday 14 Feb. 626	Saturday 19 Mar. 623	Wednesday 7 Mar. 624		
4	Wednesday 15 Ramadān.	SAC	Saturday 15 Feb. 626	Sunday 20 Mar. 623	Thursday 8 Mar. 624	Tuesday 26	
		SCC	Monday 17 Feb. 626	Tuesday 22 Mar. 623	Saturday 10 Mar. 624	Thursday 2	
5	•	SAC	Tuesday 18 Feb. 626	Wednesday 23 Mar. 623	Sunday 11 Mar. 624	Friday 1 N	
	Friday 17 Ramadān		Wednesday 19 Feb. 626	Thursday 24 Mar. 623	Monday 12 Mar. 624	Saturday 2	
	•	SCC	Thursday 20 Feb. 626	Friday 25 Mar. 623	Tuesday 13 Mar. 624	Sunday 3 I	
6	Wednesday 22 Ramadān	SAC	Monday 24 Feb. 626	Tuesday 29 Mar. 623	Saturday 17 Mar. 624	Thursday 7	
3. Th	e Prophet's Last Illne		Tuesday 25 Feb. 626	Wednesday 30 Mar. 623	Sunday 18 Mar. 624	Friday 8 N	viar. 623
No.	Specific Date	Hijrī Date	10 AH	11 AH	12 AH	13 AH	
1	Wednesday 18	SAC	Saturday 25 May 631	Thursday 14 May 632	Monday 3 May 633	Friday 22	
	Şafar	SCC	Sunday 26 May 631	Friday 15 May 632	Tuesday 4 May 633	Saturday 23	•
		SAC	Monday 3 Jun. 631	Saturday 23 May 632	Wednesday 12 May 633	Sunday 1	*
2	Wednesday 27 Safar	SCC	Tuesday 4 Jun. 631	Sunday 24 May 632	Thursday 13 May 633	Monday 2	
	Wednesday 28 Şafar	646					
3		SAC	Tuesday 4 Jun. 631	Sunday 24 May 632	Thursday 13 May 633	Monday 2 May 634	
1 Da	id against the Byzant	SCC	Wednesday 5 Jun. 631	Monday 25 May 632	Friday 14 May 633	Tuesday 3	May 634
t. Ka No.		Hijrī Date	10 AH	11 AH	12 AH	13 A	u
	Specific Date Monday 25 Şafar	SAC	Saturday 1 Jun. 631	Thursday 21 May 632	Monday 10 May 633	Friday 29	
1		SCC	Sunday 2 Jun. 631	Friday 22 May 632	Tuesday 11 May 633	Saturday 30	-
	Saturday 10 Rabī' al-Awwal	SAC	Saturday 15 Jun. 631	Thursday 4 Jun. 632	Monday 24 May 633	Friday 13	1
5		SCC	Sunday 16 Jun. 631	Friday 5 Jun. 632	Tuesday 25 May 633	Saturday 14	
5. Th	e Prophet's Death	366	Sunday 10 Jun. 051	111day 5 Juli. 052	rucsday 25 Way 655	Saturday 1-	i way 004
No.	Specific Date	Hijrī Date	10 AH	11 AH	12 AH	13 AH	
1	•	SAC	Tuesday 4 Jun. 631	Sunday 24 May 632	Thursday 13 May 633	Monday 2	
	Monday 28 Şafar	SCC	Wednesday 5 Jun. 631	Monday 25 May 632	Friday 14 May 633	Tuesday 3	
2	Monday 2 Pahī'	SAC	Friday 7 Jun. 631	Wednesday 27 May 632	Sunday 16 May 633	Thursday 5	
	Monday 2 Rabī' al-Awwal	SCC	Saturday 8 Jun. 631	Thursday 28 May 632	Monday 17 May 633	Friday 6 N	
3	Monday 12 Rabī' al-Awwal	SAC	Monday 17 Jun. 631	Saturday 6 Jun. 632	Wednesday 26 May 633	Sunday 15	
		SCC	Tuesday 18 Jun. 631	Sunday 7 Jun. 632	Thursday 27 May 633	Monday 16	
	tima's Death					, ,	
6. Fā		Hijrī Date	10 AH	11 AH	12 AH	13 AH	14 AH
	Specific Date	III Ducc			Saturday 26 Jun. 633	Wednesday 15 Jun. 634	Monday 5 Jun. 63
	•		Thursday 18 Jul 631	Tuesday 7 Jul 632			
	Sunday 13 Rabī'	SAC	Thursday 18 Jul. 631	Tuesday 7 Jul. 632		, ,	
No.	Sunday 13 Rabī' al-Ākhir	SAC	Friday 19 Jul. 631	Wednesday 8 Jul. 632	Sunday 27 Jun. 633	Thursday 16 Jun. 634	Tuesday 6 Jun. 63
No.	Sunday 13 Rabī' al-Ākhir Tuesday 3	SAC SCC SAC	Friday 19 Jul. 631 Thursday 5 Sep. 631	Wednesday 8 Jul. 632 Tuesday 25 Aug. 632	Sunday 27 Jun. 633 Saturday 14 Aug. 633	Thursday 16 Jun. 634 Wednesday 3 Aug. 634	Tuesday 6 Jun. 63 Monday 24 Jul. 53
No. 1	Sunday 13 Rabī' al-Ākhir	SAC	Friday 19 Jul. 631	Wednesday 8 Jul. 632	Sunday 27 Jun. 633	Thursday 16 Jun. 634	Tuesday 6 Jun. 63 Monday 24 Jul. 53
No. 1	Sunday 13 Rabī' al-Ākhir Tuesday 3	SAC SCC SAC	Friday 19 Jul. 631 Thursday 5 Sep. 631	Wednesday 8 Jul. 632 Tuesday 25 Aug. 632	Sunday 27 Jun. 633 Saturday 14 Aug. 633	Thursday 16 Jun. 634 Wednesday 3 Aug. 634	Tuesday 6 Jun. 63 Monday 24 Jul. 53 Tuesday 25 Jul. 53 Friday 20 Oct. 63

References

Abrahamson, Ben, and Joseph Katz. n.d. The Islamic Jewish Calendar: How the Pilgrimage of the 9th of Av Became the Hajj of the 9th of Dhu al-Hijjah. Available online: http://www.alsadiqin.org/history/The%20Islamic%20Jewish%20Calendar.pdf (accessed on 23 December 2020).

Abrahamson, Ben. n.d. Reconstructing the Islamic Jewish Calendar. Available online: https://www.academia.edu/41869182/Reconstructing_the_Islamic_Jewish_Calendar (accessed on 23 December 2020).

Akyüz, Gabriel. 2020. Hz. Muhammed'in Ahidnameleri ve Osmanlı Fermanları. Mardin: Artuklu.

- al-'Asqalānī, Ibn Ḥajar. 1379. AH. Fatḥ al-Bārī bi-Sharḥ Ṣaḥīḥ al-Bukhārī. Beirut: Dār al-Ma'rifah, vol. 4.
- al-Baghdādī, Muḥammad b. Ḥabīb. n.d. Kitāb al-Muḥabbar. Beirut: Dār al-Afāk al-Jadīdah.
- al-Balādhurī, Aḥmad ibn Yaḥyā ibn Jabir. 1987. *Kitāb Futūḥ al-Buldān*. Beirut: Mū'assasah al-Ma'ārif.
- al-Bīrūnī, Abū Rayḥān. 2000. Kitāb al-Āthār al-Bāqiyah 'an al-Qurūn al-Khāliyah. Beirut: Dār al-Kutub al-'Ilmiyyah.
- al-Majlisī, Muḥammad Bāqir. 1983. *Biḥār al-Anwār*. Beirut: Mū'assasah al-Wafā', vols. 18, 22, 43.

Religions **2021**, 12, 42 20 of 21

al-Mufīd, Abū 'Abdullāh Muḥammad al-Baghdādī. 1413. known as "Shaykh al-Mufīd.". AH. Masār al-Shī'ah. Mahr: Al-Mū'tamar al-'Alāmī li-Alfiyyat al-Shaykh al-Mufīd.

al-Qurṭubī, Ibn 'Abd al-Barr. 2010. Al-Istī'āb. Beirut: Dār al-Kutub al-'Ilimiyyah, vol. 1.

al-Țabarī, Muḥammad b. Jarīr. 1879. Tārīkh. Leiden: Brill, vols. 2, 6.

al-Ṭabarī, Muḥammad b. Jarīr. 1987. The History of al-Ṭabarī, Vol. 7: The Foundation of the Community. Translated by M. V. McDonald. New York: SUNY.

al-Ṭabarī, Muḥammad b. Jarīr. 1999a. *The History of al-Ṭabarī, Vol. 5: The Sāsānids, the Byzantines, the Lakhmids, and Yemen*. Translated by C. E. Bosworth. New York: SUNY.

al-Ṭabarī, Muḥammad b. Jarīr. 1999b. *The History of al-Ṭabarī, Vol. 6: Muḥammad at Mecca*. Translated by C. E. Bosworth. New York: SUNY.

al-Wāqidī, Abū 'Abdullāh Muḥammad. 1966. Kitāb al-Maghāzī. London: Oxford University Press, vols. 1, 3.

'Alī, H. Amīr. 1954. The First Decade in Islam. The Muslim World 44: 126-38.

Amazigh Date Converter. n.d. Developed by Madghis Afulay. Downloadable from App Store.

Arpee, Leon. 1946. A History of Armenian Christianity: From the Beginning to Our Own Time. Princeton: Princeton University Press.

Boudignon, Christian. 2013. 'Le temps du saint baptême n'est pas encore venu': Nouvelles considérations sur la Doctrina Jacobi. In *Les Dialogues Adversus Ludaeos: Permanence et Mutations d'une Tradition Polémique*. Edited by Sébastien Morlet, Olivier Munnich and Bernard Pouderon. Turnhout: Brepols Publishers, pp. 237–56.

Bāshā, Muḥammad Mukhtār. 1311. AH. Kitāb al-Tawfīqāt al-Ilhāmiyya. Būlāq: al-Maṭba'a al-Mīriyya.

Cheikho, Louis. 1909. 'Uhūd Nabī al-Islām wa al-Khulafa' al-Rāshidīn l-il-Naṣāra. Al-Machriq: Revue Catholique Orientale Mensuelle. Beirut: Imprimerie Catholique, pp. 609–18.

de Perceval, Caussin. 1843. Mémoire sur le calendrier arabe avant l'islamisme. Journal Asiatique 4: 342-79.

Effendi, Mahmoud. 1858. Mémoire sur le calendrier arabe avant l'islamisme, et sur la naissance et l'âge du prophète Mohammad. *Journal Asiatique* 5: 109–92.

El-Wakil, Ahmed. 2016. The Prophet's Treaty with the Christians of Najrān: An Analytical Study to Determine the Authenticity of the Covenants. *Oxford Journal of Islamic Studies* 27: 273–354. [CrossRef]

Fourmilab Calendar Converter. n.d. Available online: https://www.fourmilab.ch/documents/calendar/ (accessed on 23 December 2020).

Green, Judith, and Yoram Tsafrir. 1982. Greek Inscriptions from Ḥammat Gader: A Poem by the Empress Eudocia and Two Building Inscriptions. *Israel Exploration Journal* 32: 77–96.

Guillaume, Alfred. 2006. The Life of Muhammad: A Translation of Ibn Ishāq's Sīrat Rasūl Allāh. Oxford: Oxford University Press.

Hamidullah, Muhammad. 1965. Original de la lettre du Prophète à Kisrà. Rivista Degli Studi Orientali 40: 57-69.

Hamidullah, Muhammad. 1969. The *Nasī'*, the *Hijrah* Calendar and the Need of Preparing a New Concordance for the *Hijrah* and Gregorian Eras: Why the Western Concordances are not to be Relied Upon. *The Islamic Review and Arab Affairs* 57: 6–12.

Hamidullah, Muhammad. 1987. *Majmūʿat al-Wathāʾiq al-Siyāsiyyah li-l-ʿahd al-Nabawī wa-l-Khilāfat al-Rāshidah*. Beirut: Dār al-Nafāʾis. Hirschfeld, Hartwig. 1903. The Arabic Portion of the Cairo Genizah at Cambridge. *Jewish Quarterly Review* 15: 167–81. [CrossRef]

Hirschfeld, Yizhar, and Giora Solar. 1981. The Roman Thermae at Ḥammat Gader: Preliminary Report of Three Seasons of Excavations. *Israel Exploration Journal* 31: 197–219.

GAMS. n.d. Hill Museum & Manuscript Library; Repository: Fondation Georges et Mathilde Salem; Shelfmark, Ar. 311, HMML Proj. Num.: GAMS 01123. Available online: https://www.vhmml.org/readingRoom/view/501676 (accessed on 23 December 2020).

Hoyland, Robert G. 1997. Seeing Islam as Others Saw It: A Survey and Evaluation of Christian, Jewish and Zoroastrian Writings on Early Islam. Princeton: Darwin Press.

Ibn Kathīr, Ismā'īl ibn 'Umar. 2000. *The Life of the Prophet Muḥammad: Al-Sīra al-Nabawiyya*. Translated by Trevor Le Gassick. Reading: Garnet Publishing, vols. 1, 4.

Ibn Kathīr, Ismā'īl ibn 'Umar. 1990. Al-Bidāyah wa al-Nihāyah. Beirut: Maktabat al-Ma'ārif, vol. 2.

Ibn Sa'd, Abū 'Abdullāh Muhammad. 1990. Al-Tabaqāt al-Kubrā. Beirut: Dār al-Kutub al-'Ilmiyyah, vols. 1, 2.

Ioh, Hideyuki. 2014. The Calendar in Pre-Islamic Mecca. Arabica 61: 471–513. [CrossRef]

Islamic Awareness. 2007. Greek Inscription in the Baths of Hammat Gader, 42 AH/662–63 CE. Last Updated 19 March 2007. Available online: https://www.islamic-awareness.org/history/islam/inscriptions/hammat (accessed on 23 December 2020).

Islamic Awareness. 2020. Jerusalem 32—An Inscription Witnessed by Three Companions of Prophet Muḥammad, 32 AH/652 CE. Last Modified 28 April 2020. Available online: https://www.islamic-awareness.org/history/islam/inscriptions/jerus32.html (accessed on 23 December 2020).

Keisan Online Calculator. 2020. Available online: https://keisan.casio.com/exec/system/1346122065 (accessed on 23 December 2020). Kaegi, Walter. 1969. Initial Byzantine Reactions to the Arab Conquest. *Church History* 38: 139–49. [CrossRef]

Kister, M. J. 1965. The Campaign of Huluban: A New Light on the Expedition of Abraha. Le Museon 73: 426–36.

Lammens, Henri. 1911. L'âge de Mahomet et la chronologie de la sîra. Journal Asiatique 10: 209-50.

Lamsiah, Mohammed. 2017. The Elephant Story in the Qur'ān: Myth, History, or Both? In *Die Entstehung einer Weltreligion IV. Mohammed—Geschichte oder Mythos*? Edited by M. Gross and K. H. Ohlig. Berlin: Verlag Hans Schiler, pp. 817–49.

Lecker, Michael. 2005. A Pre-Islamic Endowment Deed in Arabic regarding al-Waḥīda in the Ḥijāz. In *People, Tribes and Society in Arabia around the time of Muḥammad*. Edited by Michael Lecker. Burlington: Ashgate Variorum.

Religions **2021**, 12, 42 21 of 21

Malech, George David. 2006. History of the Syrian Nation and the Old Evangelical-Apostolic Church of the East. Piscataway: Gorgias. First published 1910.

McPartlan, Maurice A. 1997. The Contribution of Qur'an and Hadiṭ Early Islamic Chronology. Ph.D. dissertation, Durham University, Durham, UK.

Mkrtumyan, Gayane S. 2015. Agreements Prescribed to Prophet Muhammad and Ali ibn Abu Talib Caliph. *VEM Pan-Armenian Journal* 2: 8–25. (In Armenian).

Mishin, D. Y. 2020. 'The Campaign of the Elephant' in the Context of the History of Arabia in the Sixth Century. *Minbar Islamic Studies* 13: 263–83. (In Russian). [CrossRef]

Morrow, John Andrew. 2017. The Covenant of the Prophet Muḥammad with the Syriac Orthodox Christians. In *Islām and the People of the Book*. Edited by John Andrew Morrow. Cambridge: Cambridge Scholars Publishing, vol. 2, pp. 355–76.

Muslim, b al-Hajjāj. 2017. known as "Muslim.". Sahīh. Beirut: Dār al-Kutub al-'Ilmiyyah, vol. 1.

Nektarios of Jerusalem. 1980. *Epitomē tēs Hierokosmikēs Historias*. Edited by M. I. Manousakas. Venice: Nikolaos Glykys. First published 1680.

Reingold, Edward, and Nachum Dershowitz. 2018. Calendrical Calculations. Cambridge: Cambridge University Press.

Shaddel, Mehdy. 2018. 'The Year according to the Reckoning of the Believers': Papyrus Louvre inv. J. David-Weill 20 and the Origins of the Hijrī Era. *Der Islam* 94: 291–311. [CrossRef]

Shamsi, Fazal Ahmad. 1984. The Date of Hijrah. Islamic Studies 23: 189–224.

Shamsi, F. A. 1987. The Meaning of Nasi: An Interpretation of Verse 9:37. Islamic Studies 26: 143-364.

Shamsi, F. A. 1998. Perceval's Reconstruction of the Pre-Islamic Arab Calendar. Islamic studies 37: 353-69.

Sharon, Moshe. 2018. Witnessed By Three Disciples of the Prophet: The Jerusalem 32 Inscription from 32 AH/652 CE. *Israel Exploration Journal* 68: 100–11.

Schumacher, Stephen. 2011. The Death of a Prophet: The End of Muhammad's Life and the Beginnings of Islam. Philadelphia: University of Pennsylvania Press.

Sionita, Gabriel. 1630. Testamentum et Pactiones Initae inter Mohamedem et Christianae fidei Cultores. Parisiis: Vitray.

Tillier, Mathieu, and Naïm Ventehieghem. 2019. Recording Debts in Sufyānid Fusṭāṭ: A Reexamination of the Procedures and Calendar in Use in the First/Seventh Century. In *Geneses: A Comparative Study of the Historiographies of the Rise of Christianity, Rabbinic Judaism and Islam*. Edited by John Toland. London: Routledge, pp. 148–88.

Sebeos, Ps. 1999. *The Armenian History Attributed to Sebeos*. Translated by R. W. Thomson; historical commentary by James Howard-Johnston. Liverpool: Liverpool University Press.

Taqizadeh, Sayyed Hasan. 1937. Some Chronological Data relating to the Sasanian Period. *Bulletin of the School of Oriental and African Studies* 9: 125–39. [CrossRef]

Ursinus, Michael. 2019. Catalogue of the Ottoman Holdings of St. John's Monastery in Patmos, Part Two: Dossiers 21–38. Paris, Louvain and Bristol: Peeters.