



*In the Name of Allah, the Beneficent, the Merciful  
With Prayers and Peace upon the Prophet Muhammad, His Family and Companions*

## **Abridged CESAREAN MOON BIRTHS<sup>1</sup>**

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### **Introduction**

In the name of God, the Beneficent, the Merciful. Prayers and blessings be upon the best of creation, our master Muhammad, and upon his family and companions, and all who follow in their footsteps. Glory to the One who made the stars as guides for humanity, and placed the sun and moon in exact courses to provide a means to measure time and learn calculation.

This paper addresses the current debate over determining the beginning of the lunar month by moon sighting with the physical eye or by using mathematical calculation. It will attempt to explain the reasons for the debate, the positions taken in the past, and my own personal conclusions about the matter. I would also like to state at the outset that the members of the Fiqh Council of North America are personal friends and dear brothers of mine. Nothing in this paper is personal, as my love and respect for them is not negotiable. Note: all emphasis throughout the text is my own.

### **Calendars in Pre-Islamic Arabia**

The calendar used by pre-Islamic Arabs was an intercalated lunar calendar, which enabled them to synchronize with certain solar festivals as well as manipulate the beginning and end of the sacred months for fighting purposes. At the advent of the Prophet's message, the sacred months, which were initially from the Abrahamic teaching, had lost their specific assignment within revelation's specified time, as a result of the intercalation the Arabs imposed on the months. For this reason, in his farewell address, the Prophet ﷺ prohibited the insertion of days into the lunar calendar.

### **The Jewish Calendar**

The Jewish community is the most similar to the Muslim community in both theology and devotional practice, as indicated by the sound hadith, "You are most like the Children of Israel." It is, therefore, not surprising that the Jews also follow a lunar calendar for their religious holidays, which was originally a uniquely lunar calendar, as indicated by

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<sup>1</sup> This paper is entitled "Cesarean Moon Births" for two reasons. Like a cesarean birth, the early announcements of the lunar months that have historically accompanied a calculated new moon are primarily the result of conforming to the scheduling requirements of modern bureaucratic societies. Also, it was the edict of Caesar that was instrumental in forcing the Jews to abandon their lunar calendar based on actual sighting and resorting to one based on calculations.

the Hebrew word, *ḥodesh*, which means “month, or new moon.” At a certain point, in their religious history, however, they began to intercalate in order to align the transitional lunar year with the stationary solar year. The calendar was introduced in 358 CE. “Its computations were designed to simulate the practical constraints of the observed calendar (including postponements and intercalations) as closely as possible,” according to the Active Bible Church of God,<sup>2</sup> which declares:

*Returning to observation is idyllic, but totally impractical. The modern world requires plans for religious observances to be made months, or even years, in advance. Only a computed calendar permits this. It is clear that just as “the Sabbath was made for man,” so also “the Calendar was made for man.” It is a tool to help us worship God. And an essential feature of a tool is that it must be useful and practical.*

Our Prophet ﷺ clearly warned us not to follow the Jews and the Christians in their abandonment of their own prophetic practices, and to be especially vigilant about this. Lamentably, he also informed us that many Muslims would not heed this advice and would follow their errors anyway. Predetermining our lunar months through calculation is a fulfillment of his prediction: The Prophet ﷺ said, “You will follow the [erroneous] ways of those before you hand span by hand span, arm’s breadth-by-arm’s breadth, to such a degree that if they went down a lizard’s hole, you would also go down the hole.”

His companions exclaimed in response, “The Jews and the Christians, O Messenger of God?”

“If not them, then who?” he replied.<sup>3</sup>

Going from sighting to calculation is like following the Jewish abandonment of their original tradition of having to actually sight the crescent moon with naked-eye observers. The Prophet ﷺ also said, according to a sound hadith narrated by Imam al-Tirmidhī, “What happened to the Children of Israel will also happen to my community, step-by-step....”<sup>4</sup> No disrespect is intended toward the Jewish or Christian communities, but this matter of strict adherence to our respective prophetic practices is a crucial point of divergence in our three Abrahamic traditions. The Prophet ﷺ saw himself as a restorer of the true Abrahamic practices that had fallen into dereliction among the Jews and Christians of his time. Among these practices is following a purely lunar calendar for devotional purposes and the determination of its months by the physical appearance and sighting of the moon.

### **An Act of Worship to Sight the Moon**

Not only is it an act of worship to monitor the sun and the moon’s courses for prayer times and for the other acts of worship contingent upon certain months but, according to the Prophet ﷺ, it is one of the most pleasing and beloved acts to God. The Prophet ﷺ said, “The most beloved of God’s servants to God are those who monitor the sun and moon, engendering love of God in God’s servants and love of God’s servants in

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<sup>2</sup> <http://www.abcog.org/faqal2.htm>.

<sup>3</sup> Abū ‘Abd Allāh Muḥammad b. Ismā‘īl al-Bukhārī, *Ṣaḥīḥ al-Bukhārī* (Beirut: al-Maktabah al-‘Aṣriyyah, 2005), 612, no. 3456.

<sup>4</sup> Muḥammad Ḥabīb Allāh al-Jakanī, *Zād al-Muslim fī mā ittafaq ‘alayh al-Bukhārī wa Muslim* (Beirut: Dār al-Fikr, 1981), 1:382–4.

God.” And in a sound narration related by al-Hākīm, the Prophet ﷺ said, “The best of God’s servants are those who watch the sun, moon, stars, and shadows in order to remember God.”<sup>5</sup>

The Prophet ﷺ commanded the Muslims to keep track of the crescent moons and to inform him when sighted. If a new moon was sighted for the devotional months of Ramadan or Dhū al-Hijjah (the month in which hajj is performed), the news was announced to all. According to Imam al-Tirmidhī, upon seeing the crescent moon, the Prophet ﷺ would recite the prayer: “O God, cause this new moon to come upon us in safety and sound faith, security and submission.” Then, addressing the moon, he would say, “My Lord and your Lord is Allah.”

One verse commands Muslims to fast for the month of Ramadan, which is unambiguously the lunar month known to the Arabs at that time. The verse says, “The month of Ramadan is the one in which the Qur’an was revealed as a guidance for humanity and clarifications of that guidance and a standard. So whoever witnesses (*shahida*) the month among you, let him fast” (2:185). Qadī Abū Bakr b. al-‘Arabī comments on this verse:

“Month” here actually refers to the crescent moon of the months and was called “the month” (*al-shahr*) due to everyone knowing of its arrival (*li shuhratih*). Hence, God has obliged us to fast upon the sighting of the crescent moon (*‘inda ru’yatih*). The Prophet’s words [also add clarity]: “Fast upon sighting the crescent moon, and end the fast upon its sighting. And should it be obscured, then complete thirty days of Sha‘bān.” Thus, he obliged us to complete thirty days of Sha‘bān should the crescent moon be hidden, and thirty days of Ramadan should Shawwāl’s crescent be hidden. This is in order that we enter our [time-dependent] acts of worship with certainty and end them with certainty. Another hadith is even more elucidating: “Do not fast until you see the crescent moon, and do not break the fast until you see it.”<sup>6</sup>

The Spanish master of the sciences of Islam, Ibn ‘Abd al-Barr, says:

Ibn Surayj relates that Imam al-Shāfi‘ī said, “Whoever is schooled in the ability to determine the course of the stars and the mansions and phases of the moon, and it is clear to him from his knowledge that the crescent moon will appear on a given night, but then, it is obscured by clouds, then, in that case, it is permissible for him to consider it time to fast and sleep

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<sup>5</sup> Abū Bakr al-Khaṭīb al-Baghdādī, *Risālah fī ‘ilm al-nujūm* (Beirut: Dār al-Kutub al-‘Ilmiyyah, 2004), 22-24. (Note: The first hadith has a break in the chain and is considered *mursal* but is strengthened by other similar narrations according to the scholars. The second hadith is sound according to al-Hākīm and al-Dhahabī. Both hadith refer to the muezzins who traditionally were timekeepers also. The Prophet’s muezzins used to monitor the night stars to see how near dawn was.)

<sup>6</sup> This hadith is agreed upon by Imam al-Bukhārī and Imam Muslim. In fact, the hadith, “Fast upon sighting it, and break the fast upon sighting it, and should it be obscured, then complete thirty days of Sha‘bān,” is considered multiply transmitted and has the authority of any verse in the Qur’an by consensus. See: Muḥammad b. Ja‘far al-Kattānī, *Naẓm al-mutanāthir min al-ḥadīth al-mutawātir* (Cairo: Dār al-Kutub al-Salafiyyah, n.d.), 129.

with the intention [of fasting the next day], and he will be rewarded.” However, what we have found authenticated in his own books is that he considered the month of Ramadan to be valid only by a widespread sighting or sound testimony or completion of thirty days of Sha‘bān.... This is, in fact, the school of all of the scholars of the Hijaz, Iraq, Greater Syria, and the West. Among those who confer are Mālik, al-Shāfi‘ī, al-Awzā‘ī, Abū Ḥanīfah and his students, and all of the people of hadith, except for Aḥmad b. Ḥanbal and those who conferred with him.<sup>7</sup>

It is clear that none of these men understood the opinion that allowed calculation to mean bypassing the actual sighting; rather, they understood calculation to be permissible only if the visibility factor was obscured by atmospheric conditions. In his commentary on the *Muwatta’*, Qadi Abū Bakr b. al-‘Arabī states the following regarding those who interpret the hadith to mean calculation is acceptable:

What a calamitous mistake they have made! I am not, of course, denying the foundation of the science of calculation nor of the discernable patterns of the mansions and moon phases. However, it is not possible that use of scientific calculations was intended in the meaning of the hadith for two reasons: Firstly, Imam Mālik discerned a principle in hadith interpretation which became a basis for those who came after him. Mālik said that the first hadith is equivocal, but the ambiguity in it was clarified in the second hadith, in which the Prophet ﷺ said, “Complete the number thirty.” In other words, the second hadith clarifies what the first meant. As for the second reason, it is not permissible to rely on astronomers and mathematicians, not because their findings are not true but because people’s beliefs must be protected from an association with celestial motions and future occurrences of conjunctions and separations. Indeed, that is a vast ocean should people be pulled into it. Moreover, there is a position, stated by people of understanding among the scholars of the second generation, that, in the [specific hadith in which the Prophet ﷺ showed the number of days of Ramadan using his fingers], the Prophet ﷺ actually negated the use of the common numerals that mathematicians use. Therefore, it is even more likely that he would negate the use of celestial bodies and their orbits.<sup>8</sup>

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<sup>7</sup> Ibn ‘Abd al-Barr, *al-Istidhkār* (Cairo, Aleppo: *Dār al-Waghā*, 1993), 10:15-9. Aḥmad b. Ḥanbal’s position is that of Ibn ‘Umar. Neither permitted calculating with mathematics but understood the Day of Doubt, on which the Prophet ﷺ prohibited fasting, to be the 30<sup>th</sup> day of Sha‘bān, if the previous night was clear. If it was cloudy, however, Ibn ‘Umar and later Imam Aḥmad understood the command, “*faqdurū lah*” to mean, “consider it a month of twenty-nine days, and fast the following as a precaution. Ibn ‘Umar would sometimes end up fasting thirty-one days of Ramadan. Only a handful of scholars interpreted it this way. The majority considered it prohibited to fast on the Day of Doubt, based upon the hadith, “Whoever fasts on the Day of Doubt has disobeyed Abū al-Qāsim, Muḥammad.”

<sup>8</sup> Abū Bakr b. al-‘Arabī, *Qabas* (Beirut: Dār Gharb al-Islāmī, 1992), 2:483-4.

This is a profoundly interesting point. The Prophet ﷺ chose not to state any numbers when showing the number of days in a lunar month, as if to deter people from thinking about enumeration specifically when it comes to determining the lunar months. Hence, instead of saying the words “twenty-nine and thirty,” the Prophet ﷺ used his blessed hands, showing with his fingers, how many days are possible in the month, as if to emphasize using the most basic and fundamental human ability of sight. It is as though he were saying, “Look, see, perceive with your eyes the month, even upon my hands.” This insistence upon *sighting* the moon illustrates so well “the sense in Islam that it is the immediate surrounding conditions, rather than any theoretical ones, that reflect the Divine will of God in its relation to men, and that it is these which should determine the sacred acts.”<sup>9</sup>

### **Differences among Early Muslims about the New Month’s Determination**

According to our great scholars of the past, a consensus existed about the commencement of the lunar month if visibility was possible. The modern day claim that previous scholars held that using calculation to determine the new moon irrespective of visibility is unfounded and is a late innovation (*bid‘ah*) that was instituted in Egypt for a short period under the Fatimid dynasty of General Jawhar in 359 AH/969 CE. Despite this attempt at forcing upon the Muslim community calculations of the new month, it was rejected by the scholars of the time as an unacceptable innovation.<sup>10</sup> Other than the Fatimid innovation, there is no evidence that Muslims have ever advocated calculation in lieu of sighting until the twentieth century.

The problem today appears to be twofold: the scholars who argue for calculation seem not to understand the limits of modern astronomy vis-à-vis actual sighting predictability, and the astronomers who argue for calculation appear to have little knowledge of jurisprudence. They are unlike the earlier scholars who commented on this issue, who were both masters of Islamic law and well-versed in both observational and theoretical astronomy, many of whom were capable of producing moon visibility charts themselves that were highly accurate. Today, however, the two groups tend not to communicate much with each other, and when they do, the jurists generally seem intimidated by the astronomers and fear appearing “backward” or ignorant in the eyes of modern scientists, who often look askance at committed religious people’s adherence to premodern texts on issues such as moon sighting. Another serious problem that confronts all of us working in Islamic scholarly pursuits is that, lamentably, those of us engaged in the issue are simply not qualified to make *ijtihād* in the same way the giants of the past were.

Another argument for calculation posited is that since we determine our prayer times using mathematics and predetermined schedules with great precision, why can’t we calculate our months? While this point may appear sound, it is actually a false analogy because of the existence of a point of divergence (*qiyāsun ma‘a wujūdi fāriq*). In the case of prayer times, the stipulatory cause (*sabab*) by which the prayer time is known is the

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<sup>9</sup> Cyril Glasse, *The Concise Encyclopedia of Islam* (San Francisco: Harper, 1989), 96–7.

<sup>10</sup> Cyril Glasse, *The New Encyclopedia of Islam* (Walnut Creek, CA: Alta Mira Press, 2002), 97.

movement of the sun. Imam al-Qarāfi devoted an entire section explaining this principle in his magisterial work, *The Divergences (al-Furūq)*. In it, he states the following:

Why is it that we can determine prayer times by calculation and the use of instruments, yet in the case of crescent moons for the determination of our Ramadans, it is not permissible to use [instruments and calculation] according to the accepted position? The difference is that God has stipulated in our devotional practice [of fasting] the sighting of the crescent moon and if that is not possible then the completion of thirty days of Sha‘bān, and He did not stipulate the astronomical new moon. On the other hand, in the case of prayer times, He stipulated simply the entrance of the times and their self-determining times. Hence, we are able to determine them by any means possible. For instance, a prayer is conditional upon the occurrence of the sun’s postmeridian phase. [With Ramadan] however, it was not linked with the conjunction’s separation but with its physical sighting. And should the crescent be obscured, we complete thirty days.<sup>11</sup>

Imam al-Qarāfi was a scholar of astronomy and believed astronomy was decisive (*qat‘ī*) in proof, which is why he allowed calculating prayer times unlike many other Mālikī scholars who did not.<sup>12</sup> He does, however, state conclusively that the sighting of the crescent is a stipulation placed upon the community by God. Hence, the argument that it was only due to the innumeracy of the early community that people were told to determine the month by sighting and if, in the future, the innumeracy was removed they could resort to calculation and bypass an attempt to sight the moon physically is an entirely modern innovation. It is clear that the imams are in agreement about the proofs that exist. Their differences occur only in relation to an obscured crescent moon that cannot be seen due to atmospheric conditions. In such cases, the position of calculation is still extremely weak, but, undeniably, it was, indeed, upheld by some great scholars.

In rejecting calculation, our scholars were not denying the validity of astronomy. They understood that it was a decisive and exact science at predicting the positions of the planets, stars, and moon. In fact, many of them were well-versed in astronomy. Imam al-Qarāfi, who was a master of the mathematical and mechanical sciences, built a robot that, according to him, “could do everything but talk.” He unequivocally knew that the position of the moon was known with precision at any given time of the month. He says,

If a Muslim leader believes that the crescent was born based upon calculation, he is not followed, because of the consensus of the early scholars (*ijmā‘ al-salaf*) against that position. *This is in spite of the fact that ability to calculate crescent moons as well as solar and lunar eclipses is discharged with certitude. Indeed, God has set a standard that the movement of the heavenly bodies and the orbit of the seven [visible] planets is on one system for all time by the determination of the Precious, Omniscient. God has said, “The sun and the moon are on fixed courses” (55:5). In other words, they are calculable and that will never*

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<sup>11</sup> Muḥammad al-Baqūrī, *Tartīb al-furūq* (Morocco: Maktabah al-Awqāf, 1994), 1:388–389.

<sup>12</sup> My own teacher does not use them.

*change, ever. This includes the four seasons; they too never change. And anything that is unalterable gives us certain knowledge.”*<sup>13</sup>

Indeed, Ibn Ḥajar and others understood the hadith “We are an unlettered community—we neither read nor calculate” to mean something entirely different. They did not interpret the Prophet’s preface as an operative cause but rather as a descriptive statement, an important and necessary distinction in jurisprudence. Ibn Ḥajar provides the following explanation of the hadith:

“Calculate,” here, refers to astronomy and to the orbits of the planets *because only a handful of them knew such things at that time*. Thus, the Prophet ﷺ has made the legal obligation of fasting contingent upon actual sighting in order to remove any burdens from his community, i.e. of having to struggle with computations of celestial orbits. This ruling continues even should later people be able to do that. Indeed, the apparent meaning of the hadith rejects any association of calculation with the legal ruling... Nowhere did he say, “If it is obscured then ask the people of calculation.”<sup>14</sup>

### **Conclusion**

God has hidden from us the power to predict the actual appearance of the crescent moon on the first day. Even modern scientists admit this. Yet, we wish to fit God’s plans into our plans instead of fitting our plans into God’s. Convenience store Islam is the Islam of the day, where we can buy a pre-packaged Islam that fits into our busy schedules. But Ramadan is God’s month; it is a time of slowing down and reflecting, of looking at our lives and questioning ourselves, “Are we in harmony with God’s creation. Are we bypassing signs right before our eyes?” God has veiled Ramadan’s greatest night from us, and if He chooses to ask us to inconvenience ourselves just a little bit for His sake to seek out Ramadan’s onset, then praise be to God. I find it altogether odd that a month that is meant to teach us patience and is called “the month of patience,” is no longer patiently waited for by eager Muslims to see what God has in store for them tonight or perhaps tomorrow night. I believe sighting the moon is an intended purpose of Ramadan. It is indeed an act of worship, as the Prophet ﷺ has clearly said, “The best of God’s servants are those who monitor the sun, crescents, and stars as a way of remembering God.”<sup>15</sup> Every day before dawn, the Prophet ﷺ would awaken, go out into the late night air, and look up in the heavens and recite the final verses of Āl ‘Imrān: “Surely in the creation and the heavens and the earth, and the alternation of the night and the day are signs for people...”<sup>16</sup> The signs are indeed clear for those who reflect.

Our Prophet ﷺ did not leave us with out guidance, nor did our scholars leave us without elucidation of that guidance for they are the “inheritors of the prophets.” In these latter days, the Sunnah is disappearing from the face of the earth. The Prophet ﷺ came to teach the simple and sophisticated, the meek and the mighty, and he gave each his dignity and his place. In following his example, we follow the best in ourselves, and in leaving his guidance, we open ourselves to great calamities and tribulations. Allah, the Exalted, said,

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<sup>13</sup> Shihāb al-Dīn al-Qarāfī, *al-Furūq* (Beirut: Maktabah al-‘Aṣriyyah, 2002), 2:177.

<sup>14</sup> Ibn Ḥajar al-‘Asqalānī, *Fath al-Bārī* (Beirut: Dār Iḥyā al-Turāth al-‘Arabī, 1988), 4:102.

<sup>15</sup> The hadith is related in Imam al-Ḥākim’s *Mustradrik* and is sound. As quoted in al-Imam Aḥmad al-Khatīb al-Baghdādī, *‘Ilm al-Nujūm* (Dār al-Kutub al-‘Ilmiyyah, n.d.), 22-23.

<sup>16</sup> Imam Muḥyi al-Dīn al-Nawawī, *al-Adhkār* (Dār al-Minhāj, 2005), 67.

“So let those who oppose his command beware lest a trial befall them or a painful chastisement” (24:63). The Prophet ﷺ has commanded us in a hadith that is of no less authority than the Qur’an itself: “Fast upon *seeing* the crescent, and break your fast upon *seeing* it; *and if it be obscured*, then calculate it.” The meaning is plain, as has been clarified by the illustrious imams quoted in this paper. They are my proof; after God and then His messenger, I have no others. What is left is to follow their guidance. And may God give us the success to do so. And Allah knows best.