The Islamic Lunar Calendar as a Civilizational Imperative

29 Rabīʿ al Awal - 1 Rabīʿ al Ākhir/8-10 October 1991
Penang, Malaysia

Tāhā J. al ʿAlwānī

> It is He Who made the sun a radiance, and the moon a light, and determined it by stations, that you might know the number of the years and the reckoning (of time) . . . (Qur'an 10:5).

Every community possesses a personality and certain traits that distinguish it from others. The ummah of Islam was blessed by Allah Most High with a distinctive personality so that it could serve as a community of the median way (*wasaṭīyah)* and as a witness *(shahādah)*: "Thus We appointed you a mid-most nation, so that you might be witnesses over all mankind" (2:143).

In view of the important civilizational role to be played by the Muslim ummah, Allah created the elements in its personality with great care in order to ensure that the expected results would come to fruition and that the ummah would become the best community ever brought forth: "You are the best nation ever brought forth to mankind" (3:110).

Among the constituent elements of the ummah's cultural and civilizational identity is its perspective on time, be it past, present, or future, and how it is to be measured. The past consists of history, from which lessons are to be learned. The present is the current reality, every moment of which is to be used to the best advantage or invested. The future is that which is anticipated and planned for so that it may become more resplendent.

The communities that went before Islam both understood and calculated time in order to achieve their goals and build their civilizations. To differing degrees, all of them were successful in their endeavor to mark the passage of time. However, every system they devised suffered from calendars featuring ten months in a year, others with widely varying numbers of days in a month, calendars that began in the spring while others

---

Ṭāhā J. al ʿAlwānī is a member of the Fiqh Academy of the Organization of the Islamic Conference, chairman of the Fiqh Council of North America, and president of the International Institute of Islamic Thought in Herndon, Virginia.

began in the winter and still others in the fall, those that were adjusted on the basis of superstition, and calendars that were changed at the whim of emperors. There were also civil, solar, semilunar, and lunar-solar calendars. The calendar in use today the world over has been described by contemporary scientists as a "strange hodgepodge," owing to its combining elements of Babylonian, Egyptian, Greek, Jewish, Christian, Roman (both imperial and republican) origins, conventions, and practices.[1]

It was the singular contribution of Islam to lead humanity to the concept of a strictly lunar calendar, one free of the irregular and often arbitrary conventions devised by earlier civilizations.[2] The Islamic lunar calendar, which also forbids intercalculation,[3] is the only calendar based on purely scientific grounds. Moreover, it is the only calendar that can be followed by people living in vastly different circumstances.

At a time when the ummah was described by the Prophet, upon him be peace, as "an unlettered people, neither writing nor calculating,"[4] Allah revealed a simple prescription for determining the months: "They ask you about the crescent moons. Say: They are but signs to mark fixed periods of time for people and for pilgrimage" (2:189). The matter was then explained by the Prophet, upon him be peace, as follows: "The month is this way, and that . . . sometimes twenty-nine days and sometimes thirty."[5] "Begin fasting at the sighting of it [the crescent], and break your fasts at the sighting of it. But if you are clouded over, then estimate it," or "But if you are clouded over, then complete the period of Sha'bān as thirty."[6]

In other words, the key to the simplicity of the Islamic calendar was the physical sighting of the crescent moon, for that was the sign that a new lunar month had begun. As the lunar month, in practical terms, could be either twenty-nine or thirty days long, if it were sighted on the twenty-ninth after sunset, the new month would begin; if not, it would start on

---

[1]M. Ilyas, *A Modern Guide to Astronomical Calculations of Islamic Calendar and Qibla*, (Kuala Lumpur, Malaysia: Berita Publishing, 1984).

[2]"The number of months, with Allah, is twelve ... " (Qur'an 9:36).

[3]"Verily, intercalation is an addition to disbelief" (Qur'an 9:37).

[4]This is the first part of a hadith related by al Bukhārī on the authority of Ibn 'Umar.

[5]This is the second part of the hadith cited in the previous footnote.

[6]This hadith has two different endings, each of which were related in several of the authentic hadith collections. Both al Bukhārī and al Tirmidhī related it from Abū Hurayrah, while al Nasā'ī related it from Ibn 'Abbās and al Ṭabarānī related it from al Barrā' ibn 'Āzib. See al Suyūṭī, *al Jāmi' al Ṣaghīr*, vol. 1, 103.

the next day. Under usual conditions of visibility and in the places where the majority of Muslims lived, this was a foolproof formula, and will remain so—when and if the need for it should arise—until the Day of Judgment. For centuries, Muslims have lived and died, fasted and feasted, performed their pilgrimages and paid their zakah by this calendar.

In recent times, however, the ummah has witnessed a sorrowful state of affairs. Clearly, what is at fault is the general intellectual and creative decline among Muslims. Under the influence of powerful and persuasive cultural forces, the ummah has fallen to fighting over the occurrence of the days designed by the Almighty as days of communal celebration and collective worship, days when Muslims from far and wide gather in a gesture of unprecedented unity: the days of *'Īd al Fiṭr* and *'Īd al Adhà*. That Muslims should choose these two days in particular for their most acrimonious disputes is indicative of the level to which we have fallen. The matter is all the more shameful for the reason that we have always had at our disposal the means for putting these disputes to rest.

In all fairness, however, the recent spread of technology has caught us unawares. Modern means of communication have forced Muslims to consider problems that had never arisen before or, if they had, arose only in part. For example, Muslims outside of the holy places have traditionally celebrated *'Id al Adhà* without knowing for sure when the pilgrims in Makkah were celebrating it. This was a result of the kind of communications that existed then. Today, modern communication networks give local moonsighting decisions a global significance. Likewise, for centuries the most reliable means for determining the beginning of the lunar month was the actual physical sighting of the moon or testimony by witnesses to that effect. Again, this was the best method available.

In fact, it is today's global communication networks that have made us conscious of our shortcomings in determining a new month's beginning. In the past, if a sighting were missed on the eve of the twenty-ninth, it was a local matter and could be taken care of by making the adjustment as outlined in the hadith literature. Nowadays, however, communication networks make the matter far more difficult, because the telephone allows us to hear witnesses give testimony of sightings from far away, even from the other side of the globe.

We have clearly progressed to a stage where the matter is best handled by specialists. This is what brings all of us together today. Certainly, with the progress of modern science, the achievements of Muslim scientists, and the increased understanding of our contemporary *fuqahā'*, it has become the responsibility of our astronomers and *fuqahā'* to help bring about a viable and credible lunar calendar for the good of the ummah and for all of humanity. Through conferences such as this one, the last obstacles to this important civilizational goal may be removed.

From a *shar'ī* standpoint, perhaps the point most in need of clarification is the difference between *al ḥukm al waḍ'ī* (circumstantial command) and *al ḥukm al taklīfī* (commissioning command), as there is some confusion over these terms. For example, many people think that sighting the moon is part of Ramadan. In other words, they believe that their fast will be incorrect if it is not preceded by either a physical sighting of the moon or testimony of its sighting by others. Sighting the moon is not part of the fast of Ramadan: it is a sign that the legal occasion *(sabab)* for fasting has taken place. The actual legal occasion for fasting is the beginning of the new lunar month. Due to the ummah's circumstances at the time of revelation, the sighting of the crescent was given as a simple and practical formula that would spare it the need to refer to sophisticated astronomical calculations or to the People of the Book.

In the terminology of the *fuqahā'*, the command given by the Prophet, upon him be peace, "Begin fasting at the sighting of it (the crescent)," is a circumstantial command, i.e., one that specifies the occasion of, the preconditions for, or the legal impediments to a legal responsibility. For example, the Qur'anic verse "Perform the prayer at the sinking of the sun" (17:78), contains a circumstantial command specifying the occasion for performing the *maghrib* prayer. In that verse, the "sinking of the sun" *(dulūk al shams)* is given as an indicator of the time at which the *maghrib* prayer is to begin. The sinking of the sun, however, is certainly not a part of the actual act of worship.

In legal terms, the sinking of the sun and the sighting of the crescent are similar in that both indicate the time at which an act of worship is to begin. In the same way, the Qur'anic injunction in the above-mentioned verse, "Perform the prayer," and the command of the Prophet, upon him be peace, in the above-mentioned hadith, "Begin fasting," are both commissioning commands whereby the individual Muslim is charged with the responsibility of performing a specific act of worship.

Dr. Yūsuf al Qaraḍāwī, in an important chapter on the subject included in an Arabic-language work published earlier this year by the International Institute of Islamic Thought, *Kayfa Nata'āmal ma'a al Sunnah al Nabawīyah?* (How Do We Deal with the Prophet's Sunnah?), explained this matter in very simple terms: "In the language of the *faqīh,* we might say that the hadith both indicates an objective and specifies a means for achieving it."

The goal of the hadith[7] is clear: to fast the month of Ramadan. To obey this command, the beginning of the new month and the end of the

[7]The hadith referred to is: "Begin fasting at the sighting of it (the crescent moon), and break your fasts at the sighting of it. But if you are clouded over, then estimate it," or, in the other version quoted, "then complete the period of Sha'bān as thirty."

old one must be ascertained by those means which are available to the general populace and do not cause hardship or difficulty in their religion. Physical (i.e., naked-eye) sighting was the simplest and most feasible means available to Muslims at that time, and so the hadith specified it. Had they been ordered to use some other means, like astronomical calculations, when they were unlettered and unlearned in higher mathematics, they would have faced with an unbearable burden. And, of course, Allah wants ease and not hardship for His ummah. The Prophet, upon him be peace, said of himself: "Surely Allah has sent me as a teacher and as a facilitator! He did not send me as a bringer of hardship!"[8]

If a surer means of achieving the objective in the hadith were to be found, one less susceptible to mistakes, supposition, or outright misrepresentation, and if that means were to become feasible for all and not impose any hardship, the need for the old means would cease. Why, after astronomers, geologists, and physicists have become specialists in their respective fields, after knowledge of these matters has enabled individuals to land on the moon, explore it, and even bring back samples of its rocks, should we continue to insist on the same old means? Especially, we should remember, when that very means is not, in itself, intended. Why should we ignore the objective sought by the hadith?[9]

What the hadith affirms is the beginning of the month based on naked-eye sighting of the moon by one or two individuals. This was the best means available at the time. However, what should the ummah do if it were to discover an infallible means, one free of error, supposition, and the possibility of falsehood; a means that has reached the level of certainty, that can be agreed upon by the entire ummah, that would do away with the controversy that continues to result in differences, often of as much as three days between countries, in fasting, in breaking fasts, and in celebrating the *'Īd* holidays? Should it be rejected?[10] The differences

---

[8]This hadith was related by Imam Muslim and others.

[9]"The command to depend on physical sighting was given when the ummah was unlettered ('We neither write nor calculate'). A ruling's validity goes only as far as its justification. So if the ummah were to learn how to write and calculate, as well as to make accurate calculations concerning the beginnings of the lunar months, thereby ending the need for actual sigiting, it should rely on calculations. In other words, it must not use the old method of sighting except when there is no alternative, as in the desert or in villages where reliable data about the calculations may not be available. Aḥmad M. Shākir, *Awā'il al Shuhūr al 'Arabīyah* , 2d ed. (Cairo: Maktabat Ibn Taymīyah, 1407 AH), 13-4.

[10]The *mujtahid* Taqīy al Dīn al Subkī (d. 756 AH) wrote in his *fatāwā* that if astronomical calculations precluded the possibility of moonsighting, the *qāḍī* must reject the testimony of all witnesses. He wrote: "This is because calculations are conclusive evidence, whereas hearsay and the testimony of witnesses constitute possibility. And possibility cannot even be compared to conclusive evidence, much less be given (cont.)

caused by naked-eye sighting are unreasonable and unacceptable, both by the logic of science and of religion. What is certain, in such cases, is that one of the opinions is correct and that the remainder are not.

The adoption of astronomical calculations as a means for ascertaining the beginning and ending of the months should be accepted in accordance with the principle of *qiyās al awlā* (accepting the better analogy). This is because the same Sunnah that commanded us to accept the less reliable means of physical sighting, one often surrounded by doubt, does not negate our acceptance of a more reliable means. We need to consider that calculations are accurate, that they are more in keeping with the purposes of the Sharī'ah, and that they will deliver us from the acrimonious controversy that often attends the fixing of the times for *'Īd al Fitr* and *'Īd al Adhà*. We now have at hand a means that will bring us closer to the ideal of Muslim unity sought by the Sunnah through the worship and ceremonies forming the most pertinent aspects of Islam and that are most closely bound to the spiritual life and well-being of Muslims. This is what the adoption of mathematical calculations can mean to us.[11]

Islam was revealed to free people from blindly following the ways of their forefathers, or of powerful and influential people, regardless of whether they are right or wrong. On the contrary, Islam exhorts Muslims to approach all matters intelligently, to consider them thoughtfully, to use reason, and to reject any claim not supported by sound proof or evidence. Through these teachings, Allah Most High created within Muslims a rational mind that accepts only what can be proved.

Furthermore, the Supreme Lawgiver based the legal responsibilities of Muslims on the principle of ease in carrying out, and on the nature of, these responsibilities. Allah Most High declared in the Qur'an: "He has placed on you no undue hardship in your religion" (22:78). Thus nothing about Islam is to be a hardship for Muslims, neither a religious responsibility nor the means to fulfilling that responsibility.

If Muslims are able to read and interpret the texts of the Qur'an and the Sunnah according to the principles established by classical scholars and in light of present realities and circumstances, the advantages of the unique Islamic lunar calendar will become apparent. As the ummah seeks to reestablish its unity and its unique personality, the importance of developing a comprehensive lunar calendar is all the more evident. Moreover, at the civilizational level, developing such a calendar as a viable alternative cannot be underestimated as regards its potential international impact.

(cont.) preference over it." See Yūsuf al Qaraḍāwī, *Kayfa Nata'āmal ma 'a al Sunnah al Nabawīyah,* (Herndon, VA: IIIT, 1991), 152.

[11]Ibid., 145-8.

I would like therefore to urge our Muslim astronomers to strive in all sincerity to come to an agreement among themselves on the conventions that will finally do away with the differences in their calculations. I would like to call upon them to develop those conventions needed for determining the beginning of the lunar month, the specification of an international lunar date line (with the suggestion that visibility at Makkah be the standard), minimizing the so-called "zone of uncertainty," and other matters of technical import.

In closing, therefore, it is suggested that every effort be expended towards explaining to the ummah the importance of this calendar, to convincing Muslims of its accuracy, of modern civilization's need for such a calendar, of its virtues, and of the benefits that it will bring to all Muslims and to all peoples. At the same time, it is suggested that efforts be redoubled to explain the matter to the traditional scholars of Islam, the ulama' and the *fuqahā', so* that they will also support this noble undertaking and assist in working out its practical details.

May Allah guide us to what is best in this world and in the next!