

SAUDI ARAMCO  
**world**

[saudiaramcoworld.com](http://saudiaramcoworld.com)

**DOMES**

2014 GREGORIAN AND  
1435-1436 HIJRI CALENDARS

# DOMES

Written by Sheila S. Blair and Jonathan M. Bloom

Like minarets, domes are one of the signature forms in Islamic architecture. Since the revelation of Islam in the seventh century of the Common Era until today, they have been used in most—if not all—Islamic lands and cultures. Technically, a dome is a rounded vault, set over a room that is usually square. Builders adopted various means to connect the square room to the dome's circular base.

Long before Islam, the dome was a popular architectural form throughout the Mediterranean and southwest Asia. Indeed the English word *dome* derives from the Latin word *domus*, which means “house.” In Arabic, the most common term for a dome is *qubba*, which comes from a Syriac word meaning “canopy” or “umbrella”—a reference to the much earlier domical tents of Turkoman and other nomads.

The first major work of Islamic architecture, the Dome of the Rock in Jerusalem, finished in 691 under the sponsorship of the Umayyad caliph ‘Abd al-Malik, is covered by a monumental dome on a wooden frame. A few years later, when his son the Caliph al-Walid had the Prophet Muhammad’s mosque in Madinah reconstructed, a shallow wooden dome was installed over the space in front of the *mihrab*, to emphasize its importance, and today the Prophet’s Mosque, rebuilt over the centuries, retains this feature. Additionally, the palaces of the Umayyad caliphs in Syria invariably had a domed audience hall, known as a *qubbat al-khadra’* or a “dome of heaven.” These three types of domes—commemorative, sacred and royal (or official)—continue to be used in Islamic architecture to this day.

In the Islamic lands and cultures around the Mediterranean, the domed interior was generally regarded as more important than the exterior, which was often either plain or covered with a practical, weather-resistant pyramidal tile roof. Thus the ribbed domes added to the Great Mosque of Córdoba in the 10th century are magnificently decorated on the interior, especially the one on the cover of this calendar, which rises above the front of the *mihrab*. By the 12th century, the development of the *muqarnas*, the quintessentially Islamic form of architectural decoration that is often likened to stalactites, gave builders new means of decorating interior vaults. The plaster interior of the Qubbat al-Baadiyyin in Marrakesh combines the Córdoba tradition of ribbed vaults with *muqarnas* in the corners. Perhaps the most magnificent examples to survive are the two Nasrid *muqarnas* domes in the Alhambra in Granada, Spain, in which thousands of plaster elements suggest the rotating dome of heaven.

In Egypt, from the 10th century onward, domes were often used commemoratively to mark the graves of important people. While some domes were constructed of wood covered with lead sheets, the most famous are a series of carved stone domes for rulers and courtiers of the Mamluk period (1250 to 1517). Builders vied with each other to erect taller, larger, more elegantly decorated domes that would be visible from afar, the better to glorify the memory of the deceased patron. Masons strove to coordinate the increasingly complicated exterior decoration of the dome with its curving profile and diminishing surface. As a result, in contrast to domes in the western Islamic lands, the interiors of most Mamluk domes are often uncomfortably attenuated, revealing the challenges builders faced in combining exterior monumentality with a comfortable interior.

# PATTERNS OF MOON, PATTERNS OF SUN

Written by Paul Lunde

## THE HIJRI CALENDAR

In 638 CE, six years after the death of the Prophet Muhammad, Islam’s second caliph, ‘Umar, recognized the necessity of a calendar to govern the affairs of Muslims. This was first of all a practical matter. Correspondence with military and civilian officials in the newly conquered lands had to be dated. But Persia used a different calendar from Syria, and Egypt used yet another. Each of these calendars had a different starting point, or epoch. The Sasanids, the ruling dynasty of Persia, used June 16, 632 CE, the date of the accession of the last Sasanid monarch, Yazdagird III. Syria, which until the Muslim conquest was part of the Byzantine Empire, used a form of the Roman “Julian” calendar, with an epoch of October 1, 312 BCE. Egypt used the Coptic calendar, with an epoch of August 29, 284 CE. Although all were solar calendars, and hence geared to the seasons and containing 365 days, each also had a different system for periodically adding days to compensate for the fact that the true length of the solar year is not 365 but 365.2422 days.

In pre-Islamic Arabia, various other systems of measuring time had been used. In South Arabia, some calendars apparently were lunar, while others were lunisolar, using months based on the phases of the moon but intercalating days outside the lunar cycle to synchronize the calendar with the seasons. On the eve of Islam, the Himyarites appear to have used a calendar based on the Julian form, but with an epoch of 110 BCE. In central Arabia, the course of the year was charted by the position of the stars relative to the horizon at sunset or sunrise, dividing the ecliptic into 28 equal parts corresponding to the location of the moon on each successive night of the month. The names of the months in that calendar have continued in the Islamic calendar to this day and would seem to indicate that, before Islam, some sort of lunisolar calendar was in use, though it is not known to have had an epoch other than memorable local events.

There were two other reasons ‘Umar rejected existing solar calendars. The Qur’an, in Chapter 10, Verse 5, states that time should be reckoned by the moon. Not only that, calendars used by the Persians, Syrians and Egyptians were identified with other religions and cultures. He therefore decided to create a calendar specifically for the Muslim community. It would be lunar, and it would have 12 months, each with 29 or 30 days.

This gives the lunar year 354 days, 11 days fewer than the solar year. ‘Umar chose as the epoch for the new Muslim calendar the year of the *hijra*, the emigration of the Prophet Muhammad from Makkah to Madinah, where Muslims first attained religious and political autonomy. The *hijri* epoch thus began on 1 Muharram of the year 1 according to the Islamic calendar, which corresponds to July 16, 622 CE, on the Gregorian calendar. Today in the

“It is he who made the sun to be a shining glory, and the moon to be a light (of beauty), and measured out stages for her, that ye might know the number of years and the count (of time).”

—Qur’an 10:5  
(English by Yusuf Ali)

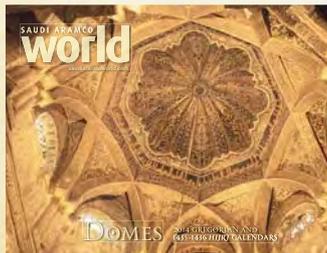
Domes became most popular in medieval Iran and surrounding regions, where an abundance of brick encouraged builders to experiment with myriad forms. In the 11th and 12th centuries, Seljuq rulers enlarged many Iranian mosques by adding large dome chambers in front of the mihrab. Under the Mongol rulers from the 13th century, domes grew bigger and taller still, and they were decorated in innovative ways. To combine exterior monumentality with interior commodity, builders developed an extravagant double-dome system in which the interior and exterior profiles were entirely independent, somewhat like a toque perched on a chef's head, as in both the Tilla-Kari mosque and *madrassah* at Samarkand.

The double-shelled dome was also used later in Iran under the Safavids, who tiled not only the dome's exterior but also its interior with starburst designs, as at the Shaykh Lutfallah mosque in Isfahan. In Mughal India, builders developed a distinctive, swelling type of double dome, immortalized in such royal monuments as the Taj Mahal at Agra, which was begun in 1632. Mughal architects also integrated domes into their mosques, covering prayer halls with three bulbous domes, often built of white marble.

In Anatolia, builders erected domed mosques that combined Iranian Seljuq with Byzantine Greek traditions. In the 14th and 15th centuries, builders there experimented with ways of expanding and unifying the space covered by a dome. The perfect union of exterior and interior domed space was achieved by later Ottoman architects in the 16th century, notably by the great Mimar Sinan, whose 1567 Selimiye mosque in Edirne combined an enormous single-shelled dome with cascading semi-domes to create an exquisitely uninterrupted interior space.

Today, many contemporary domed mosques refer to historical precedents. For example, the Jumeirah mosque in Dubai is a modern interpretation of Qaitbay's tomb in Cairo. Others take new directions. Chinese-American architect I. M. Pei abstracted the Mamluk-era domed fountain in Cairo's Ibn Tulun mosque for his design of Doha's new domed Museum of Islamic Art; on the interior, its cupola recalls the sculptural qualities of the traditional muqarnas dome. Thus the architectural traditions of domes remain vibrant in Islamic cultures today. 🌐

**Sheila S. Blair** and **Jonathan M. Bloom**, a wife-and-husband team, share the Norma Jean Calderwood University Professorship of Islamic and Asian Art at Boston College and the Hamad bin Khalifa Endowed Chair of Islamic Art at Virginia Commonwealth University.



On the cover: **During the extension of the Mosque of Córdoba in 976 under the Spanish Umayyad Caliph al-Hakam II, this ribbed dome was erected over the mihrab, which indicates the direction of prayer. Entirely covered with glass and gold mosaics, its unique form was probably meant to recall a dome in the Umayyad mosque of Damascus, as were the mosaics, which were said to have been**



produced by a workman sent by the Byzantine emperor in Constantinople. Photo by Tor Eigeland/SAWDIA; inset (right) by Dick Dougherty/SAWDIA.

Inside: The captions that accompany each month's images were written by Sheila S. Blair and Jonathan M. Bloom. The quotations and historical notes were compiled by Robert W. Lebling. Mary Kathryn Flores provided photo research and editing.

West, it is customary, when writing hijri dates, to use the abbreviation AH, which stands for the Latin *anno hegirae*, "year of the hijra."

Because the Islamic lunar calendar is 11 days shorter than the solar, it is therefore not synchronized to the seasons. Its festivals, which fall on the same days of the same lunar months each year, make the round of the seasons every 33 solar years. This 11-day difference between the lunar and the solar year accounts for the difficulty of converting dates from one system to the other.

## THE GREGORIAN CALENDAR

The early calendar of the Roman Empire was lunisolar, containing 355 days divided into 12 months beginning on January 1. To keep it more or less in accord with the actual solar year, a month was added every two years. The system for doing so was complex, and cumulative errors gradually misaligned it with the seasons. By 46 BCE, it was some three months out of alignment, and Julius Caesar oversaw its reform. Consulting Greek astronomers in Alexandria, he created a solar calendar in which one day was added to February every fourth year, effectively compensating for the solar year's length of 365.2422 days. This Julian calendar was used throughout Europe until 1582 CE.

In the Middle Ages, the Christian liturgical calendar was grafted onto the Julian one, and the computation of lunar festivals like Easter, which falls on the first Sunday after the first full moon after the spring equinox, exercised some of the best minds in Christendom. The use of the epoch 1 CE dates from the sixth century, but did not become common until the 10th.

The Julian year was nonetheless 11 minutes and 14 seconds too long. By the early 16th century, due to the accumulated error, the spring equinox was falling on March 11 rather than where it should, on March 21. Copernicus, Christophorus Clavius and the physician Aloysius Lilius provided the calculations, and in 1582 Pope Gregory XIII ordered that Thursday, October 4, 1582, would be followed by Friday, October 15, 1582. Most Catholic countries accepted the new "Gregorian" calendar, but it was not adopted in England and the Americas until the 18th century. Its use is now almost universal worldwide. The Gregorian year is nonetheless 25.96 seconds ahead of the solar year, which by the year 4909 will add up to an extra day. 🌐

**Paul Lunde** (paul\_lunde@hotmail.com) is a senior research associate with the Civilizations in Contact Project at Cambridge University. His most recent publication, with co-author Caroline Stone, is *Ibn Fadlan and the Land of Darkness: Arab Travellers in the Far North* (Penguin, 2012). He lives in Seville and Cambridge, England.

## CONVERTING DATES

The following equations convert roughly from Gregorian to *hijri* and vice versa. However, the results can be slightly misleading: They tell you only the year in which the other calendar's year begins. For example, 2014 Gregorian begins at the end of Safar, the second month, of Hijri 1435 and ends in Rabi' I of Hijri 1436.

**Gregorian year =**

$$[(32 \times \text{Hijri year}) \div 33] + 622$$

**Hijri year =**

$$[(\text{Gregorian year} - 622) \times 33] \div 32$$

Alternatively, there are calculators available at [www.rabiah.com/convert/](http://www.rabiah.com/convert/) and [www.ori.unizh.ch/hegira.html](http://www.ori.unizh.ch/hegira.html).



*"If it is said that a paradise is to be seen in this world,  
then the paradise of this world is Samarkand."*

—'Ata-Malik Juvaini, *Tarikh-i Jahangushay-i Juvaini*  
(*The History of the World-Conqueror*), ca. 1260 CE



The Tilla-Kari (Goldwork) *madrasah* in Samarkand was erected in the mid-17th century as the third and largest structure facing the city's Registan, or public square. The prayer hall is crowned by a double dome: The interior one is set on squinches and richly decorated with painted and gilded plaster; the outer dome is raised on a tall drum and tiled in turquoise blue.

Photo by Robert Preston / Alamy

# JANUARY SAFAR — RABI' I 1435

S M T W T F S

NOTES:

		I 30		2 1		3 2		4 3	
				Farouk El-Baz, NASA scientist, born in Egypt 1938					
5 4	6 5	7 6	8 7	9 8	10 9	11 10			
Al-Mu'tasim, caliph who introduced <i>mamluks</i> , dies 842			Construction begins on Egypt's Aswan High Dam 1960		Comerstone is laid at Washington, DC, Islamic Center 1949				
12 11	13 12	14 13	15 14	16 15	17 16	18 17			
			'Abd al-Rahman III becomes caliph of al-Andalus 929						
19 18	20 19	21 20	22 21	23 22	24 23	25 24			
			Caliph 'Umar introduces Islamic calendar 638						
26 25	27 26	28 27	29 28	30 29	31 30				
Experts say humans reached Arabia 125,000 years ago 2011					Freya Stark, British explorer of the Mideast, born 1893				

# FEBRUARY RABI' II

S M T W T F S

NOTES:

							I 1	
							India's Mughal classical era begins 1556	
2 2	3 3	4 4	5 5	6 6	7 7	8 8		
	Egypt's singing legend Umm Kulthum dies 1975	Danny Thomas founds St. Jude's for children in Memphis 1962						
9 9	10 10	11 11	12 12	13 13	14 14	15 15		
	Hadji Ali of us Army Camel Corps arrives in Texas 1856		Mongols sack Baghdad 1258	us Pres. Roosevelt, Saudi King 'Abd al-'Aziz meet 1945				
16 16	17 17	18 18	19 19	20 20	21 21	22 22		
us raid against pirates in First Barbary War 1804		First air crossing over Sahara Desert 1920	Archeologist Sir Leonard Woolley dies 1960	Shah Waliullah, scholar & reformer, born in India 1703				
23 23	24 24	25 25	26 26	27 27	28 28			
Persian-Byzantine war ends 628	Traveler Ibn Battuta born in Tangier 1304							

## 2013 DECEMBER

1 2 3 4 5 6 7  
 8 9 10 11 12 13 14  
 15 16 17 18 19 20 21  
 22 23 24 25 26 27 28  
 29 30 31

Paule Seux / Hemis / Corbis



## MARCH

1  
 2 3 4 5 6 7 8  
 9 10 11 12 13 14 15  
 16 17 18 19 20 21 22  
 23 24 25 26 27 28 29  
 30 31



“This *khanqah* and mausoleum is the sum total of Faraj’s durable legacy. It neatly integrates architecture and urbanism and is the earliest of the noble landmarks of the Northern Qarafa.”

— Cairo Historic Buildings Survey, 2009



From 1400 to 1411, Sultan Faraj ibn Barquq built an enormous *khanqah* or commemorative complex in Cairo around the grave of his father, Barquq. Its two massive stone domes are the largest of the Mamluk period, which lasted from 1250 to 1517. This dome, decorated on the interior with polychrome designs and supported by *muqarnas* pendentives, stands over the graves of both the sultan and his father, while the other was intended for female members of the family.

Photo by B. O’Kane / Alamy

# MARCH RABI' II — JUMADA I

S M T W T F S

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2	1	3	2	4	3	5	4	6	5	7	6	8	7
				First commercial flow of Saudi Arabian oil 1938		Traveler Khusraw begins seven-year journey 1046		Twitter launches Arabic version 2012		Saudi Prince Al-Waleed bin Talal born 1955			
9	8	10	9	11	10	12	11	13	12	14	13	15	14
		Romans defeat Carthaginians in First Punic War 241 BCE		Facebook launches Arabic version 2009		uk maps out Iraq, Palestine & Gulf states 1921		Palestinian poet Mahmoud Darwish born 1941					
16	15	17	16	18	17	19	18	20	19	21	20	22	21
				Caliph Abu Bakr unifies Arabian Peninsula 633				Khaleda Zia named Bangladesh's 1st female PM 1991		Nowruz, traditional Persian New Year's Day			
23	22	24	23	25	24	26	25	27	26	28	27	29	28
		Harun al-Rashid, fifth Abbasid caliph, dies 809											
30	29	31	30							Mahmoud Mokhtar, Egyptian sculptor, dies 1934			
				Saudi King Faisal assassinated 1975									

## FEBRUARY

1
2 3 4 5 6 7 8
9 10 11 12 13 14 15
16 17 18 19 20 21 22
23 24 25 26 27 28

John Feeney / SAWDIA



# APRIL JUMADA II — RAJAB

S M T W T F S

		I	I	2	2	3	3	4	4	5	5		
		Kha b' Nisan, traditional Assyrian New Year				Istanbul's Topkapı Palace becomes a museum 1924		Antoine Galland, translator of <i>Arabian Nights</i> , born 1646					
6	6	7	7	8	8	9	9	10	10	11	11	12	12
						Heinrich Schliemann begins to dig for ancient Troy 1870		Mt. Tambora volcano erupts in Indonesia 1815		Dead Sea Scrolls discovery announced 1948			
13	13	14	14	15	15	16	16	17	17	18	18	19	19
		Ibn Rushd (Averroes), philosopher, born 1126		Ottoman architect Sinan born 1489									
20	20	21	21	22	22	23	23	24	24	25	25	26	26
Easter		Poet-philosopher Sir Muhammad Iqbal dies 1938		Mamluks defeat Mongols in Syria 1303				Mamluks admitted to French Imperial Guard 1815				Pres. Obama hails <i>The 99</i> Muslim comics series 2010	
27	27	28	28	29	29	30	I						
						Muslim army lands in Spain 711							

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## MAY

1 2 3
4 5 6 7 8 9 10
11 12 13 14 15 16 17
18 19 20 21 22 23 24
25 26 27 28 29 30 31



*"Everything here appears calculated to inspire kind and happy feelings, for everything is delicate and beautiful. The very light falls tenderly from above, through the lantern of a dome tinted and wrought as if by fairy hands."*

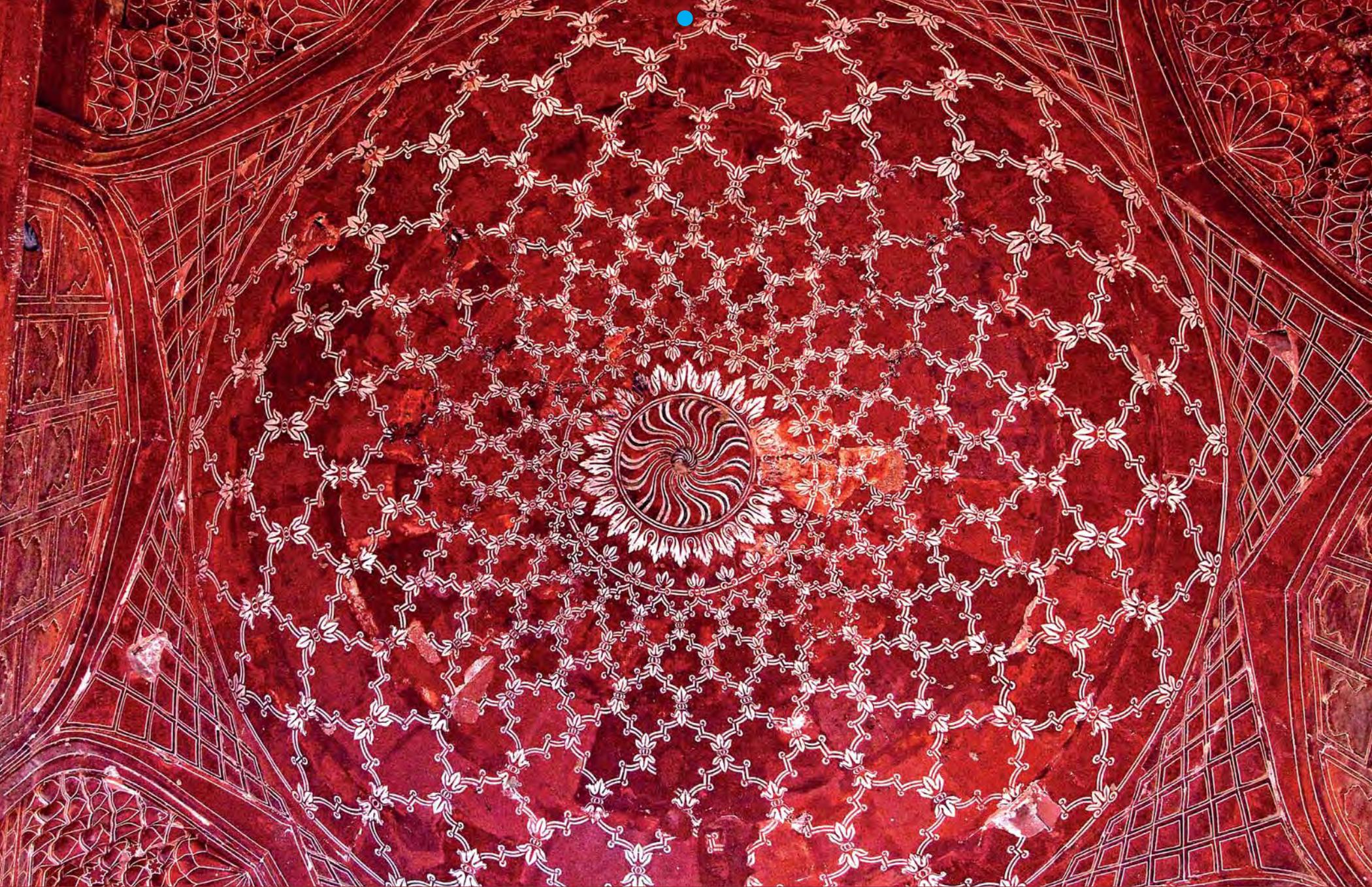
—Washington Irving, *Tales of the Alhambra*, 1832



Composed of small molded plaster elements fit together with extraordinary precision, the *muqarnas* dome over the Hall of the Two Sisters is one of the highlights of the 14th-century Palace of the Lions within the Alhambra palace in Granada, Spain. Retaining traces of its original gold and blue paint, the dome would have twinkled like stars in the sky when sunlight shone through the windows onto its faceted surface.

Photo by Dick Doughty / sawdia





*"The sight of this mansion creates sorrowing sighs, • And the sun  
and the moon shed tears from their eyes. • In this world this edifice  
has been made • To display thereby the creator's glory."*

—Shah Jahan, Mughal emperor, 1628-1658



The white marble Taj Mahal in Agra, India, built by the Mughal emperor Shah Jahan in the 17th century, is flanked by two red sandstone structures crowned with white marble domes. While the domes' exterior profiles are bulbous, the hemispheric dome on the interior of the mosque is made of red sandstone delicately decorated with a network pattern picked out in white marble.

Photo by Charles O. Cecil / Alamy

# JULY RAMADĀN — SHAWWAL

S M T W T F S

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

		<b>I</b>	4	<b>2</b>	5	<b>3</b>	6	<b>4</b>	7	<b>5</b>	8
								Saladin defeats Crusaders at Hattin 1187			
<b>6</b>	9	<b>7</b>	10	<b>8</b>	11	<b>9</b>	12	<b>10</b>	13	<b>11</b>	14
				Singer & child advocate Raffi born in Cairo 1948	South Sudan gains independence 2011	Abbasids defeat Tang China at Talas 751					
<b>13</b>	16	<b>14</b>	17	<b>15</b>	18	<b>16</b>	19	<b>17</b>	20	<b>18</b>	21
				Muslims surrender Jerusalem to Crusaders 1099		At age 98, master Ottoman architect Sinan dies 1588		Arab-Berber army founds al-Andalus in Iberia 711			
<b>20</b>	23	<b>21</b>	24	<b>22</b>	25	<b>23</b>	26	<b>24</b>	27	<b>25</b>	28
				Tsunami kills 50,000 in Alexandria, Egypt 365							
<b>27</b>	30	<b>28</b>	1	<b>29</b>	2	<b>30</b>	3	<b>31</b>	4		
*Id al-Fitr		Egyptologist William Flinders Petrie dies 1942				Tamerlane writes French King Charles vi seeking trade 1402					

## JUNE

1 2 3 4 5 6 7  
 8 9 10 11 12 13 14  
 15 16 17 18 19 20 21  
 22 23 24 25 26 27 28  
 29 30

Nik Wheeler / SAWDIA



# AUGUST SHAWWAL — DHU AL-QA'DAH

S M T W T F S

NOTES: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

						<b>I</b>	5	<b>2</b>	6
						Romans capture Alexandria, Egypt 30 BCE		Iraq's occupation of Kuwait sets off Gulf War 1990	
<b>3</b>	7	<b>4</b>	8	<b>5</b>	9	<b>6</b>	10	<b>7</b>	11
		Habib Bourguiba, first president of Tunisia, born 1903							
<b>10</b>	14	<b>11</b>	15	<b>12</b>	16	<b>13</b>	17	<b>14</b>	18
						Queen Cleopatra dies by her own hand 30 BCE		Pakistan founded 1947	Bahrain independence 1971
<b>17</b>	21	<b>18</b>	22	<b>19</b>	23	<b>20</b>	24	<b>21</b>	25
				Genghis Khan dies in Western Xia 1227					Abu Bakr, first Muslim caliph, dies 634
<b>24</b>	28	<b>25</b>	29	<b>26</b>	30	<b>27</b>	1	<b>28</b>	2
<b>31</b>	5								
Lunar crater named for Andalusian aviation pioneer Ibn Firmas 1976		Abbasids take Damascus, ending Umayyad rule 750		Physician-polymath Al-Razi born in Persia 865				Ottomans occupy Belgrade 1521	"Mo" Amin, Kenyan photographer, born 1943

## SEPTEMBER

1 2 3 4 5 6  
 7 8 9 10 11 12 13  
 14 15 16 17 18 19 20  
 21 22 23 24 25 26 27  
 28 29 30

SAUDI ARAMCO  
**world**  
 saudiaramcoworld.com



*"In this Mosque Mohammed spent the greater part of the day with his companions, conversing, instructing, and comforting the poor... Here he received worldly envoys and embassies, and the heavenly messages conveyed by the Archangel Gabriel. And within a few yards of the hallowed spot, he died, and found a grave."*

—Richard F. Burton, *Personal Narrative of a Pilgrimage to Al-Madinah and Meccah*, 1855



From the early eighth century, a dome marked the Prophet's Mosque in Madinah, the second holiest site in Islam, and domes have been associated with this structure ever since, throughout its many repairs, restorations and expansions over the centuries. The most recent expansion included a series of 27 domes, decorated on the interior with traditional geometric patterns, which are each ingeniously designed to slide open to let in air and light.

Photo by Peter Sanders

# SEPTEMBER DHU AL-QA'DAH — DHU AL-HIJJAH

S M T W T F S

	1 6	2 7	3 8	4 9	5 10	6 11
			Mamluks save Cairo by defeating Mongols at 'Ain Jalut 1260		Queen's Freddie Mercury born in Zanzibar 1946	
7 12	8 13	9 14	10 15	11 16	12 17	13 18
Henry Every captures a Mughal ship and becomes the world's richest pirate 1695						Palestinian-Israeli Oslo I Peace Accords 1993
14 19	15 20	16 21	17 22	18 23	19 24	20 25
	Caliph al-Ma'mun, House of Wisdom founder, born 786	Hormuzd Rassam, finder of <i>Epic of Gilgamesh</i> , dies 1910				
21 26	22 27	23 28	24 29	25 1	26 2	27 3
	Abdülhamid II, last Ottoman sultan, born 1842	Kingdom of Saudi Arabia is proclaimed 1932			Crusaders surrender Arwad Island, last base in Levant, 1302	
28 4	29 5	30 6	NOTES:			
	Cervantes, author & Barbary pirate captive, born 1547	Persian poet Jalal al-Din Rumi born 1207				

## AUGUST

1 2  
3 4 5 6 7 8 9  
10 11 12 13 14 15 16  
17 18 19 20 21 22 23  
24 25 26 27 28 29 30  
31

Abdullah Al-Dobais / SAWDIA



# OCTOBER DHU AL-HIJJAH — MUHARRAM 1436

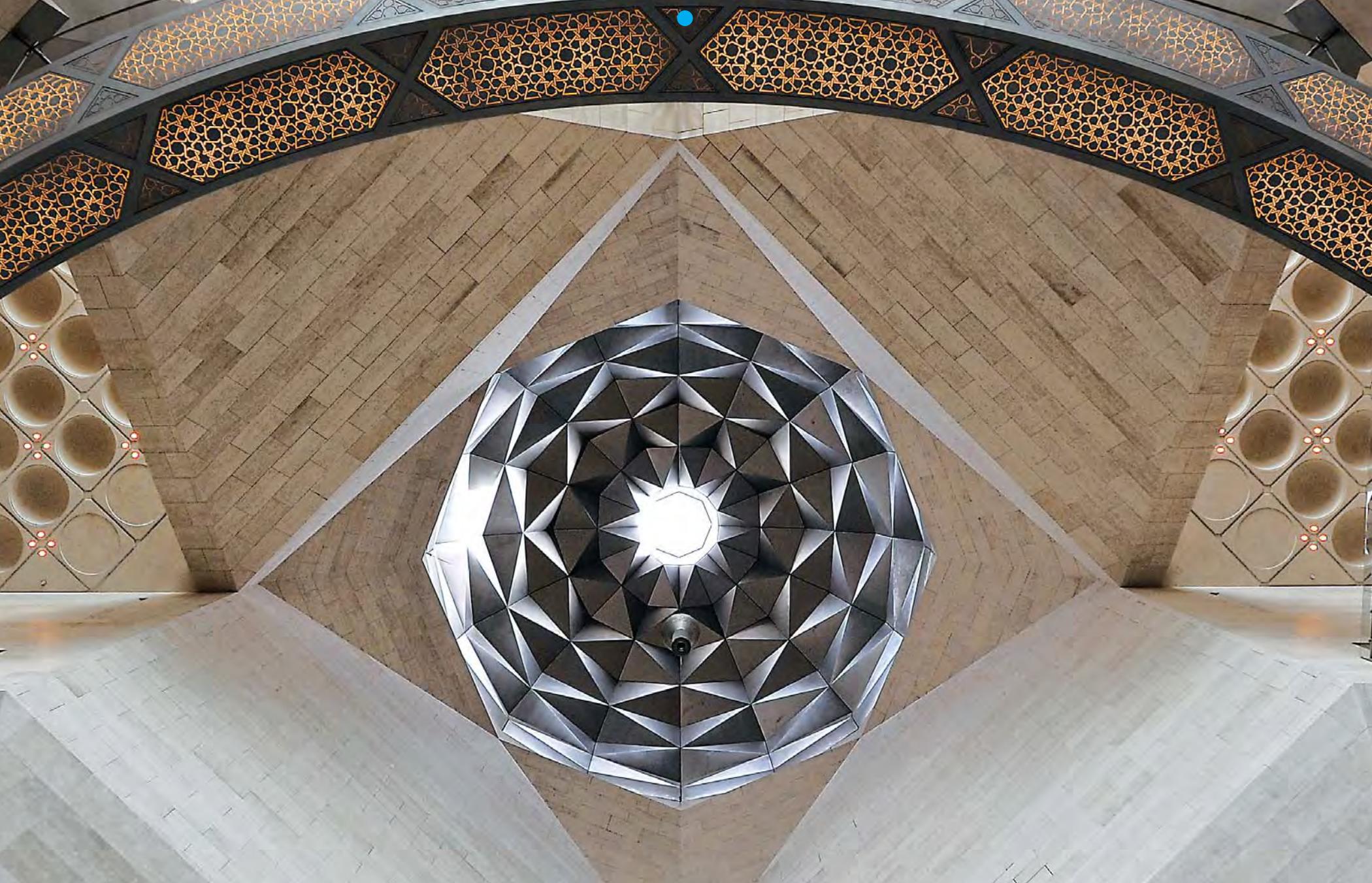
S M T W T F S

NOTES:

	1 7	2 8	3 9	4 10		
		Alexander defeats Persians at Gaugamela 331 BCE	Saladin retakes Jerusalem from Crusaders 1187	'Id al-Adha		
5 11	6 12	7 13	8 14	9 15	10 16	11 17
	Genghis Khan's palace uncovered in Mongolia 2004			TV's "Monk," Tony Shalhoub, born 1953		Quake hits Aleppo killing 200,000 or more 1138
12 18	13 19	14 20	15 21	16 22	17 23	18 24
			Ottomans abandon siege of Vienna 1529	Egypt opens New Library of Alexandria 2002		
19 25	20 26	21 27	22 28	23 29	24 30	25 1
Vandals from Germany seize Carthage 439	Translator and explorer Sir Richard F. Burton dies 1890	Seljuks defeat Peter the Hermit 1096				Hijri New Year
26 2	27 3	28 4	29 5	30 6	31 7	
		Egypt's Taha Hussein, dean of literature, dies 1973		Ottoman armistice with Allies 1918		

## NOVEMBER

1  
2 3 4 5 6 7 8  
9 10 11 12 13 14 15  
16 17 18 19 20 21 22  
23 24 25 26 27 28 29  
30



*"I think that geometry is the fundamental element of architecture. It doesn't matter if it's Islamic or Renaissance. Geometry is the framework."*

— I.M. Pei, designer of the Museum of Islamic Art,  
*The Independent*, 2008



I. M. Pei's design for the recently opened Museum of Islamic Art in Doha, Qatar, combines traditional motifs within a modernist esthetic. The rigorous geometry of the vast interior atrium recalls Islamic geometric patterns, while the crowning cupola is a modernist take on traditional *muqarnas* domes. The interior is subtly illuminated by an enormous circular chandelier inspired by Mamluk and Ottoman lamps.

Photo by Dick Doughty/*SAWDIA*

# NOVEMBER MUHARRAM—SAFAR

S M T W T F S

NOTES:

---



---



---

I	8
Al-Jazeera satellite television channel launched 1996	

2 9	3 10	4 11	5 12	6 13	7 14	8 15
uk Balfour Declaration on Palestine 1917		Last great Mughal emperor, Aurangzeb, born 1618		Estebanico of Morocco is first Muslim in Texas 1528		
9 16	10 17	11 18	12 19	13 20	14 21	15 22
Kingdom's founder King 'Abd al-'Aziz ibn Sa'ud dies 1953	Mustafa Kemal Atatürk, first president of Turkey, dies 1938			Scotsman James Bruce reaches source of the Blue Nile 1770		
16 23	17 24	18 25	19 26	20 27	21 28	22 29
For 1st time since 1492, 'Id al-Adha marked officially in Spain 2010	Fourth sea link of "Med & Red" Seas, Suez Canal, opens 1869	Émigré novelist Paul Bowles, 88, dies in Tangier 1999		Lebanese superstar singer Fairuz born 1935		
23 1	24 2	25 3	26 4	27 5	28 6	29 7
30 8			Howard Carter, Lord Carnarvon open King Tut's tomb 1922		Oldest Philippine mosque (1380) made national shrine 2006	

**OCTOBER**

	1	2	3	4		
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Dick Doughty / SAWDIA



# DECEMBER SAFAR—RABI' I

S M T W T F S

I 9	2 10	3 11	4 12	5 13	6 14
	us Egyptologist James Breasted dies 1935				Petra, Jordan, declared a UNESCO World Heritage Site 1985
7 15	8 16	9 17	10 18	11 19	12 20
'Abd al-Rahman al-Sufi, Persian astronomer, dies 903		Khazars defeat Umayyad army at Marj Ardabil 730		Novelist Naguib Mahfouz born in Egypt 1911	
14 22	15 23	16 24	17 25	18 26	19 27
			Persian poet Jalal al-Din Rumi dies in Konya 1273		Morocco is first to officially recognize new USA 1777
21 29	22 30	23 1	24 2	25 3	26 4
"Walk Like an Egyptian" by The Bangles is No. 1 single 1986	Roger II of Sicily born 1095		Verdi's <i>Aida</i> premieres in Cairo 1871	Christmas	
28 6	29 7	30 8	31 9	NOTES:	
	Muhammad Iqbal's two-nation proposal 1930		Khedive Isma'il Pasha born in Cairo 1830		

**2014 JANUARY**

	1	2	3			
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31