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above

2013 Gregorian and 1434-1435 hijri Calendars

"Have we not made the Earth as a wide expanse, and the mountains as pegs?"

—Qur'an 78:6-7 (English by Yusuf Ali)

From Above

Written by Robert W. Lebling

From earliest times, humans have lifted their gazes skyward, where the gyring of hawks and gulls made us first wonder what the world looks like to a bird. Today, though vistas from airliner windows rarely excite more than a glance, there are still views from above that can fascinate us by revealing the sensual beauty of landforms and the kaleidoscopic patterns of towns and cities, all shaped by nature, history and culture and rarely showing any traces of political borders.

One of the earliest written legends to describe the Earth from above comes from the tablets of ancient Mesopotamia. In it, an eagle carries Etana, King of Sumer, up to heaven:

When he bore him aloft one league,
The eagle said to him, to Etana:
“Look, my friend, how the land is now.
Examine the sea, look for its boundaries.
The land is hills....
The sea has become a stream.”

In classical Greek stories, flight was a divine prerogative. Though Hermes, the wing-footed courier, was Olympus’s top-ranking aeronaut, and chariot-driving Apollo captained the daily sun shuttle, all of the Greek deities could take to the air when they wished.

Trespassing fatefully on their prerogative was a legendary duo: the inventor Daedalus and his son Icarus. Their wings of feathers and beeswax were inspired by the eagles that plied the cliffs on the coast of Crete, where they lived in exile. The pair’s aerial escape became a fable about the value of moderation when impulsive Icarus ignored his father’s warning and flew too high, to where the sun melted the wax, and he perished in the sea below.

Legendary or not, Daedalus and Icarus were not the first in their attempt at flight. Around 850 BCE, according to the English tale, King Bladud of the Britons, father of King Leir (Shakespeare’s Lear), is said to have used feathered wings to try to fly over the temple of Apollo in London. He crashed, fatally, but as he was also founder of the spa city of Bath, he has been known ever since as “the flying king of Bath.”

In ninth-century Muslim Spain, another inventor, Abbas ibn Firnas, donned wings to fly from a tower, possibly in Córdoba. Moroccan historian al-Maqqari wrote the only known—and unfortunately secondhand—account. Ibn Firnas glided some distance, al-Maqqari related, but then crashed because, unlike birds, he lacked a tail to stabilize his landing.

Perhaps trying to best both Ibn Firnas and Daedalus, Eilmer of Malmesbury, a Benedictine monk of the 11th century, also attempted winged flight from the tower of Malmesbury Abbey in England. Aloft for 15 seconds—likely entirely descending ones—he landed too hard and broke both legs.

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, where the caliphate was based; 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 *hijra*, the emigration of the Prophet

*“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)

In Renaissance Italy, flight was only one of the many ideas that fascinated Leonardo da Vinci, who studied the anatomy of birds and bats and sketched flying machines that included a kite-like glider, a flapping-winged ornithopter and a proto-helicopter.

It was not until 1782 that the dream of seeing as birds do became possible, and it came over Paris, from the basket slung below the Montgolfier brothers' hot-air balloon. During the French Revolution, balloons became useful for collecting intelligence and providing a broad view of battlefields. With the invention of photography in the early 19th century, another Frenchman, Gaspard-Félix Tournachon, in 1858 became the first to take a camera aloft. And in 1909, just six years after American bicycle-shop owners Orville and Wilbur Wright flew the first "heavier than air" craft—the airplane—Wilbur himself flew over Rome with an early movie camera mounted on his Wright Flyer Model A to produce the world's first in-flight movie.

From World War I to the 1930's, the conjunction of film and views from above gave rise to the industry of aerial mapping, which has proven essential to cartographers, governments, scientists and industries ever since. One eyes-in-the-sky pioneer was an American named Sherman Mills Fairchild, who both adapted aircraft for mapping and produced specialized cameras for the purpose. In 1934, it was one of his Fairchild 71 monoplanes and K-4 aerial cameras that geologists of the California Arabian Standard Oil Co. (CASOC)—forerunner of Aramco and Saudi Aramco—used to produce the first maps of the larger-than-Texas concession area in eastern Saudi Arabia. (See photograph for July/August.)

The next revolution in viewing Earth from above came in 1946, when an American-launched unmanned German V-2 rocket carried a camera up nearly into orbit. Twenty-two years later, astronaut William Anders made what is perhaps the ultimate view from above: As his Apollo 8 spacecraft slipped from behind the barren moon, it was greeted by a cloud-laced, deeply blue, rising planet Earth. It was a sight never imagined in any legend, and it has marked our thinking ever since.

A few years later, in 1972, the US space agency launched Landsat, inaugurating the systematic photography of the Earth by satellite imaging. Improved ever since and now conjoined with the Internet, that technology today allows even personal mobile phones to pull down detailed views of almost anywhere via Google Earth, launched on the Web in 2005.

It would be too easy to say that in the early 21st century our species has reached a kind of pinnacle in its ability to look down as the legendary King Etana and his eagle once did. Our search for new ways of seeing and new points of view never ends. Today's artists in the sky, whose work fills this year's calendar, remind us of the infinite terrestrial mosaics that are appreciated best when viewed from above. 🌐

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On the cover: Sunrise sets aglow a rare fog near Shaybah, in Saudi Arabia's Rub' al-Khali, or Empty Quarter. Comprising an area slightly larger than France and smaller than Texas, it covers much of the south-central Arabian Peninsula.
Photo by George Steinmetz

Muhammad and 70 Muslims from Makkah to Madinah, where Muslims first attained religious and political autonomy. The hijra thus occurred on 1 Muharram of the year 1 according to the Islamic calendar, which was named "*hijri*" after its epoch. (This date corresponds to July 16, 622 CE, on the Gregorian calendar.) Today in the 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. 🌐

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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, 2013 Gregorian begins in Safar, the second month, of Hijri 1434 and ends in Safar of Hijri 1435.

Gregorian year =

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

Hijri year =

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

Alternatively, there are more precise calculators available on the Internet: Try www.rabiah.com/convert/ and www.ori.unizh.ch/hegira.html.



"There is no road to be seen in the desert and no track, only sand blown about by the wind. You see mountains of sand in one place, then you see they have moved to another."

—Ibn Battuta, *Rihla (Travels)*, trans. H. A. R. Gibb and C. F. Beckingham, ca. 1354



Caravan trade routes once laced the vast sand and gravel wastes of the Sahara, which was seen then as joining, rather than separating, the inhabited lands on its "shores." This small group amid dunes near Nouakchott, Mauritania, is likely a tourist expedition: Trade caravans, while now rare, usually comprise dozens if not hundreds of camels, and camel-mounted livestock herders travel with their stock.

Photo by George Steinmetz

january safar — rabi'1 1434

| s | m | t | w | t | f | s |
|--|-------|--|---|--|---|-------|
| Notes: _____ | | | | | | |
| | | 1 19 | 2 20 | 3 21 | 4 22 | 5 23 |
| | | | | | | |
| | | | | | | |
| | | Sultanate of Brunei wins independence from uk 1984 | | Boxer Muhammad Ali goes to Makkah on Hajj 1972 | Burj Khalifa, world's tallest building, opens in Dubai 2010 | |
| 6 24 | 7 25 | 8 26 | 9 27 | 10 28 | 11 29 | 12 30 |
| | | | Marco Polo, Venetian merchant to Asia, dies 1324 | | | |
| 13 1 | 14 2 | 15 3 | 16 4 | 17 5 | 18 6 | 19 7 |
| | | | 'Abd al-Rahman III becomes caliph of Al-Andalus 929 | | | |
| 20 8 | 21 9 | 22 10 | 23 11 | 24 12 | 25 13 | 26 14 |
| British explorer Charles Doughty dies 1926 | | | Caliph 'Umar introduces Islamic calendar 638 | The Prophet Muhammad born 570 | | |
| 27 15 | 28 16 | 29 17 | 30 18 | 31 19 | | |
| | | | | Freya Stark, British explorer born 1893 | | |

2012 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

The quotations from Arabic literature in this calendar were compiled by Tim Mackintosh-Smith.

february rabi'1 — rabi'II

| s | m | t | w | t | f | s |
|---|--|-------|---------------------------|---|--|--|
| Notes: _____ | | | | | | |
| | | | | | 1 20 | 2 21 |
| | | | | | | |
| | | | | | | |
| | | | | | India's Mughal classical era begins 1556 | |
| 3 22 | 4 23 | 5 24 | 6 25 | 7 26 | 8 27 | 9 28 |
| Egypt's singing legend Umm Kulthum dies 1975 | Danny Thomas founds St. Jude's for children 1962 | | | | | |
| 10 29 | 11 1 | 12 2 | 13 3 | 14 4 | 15 5 | 16 6 |
| Spain declares Alhambra national monument 1870 | | | Mongols sack Baghdad 1258 | President Roosevelt, King 'Abd al-'Aziz meet 1945 | | 'New York Times' Anthony Shadid dies in Syria 2012 |
| 17 7 | 18 8 | 19 9 | 20 10 | 21 11 | 22 12 | 23 13 |
| Mongol ruler Tamerlane dies 1405 | | | | | | |
| 24 14 | 25 15 | 26 16 | 27 17 | 28 18 | | |
| Traveler Ibn Battuta born in Tangier, Morocco, 1304 | | | | Consumer advocate Ralph Nader born 1934 | | |

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

The historic dates and anniversaries in this calendar were compiled by Robert W. Lebling.

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"It is situated upon a great high mound of earth, broad on top. Within this citadel there are markets and the dwellings of the townspeople, and a congregational mosque for their prayers."

—Yaqut al-Hamawi, *Mu'jam al-Buldan* (Dictionary of Countries), 1220



Capital of Iraqi Kurdistan, Arbil (also Irbil and Erbil) is among the oldest continuously inhabited cities on Earth. Layered upon its own ruins, Arbil's central citadel dates back to at least the fifth millennium BCE.

Photo by Georg Gerster / Photo Researchers

march rabi' II — jumada I

| S M T W T F S | | | | | | | | | | | | | |
|---|----|--|----|--|----|----------------------------------|----|---|----|--|----|--|----|
| Notes: | | | | | 1 | 19 | 2 | 20 | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| | | | | | | | | | | | | | |
| 3 | 21 | 4 | 22 | 5 | 23 | 6 | 24 | 7 | 25 | 8 | 26 | 9 | 27 |
| | | First commercial flow of Saudi Arabian oil 1938 | | | | Optics pioneer Alhazen dies 1040 | | Louvre announces plans for museum in Abu Dhabi 2007 | | | | | |
| 10 | 28 | 11 | 29 | 12 | 30 | 13 | 1 | 14 | 2 | 15 | 3 | 16 | 4 |
| | | Facebook launches Arabic version 2009 | | | | | | | | | | | |
| 17 | 5 | 18 | 6 | 19 | 7 | 20 | 8 | 21 | 9 | 22 | 10 | 23 | 11 |
| Magellan becomes first European to sail east to Asia 1511 | | | | Explorer and translator Richard Burton born 1821 | | | | Nowruz, traditional Persian New Year's Day | | Timurid ruler and astronomer Ulugh Beg born 1394 | | | |
| 24 | 12 | 25 | 13 | 26 | 14 | 27 | 15 | 28 | 16 | 29 | 17 | 30 | 18 |
| 31 | 19 | Arab woman poet al-Mustakfi dies in Córdoba 1091 | | | | | | | | | | Aerial mapping of eastern Saudi Arabia begins 1934 | |
| Easter | | | | | | | | | | | | | |

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 | | |

april jumada I — jumada II

| S | M | T | W | T | F | S |
|--|---|--|---|------|---|--|
| | 120 | 221 | 322 | 423 | 524 | 625 |
| | | | Istanbul's Topkapı Palace becomes a museum 1924 | | | |
| 726 | 827 | 928 | 1029 | 111 | 122 | 133 |
| | | Schliemann begins to dig for ancient Troy 1870 | Egyptian actor Omar Sharif born 1932 | | | Emperor Philip the Arab meets Antioch Christians 244 |
| 144 | 155 | 166 | 177 | 188 | 199 | 2010 |
| Philosopher Ibn Rushd born in Córdoba 1126 | Famed Ottoman architect Sinan born 1489 | | | | | René Caillié is first European in Timbuktu 1828 |
| 2111 | 2212 | 2313 | 2414 | 2515 | 2616 | 2717 |
| Poet, statesman Muhammad Iqbal dies 1938 | | | | | Obama compliments "The 99" comic books 2010 | |
| 2818 | 2919 | 3020 | 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 | | |



*"In a Garden on high • Where they shall hear no (word) of vanity •
Therein will be a bubbling spring • Therein will be Thrones
(of dignity) raised on high • Goblets placed (ready) •
And cushions spread in rows • And rich carpets (all) spread out."*

—Qur'an 88:10-16 (English by Yusuf Ali)

Laid out on dramatic display by a merchant in the old city of Marrakesh, Morocco, carpets woven throughout the High Atlas mountains and the surrounding area bear seemingly infinite varieties of colorful, intricate and often locally distinctive motifs. Marrakesh rose as a center of political power and trade in the 11th century, and its traditional craft industries endure today in an economy largely fueled by tourism and global trade.

Photo by Yann Arthus-Bertrand / Altitude

may jumada II – rajab

| s | | | m | | | t | | | w | | | t | | | f | | | s | | |
|---|--|--|---|--|--|------|--|--|---|--|-----|--|-----|--|---|--|--|------------------------|--|--|
| Notes: | | | | | | | | | 121 | | 222 | | 323 | | 424 | | | | | |
| | | | | | | | | | Astronomer Ibn Ridwan observes supernova 1006 | | | | | | India's Tipu Sultan dies in battle 1799 | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | |
| 525 | | | 626 | | | 727 | | | 828 | | | 929 | | | 1030 | | | 111 | | |
| | | | Pope John Paul II visits Damascus mosque 2001 | | | | | | | | | Thutmose III battles Canaanites 1457 BCE | | | | | | | | |
| 122 | | | 133 | | | 144 | | | 155 | | | 166 | | | 177 | | | 188 | | |
| Pope Sylvester II, friend of Arab science, dies1003 | | | | | | | | | | | | | | | | | | Omar Khayyam born 1048 | | |
| 199 | | | 2010 | | | 2111 | | | 2212 | | | 2313 | | | 2414 | | | 2515 | | |
| Atatürk begins Turkish War of Independence 1919 | | | | | | | | | | | | | | | Ibn Sina claims solar transit of Venus 1032 | | | | | |
| 2616 | | | 2717 | | | 2818 | | | 2919 | | | 3020 | | | 3121 | | | | | |
| | | | Historian Ibn Khaldun born in Tunis 1332 | | | | | | Ottomans conquer Constantinople 1453 | | | | | | Architect Zaha Hadid wins Pritzker 2004 | | | | | |

APRIL

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

june rajab – shaban

| s m t w t f s | | | | | | |
|---------------|---|--|---|---|--|--|
| Notes: | | | | | | 122 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 223 | 324 | 425 | 526 | 627 | 728 | 829 |
| | | | Headless Pyramid rediscovered at Saqqara 2008 | Great Bombay Cyclone drowns 100,000 1882 | | |
| 930 | 101 | 112 | 123 | 134 | 145 | 156 |
| | Alexander the Great, age 32, dies 323 BCE | | | | | Assyrians record solar eclipse 763 BCE |
| 167 | 178 | 189 | 1910 | 2011 | 2112 | 2213 |
| | | | | First Egyptian motion picture in Cairo 1907 | | |
| 2314 | 2415 | 2516 | 2617 | 2718 | 2819 | 2920 |
| 3021 | | Kahlil Gibran immigrates to America 1895 | | | Grameen Bank founder M.Yunus born 1940 | Volcano threatens Madinah 1256 |

JULY

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



*"Though this part of our journey is so dangerous,
and the goal remote, no roads are without endings. Do not grieve."*
—Muhammad Shams al-Din Hafiz, *Diwan*,
trans. Robert Maxwell and Mariam Ma'afi, 14th century



Viewed from an altitude of 3000 meters (10,000') in November 1934, the North Jafurah desert near Dammam, Saudi Arabia, took on a sculptural shape beneath the lens of CASOC's survey team. The team produced the first aerial maps of the oil-exploration concession granted by King 'Abd al-'Aziz Al Sa'ud.

Photo by Russ Gerow / R.T. Gerow Collection / Courtesy Michael Gerow

july shaban — ramadan

s m t w t f s

| | | | | | | |
|--|---|-------|---|--|---|-------|
| | 1 22 | 2 23 | 3 24 | 4 25 | 5 26 | 6 27 |
| | Harun al-Rashid gives elephant to Charlemagne 802 | | | Saladin defeats Crusaders at Hattin 1187 | Algeria wins independence from France 1962 | |
| 7 28 | 8 29 | 9 1 | 10 2 | 11 3 | 12 4 | 13 5 |
| | | | Abbasids defeat Tang China at Battle of Talas 751 | Cardiologist Michael DeBakey dies 2008 | | |
| 14 6 | 15 7 | 16 8 | 17 9 | 18 10 | 19 11 | 20 12 |
| | Muslims surrender Jerusalem to Crusaders 1099 | | | | Arab-Berber army found Al-Andalus in Iberia 711 | |
| 21 13 | 22 14 | 23 15 | 24 16 | 25 17 | 26 18 | 27 19 |
| Egypt's Aswan High Dam is completed 1970 | | | | | | |
| 28 20 | 29 21 | 30 22 | 31 23 | Notes: _____ _____ _____ _____ | | |
| | | | | | | |
| | | | | | | |
| Swat absorbed into Pakistan 1969 | | | | | | |

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

august ramadan — shawwal

s m t w t f s

| | | | | | | |
|---|---|-------|-----------------------------------|---|--------------------------------------|------------------------------------|
| Notes: _____ _____ _____ _____ | | | | 1 24 | 2 25 | 3 26 |
| | | | | Romans capture Alexandria, Egypt, 30 BCE | | |
| | | | | | | |
| | | | | | | |
| 4 27 | 5 28 | 6 29 | 7 30 | 8 1 | 9 2 | 10 3 |
| | | | 'Id al-Fitr | | | Egyptologist Edward Lane dies 1876 |
| 11 4 | 12 5 | 13 6 | 14 7 | 15 8 | 16 9 | 17 10 |
| | Queen Cleopatra dies by her own hand 30 BCE | | Independent Pakistan founded 1947 | | T. E. Lawrence (of Arabia) born 1888 | |
| 18 11 | 19 12 | 20 13 | 21 14 | 22 15 | 23 16 | 24 17 |
| | | | | Abu Bakr, first Muslim caliph, dies 634 BCE | | |
| 25 18 | 26 19 | 27 20 | 28 21 | 29 22 | 30 23 | 31 24 |
| Physician Al-Razi (Rhazes) born in Persia 865 | Anglo-Zanzibar War lasts 38 minutes 1896 | | | | | |

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



*"In one night you journeyed from sanctuary to sanctuary,
 Passing, like the full moon, through bleakest darkness on the way.
 Ascending all night till you came within Two Bow-lengths,
 A point never attained, nor aspired to before."*

—Al-Busiri, *The Ode of the Mantle*, trans. Stefan Sperl
 and Christopher Shackle, 13th century



Sunrise glistens off the cupola that tops the octagonal Dome of the Rock, set within *al-haram al-sharif* ("the noble sanctuary") at the southeast corner of Old Jerusalem, its precincts holy to three faiths. To Muslims, it is from the rock above which this shrine was built that the Prophet Muhammad ascended to heaven during his miraculous Night Journey (*'isra*).

Photo by George Steinmetz

september shamwal — dhu al-qa'dah

s m t w t f s

| | | | | | | |
|--|-----------------------------|--------|---|-------|--|-------------------------------------|
| 1 25 | 2 26 | 3 27 | 4 28 | 5 29 | 6 30 | 7 1 |
| | | | Astronomer and historian Al-Biruni born 973 | | | |
| 8 2 | 9 3 | 10 4 | 11 5 | 12 6 | 13 7 | 14 8 |
| | | | Ottomans defeated in Battle of Vienna 1683 | | Grateful Dead play at Giza Pyramids 1978 | |
| 15 9 | 16 10 | 17 11 | 18 12 | 19 13 | 20 14 | 21 15 |
| | | | | | | |
| 22 16 | 23 17 | 24 18 | 25 19 | 26 20 | 27 21 | 28 22 |
| Kingdom of Saudi Arabia is proclaimed 1932 | | | Orientalism author Edward Said dies 2003 | | Champollion deciphers Rosetta Stone 1822 | President Nasser of Egypt dies 1970 |
| 29 23 | 30 24 | Notes: | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | Persian poet 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

october dhu al-qa'dah — dhu al-hijjah

s m t w t f s

| | | | | | | |
|--------|-------------|-------|--|---|-------|--|
| Notes: | | 1 25 | 2 26 | 3 27 | 4 28 | 5 29 |
| | | | Saladin recaptures Jerusalem from Crusaders 1187 | Largest falcon hospital opens in Abu Dhabi 1999 | | Apple founder Steve Jobs dies 2011 |
| 6 1 | 7 2 | 8 3 | 9 4 | 10 5 | 11 6 | 12 7 |
| | | | | | | Orhan Pamuk wins Nobel for Literature 2006 |
| 13 8 | 14 9 | 15 10 | 16 11 | 17 12 | 18 13 | 19 14 |
| | 'Id al-Adha | | Egypt opens New Library of Alexandria 2002 | | | |
| 20 15 | 21 16 | 22 17 | 23 18 | 24 19 | 25 20 | 26 21 |
| | | | Architect Hassan Fathy wins Aga Khan Award 1980 | | | Earthquake devastates Constantinople 740 |
| 27 22 | 28 23 | 29 24 | 30 25 | 31 26 | | |
| | | | | | | |

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



*"Though your head may scrape the stars,
Don't be deceived in pride. • You remain the self-same
handful of dust • Swept upwards on the wind."*

—'Abd al-Qadir Bidel, *Diwan*, trans. Robert Maxwell
and Mariam Ma'afi, early 18th century



Low clouds and fog roll across the emirate of Dubai, blanketing all but the city's skyscrapers, most of which hug the edges of Shaykh Zayed Road. Rising far above its neighbors, the 163-story Burj Khalifa tapers skyward to top out at 830 meters (2723'), making it the tallest man-made structure in the world.

Photo by Bjorn Moerman

november dhu al-hijjah — muharram 1435

| s | m | t | w | t | f | s |
|---|-------|-------|--|--|-----------------------------------|---|
| Notes: <hr/> <hr/> <hr/> <hr/> | | | | | 1 27 | 2 28 |
| | | | | | Al-Jazeera's first broadcast 1996 | |
| 3 29 | 4 1 | 5 2 | 6 3 | 7 4 | 8 5 | 9 6 |
| | | | Estebanico is first Muslim to land in Texas 1528 | Jurist Ibn Hazm born in Spain 994 | | Saudi Arabia's founder, King Ibn Sa'ud, dies 1953 |
| 10 7 | 11 8 | 12 9 | 13 10 | 14 11 | 15 12 | 16 13 |
| | | | | | | |
| 17 14 | 18 15 | 19 16 | 20 17 | 21 18 | 22 19 | 23 20 |
| Suez Canal opens 1869 | | | | Lebanese superstar singer Fairuz born 1935 | | |
| 24 21 | 25 22 | 26 23 | 27 24 | 28 25 | 29 26 | 30 27 |
| Arab-American writer Ameen Rihani born 1876 | | | | | | us pop star Tiny Tim dies 1996 |

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

december muharram — safar

| s | m | t | w | t | f | s |
|-------|---|--|--|--|---|-------------------------------------|
| 1 28 | 2 29 | 3 30 | 4 1 | 5 2 | 6 3 | 7 4 |
| | US Egyptologist James Breasted dies 1935 | | | | Petra declared World Heritage Site 1985 | Persian astronomer al-Sufi born 903 |
| 8 5 | 9 6 | 10 7 | 11 8 | 12 9 | 13 10 | 14 11 |
| | | | Novelist Naguib Mahfouz born in Egypt 1911 | Physician Maimonides dies in Egypt 1204 | | |
| 15 12 | 16 13 | 17 14 | 18 15 | 19 16 | 20 17 | 21 18 |
| | US Army Camel Corps guide Hadji Ali dies 1902 | | | | Morocco is first to officially recognize USA 1777 | |
| 22 19 | 23 20 | 24 21 | 25 22 | 26 23 | 27 24 | 28 25 |
| | Zenobia, Arab queen of Palmyra, born 245 | Verdi's "Aida" premieres at Cairo opera house 1871 | Christmas | Tsunami hits Indian Ocean rim countries 2004 | | |
| 29 26 | 30 27 | 31 28 | Notes: <hr/> <hr/> <hr/> <hr/> | | | |

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



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In November 1949, the Arabian American Oil Company (Aramco) published the first issue of an interoffice newsletter named *Aramco World*. Over the next two decades, as the number of Americans working with Saudi colleagues in Dhahran grew into the tens of thousands, *Aramco World* grew into a bimonthly educational magazine whose historical, geographical and cultural articles helped the American employees and their families appreciate an unfamiliar land.

The magazine is now published by Aramco Services Company in Houston, Texas, on behalf of Saudi Aramco, which succeeded Aramco in 1988 as the national oil company of Saudi Arabia. In 2000, *Aramco World* changed its name to *Saudi Aramco World* to reflect this relationship.

Today, *Saudi Aramco World's* orientation is still toward education, the fostering of cooperation and the building of mutual appreciation between East and West, but for



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the last five decades the magazine has been aimed primarily at readers outside the company, worldwide, as well as at internal readers. Its articles have spanned the Arab and Muslim worlds, past and present, with special attention to their connections with the cultures of the West.

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