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MAPS

2020 1441–1442 GREGORIAN HIJRI

EXPLORING Islamic Maps

Introduction and calendar captions by KAREN C. PINTO

The richest-surviving heritage of premodern maps of the world comes to us from the Middle East and Central and Inner Asia.

rom the Babylonian clay tablet of 600 BCE to Katip Celebi's map of Japan drawn in 1732, geographers and cartographers of the Islamic world drew upon Greek, Babylonian, Syriac, Sassanian, Indian, Chinese, Turkic and European knowledge to produce a new, atlas-like genre of detailed maps of the world known to them. Until recently these maps lay virtually untouched, often ignored on the grounds that they are not mimetically accurate representations of lands and seas.

This perspective overlooks the great contribution of Islamic maps to the development of the history of cartography. The maps show how Muslims perceived the world from the time of the first civilizations until the late Renaissance. The abundance of copies produced in many places across the Middle East, North Africa, Anatolia and Central Asia over a millennium testifies to the enduring importance of these cartographic visions—as laid out in this resplendent calendar of images, medieval Islamic and Ottoman.

Starting in January with the famous Babylonian clay tablet,

The abundance of copies produced in so many places over 1,000 years testifies to the importance of Islamic-world cartographic visions. we see on display the concern with mapping the lands of Mesopotamia, its empires, rivers and sea. Beyond lie mysterious triangular islands shrouded in the mist of myths about Gilgamesh and others. All are encircled by a conjoined ocean, known

as the Bahr al-Muhit (Encircling Ocean), which was the most basic marker of world maps up through medieval periods. For many Muslims, it held the footprint of the throne of God cited in the Qur'an, and it thus became a divine band protecting the world.

With the start of the caliphate and the conquests of the mid-seventh century, we hear of commanders commissioning maps for military and *jizya* (poll-tax) purposes, but none of these are known to have survived the passage of time. The earliest-surviving examples of Islamic mapping comes in fresco form, from an early-eighth-century Umayyad hammam, the UNESCO World Heritage site of Qusayr 'Amra, a desert retreat of the prince and future caliph al-Walid II. Tucked away in the sand and sun of the desert that separates Jordan from Syria and Iraq, the hammam is capped with a painting of a Ptolemaic star fresco. Less well known is the earliest-surviving mimetic depiction of the moon: At the entrance to the hammam, this small image precedes the earliest-known European efforts by at least seven centuries. February lays out this moon map of Qusayr 'Amra with a special focus on georeferencing, for comparison, a contemporary image of the moon.

With March we get one of the earliest-known maps depicting the Nile. This is also an example of one of the earliest Islamic maps produced on paper. This one was part of an 11th-century manuscript copy of al-Khwarizmi's Kitab surat al-'ard (Book of a picture of the earth) published in English under the title The Oriental Geography of Ebn Hawqal (1800). Al-Khwarizmi

shows how the Nile emerges from the mythical Mountains of the Moon (now Ethiopia), flows through multiple cataracts and heads north, crosses the equator to pass through the lands of Nubia, Aswan and Beja toward Fustat (medieval Cairo) and finishes in the Nile Delta near Dumyat (Damietta), where it empties into the Mediterranean Sea. Cartographers replicated this depiction of the Nile in various ways in every cartographic manuscript thereafter for centuries. As copies proliferated throughout the medieval Islamic Middle East, this helped establish what became, in effect, the world's first geographical atlas series.

The maps pictured for the months of May and August are by different authors from that "Islamic atlas series" spawned by al-Khwarizmi. May shows the exceptional, three-folio map of the Mediterranean Sea from a late-11th-century copy of Ibn Hawqal's Kitab surat al-'ard. It is the earliest-known copy of the most-mimetic map of the Mediterranean. On it one can see the outlines of the Iberian Peninsula.

the Calabrian Peninsula, the Peloponnese, Constantinople, the Bosporus, southeastern Anatolia, the Levant, Egypt and North Africa; it shows key cities, mountains and rivers, along with major islands of the Mediterranean.

August displays two magnificent maps from Leiden University Library's regally sized and

manuscript for centuries. lavishly illustrated Ms. Or. 3101. One shows the province of Sindh, with the Indus River running across the land of Buddha and Hind to al-Mansura (present-day Multan) and the land of medieval Sindh before emptying into the Indian Ocean. The second map depicts the Caspian Sea between the mountains of Daylam and Samarkand along what was then the central Silk Road. These are among the earliest examples of al-Istakhri's Kitab al-masalik wa al-mamalik (Book of routes and realms), which dates from 1193 CE. Al-Istakhri's geography went on to become the most heavily copied work of the Islamic atlas series, with copies surfacing even from mid-18th-century Mughal India. Depicting a highly stylized world of symbolic shapes, the manuscript was likely produced as a wedding gift

for Constance, daughter of Norman King Roger II. It was perused by many a European dignitary, including and especially Constance's son, Holy Roman Emperor Frederick II.

June also reflects Sicilian-Norman influence, this time with the earliest map depicting medieval Sicily, which was found in

Al-Khwarizmi's map of the Nile became a model for depicting the river in nearly every cartographic the recently discovered 13th-century copy of the *Book of Curiosities* manuscript. It lays out Sicily's key cities of Palermo, Messina, Syracuse and Trapani so clearly that it could have served as a conqueror's roadmap.

Rounding out the symbiotic intellectual relations of Muslims and Christian Normans in Sicily, September shows the work of the Arab cartographer best known in the West, al-Sharif al-Din al-Idrisi. In the mid-12th century, King Roger II commissioned al-Idrisi to produce an illustrated geography of the world called *Kitab nuzhat al-mushtaq fi'kh tiraq al-afaq* (The book of pleasant journeys into faraway lands). The 70 individual maps that accompany the copies of al-Idrisi's manuscript are extremely

Nasuh's cartographically illustrated histories could be described as the first attempt at 3D.

detailed representations of the world, well ahead of their time. Not only are the al-Idrisi maps ranked among the most mimetic world maps of the later Middle Ages, but they

also include regional maps that show an astounding understanding of topography for the 13th century.

April takes us to Inner Asia, to the start of Turkic influences, with a rare and very early map from the late-11th-century CE Arabic-Turkic dictionary *Diwan Lughat al-turk* (*Compendium of the Turkic Dialects*). It presents an Inner Asia-centric view of the world, with Turkic tribes dotted all around. The date and style of this map leave us wondering whether Turks brought the world-envisioning mapping tradition to the Middle East from their vantage points atop the high steppes.

Through the Ottomans, Turkish influences dominate the second half of the history of Islamic mapping, beginning with October's sample of the unique, bird's-eye topographical views that the 16th-century cartographic illustrator Matrakçı Nasuh developed to depict the territorial passages of Ottoman military campaigns. Each image from Nasuh—in what could be described as the first attempt at 3D—is a visual feast. We chose to show Nasuh's image of Baghdad—its earliest-extant city view.

November depicts the legendary portolan chart map fragment credited to Ottoman naval admiral Piri Reis, who was born in 1470 and died in 1554. The subject of many controversial studies, the Piri Reis map shows astonishingly accurate coastlines not only for Central and South America but also Antarctica.

December depicts Katip Çelebi's map of Japan, which effectively signals the close of Islamic cartographic originality, as copies and techniques of European atlases take center stage in the field. While translating Gerardus Mercator's *Atlas Minor* into Ottoman Turkish in 1653–1655, Çelebi also made copies of Mercator's maps, which he labeled in Ottoman Turkish.

There is yet one distinctively Islamic cartographic-copying tradition that continues even into the modern era: the depiction, in cartographic forms, of the holy cities of Makkah and Madinah, as shown in July's Hajj certificate scroll map. Often elaborately illuminated in gold, these scrolls certify the holder's completion of Hajj, or pilgrimage.

Together, all of the maps produced over this unfathomably long era share one thing in common: They were made on the basis of sketches, accounts and myths; views from hills, mountains and the masts of ships; supplemented by tradition on the one hand and carefully accumulated data from increasingly sophisticated navigational and geometric tools on the other. Although these maps do not display the forms of the world in the way ours do today, modern atlases and GPS maps turn out to have much in common with the maps in this calendar: Systems of shapes, lines, labels, patterns and colors all help us understand the world and invite us to explore it. \bigoplus

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. The Qur'an, in Chapter 10. Verse 5. states that time should be reckoned by the Moon. Existing calendars of the era 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 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. 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 need to convert dates from one system to the other. -PAUL LUNDE

Karen C. Pinto has researched medieval Islamic maps in collections around the world for three decades. She is author of *Medieval Islamic Maps: An Exploration* (University of Chicago Press, 2016), which in 2017 received an Outstanding Academic Title (OAT) award from *Choice* magazine. She holds a Ph.D. from Columbia University, was a 2013–14 National Endowment for the Humanities Fellow and a 2016 recipient of the Franklin Grant. Her own image collection of more than 3,000 Islamic maps contains many previously unpublished.

On the cover: Its pointer pinned to the site of Makkah in the western Arabian Peninsula, this map is designed to determine the qibla, or direction of prayer toward Makkah, from anywhere from Morocco to Japan, north of the Equator. Such maps were practical tools for architects of mosques as well as travelers since the early centuries of Islam. This elegantly painted qibla finder was crafted of lacquered wood in the 18th century and signed by its maker, Barun al-Mukhtar. It is on display on the Museum of Islamic Art in Cairo. Photo by Richard Doughty.

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CONVERTING Years and dates

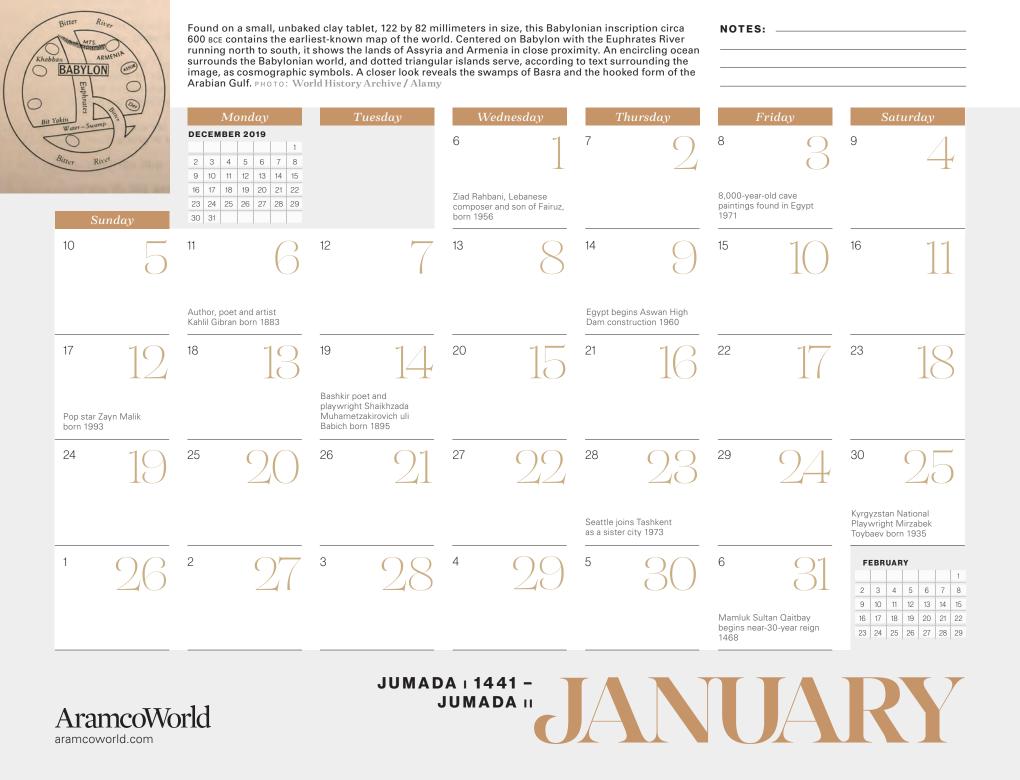
The following equations convert roughly from Gregorian to hijri and vice versa. However, the results can be slightly misleading: They tell you only the year in which the year of the other calendar *begins*. For example, 2020 Gregorian begins in Jumada I, the fifth month of hijri 1441, and ends in the same month 1442.

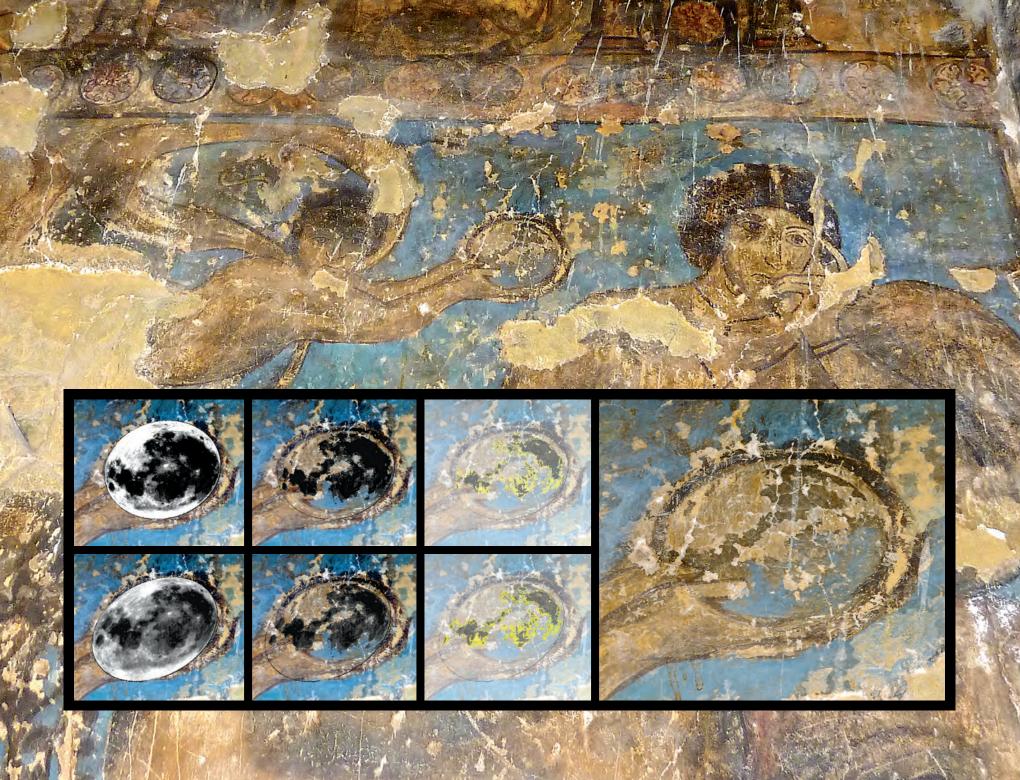
Gregorian year = [(32 x hijri year) ÷ 33] + 622

Hijri year = [(Gregorian year – 622) x 33] ÷ 32

Online calculators can be found by searching "Gregorian-hijri calendar calculator" or similar terms.







Entering the UNESCO World Heritage site of Qusayr 'Amra (723-743 ce)-famous for some of the earliest examples of Islamic art and the earliest-extant Ptolemaic star chart (left)-visitors are greeted by a painting that could be the earliest-extant portrait of the moon. It shows an ovoid, globular form with a brown marking being delivered by an angel to the Umayyad prince al-Walid ibn Yazid (706-744 cE), eventually caliph al-Walid II. This image precedes European efforts to depict the moon by at least seven centuries. Analysis by a georeference comparison with an image of the moon from the desert of Wadi Rum in southern Jordan shows striking parallels with the fresco. MAIN PHOTO AND INSET: Karen C. Pinto; GEOREFERENCE SEQUENCE (6): Kathleen M. Baker, W. E. Upjohn Center for the Study of Geographical Change at Western Michigan University

| St | unday | | Monday | Tue | esday | JANUA 5 6 12 13 19 20 26 27 | Avectnessday RY 1 2 3 4 7 8 9 10 11 14 15 16 17 18 21 22 23 24 25 28 29 30 31 28 31 29 30 31 28 | MARCH 1 2 8 9 15 16 22 23 29 30 29 30 | 3 4 5 6 7 10 11 12 13 14 17 18 19 20 21 24 25 26 27 28 31 28 29 30 31 | | Friday | 7 India's 0 Empire 6 | Saturday] Gurkani (Mughal) enters classical ler Akbar 1556 |
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| | | | ra declared national ent of Spain 1870 | | | | | | | Coronat Empero | ion of Mughal r Shah Jahan, 1628 | | princess and poet nisa born 1638 |
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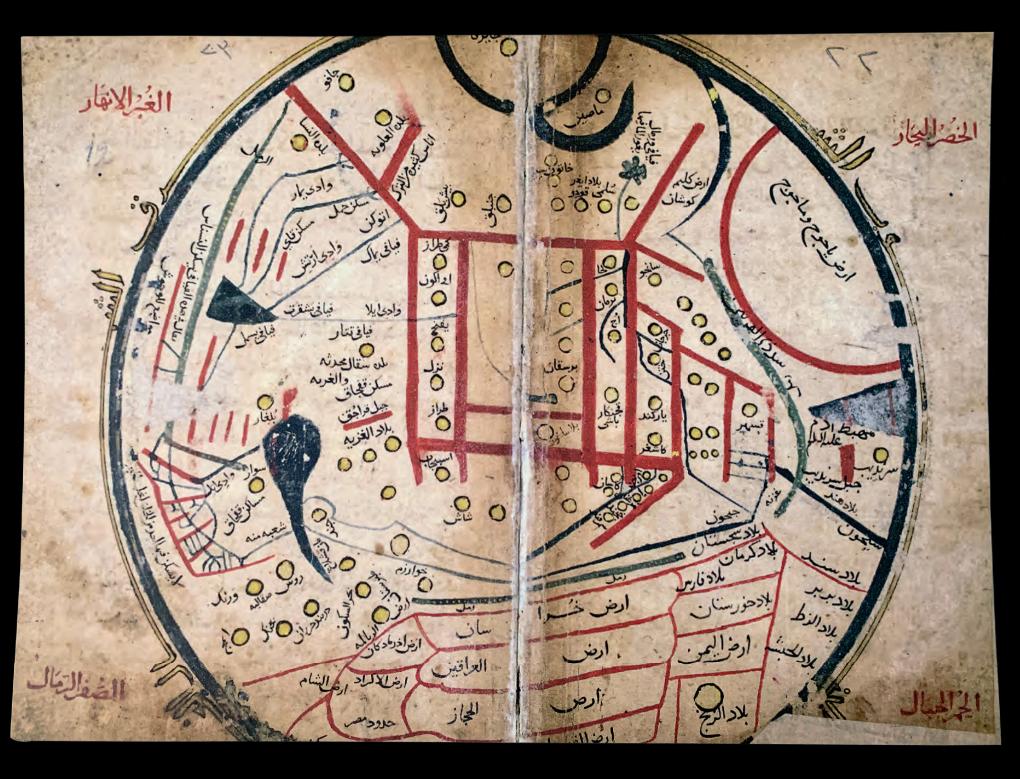
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The earliest-surviving Arabic manuscript containing maps is a copy of al-Khwarizmi's 1037 cE Kitab surat al-'ard (Book of a picture of the earth). Composed of zij tables containing longitudinal and latitudinal coordinates, it includes four maps. The map of the Nile shows its famous cataracts as the river emerges from the mythical Mountains of the Moon, crosses the equator and heads north past the lands of Nubia, Aswan and the Beja, toward Fustat (medieval Cairo) and the Delta near Dumyat (Damietta), where it empties into the Mediterranean Sea. PHOTO: Karen C. Pinto / Bibliothèque nationale et universitaire, Strasbourg

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| Sunday 6 | Monday 7 2 | Tuesday 8 | Wednesday 9 | Thursday | Friday | Saturday 12 |
|--|---|---|---|----------------|--|---|
| Uzbekistan National Writer Muhammad Ali born 1942 13 8 | 14 | 15 10 | Electronic music pioneer Halim El-Dabh born 1921 | 17 12 | 18 13 | 19 14 |
| Moroccan author and artist Mohammed Mrabet born 1936 | Lebanon establishes Horsh Eden as a protected area 1992 21 | 22 17 | 23 18 | 24 10 | Palestinian poet Mahmoud Darwish born 1941 25 | ²⁶ 21 |
| 27 00 | 28 0.0 | Caliph Harun al-Rashid, patron of the arts, born 763 ce 29 | | $\frac{10}{2}$ | ³ 07 | Kyrgyz poet Alykul Osmonov born 1915 4 |
| Astronomer and Sultan Ulugh Beg born 1394 | <u> </u> | House of Knowledge in Cairo inaugurated 1005 ce | Ottoman explorer Evliya Çelebi born 1611 | | FEBRUARY | APRIL |
| 5 29 | 6 300 Philosopher Maimonides born 1138 CE | ⁷ 31 | | | Image: Normal System Image: No | Image Image <th< th=""></th<> |
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The earliest Turkic-Arabic dictionary, al-Kashgari's late-11th-century ce Diwan Lughat al-Turk (Compendium of the Turkic Dialects), contains this intriguing world map. Centered on Inner and Central Asia, it shows the locations of Turkic tribes according to linguistic variations. This is the only extant copy, and it dates from 1266 ce. Its illustrative style reveals cartographic influences used on Islamic world maps. Red lines demarcate boundaries, dark-green copper for seas and slate gray for rivers, all encased in an encircling band symbolizing the Bahr al-Muhit (Encircling Ocean), with a keyhole form for the Caspian Sea. The grid of lands in the Islamic world, laid out at the bottom of the map, resembles the grid-like structure of al-Biruni's world maps but different in that it is orientated with north to the left. PHOTO: Daniyar Nietullaev / Millet Yazma Eser Kütüphanesi Ali Emiri Arapça Koleksiyona

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
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| 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 | MAY Image: Im | | 8 1 | ° 2 | 10 S Willis (Sears) Tower engineer F. R. Khan born 1929 | 11 4 |
| 12 5 | 13 G "Prince of Tidore" and prolific author of <i>kitabs</i> brought to Cape Town from Indonesia 1780 | 14 7 | 15 8 | 16 O Heinrich Schliemann begins to dig for ancient Troy 1870 | 17 10 Pan-Islamic newspaper <i>Terjiman</i> begins circulation in Russia 1883 | 18 11 |
| 19 12 Easter | 20 13 | 21 14 | 22 15 <i>Kawkab America</i> , North America's first Arabic- language newspaper, launches 1892 | ²³ 16 | 24 17 | 25 18 First Ouarzazate International Film Festival 2016 |
| 26 19 | 27 20 France's René Caillié becomes first European in Timbuktu 1828 | 28 21 | 29 22 | 30 23 | 1 24 Mamluks admitted to French Imperial Guard 1815 | ² 25 |
| 3 26 Tatar literary figure Gabdulla Tuqay born 1886 | 4 27 | 5 28 | ⁶ 29 | 7 300 Koroglu, an opera based on the Epic of Koroghlu, premieres in Baku 1937 | | |
| AramcoWc aramcoworld.com | orld | | Sł | IA`ABAN - RAMADAN | AP | |



The rarest set of Arabic maps of the Mediterranean was produced in *Kitab surat al-ard* (Book of a picture of the earth) by 10th-century cE geographer lbn Hawqal. Dating from 1086 cE, this copy, made in Iraq, is rare for its emphasis on the Mediterranean, as it included both a one-folio macroview of the sea as well as a three-folio spread of it (**above**). Ibn Hawqal's map shows the lands encircling the Mediterranean in detail unprecedented for the time: the Iberian Peninsula, the Calabrian Peninsula, the Peloponnese, Constantinople and the Bosporus, southeastern Anatolia, the Levant, Egypt and North Africa. Key cities, mountains and rivers, along with the major islands of the Mediterranean, including Sicily, Crete, Cyprus and Sardinia, add additional layers. PHOTO: Karen C. Pinto / Topkapi Saray Museum

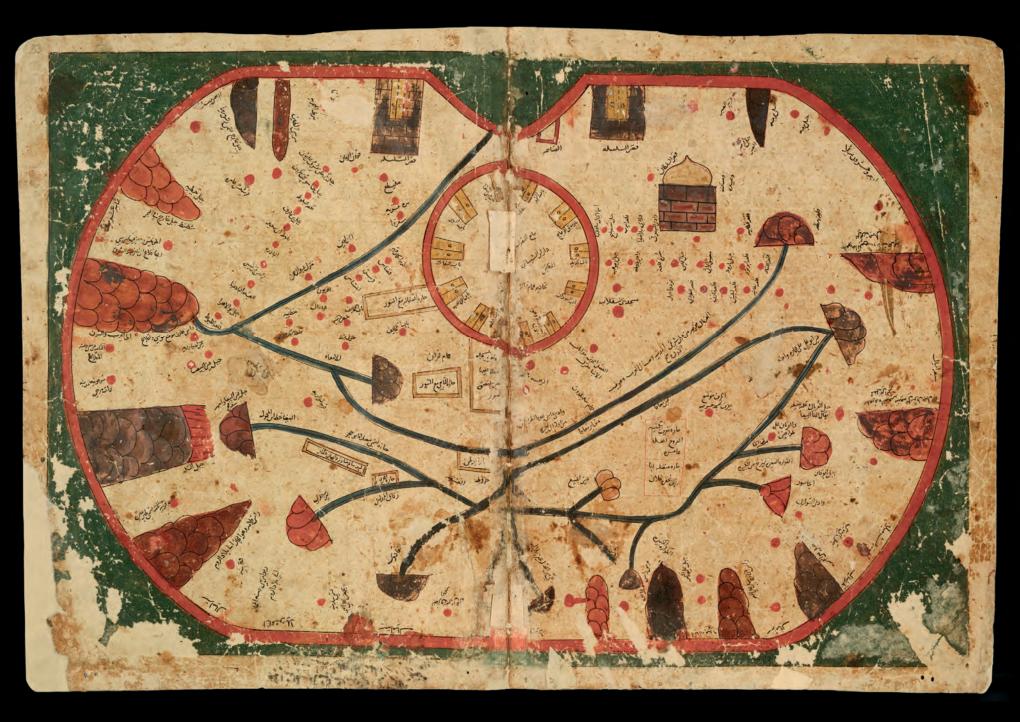
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| | | I I | JUNE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 | | 8 1 | 9 2 Shajarat al-Durr begins reign as sultana of Egypt 1250 ce |
| ° 3 | 11 4 | 12 5 | 13 6 | 14 7 | 15 8 | 16 |
| obo-restaurant Spyce pens in Boston 2018 | | | Pope John Paul II visits Damascus Mosque 2001 | | Algerian Rai singer Cheikha Rimitti, born 1923 | |
| 7 10 | 18 11 | 19 12 | 20 13 | ²¹ 14 | ²² 15 | 23 16 |
| gyptian Modernist culptor Mahmoud lukhtar born 1891 | | Abbasid envoy Ibn Fadlan arrives in Volga region 922 ce | | 34 North African camels disembark in Texas 1856 | | |
| 4 17 | ²⁵ 18 | 26 19 | 27 20 | 28 21 | ²⁹ 22 | ³⁰ 23 |
| | | | Vasco da Gama's ships reach India from Europe 1498 | | | |
| 24 | ² 25 | ³ 26 | 4 27 | ⁵ 28 | ⁶ 29 | 7 30 |
| d al-Fitr | Nur Jahan begins tenure as empress consort of Gurkani (Mughal) empire 1611 | | lbn Khaldun, "Father of Sociology," born in Tunis 1332 | Azeri kamancheh player Habil Aliyev born 1927 | | |
| 3 31 | | | | RAMADA | N - | |

Architect Zaha Hadid becomes first woman to win Pritzker Prize 2004



AMADAN -SHAWWAL



In 2002 the Bodleian Libraries of the University of Oxford acquired the *Book of Curiosities* manuscript, dating from the 12th–13th centuries ce. The manuscript contains a medley of hybrid maps, some unique and others that show the influence of the "Atlas of Islam" tradition, many maps of rivers and a heavily illustrated cosmographical section. Pictured is a 12th-century cE map of Sicily showing the island's cities: Palermo, Messina, Syracuse and Trapani. It even depicts Sicily's famous volcano, Mount Etna. PHOTO: Bodleian Libraries, University of Oxford

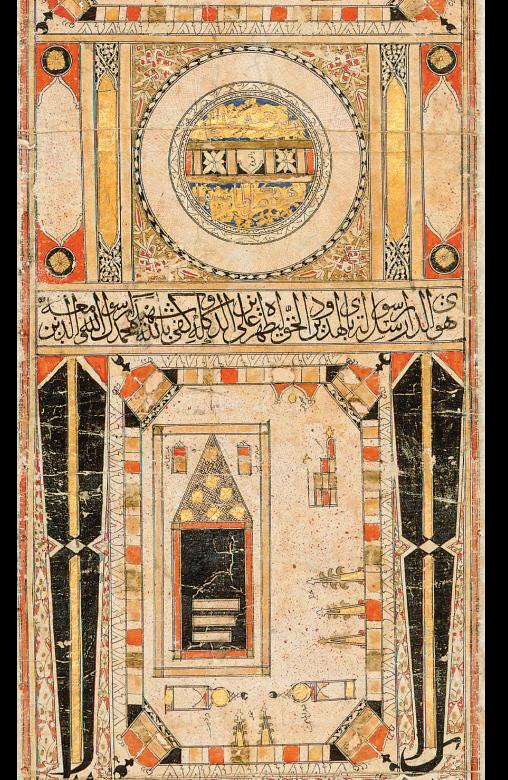
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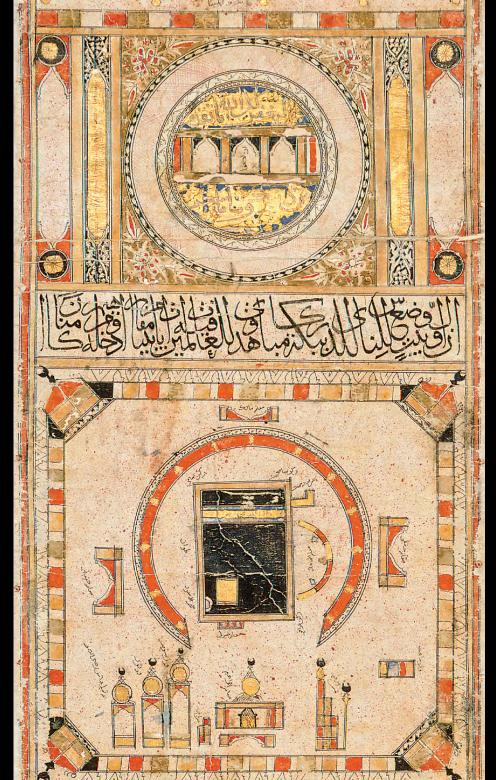
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SHAWWAL -DHU-AL-QA`DAH



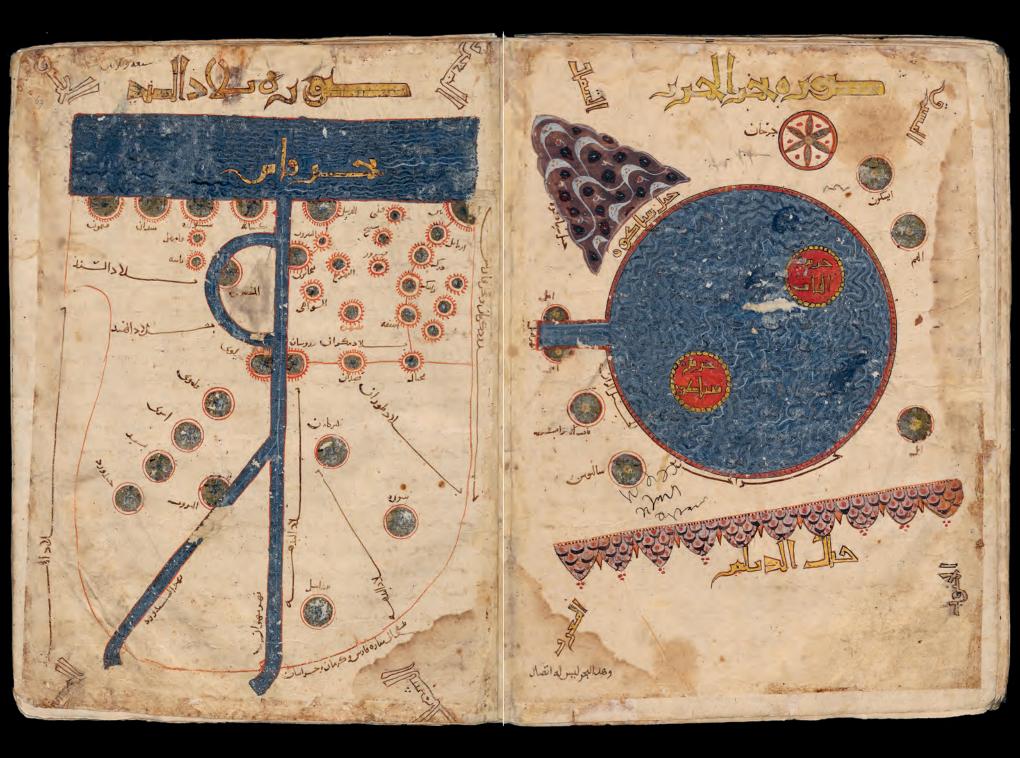


From the late 12th century onward, maps related to Hajj began to appear. This scroll housed in the British Library was given in confirmation of a pilgrimage performed by Maymanah, daughter of Muhammad al-Zardili, dating from 1433. Elaborately illuminated in gold, scrolls such as these were used to certify the holder's completion of Hajj through visits to the holy sites of Arabia. Pictured here are Hajj vignettes of Makkah (right) and Madinah (left). The scope of the images in these pilgrimage scrolls expands into an illustrated Hajj manuscript series called *Futuh al-haramayn* (Conquests of the holy sites) and the *Dala'il al-khayrat* (Ways of edification) prayer book that became popular in the 18th century. PHOTO: The British Library Board / The Image Works

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JUNE AUGUST 10 12 13 11 1 2 3 4 5 6 1 7 8 9 10 11 12 13 2 3 4 5 6 7 8 9 10 11 12 13 14 15 14 15 16 17 18 19 20 21 22 23 25 26 27 16 17 18 19 20 21 22 24 28 29 30 23 24 25 26 27 28 29 First London Shubbak Optics pioneer 30 31 Ibn al-Haytham born 965 CE Festival kicks off 2011 16 19 20 14 15 17 18 First Jameel Prize Algerian singer in art awarded 2009 Cheb Mami born 1966 21 22 23 24 25 26 27 $\left| \right\rangle$ Almohad leader Abd Kyrgyz writer Chingiz al-Mu'min enters Tunis Spanish Inquisition Aitmatov and us writer Kurt 1159 ce disbanded 1834 Vonnegut meet on air 1975 28 29 30 2 З 4 Charlemagne receives King Mohammed vi Ibn al-`Arabi born an elephant from Caliph of Morocco ascends Harun-al-Rashid 802 CE the throne 1999 in Seville 1165 CE 5 8 9 10 'Id al-Adha Chairil Anwar, Indonesian poet and member of "1945 Generation," Uzbek singer and actress born 1922 Shahzoda born 1979

> DHU-AL-QA`DAH -DHU-AL-HIJJAH



Exceptionally large at 30 by 42 centimeters and composed of high-quality artwork, this abbreviated copy of al-Istakhri's Kitab al-masalik wa al-mamalik (Book of routes and realms) from 1193 cE declares royalty as its intended audience. The manuscript and its 18 maps are decorated with elaborate gold calligraphy and illuminated with madder red scallops and intricate wave-designs for the seas. Of Arabo-Norman Sicilian provenance, these folios were likely prepared as a wedding gift for Constance, the daughter of Norman King Roger III. There is a good chance that Constance's son, who went on to be the first Holy Roman Emperor, Frederick II, and was known to love travel, learned about world geography through this Arabic manuscript. Pictured are the maps of Sindh (now southeastern Pakistan) and the Caspian Sea.

PHOTO: Karen C. Pinto / Leiden University Libraries





During the second half of the 12th century cE, Norman King Roger II commissioned al-Sharif al-Din al-Idrisi, possibly the most-famous Arab cartographer, to produce an illustrated geography of the world: *Kitab nuzhat al-mushtaq fi'kh tiraq al-afaq* (The book of pleasant journeys into faraway lands). The 70 individual maps that accompany the copies of al-Idrisi's manuscript are extremely detailed representations of the world, well ahead of their time. Not only are the al-Idrisi maps ranked among the most mimetic world maps of the later Middle Ages, they also include detailed regional maps that show an astounding understanding of the topography of each region. The example **above** shows the Ferghana Valley of Central Asia, and it was copied in Cairo in 1553. The inset, **left**, shows Konrad Miller's late-19th-century reconstruction of what al-Idrisi's world map would look like if all its pieces were joined together. PHOTO: Bodleian Libraries, University of Oxford; INSET: Library of Congress



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This uniquely topographical work from 16th-century illustrator Matrakçı Nasuh, who pioneered the incorporation of the bird's-eye cartographic illustration into Ottoman historical chronicles, shows the earliest-known depiction of Baghdad. Between 1537 and 1564, Nasuh illustrated four volumes of his Ottoman history, Cami'ü'tevarih (The gathering of histories), depicting the campaigns of three Ottoman sultans: Bayezid II (r. 1481-1512), Selim I (r. 1512-1520) and Suleiman I (r. 1520–1566). Completed in 1537, the first section of Nasuh's histories illustrates Suleiman's campaign of 1534-1535 on the frontiers of Persia and Iraq. PHOTO: Istanbul University Library / Alamy

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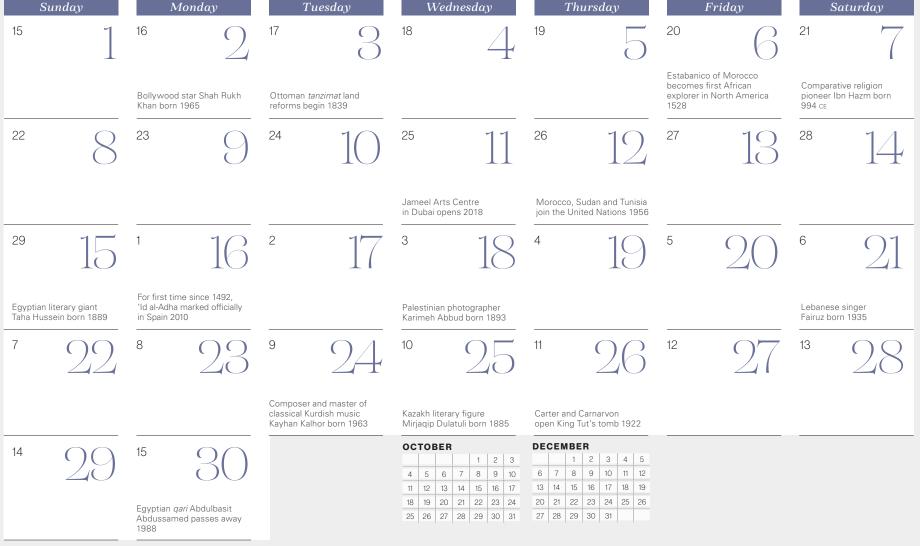
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| 17 4 | 18 5 | 19 | 20 7 | 21 8 | 22 | 23 10 |
| 24 11 | ²⁵ 12 | ²⁶ 13 | 27 14 | John Greaves, translator of Arabic geographic treatises, passes away 1652 28 | Ottoman map of New World by Piri Reis discovered 1929 29 16 | 30 17 |
| Merieme Chadid, first Arab woman at South Pole, born 1969 | Albanian language society founded 1879 | | | | | Lebanese poet Mikhail Naimy born 1889 |
| 1 18 | 2 10 | ³ 20 | 4 21 | 5 22 | ⁶ 23 | ⁷ 24 |
| | | lssyk Kul Forum in Kyrgyzstan, addresses world issues 1986 | | First International Forum on Snow Leopard Conservation convenes 2013 | | |
| ⁸ 25 | ° 26 | 10 27 | 11 28 | 12 29 | 13 30 | 14 31 |
| Lebanon's The Committee of Cedar Forest Friends founded 1985 | | | Rimsky-Korsakov's <i>Scheherazade</i> premiers in St. Petersburg 1888 | | | |
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Famed as the earliest-extant portolan chart map of the New World, Ottoman admiral Piri Reis's surprisingly accurate depiction of South America in 1513 has been the subject of many controversial studies. Scholarship has focused on connections between this map and the no-longer-extant map of the Americas by Christopher Columbus. Although this map was presented to Ottoman Sultan Selim Lin 1517, this is the only portion of it that remains. It shows West Africa, the Atlantic, South America and Antarctica. PHOTO: Topkapi Saray Museum / Alamy

RABI`ı — RABI`ıı

| Thursday | Friday | Saturday |
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This map of Japan is from Katip Çelebi's 1732 geographical dictionary, Kitab-ı cihannüma (Mirror of the world). Çelebi's translation of Gerardus Mercator's Atlas Minor into Ottoman Turkish in 1653-1655 heralds the twilight of Islamic cartographic innovation and the rise of copying maps in the European model. Çelebi's copying of Western work was followed by al-Dimashqi's copying of Joan Blaeu's Atlas Maior in 1675-1685. PHOTO: Gerlach Books

Tuesdav

| NOTES: | | |
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|--|---|---|---|--|---|---|
| I 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 | | 16 J King Abdulaziz Center for World Culture (Ithra) officially opens 2016 | 17 2 | 18 Bangladeshi muslin weaving named a masterpiece of intangible heritage by unesco, 2013 | 19 4 | 20 5 |
| 21 6 | 22 7 | 23 | 24 | 25 10 | 26 11 | ²⁷ 12 |
| Petra declared a unesco World Heritage Site 1985 | | | us President Jefferson hosts iftar for Tunisian guests 1805 | | | ldel-Ural State unites Tatars, Bashkirs and Chuvash, 1917 |
| 28 13 | 29 14 | 30 15 | ¹ 16 | ² 17 | ³ 18 | 4 19 |
| | Polymath and author on music theory al-Farabi born 950 ce | | | Amir Timur takes Delhi using camel cavalry 1398 | | |
| 5 20 | ⁶ 21 | ⁷ 22 | * 23 | ° 24 | 10 25 | 11 26 |
| Morocco becomes first country to recognize us independence 1777 | | | Zaynab (Zenobia), queen of Palmyra, born 1245 ce | | Christmas | |
| 12 27 | 13 28 | 14 29 | 15 30 | 16 31 | JANUARY 2021 3 4 5 6 7 8 9 | |
| | | Bengali artist Zainul Abedin born 1914 | | | 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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