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SWEETS

2015 GREGORIAN AND
1436 - 1437 HIJRI CALENDARS



SWEETS

• Written by Rachel Laudan

The love of sweetness goes back deep into the mists of history. Humans found sweetness in the saps that ran in plants, in fruits such as the dates prized by the desert Arabs, and above all in honey. In Antiquity, doctors from the Mediterranean to India praised golden honey as a panacea. It neither soured nor putrefied, and it conveyed this magic to other foodstuffs, preserving even perishable fruits from rotting. They described it as warm and moist, a perfect match for the temperament of the human body in the humoral physiology that ruled from Antiquity until the 17th century. Used in salves, medications and sweet confections, honey was both food and medicine. Over the centuries, imperial cooks in Babylonia, Rome and the successive Persian Empires created sweets—honey and butter mixed with toasted flours, fruits, seeds or nuts; leavened doughs drenched in syrup; smooth, starch-thickened puddings—all of which were gastronomic triumphs, aids to moral and physical well-being, and status symbols for the powerful.

“EAT OF THE GOOD THINGS THAT WE HAVE PROVIDED FOR YOU, AND BE GRATEFUL TO GOD, IF IT IS HIM YE WORSHIP.”

—Qur'an 2:172 (English by Yusuf Ali)

Islamic times, sugarcane was grown in Persia and Central Asia, then in Egypt, and then as far afield as al-Andalus (southern Iberia) and Zanzibar—wherever the climate permitted. The processes from sugar refining to confectionery were among the most advanced technologies of the day, requiring abundant energy, elaborate equipment and great skill. The cane was crushed by millstones and pressed, the viscous green sap was concentrated by boiling, and the crystallizing syrup was poured into conical pots where hard sugar formed as the moisture dripped out.

Of the several grades, crystalline white sugar was the finest, and the most expensive. Rock candy sparkled like diamonds; smaller crystals glinted in the light when sprinkled over food. Unlike honey, sugar added neither aroma nor color, and thus preserves of fruit retained their flavor, fruit sherbets took on tints of rose, green or orange, and sweet drinks of starch or ground nuts stayed dazzling white. All could be scented with rose petals and orange blossoms. Confectioners discovered that when boiled for varying lengths of time and then cooled, sugar became successively clear and pliable, then transparent and hard, and then brown aromatic caramel, opening a myriad of culinary possibilities. The *Kitab-al-Tabikh* (*Book of Dishes*), compiled by Ibn Sayyan al-Warraq at the end of the 10th century as a record of the cuisine of the Abbasid caliph of Baghdad and his courtiers, gave 90 recipes for sweets, including pulled sugar, a precursor of marzipan, syrup-soaked pastry fritters, pancakes filled with nuts and clotted cream, and a pudding enriched with the drippings that fell from a roasting chicken.

Sweets, far beyond the reach of ordinary people, were emulated in palaces and mansions in the Central Asian cities of Samarkand, Bukhara and Merv. They were enjoyed in the

Heirs to this early partiality to sweetness, Muslim courts, cooks and chemists of the ninth, 10th and 11th centuries took the sweet tradition to an entirely new level, in large part due to a new mastery of sugar refining and confectionery. Processed from the sap of the sugarcane, a tall, tough grass native to Indonesia, sugar had been prepared in India as early as the third century BCE and exported to Rome as a precious spice. In

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.

“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 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 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

Indian sultanates, and the miniatures in the early 16th-century *Book of Delights*, commissioned by the ruler of the Islamic state of Malwa in central India, showed women preparing sherbets, halvah and rosewater. They were prepared in Islamic states in southern Italy, Sicily, Spain and Portugal (al-Andalus), whence they passed to Catholic nuns and confectioners' guilds that in the 16th and 17th centuries transferred the techniques through their networks in Europe and the Americas as well as east to Goa, Macao, Manila and even Japan.

A second creative burst in Islamic sweet-making came in the 16th through the 18th centuries with the Mughal, the Safavid and particularly the Ottoman Empires. Paper-thin crackling pastries were soaked in syrup or honey. Brightly colored sugar-candy figures of exotic animals, such as giraffes and elephants, or structures such as castles and fountains were carried by bearers or by wheeled carts on public occasions as tangible symbols of the vast wealth commanded by the sultan. In cafés in Istanbul and Cairo, men sipped sweetened coffee, from whence the practice spread to Vienna and to the rest of Europe. Ice cream and Turkish delight were added to the list of delicacies in the 18th century. Emigrants who left the region in the 19th and 20th centuries now prepare baklava in Mexico City, Berlin and London, and Turkish delight in San Francisco and Melbourne.

In the meantime, northern European sweets had taken a different direction. Northern Europeans who had got wind of these delicious, healthful luxuries from travelers established sugar plantations, first in Cyprus in the Middle Ages, and then in the Atlantic Islands and the Caribbean in the 16th and 17th centuries. They learned the tricks of preparing jams, jellies, marzipan and fritters from Portuguese and Spanish cooks and from the confectionery manuals published from the mid-16th century on. Between the 16th and the 19th centuries, sugar production soared as Europeans opened new plantations, introduced mass-production machinery and then learned how to extract sugar from a new source: beets. For the first time, sugar became widely affordable. What were once exotic confections became snacks and everyday candies for children. Sweetness was diffused through cakes instead of concentrated in jolts of deliciousness, and by the late 20th century, far from praising sugar, doctors condemned it, so it was gradually demoted to a mere bearer of empty calories.

Yet in Islamic lands sweets continue to be a source of enchantment and social ritual, served at birth, marriage and death, as well as at the great events of the religious year, the holy month of Ramadan, 'Id al-Fitr and 'Id al-Adha. As a sign of hospitality, a touchstone of culture, a path to well-being and a product of a long and proud tradition, sweets are cherished. 🌍

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On the cover: *Mamoul* (*karabij* or *kurabiye* in Turkey; *klaysha* in Iraq) are date- or nut-stuffed pastries in a shortbread dough of wheat flour, sugar and fat (now usually butter). Descriptions date back to Arabic cookbooks of the Middle Ages, and mamoul are among the traditional sweet offerings for the Ramadan *iftar* (nighttime meal) in the Levant and the Arabian Peninsula. Made at home or commercially, they are decorated by hand or, here, by pressing into an incised wooden mold. Photo by Sawsan Abu Farha (chefindisguise.com).

Credits: Captions by Rachel Laudan. Historical notes by Robert W.

Lebling and Alva Robinson. Photo research and editing by Mary Kathryn Flores. Edited by Richard Doughy. Design by Graphic Engine. Printed by RRDDonnelley/Wetmore.

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, 2015 Gregorian begins in Rabi al-Awwal, the third month of *hijri* 1436, and ends in that same month *hijri* 1437.

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

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

(Online calculators are available at several searchable sources including www.rabiah.com/convert/ and www.ori.unizh.ch/hegira.html.)



RABI' I 1436 -
RABI' II

JANUARY

S	M	T	W	T	F	S
NOTES:				10	11	12
				Sultanate of Brunei independence 1983	8000-year-old cave paintings found in Egypt 1971	
13	14	15	16	17	18	19
Tunisian cultural pioneer Ali Douagi born 1909	Vasily Radlov, Russian Turkologist, born 1837			Egypt begins Aswan High Dam construction 1960	Ibn Saud declared King of Hijaz 1926	
20	21	22	23	24	25	26
Cornerstone is laid at Washington, D.C., Islamic Center 1949				'Abd al-'Aziz Al Sa'ud, founder of Saudi Arabia, born 1876	'Abd al-Rahman III becomes caliph of al-Andalus 929	
27	28	29	30	31		
	Al-Shafi'i, Islamic jurist, born 820			Afsharid Dynasty of Khurasan founded 1736	Caliph 'Umar introduces Islamic calendar 638	Prophet Muhammad born in Makkah 570
5	6	7	8	9	10	11
				C. R. Ali coins the country name "Pakistan" 1933		

RABI' II -
JUMADA I

FEBRUARY

S	M	T	W	T	F	S
12	13	14	15	16	17	18
India's Mughal Empire enters classical age under Akbar 1556		Geographer Ibn Jubayr leaves Granada for Makkah 1183			Indonesian author Pramoedya Ananta Toer born 1925	
19	20	21	22	23	24	25
	Chagatai poet Ali-Shir Nava'i born in Herat 1441	Hadji Ali of us Army Camel Corps arrives in Texas 1856				King 'Abd al-'Aziz meets Pres. Roosevelt 1945
26	27	28	29	30	1	2
		Existentialist Abdel Rah-man Badawi born 1917	First air crossing over the Sahara 1920		Al-Musta'sim, last Abbasid caliph, dies 1258	Bangladesh Language Day celebrates preservation of Bangla (Bengali)
3	4	5	6	7	8	9
Istiqlal Mosque opens in Jakarta, Indonesia 1978			Traveler Ibn Battuta born in Tangier 1304			
NOTES:						

In this modern version of *kanafah*, an unctuous filling of sweet clotted cream or soft, fresh cheese is enclosed in crisp-fried vermicelli pastry and soaked in syrup. The pastry, which requires great skill, dates back six or eight centuries. The first known recipe was added to the translation of the greatest of medieval Arabic cookbooks into Turkish by the Ottoman court physician Sirvani. It is made by pouring a thin flour batter through a sieve, or a container punctured with tiny holes, into a pan of hot oil.

Photo by Ozgur Coskun / Alamy.

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ
تَابِعْمَةُ رَبِّكَ فِي

طَوَّاسِنَ عَلِيَّاتٍ مَّا زَقَاكُمْ وَشَكَرُوا لِي



بلور
سعر الكيلو
٥



بقلاوة حاجو
سعر الكيلو
٢٥٠ ل.س



برمة شرحات
سعر الكيلو
٤٥٠ ل.س



بقلاوة فستق
سعر الكيلو
٢٧٥ ل.س



تابع
٢٢ ل.س





RAJAB –
SHA‘ABAN

MAY

S	M	T	W	T	F	S
NOTES:					12	13
					Astronomer Ali ibn Ridwan sees Lupus supernova 1006	Filmmaker Satyajit Ray born in Calcutta 1921
14	3	15	4	16	5	17
					Pope John Paul II visits Damascus Mosque 2001	
21	10	22	11	23	12	13
					Achmed Abdullah, American writer, born 1881	
28	17	29	18	1	19	2
Heyerdahl departs Morocco in papyrus boat 1970	Magtymguly Pyragy, Turkmen poet-hero, born 1724				Unification of Yemen 1990	Indonesian artist Affandi dies 1990
6	24	7	25	8	26	9
					Sociology founder Ibn Khaldun born in Tunis 1332	
13	31					
Washington Irving begins Alhambra residence 1829						

SHA‘ABAN –
RAMADAN

JUNE

S	M	T	W	T	F	S
					14	15
					Mamluk Sultanate founded in Egypt 1250	First Arab World Environment Day, Beirut 2003
20	7	21	8	22	9	10
					Treaty of Tripoli takes effect in us 1797	Süleymaniye Mosque cornerstone laid 1550
27	14	28	15	29	16	17
					Assyrians record solar eclipse 763 BCE	Mumtaz Mahal dies, inspiring Taj Mahal 1631
4	21	5	22	6	23	7
Ibn Fadlan departs for Volga Bulgaria 921					Timur Bekmambetov, director of <i>Abraham Lincoln: Vampire Hunter</i> , born 1961	
11	28	12	29	13	30	NOTES:
					Al-Azhar University completed in Cairo 972	

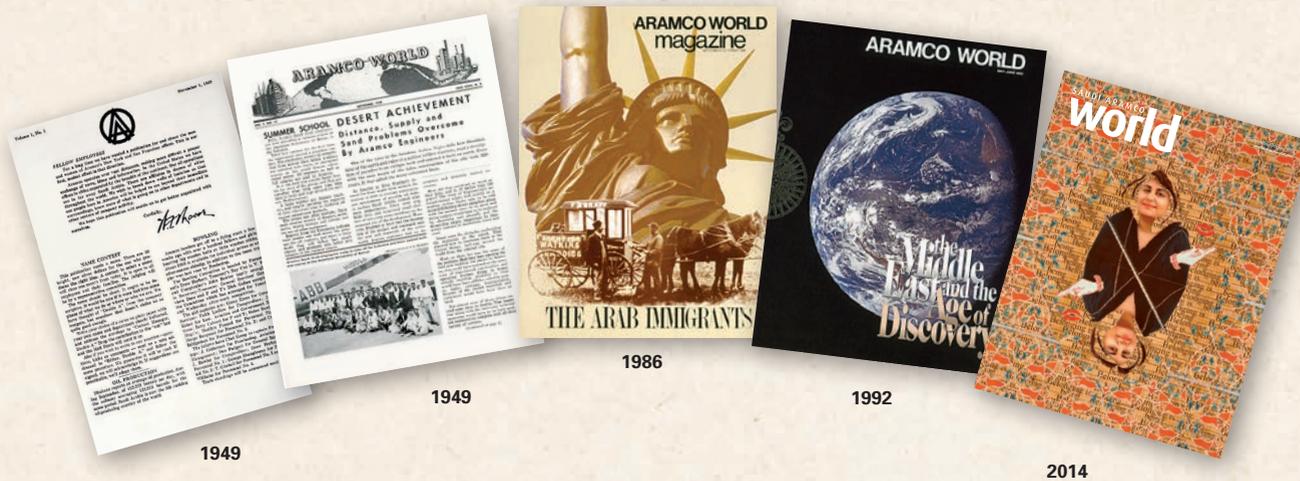
Marzipan, a mixture half of ground almonds and half of sugar, is one branch of the halvah family of confections, and it achieved particular popularity in al-Andalus, where both sugar and almonds were grown, and from where it spread to Europe and the New World. It lends itself to molding into elaborate forms, which have included animals, castles, flowers or this elaborately curved confection made in Toledo, Spain, which was the center of the finest marzipan of al-Andalus. It is decorated with figs and other fruits candied in sugar—a form of sweet that dates back even farther than marzipan itself.

Photo by Tor Eigeland / SAWDIA.









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Today, the magazine continues to be published online and in print by Aramco Services Company in

Houston, Texas, on behalf of Saudi Aramco, since 1988 the national energy company of Saudi Arabia. Although our mission remains education, the fostering of cooperation and the building of mutual appreciation among the increasingly interconnected cultures of East and West, for the last five decades, *Aramco World* and (2000-2014) *Saudi Aramco World* have been produced primarily for readers outside the company, worldwide, as well as for internal readers. Its articles continue to span the Arab and Muslim worlds, past and present, with special attention to their connections with the cultures of the West.

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