Religions and Time

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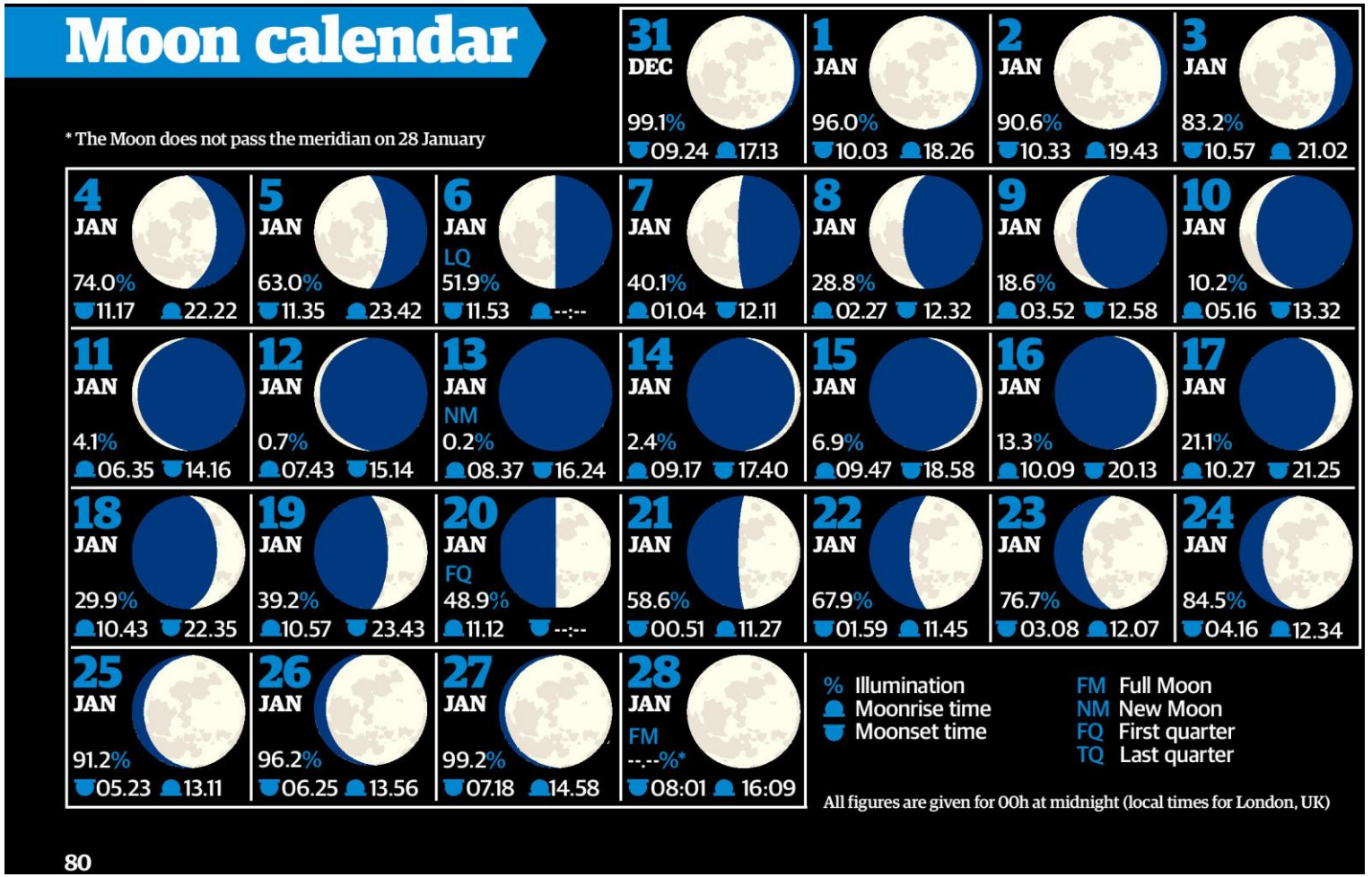
Outline

- 1500-1200 BC – The Calamity of the Ancient Mediterranean World
  - Rig Veda
  - Torah
- 600-500 BC – The Axial Age
  - Destruction of Jerusalem
  - Buddhism
  - Jainism
- 0 BC – The Advent of Christ
- 630-1600 – The Flood of Islam
- 1400-1600 – The turning point to the modern era
  - The Fall of the Old World (Constantinople)
  - New technologies – the printing press
  - The New World
  - The Ascension of Europe

Lunar Calendar



Lunar Calendar

- On cave paintings in 17,000 BC and a complete calendar from 8000 BC
- Time is based on phases of the moon rather than movements of the sun.
- Each lunation cycle is 29.5 days, and twelve lunations, a lunar year, is 354 days, 8 hours, 48 minutes, and 34 seconds (354.36707 days).
- The lunar months cycle through all the seasons of a solar year over a 33-34 lunar year cycle.
- Islam – Hijri calendar, which is purely lunar

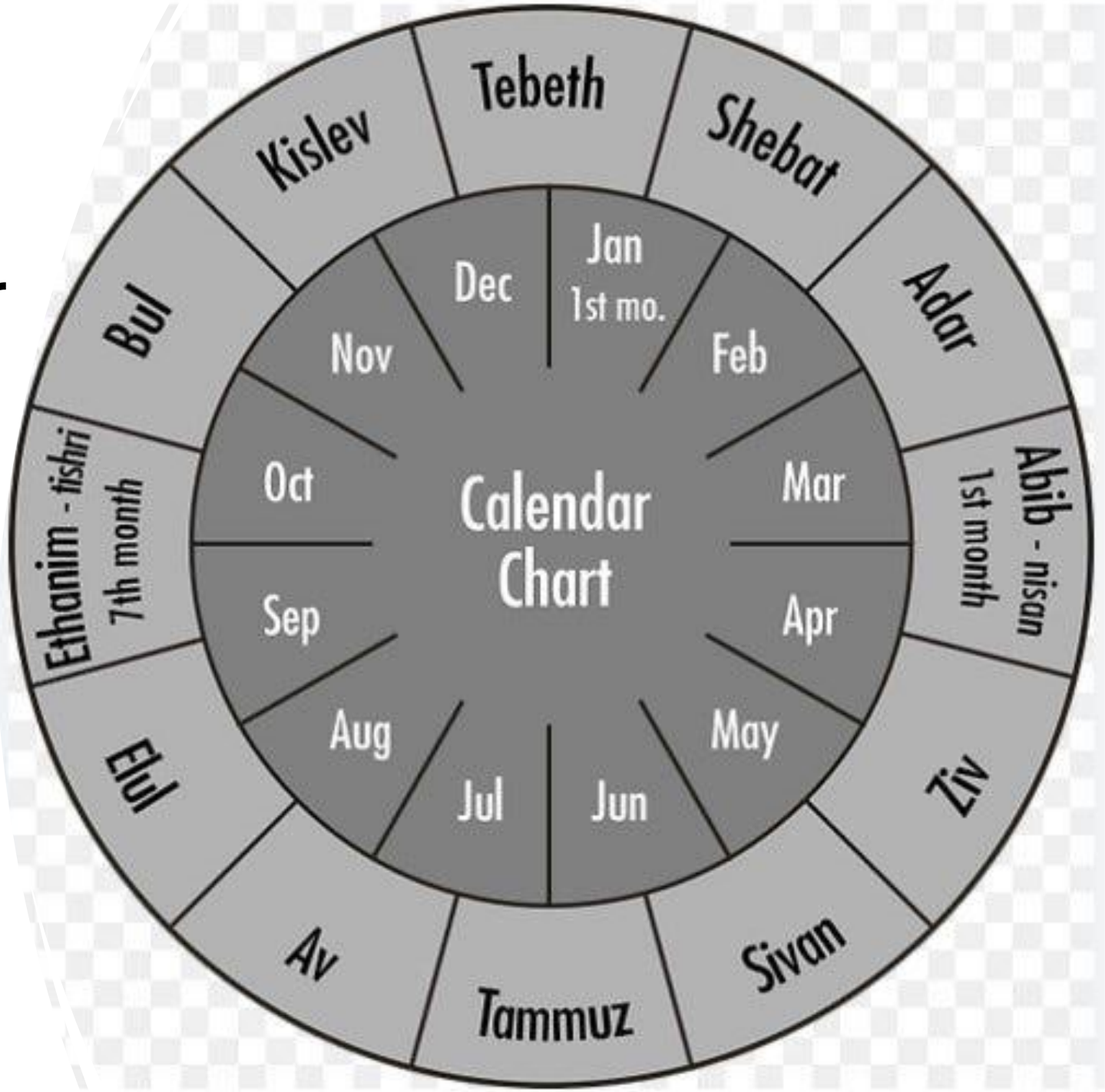
Islamic Calendar Dating

- As Christianity dates its calendar from the advent of Christ (BC and AD), Islam dates its calendar from the year in which Mohammad led his small group of Muslims from Mecca to Medina (Hijra).
- The Hijra was in AD 622 according to the Christian calendar, the mostly widely used one in the world.
- It is designated AH (Latin: Anno Hegirae, lit. 'In the year of the Hijrah’).
- AD 2025 is AH 1446. Since the lunar year is shorter, the AH year is catching up to the AD year.
- The conversion is more complex than simply subtracting 622 from the AD year

Lunisolar Calendar

- A lunar calendar which includes periodic intercalations to bring them into agreement with the solar calendar.
- Usually, add an additional month every second or third year.
- Modern - Chinese, Korean, Vietnamese, Hindu, Hebrew and Thai calendars.
- Ancient – Hellenic, Coligny, South Arabian, and Babylonian calendars
- Western Christians use a lunar calendar to fix the date of Easter and other movable feasts, corrected by an algorithm, in the Gregorian calendar.
- Eastern Christians use a lunar calendar to fix the date of Easter and other movable feasts, corrected by an algorithm, in the Julian calendar.

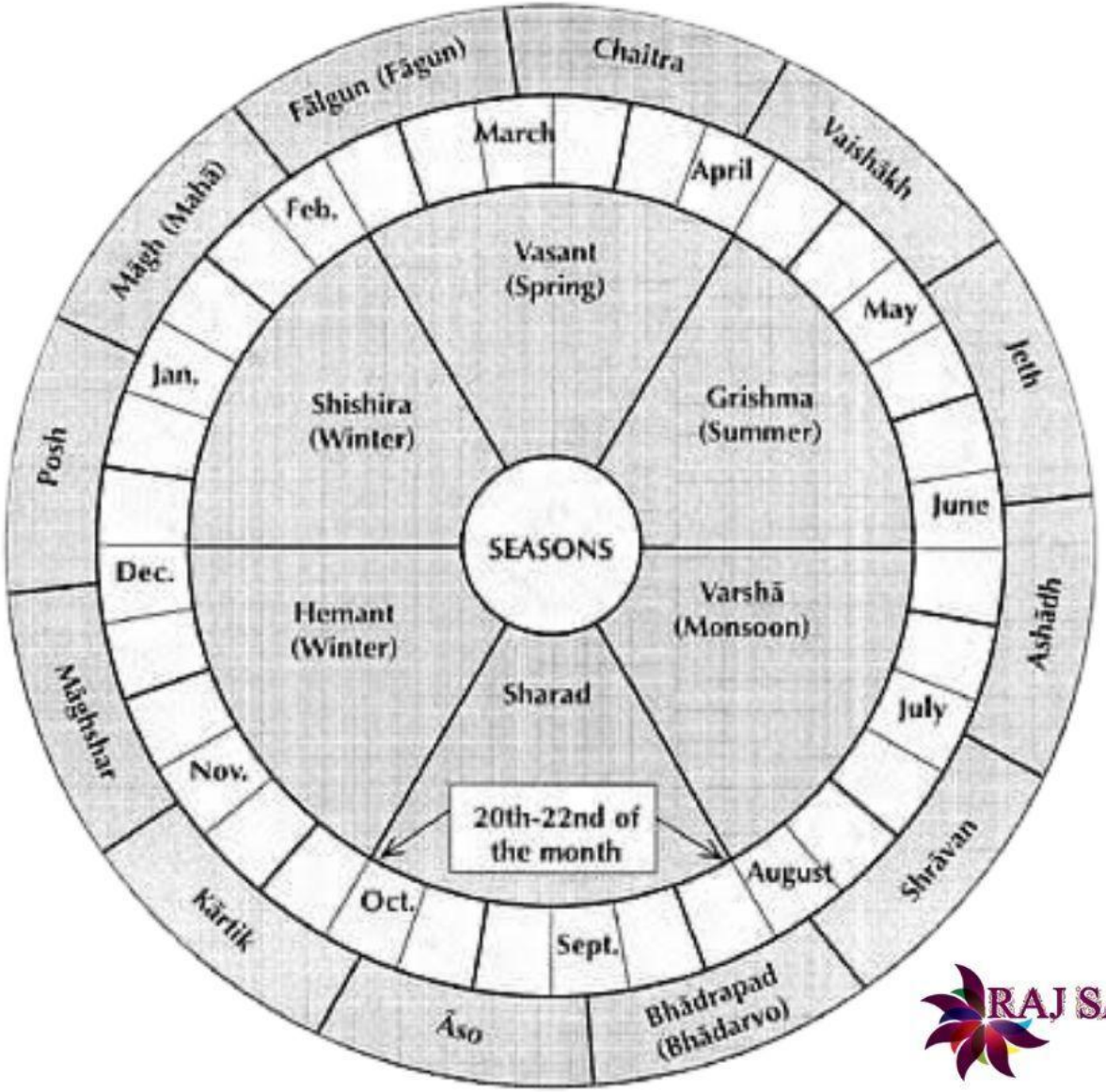
Biblical Hebrew Lunisolar Calendar



Hinduism and Time

The Hindu Calendar & Seasons

(and how it relates to the calendar we use today)



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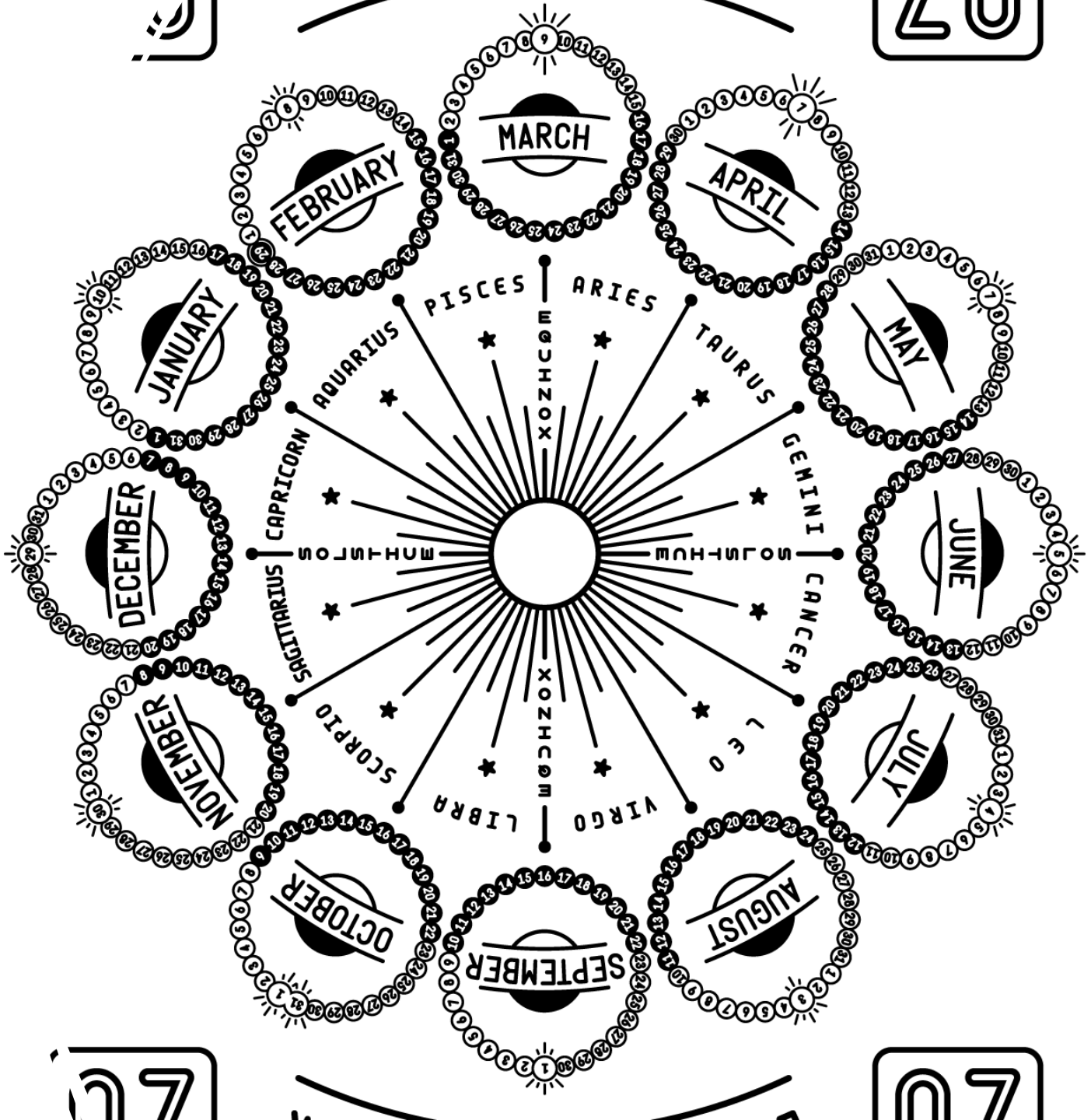
Buddhist Lunisolar Calendar

- Based on the Hindu lunisolar calendar
- Epochal date (year 0) was when the Buddha attained enlightenment (*Parinibbana*), which is dated variously from 554 to 543 BC.
- Epochal uncertainties limit the usefulness of the Buddhist calendar for day-to-day use. The Buddhists use the Gregorian calendar for routine life and the Buddhist calendar for religion.

Astrological Lunisolar calendar

- Combines the cycles of the Moon and the Sun
- Integrated with the zodiac



Solar Calendar

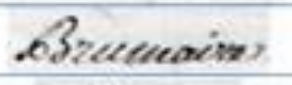
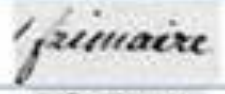
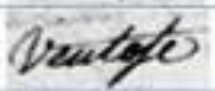
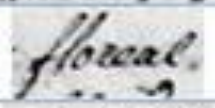
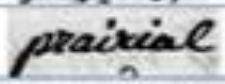
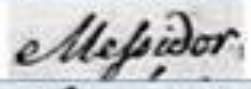
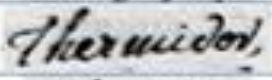
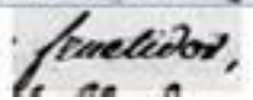
- Based on the earth's orbit around the sun (365.25 days)
- Julian – Julius Caesar
- Gregorian – Pope Gregory
- Most widely used calendar today.
- Muslims use the solar calendar (Gregorian) for most of life, since almost everyone else on earth does it.
- They use the lunar calendar for religious purposes

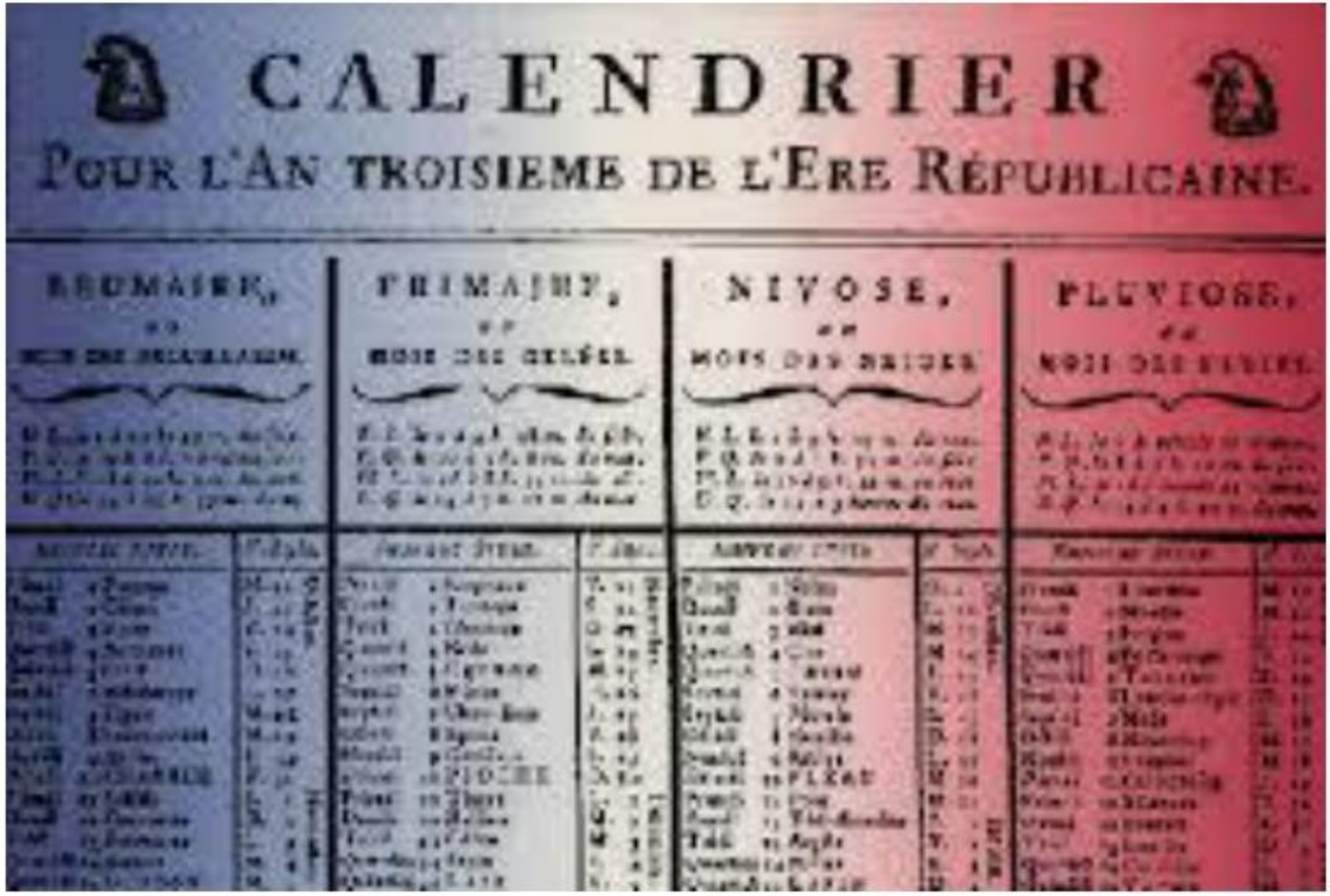
JULIAN CALENDARS	GREGORIAN CALENDARS
Julian calendar is the 365-day calendar Julius Caesar made official in 46 B.C	Gregorian calendar is the calendar currently used in most parts of the world
An average year in Julian calendar is 365.25 days	An average year in Gregorian calendar is 365.2425 days
There was a leap year every four years	A year that is exactly divisible by 4 is a leap year; however, a year that is

French Republican (Revolutionary) Calendar

- Used in France during the Revolution (1793-1805) and the Paris Commune (1871, for 18 days) to eliminate all Christian and royalist influences from France.
- Abolished by Napoleon Bonaparte
- Consisted of twelve 30-day months, each divided into three 10-day cycles similar to weeks, plus five or six intercalary days at the end to fill out the balance of a solar year.
- Ten-day cycles are not consistent with the movement of the moon.
- The USSR tried the same thing for the same reasons with the same results.

French Revolution

Season	Month	Handwritten month	Meaning	Dates
Autumn	Vendémiaire		Month of grape harvest	September 22nd to October 21st
	Brumaire		Month of mist	October 22nd to November 20th
	Frimaire		Month of cold	November 21st to December 20th
Winter	Nivôse		Month of snow	December 21st to January 19th
	Pluviôse		Month of rain	January 20th to February 18th
	Ventôse		Month of wind	February 19th to March 20th
Spring	Germinal		Month of sprouts	March 21st to April 19th
	Floréal		Month of flowers	April 20th to May 19th
	Prairial		Month of meadows	May 20th to June 18th
Summer	Messidor		Month of harvest	June 19th to July 18th
	Thermidor		Month of heat	July 19th to August 17th
	Fructidor		Month of fruits	August 18th to September 16th



CALENDRIER

POUR L'AN TROISIEME DE L'ERE RÉPUBLICAINE.

VENDÉMIAIRE,
ou
MOIS DES VENDANGES.

BRUMAIRE,
ou
MOIS DES BRUMES.

FRIMAIRE,
ou
MOIS DES GELÉES.

NIVOSE,
ou
MOIS DES NEIGES.

PLUVIOSE,
ou
MOIS DES PLUIES.

Other Calendars

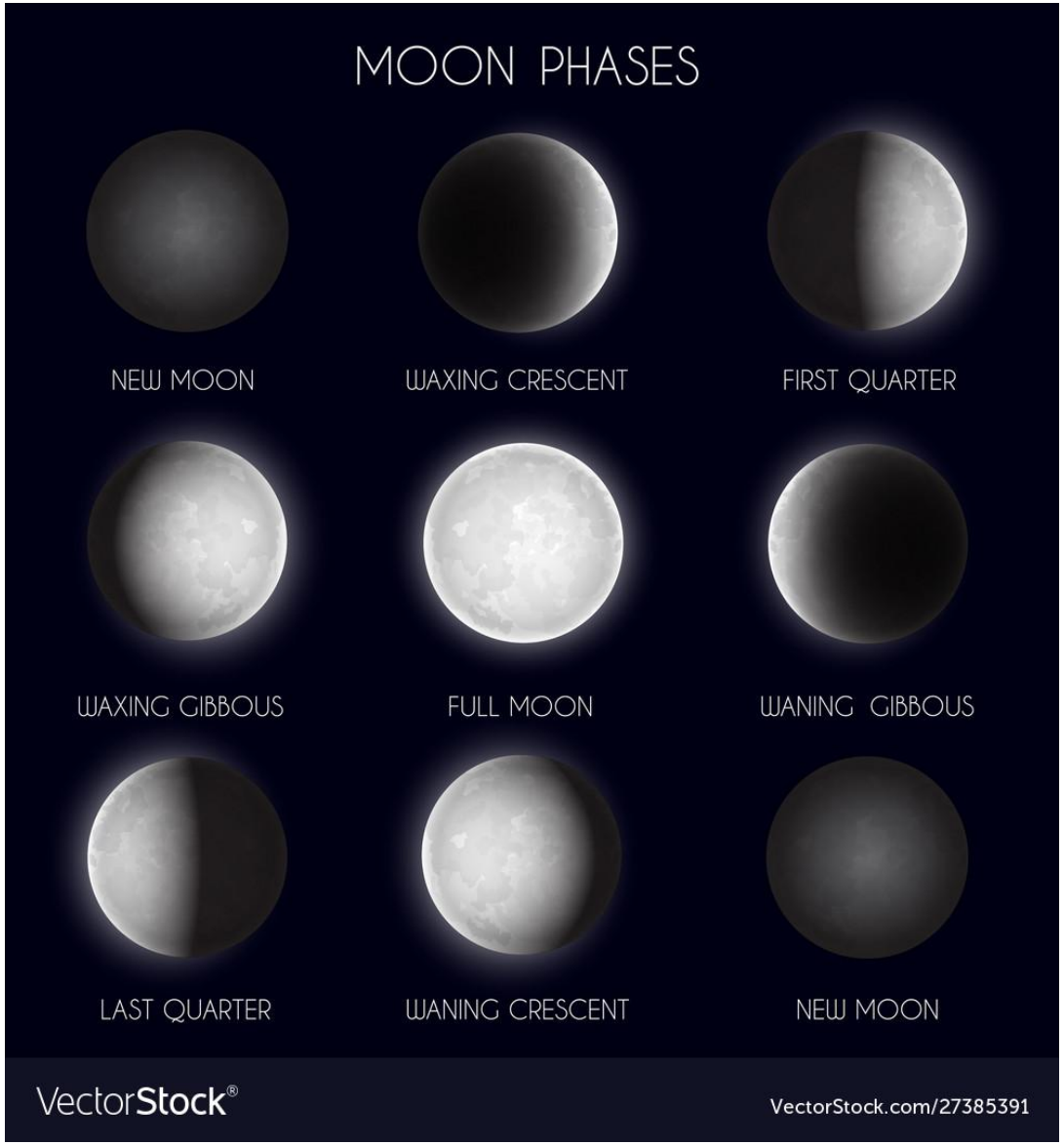
- Armenian - Calendar used in medieval Armenia and as liturgical calendar of the Armenian Apostolic Church. Fixed 365 days. Derived from the Zoroastrian (or related medieval Iranian calendars such as the Sogdian/Choresmian ones). It uses the era AD 552. In modern Armenian nationalism, an alternative era of 2492 BC is sometimes used.
- Egyptian - The year is based on the heliacal rising of Sirius (Sothis) and divided into the three seasons of akhet (Inundation), peret (Growth) and shemu (Harvest). The heliacal rising of Sothis returned to the same point in the calendar every 1,460 years (a period called the Sothic cycle).
- Inuit - The Inuit calendar is based on between six and eight seasons as solar and lunar timekeeping methods do not work in the polar regions.
- Vietnamese - After Vietnam regained independence following the third Chinese domination of Vietnam, the following dynasties established their own calendars based on Chinese prototypes, and every subsequent dynasty had appointed officers to man and create the calendar to be used in the realm.
- Many others

Other measures of time

- Hour – Twelve constellations transit the sky in a night from the vantage point of the Middle East. This prompted the ancients to divide the night (and the day) in twelve hours each.
- Day – commonly drawn from the rising and setting of the sun, but may also be measured from noon, midnight, or night watches (1st is 1800 - 2100, 2nd is 2100 – 2400 (midnight), third is 2400-0300, and fourth is 0300-0600.
- Week – Varies from 7-day length (half a fortnight) to 8 days (Etruscans) and 10 days (Egyptians, French revolutionaries). The first day of a week illuminates what is important in that culture, such as the day of or after holy days (Fridays for Muslims, Saturdays for Jews, and Sundays for Christians). International Standard (ISO 8601) designates Monday as the first day of the week.
- Fortnight – half a lunar synodic month, the mean period between a new moon and a full moon (14.77 days)

Fortnight

- Time from new moon to full moon.

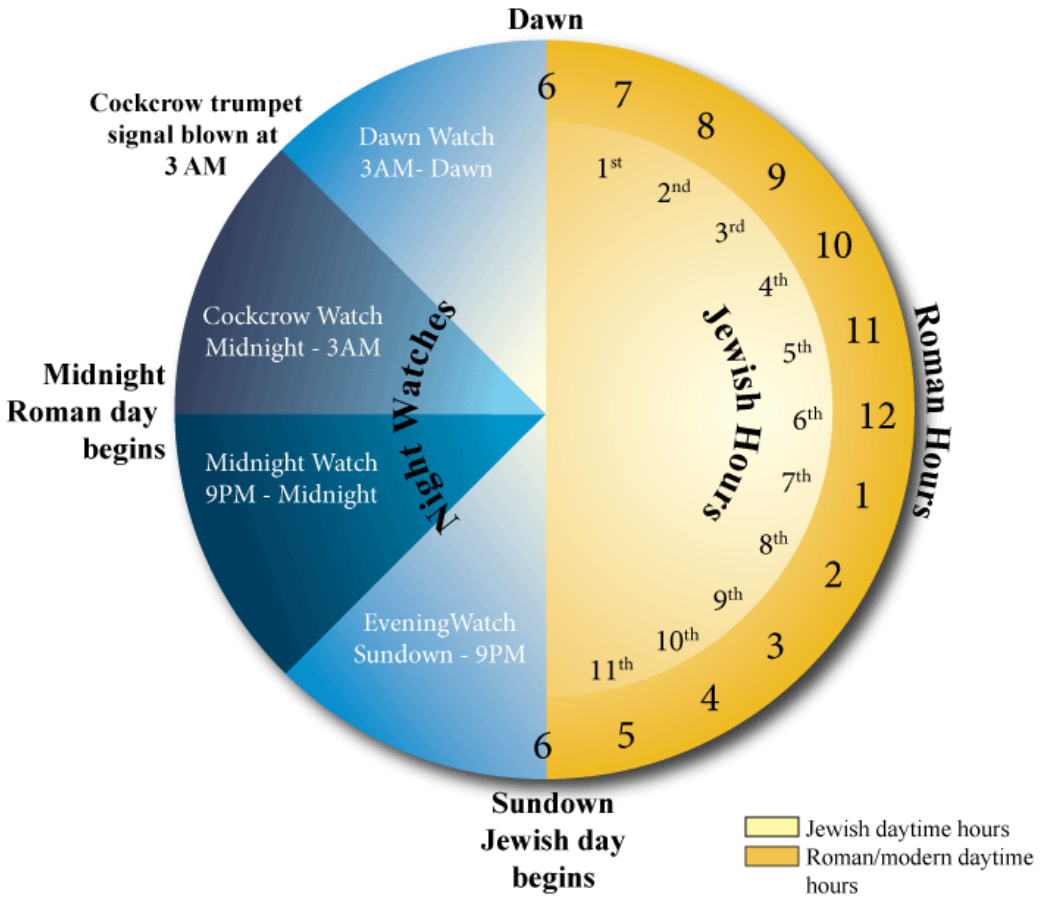


Twelve hours of the day in Roman late antiquity

- Auge (first light)
- Anatole (sunrise)
- Mousike (morning hour of music and study)
- Gymnastike (morning hour of exercise)
- Nymphe (morning hour of ablutions)
- Mesembria (noon)
- Sponde (libations poured after lunch)
- Elete (prayer)
- Akte (eating and pleasure)
- Hesperis (start of evening)
- Dysis (sunset)
- Arktos (night sky)

12 Seasonal Daylight Hours and Night Watches 1st Century AD

So stay awake, because you do not know when the master of the house is coming: evening, midnight, cockcrow or dawn ... Mark 13:35

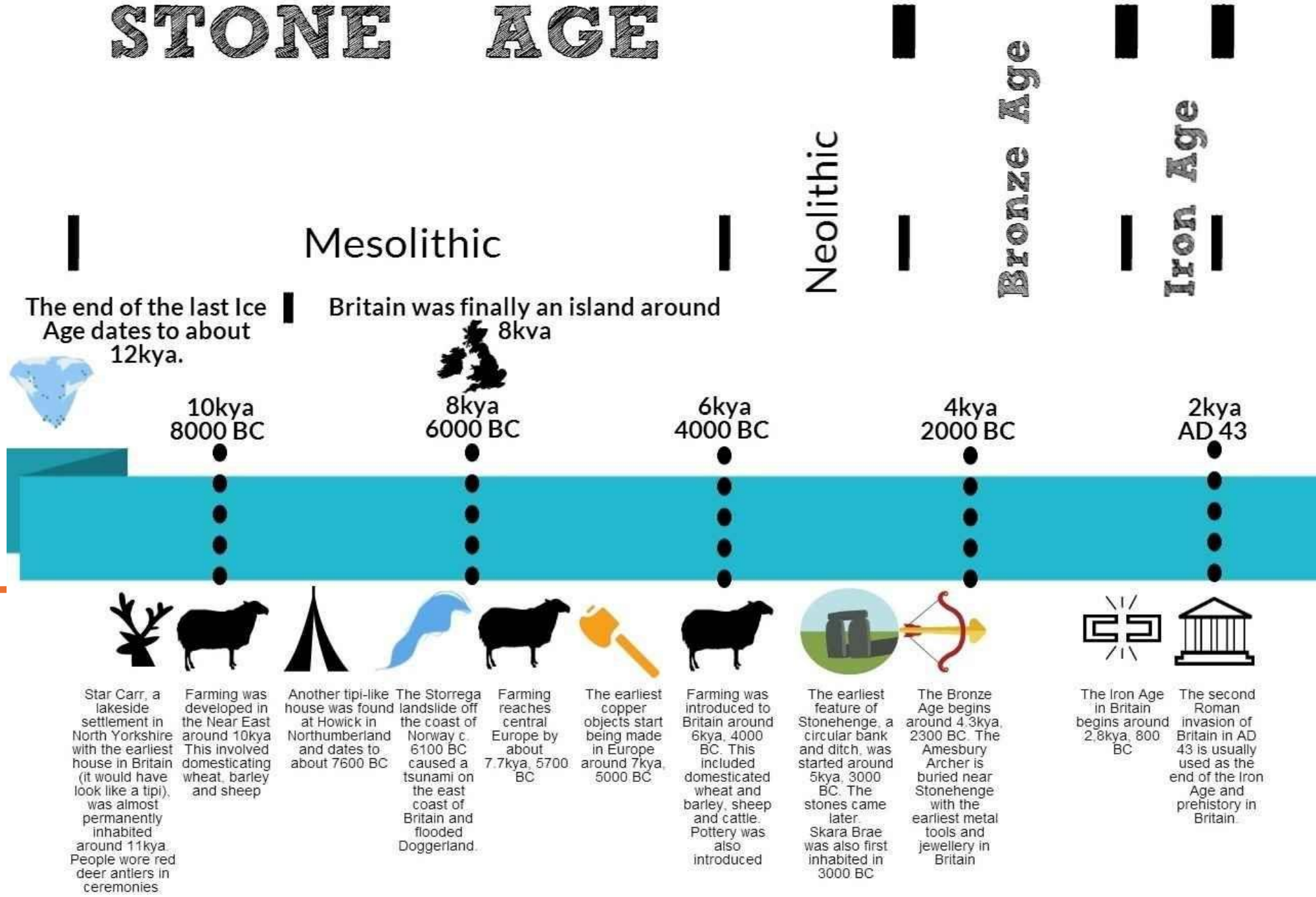


The Jews observed the 4 Roman Night Watches that divided the 12 night hours

Why does it matter what calendar peoples use? (1)

- Inaccurate calendars cannot adequately coordinate activities between people in different areas. The Gregorian calendar is the most accurate in the world.
- Communication is harder, because Person A may want to meet on March 10 and Person B on Ventose 20.
- Sharing holidays is difficult and sometimes impossible.
  - Different cultures have different holidays
  - The same holidays can fall on different dates.
- Setting the epochal year demonstrates what is most important to a society, whether Year 0 is the enlightenment of Buddha, the birth of Christ, or the Hijra of Mohammad.
- Astronomical phenomena (equinox, solstice) impact agricultural practices.

Epochal Year



Why does it matter what calendar peoples use? (2)

- Differing calendars reflect differing perceptions of time.
- Eliminating key values in a society, like the French Revolutionaries tried to do, is disruptive.
- Astronomical phenomena (equinox, solstice) impact agricultural practices. Egyptians used these to track Nile flooding and plan Nile agriculture.
- Differing calendars reflect differing perceptions of time.
- Eliminating key values in a society, like the French Revolutionaries tried to do, is disruptive.

Conclusion

Discussion

References

- H. Wayne House, Charts of World Religions, Zondervan, 2006