15 LUNAR FACTS ABOUT THE MOON

1 In Muslim civilization **astronomers** were fascinated by the phases of the Moon.

Astronomers in early Muslim civilization **calculated ecisely** when the **crescent moon** would appear—portant information for followers of Islam.

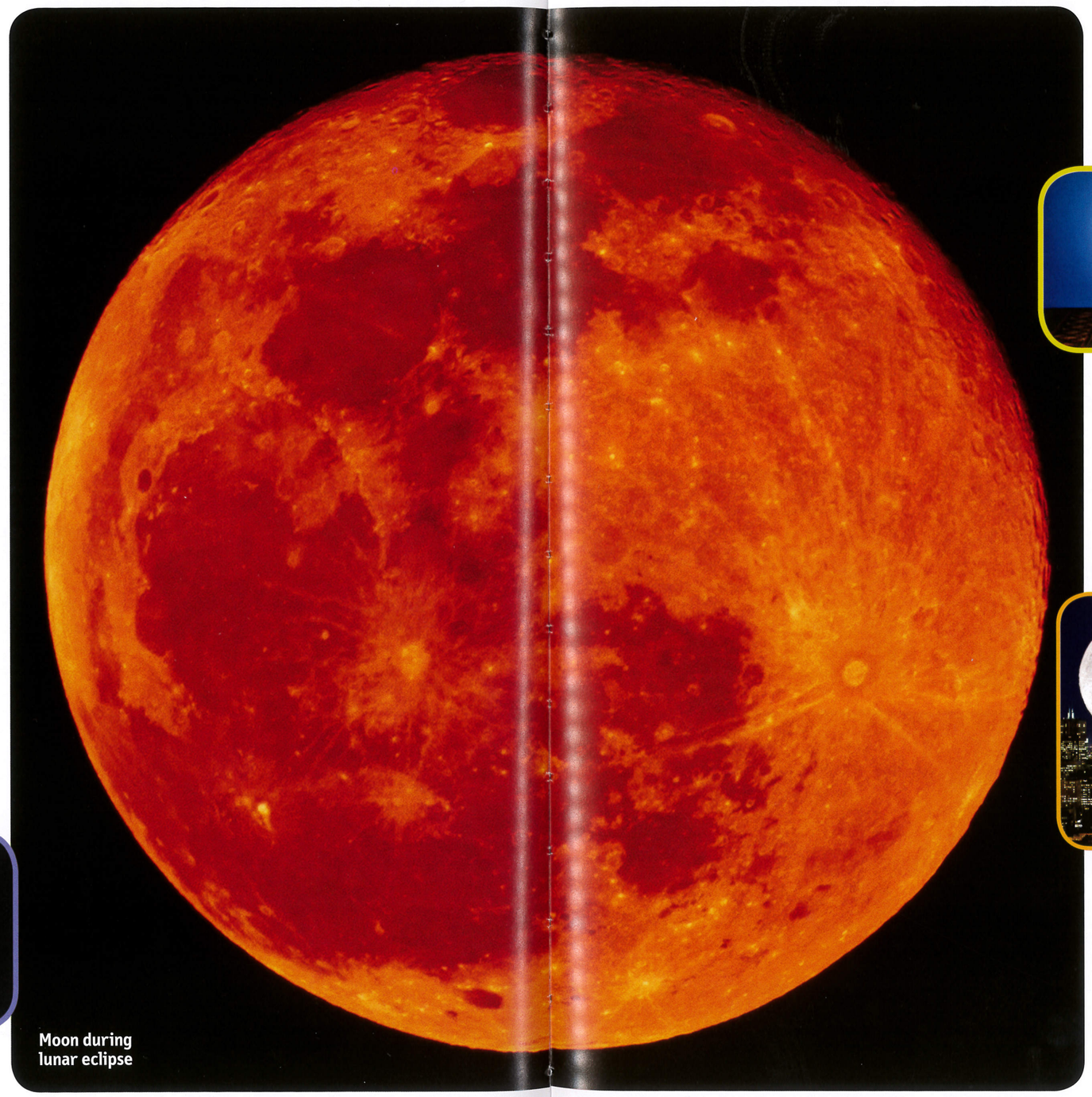
3 The crescent moon marks the beginning of **Ramadan** and other months in the Islamic calendar.

Al-Kindi, a 9th-century raqi, developed a type of **rigonometry** that dealt ith **spheres** rather than at surfaces.

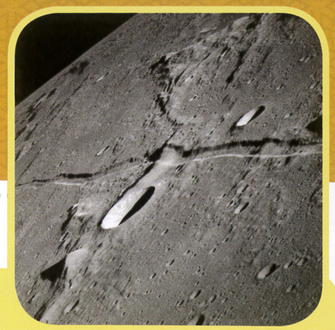
5 People needed **spherical trigonometry** to find the direction of Mecca, the holiest place of Islam, from any point on Earth.

6 Astronomer Muhammad Abu al-Wafa' al-Buzjani discovered that the **moon** travels at **different speeds** during different phases.

7 The Danish astronomer Tycho Brahe is often credited with discovering this **lunar phenomenon,** but his discovery came **600 years after** Al-Buzjani's.



Moon during lunar eclipse



8 A **crater on the moon** is named after Abu al-Wafa' al-Buzjani.

9 The Islamic calendar has **12 months** that begin and end according to the lunar cycle.

10 In 634 the second ruler of the **Muslim world** introduced the *hijri* date system, a **calendar** based on the **lunar cycle,** which is still in use today.

11 The *hijri*, or Islamic calendar, is only **354** or **355 days** long, 11 days shorter than calendars based on the Earth's revolution around the sun.

12 Ibn al-Haytham studied the moon at different positions in the sky and discovered that its **larger appearance** near the horizon is an **optical illusion.** The moon's real size never changes.

13 The moon's surface has more than 650 **dark and light patches,** caused by craters and other formations. Thirteen of these are named for Muslim astronomers.

14 **Lunar formations** are part of what creates the **"man in the moon"** phenomenon we can see from the Earth.

15 **The moon** has been known by many names: "Luna" by the Romans, **"Selene" by the Greeks,** and *Al-Qamar* by Arabs.