

Unit 6

Reading A

The Chinese Calendar 《中国历法》

1 Chinese New Year is the main holiday of the year for more than one quarter of the world's population. Although the People's Republic of China uses the Gregorian calendar for civil purposes, a special Chinese calendar is used for determining festivals. Various Chinese communities around the world also use this calendar.

中国新年是世界上超过四分之一人口一年中的主要节日。虽然中华人民共和国在民用方面使用公历，但会使用一种特殊的中国历法来确定节日。世界各地的各个华人社区也使用这种历法。

2 The beginnings of the Chinese calendar can be traced back to the 14th century BC. Legend has it that the Emperor Huangdi invented the calendar in 2637 BC.

中国历法的起源可以追溯到公元前 14 世纪。传说黄帝在公元前 2637 年发明了历法。

3 The Chinese calendar is based on exact astronomical observations of the longitude of the sun and the phases of the moon. This means that principles of modern science have had an impact on the Chinese calendar.

中国历法基于对太阳经度和月亮相位的精确天文观测。这意味着现代科学原理对中国历法产生了影响。

What does the Chinese Year look like?

中国年是什么样子的？

4 The Chinese calendar-like the Hebrew-is a combined solar/lunar calendar in that it strives to have its years coincide with the tropical year and its months coincide with the synodic months. It is not surprising that a few similarities exist between the Chinese and the Hebrew calendar:

中国历法与希伯来历法一样，是一种阴阳合历，因为它力求使其年份与回归年一致，月份与朔望月一致。中国历法和希伯来历法之间存在一些相似之处并不奇怪。

- An ordinary year has 12 months, a leap year has 13 months.

平年有 12 个月，闰年有 13 个月。

- An ordinary year has 353, 354, or 355 days, a leap year has 383, 384, or 385 days.

平年有 353、354 或 355 天，闰年有 383、384 或 385 天。

5 When determining what a Chinese year looks like, one must make a number of astronomical calculations:

在确定中国年是什么样子的時候，必须进行一些天文计算。

6 First, determine the dates for the new moons. Here, a new moon is the completely "black" moon (that is, when the moon is in conjunction with the sun), not the first visible crescent used in the Islamic and Hebrew calendars. The date of a new moon is the first day of a new month.

首先，确定新月的日期。这里的新月是指完全“黑暗”的月亮（即月亮与太阳合相时），而不是伊斯兰教历和希伯来历中使用的首次可见的月牙。新月的日期是一个新月份的第一天。

7 Second, determine the dates when the sun's longitude is a multiple of 30 degrees. (The sun's longitude is 0 at Vernal Equinox, 90 at Summer Solstice, 180 at Autumnal Equinox, and 270 at Winter Solstice.) These dates are called the Principal Terms and are used to determine the number of each month:

其次，确定太阳经度为 30 的倍数的日期。（太阳在春分点经度为 0，夏至点为 90，秋分点为 180，冬至点为 270。）这些日期被称为节气，用于确定每个月的序号。

- Principal Term 1 occurs when the sun's longitude is 330degrees.

- Principal Term 2 occurs when the sun's longitude is 0 degrees

- Principal Term 3 occurs when the sun's longitude is 30 degrees. (etc.)

- Principal Term 11 occurs when the sun's longitude is 270degrees.

- Principal Term 12 occurs when the sun's longitude is 300 degrees.

节气 1 出现在太阳经度为 330 度的时候。

节气 2 出现在太阳经度为 0 度的时候。

节气 3 出现在太阳经度为 30 度的时候。（等等）

节气 11 出现在太阳经度为 270 度的时候。

节气 12 出现在太阳经度为 300 度的时候。

8 Each month carries the number of the Principal Term that occurs in that month.

每个月都带有在该月出现的节气的序号。

9 In rare cases, a month may contain two Principal Terms; in this case the month's numbers may have to be shifted. Principal Term 11 (Winter Solstice) must always fall in the 11th month.

在极少数情况下，一个月可能包含两个节气；在这种情况下，该月的序号可能需要调整。节气 11（冬至）必须始终落在第 11 个月。

10 All the astronomical calculations are carried out for the meridian 120 degrees east of Greenwich. This roughly corresponds to the east coast of China. Some variations in these rules are seen in various Chinese communities.

所有的天文计算都是针对格林威治以东 120 度子午线进行的。这大致对应于中国的东海岸。在不同的华人社区可以看到这些规则的一些变化。

What years are leap years?

什么年份是闰年？

11 Leap years have 13 months. To determine if a year is a leap year, calculate the number of new moons between the 11th month in one year and the 11th month in the following year. If there are 13 new moons from the start of the 11th month in the first year to the start of the 11th month in the second year, a leap month must be inserted.

闰年有 13 个月。要确定一年是否为闰年，计算从一年中的第 11 个月到下一年的第 11 个月之间的新月数量。如果从第一年的第 11 个月开始到第二年的第 11 个月开始有 13 个新月，那么必须插入一个闰月。

12 In leap years, at least one month does not contain a Principal Term. The first such month is the leap month. It carries the same number as the previous month, with the additional note that it is the

leap month.

在闰年中，至少有一个月不包含节气。第一个这样的月就是闰月。它与前一个月的序号相同，并额外注明它是闰月。

How does one count years?

如何计算年份呢？

13 Unlike most other calendars, the Chinese calendar does not count years in an infinite sequence. Instead years have names that are repeated every 60 years. (Historically, years used to be counted from the accession year of an emperor, but this was abolished after the 1911 revolution.)

与大多数其他历法不同，中国历法并非以无限序列来计算年份。相反，年份有名称，每 60 年重复一次。（在历史上，年份曾以皇帝登基之年开始计算，但在 1911 年革命后被废除。）

14 Within each 60-year cycle, each year is assigned name consisting of two components:

在每一个 60 年的周期内，每一年都被赋予一个由两部分组成的名称：

15 The first component is a Celestial Stem. These words have no English equivalent:

第一个部分是天干。这些词在英语中没有对应词汇。

1	jia	6	ji
2	yi	7	geng
3	bing	8	xin
4	ding	9	ren
5	wu	10	gui

16 The second component is a Terrestrial Branch. The names of the corresponding animals in the zodiac cycle of 12 animals are given in parentheses.

第二个部分是地支。括号中给出了对应十二生肖动物的名称。

1	zi (rat)	7	wu (horse)
2	chou (ox)	8	wei (sheep)
3	yin (tiger)	9	shen (monkey)
4	mao (hare, rabbit)	10	you (rooster)
5	chen (dragon)	11	xu (dog)
6	si (snake)	12	hai (pig)

17 Each of the two components is used sequentially. Thus, the 1st year of the 60-year cycle becomes jia-zi, the 2nd year is yi-chou, the 3rd year is bing-yin, etc. When we reach the end of a component, we start from the beginning: The 10th year is gui-you, the 11th year is jia-xu (restarting the Celestial Stem), the 12th year is yi-hai, and the 13th year is bing-zi (restarting the Terrestrial Branch). Finally, the 60th year becomes gui-hai.

两个部分都是依次使用。因此，60 年周期中的第一年是甲子，第二年是乙丑，第三年是丙寅，等等。当一个部分用完时，就从头开始：第十年是癸酉，第十一年是甲戌（天干重新开

始），第十二年是乙亥，第十三年是丙子（地支重新开始）。最后，第六十年是癸亥。

When did the current cycle start in the Chinese calendar?

中国历法中的当前周期是从什么时候开始的？

18 The current 60-year cycle started on 2 Feb, 1984. That date bears the name bing-yin in the 60-day cycle, and the first month of that first year bears the name gui-chou in the 60-month cycle. 当前的 60 年周期始于 1984 年 2 月 2 日。在 60 年周期中，这个日期的名称是丙寅，而这一年的第一个月在 60 个月周期中的名称是乙丑。

19 This means that the year wu-yin the 15th year in the current cycle, started on 28 Jan, 1998. The 20th year started on 1 Feb, 2003.

这意味着在当前周期中，戊寅年即第 15 年始于 1998 年 1 月 28 日。第 20 年始于 2003 年 2 月 1 日。

What was the early Chinese calendar?

中国早期的历法是什么？

20 In China, the calendar was a sacred document, sponsored and promulgated by the reigning monarch. For more than two millennia, a Bureau of Astronomy's; made astronomical observations, calculated astronomical events such as eclipses, prepared astrological predictions, and maintained the calendar. After all, a successful calendar not only served practical needs, but also confirmed the consonance between Heaven and the imperial court.

在中国，历法曾是神圣的文献，由在位君主赞助并颁布。两千多年来，一个天文机构进行天文观测，计算诸如日食月食等天文事件，准备占星预测，并维护历法。毕竟，一个成功的历法不仅满足实际需求，还确认了上天与朝廷之间的和谐一致。

21 Analysis of surviving astronomical records inscribed on oracle bones reveals a Chinese lunisolar calendar, with intercalation of lunar months, dating back to the Shang Dynasty of the 14th century BC. Various intercalation schemes were developed for the early calendars, including the 19-year and 76-year lunar phase cycles that came to be known in the West as the Metonic cycle's; and Callipic cycle.

对刻在甲骨上留存下来的天文记录的分析揭示了中国的阴阳历（即农历）可追溯至公元前 14 世纪的商朝，那时就有闰月的设置。早期历法发展出了各种闰月方案，包括 19 年和 76 年的月相周期，在西方被称为默冬章和卡利普斯周期。