

## 15.5 More Complex Terms

### 15.5.1 Time, duration, past, present, future

Time, duration, past, present, and future may be found as part of grammatical structure rather than existing as independent terms. Equivalent terms for *minutes*, *seconds*, *hours*, *moment*, *instant*, *awhile*, and *infinity* are harder to collect while parts of the day connected to the position of the Sun tend to be easier, for example, *sunrise*, *sunset*, *morning*, *midday*, *afternoon*, *evening*, *night*, *midnight*, *twilight*. It is possible that some of these do not have indigenous equivalents.

Calendars tend to always have days measured from sunrise to sunset or from midday to midday, whereas the number of days in a week or month may vary. For example, some people have a four day rather than a seven day week (see Chemillier, Chapter 14 above). Months are usually based on observations of the Moon.

p. 358 However, a lunar cycle is 29.5 days rather than an even 30. Many cultures have a lunar calendar, especially those near bodies of water that experience tides. Lunar calendars consist of twelve or thirteen months, neither of which fits the true 365.25 day year, thus, they usually go out of sync with the true year and a correction factor may be built into the calendar. The European tradition of the twelve days of Christmas is an example of the addition of festival days to the lunar calendar to have the days add up to 365 days closer to the true year.

Solar calendars are tied to the annual north–south motion of the Sun on the horizon. They are usually started on spring equinox or sometimes on one of the solstices. This calendar measures what astronomers call the tropical year, which is 20 minutes shorter than the true year; thus solar years make very good calendars.

Stellar calendars measure the true year. Observations are of a particular star or asterism that appears in a certain position at a certain time of night; when that happens again, it is a year later. The Egyptian calendar, which relied on sighting the star Sirius rising in the east just before sunrise, is a classic example of a stellar calendar.

There are also calendars which are mathematically based rather than depending on observations of celestial bodies, but even these seem to have roots in sky observations (Bartle 1978). Many local calendars are a mixture of lunar, solar, and stellar rather than entirely one or another (Turton and Ruggles 1978).

### 15.5.2 Legends and myths

Collecting stories about celestial bodies is one of the enjoyable aspects of cultural astronomy research. The rescue of Andromeda by Perseus and the story of Osiris and Isis given above are just two of many examples. On a warm night, there is something special about listening to long winding stories about the constellations, stars, and planets overhead. Within a community there may be several variations of the same story, each flavored by the storyteller. Audio recording works well for capturing both the complexity and the variations of each story (see Margetts and Margetts, Chapter 1 above).