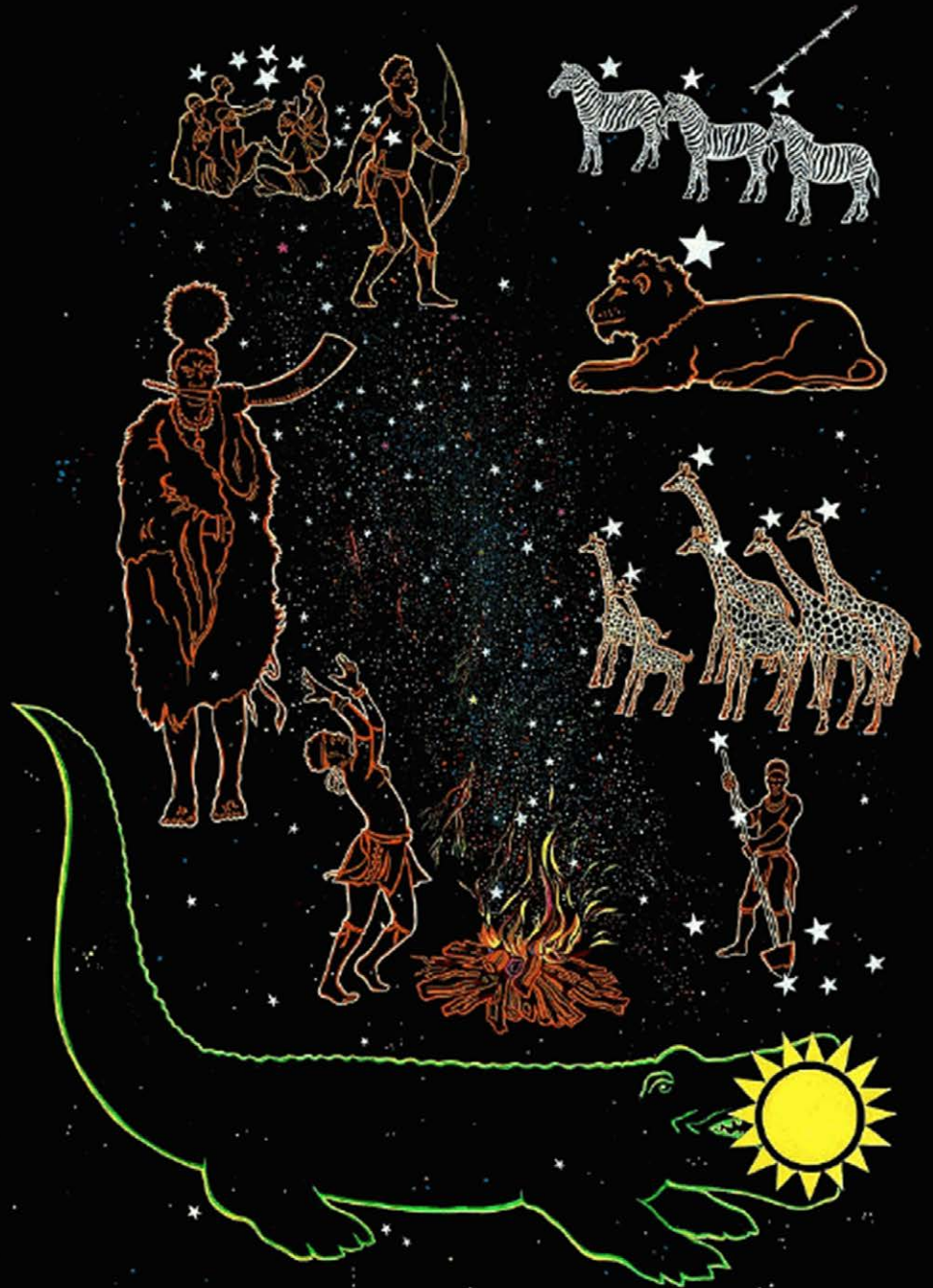


Turning stars into stories:

the power of the naked eye to observe celestial objects



Many early African cultures saw pictures among the stars and created stories as they looked up at the night sky.

SAAO

Astronomy in Africa is a fascinating field that reflects the indigenous knowledge systems of various African cultures found in myths, poems and stories crafted by African people.

Stories and myths surrounding African skies, the moon, sun and constellations, have been passed down from generation to generation. These mythical stories are known as star lore. Throughout history, indigenous astronomy played an essential role in sustaining the livelihood of African communities. Using their own natural astronomical instrument – the eye – African people developed their own astronomical knowledge based on the observation of stars, planets, the moon and the sun.

The earliest Africans had access to pollution-free, clear skies and naturally established a relationship with the skies, observing them frequently. The existence of ancient

astronomy found expression in their daily and seasonal practices. It was a part of holistic living and related to their daily practices and cultural ceremonies. African people

would camp outside, where they made fires and watched the skies. They created narratives based on what they saw whilst looking up at the skies.

When observing the skies, they noted the star patterns visible in the sky. These patterns are referred to as “constellations”, which are any group of stars as seen in the sky that seem to have a pattern or seem to form a picture. Some African cultures believed that the first person to see a star would have a prosperous year and good luck. Other African tribes had different interpretations of the stars. For example, the Tswana-speaking people regarded the stars as the spirits of the dead, associating their brightness with the earthly existence of a person. The Selemela, which is the most famous star cluster among the Tswana people, were regarded as signifiers of time to cultivate.

The stars also played an essential role for navigation purposes. When people travelled to new areas, they would be unable to use familiar landmarks and would therefore use the stars to navigate their journeys. When a star is viewed from a particular location, it always rises and sets in the same direction and follows the same path across the sky. They used this knowledge to make travelling and navigation easier. Africans also used the stars for the development of calendars, navigation, and the determination of time.

Other African societies arranged stones aligning the stars and the sun to mark seasons, to know when to harvest crops and to mark celebrations. Celestial bodies were a valuable source of information for those whose livelihood depended on properly timed planting, harvesting and hunting. They relied on the Pleiades stars which they used

as guidance to know when it was time to till the soil and when the growing season was about to end.

Fun fact: The Pleiades stars were all born at the same time from a gigantic cloud of gas and dust. Their position in the night sky changes from hour to hour and night to night due to the Earth's rotation.

The moon, being one of the most outstanding objects in the sky, also has some mythical stories associated with it. When observed closely, the moon has lighter and darker patches. The pattern formed by the patches has been interpreted differently by diverse peoples and cultures. Some people saw a rabbit, others saw a woman carrying a child, etc. African people also used the moon for celebratory events. For instance, the isiXhosa-speaking people perceived the time of a full moon to be a time of inaction and had rituals performed every month in connection with the new moon. When the moon reappeared as a crescent in the evening sky, it was a cause for celebration.

The Batswana believed that the new moon symbolises prosperity, happiness and that seeds sprout successfully when sown after the new moon. The Sotho-speaking people also practised a similar tradition where young babies were taken outside to perform rituals during the full moon.

Looking at our history and celestial heritage, it becomes clear the early Africans believed that everything happening in the sky reflected what happens on the Earth. We are connected to the universe, and the universe to us.

Article written by Zodwa Tiki, a science communicator affiliated with the African Astronomical Society (AfAS).

