



ASTRONOMY

IN ANCIENT AFRICA

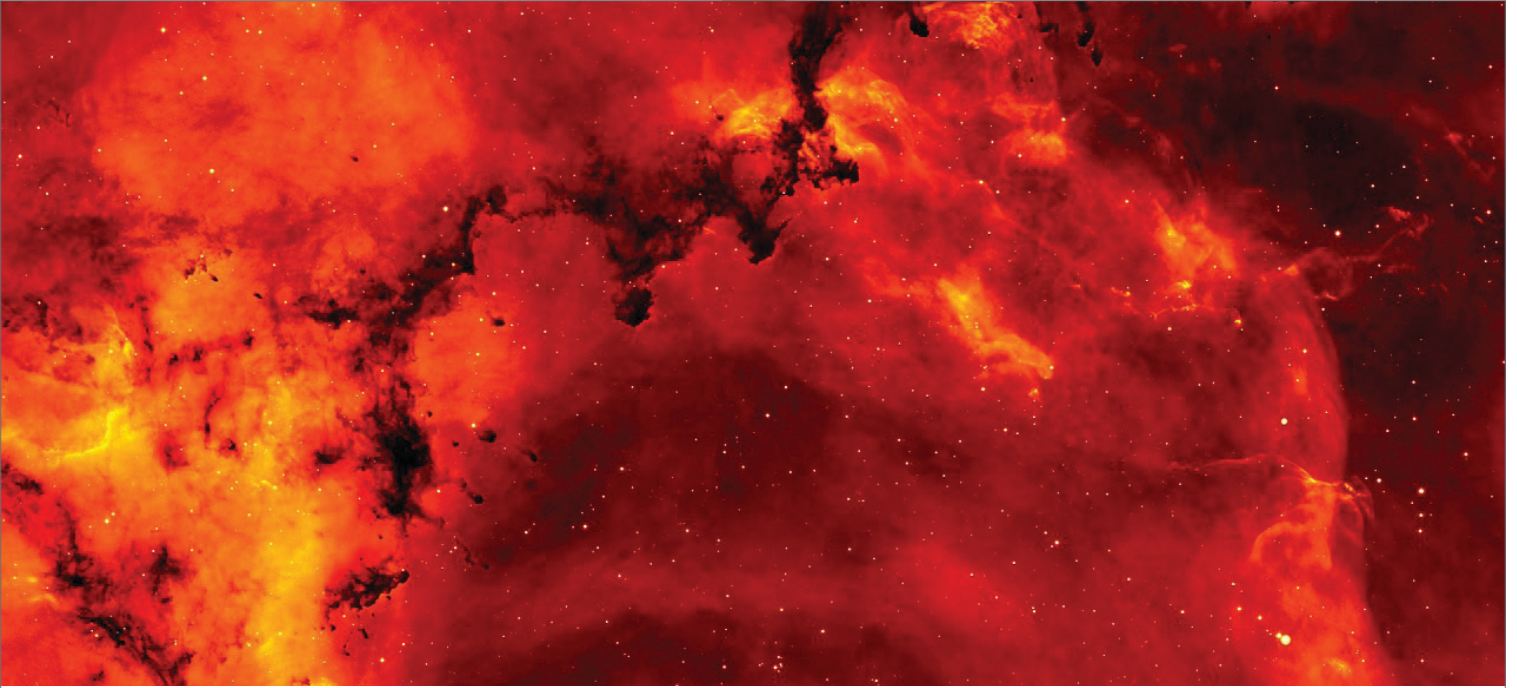


Astronomy is the scientific study of the cosmos which includes the analysis of star systems, planets, moons and galaxies. In Africa, the study of astronomy dates back to 4800 BC and was conducted by African kingdoms across the continent at different times. The Africans utilized scientific instruments and documented their usage. Many African kingdoms and nations were heavily involved in astronomy.

ASTRONOMY IN WEST AFRICA: THE DOGON

The Dogon people are an African ethnic group which are from West Africa in the region of modern-day Mali south of the Niger River. The Dogon established themselves in the area prior to 1000 AD. The Dogon were masters of astronomy and studied the stars and planets in-depth. The Dogon believe in one God called 'Amma' or 'Amen' who they believe to be the creator of the universe and planet earth including all of creation, they are monotheists in this regard. The Dogon cosmology and sacred knowledge was held by their priests

which are organized into an order which require initiation. The Dogon are famous around the world amongst scientists for the astronomical knowledge they possessed prior to the invention of modern telescopes. They were aware of the fifty-year orbital period of the star Sirius, the Dogon also had knowledge of the moons surrounding Jupiter and the rings of Saturn. It is still not fully understood how these Africans were able to obtain such detailed knowledge without the aid of modern technology.



ASTRONOMY IN SOUTH AFRICA: GREAT ZIMBABWE

By 1100 AD the Shona peoples of southern Africa had begun to accumulate an increasing quantity of wealth from their trading activities and developed into a kingdom. Great Zimbabwe was located in modern-day southern Zimbabwe. The architects of the Kingdom of Great Zimbabwe are understood to have possessed a great knowledge of astronomy and the cosmos. Within the Great Enclosure at the eastern end we find that architects of Great Zimbabwe created a platform and from this position

three stone constructions align to three stars in the constellation of Orion. The constellation of Orion is a grouping of about 290 stars of which 7 are very bright and visible from earth. The Africans of Great Zimbabwe selected 3 of these stars to align their buildings to which are named Alnilam, Bellatrix and Saiph. These three stars are visible on earth before sunrise. The American astrophysicist Laurence Doyle at the NASA Research Centre provides the following analysis of Great Zimbabwe:

“PRELIMINARY INVESTIGATIONS DO REVEAL THAT THE NATIVE AFRICAN PEOPLES THAT BUILT GREAT ZIMBABWE WERE AWARE OF THE SKY AND MAY INDEED HAVE MARKED IMPORTANT ASTRONOMICAL SEASONAL EVENTS. FOR EXAMPLE, IN A PRELIMINARY SURVEY, A ‘CHEVRON’ PATTERN ON THE SOUTHEAST CORNER OF THE LARGER OUTER WALL IS BISECTED BY THE RISING POSITION OF THE SUN ON THE SUMMER SOLSTICE FROM INSIDE THE ENCLOSURE, AND ALIGNS WITH WHAT HAS BEEN CALLED THE ‘ALTAR’ AS WELL AS AN ORIGINAL PILLAR INSIDE THE ENCLOSURE. AS THIS LARGE PATTERNING DOES NOT APPEAR AT ANY OTHER PLACE ON THE OUTER WALL IT WOULD APPEAR TO BE A CONSPICUOUS CANDIDATE FOR A SUMMER SOLSTICE MARKER BUILT INTO THE GREAT ENCLOSURE.



ASTRONOMY IN WEST AFRICA: THE SERER

The Serer people are a West African group from the region of modern-day Senegal near to the Gambian border. The Serer established themselves in the region prior to 1000 AD. The Serer people studied the star systems and developed their own cosmology. The Serer people believe in one God which they called 'Roog' and that is who they consider to be the supreme creator of the entire universe. Roog is also known as 'Roog Dangandee Seen' which translates

into English as 'the omnipresent God'. They were also a monotheistic people in this regard. The Serer possessed knowledge of the axis of the world and the positioning of the planets and also depicted the rotation of the earth. Like the Dogon they considered Sirius to be an important Star system. The Serer developed diagrams of the universe and star systems and the relationship between Roog and the creation.

ASTRONOMY IN EAST AFRICA: ANCIENT NUBIA

The Nubians are an African group which established themselves in East Africa in the area of modern-day Sudan in 4800 BC. The Nubians studied the stars and developed detailed astronomical knowledge which they documented in monuments and artifacts. The Nubians tracked the procession of the stars and their movements. One of the more well known astronomical monuments is The Nabta Playa which is also known as the world's oldest astronomical

observatory. The Nabta Playa is located near Nabta in the Nubian desert in East Africa. The Nabta Playa consists of a series of stone circles, stone slabs, buried rocks with carvings and megalithic structures. The stone structures are astronomically aligned to the stars, including the seven-star constellation known as the 'big dipper', the Orion constellation and the star Sirius.



ASTRONOMY IN EAST AFRICA: ANCIENT KENYA

In East Africa the Turkana ethnic group are an African people located to the south of the Nile River near southern Sudan in the Turkana Region of modern-day Kenya. Namoratunga which was developed by the Turkana in 300 BC is an astronomical site located on the west side of Lake Turkana in eastern Kenya on the border of Sudan and Ethiopia. At Namoratunga, stone structures

were constructed by the Turkana including 19 pillars. The Turkana studied the movement of the stars and aligned their stone structures to 7 key star systems including Sirius, Orion, Saiph, Aldebaran, Bellatrix, Pleiades and Triangulum. The astronomical site was used to track the 354-day lunar calendar which the Turkana follows.

ASTRONOMY IN NORTH EAST AFRICA: ANCIENT EGYPT

In north eastern Africa the Egyptian civilization located near to the Nile River also were keen observers of the stars. The Egyptians documented their knowledge of the stars in what historians have termed 'diagonal star tables'. The Egyptians used these star tables to track time. A typical star table consisted of 40 columns with each column

representing a 10-day period. Each column was aligned to a particular star. The Egyptians called the star Sirius 'the sharp one' and the star constellation of Orion was also of importance. The Egyptians were also aware of the planets such as Mars, Saturn, Jupiter, Mercury and Venus. The Egyptian star tables date back to 2000 BC.