# African Cosmology

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Abstract. Focusing on the African continent, this presentation selects origin stories in cosmologies scattered throughout Africa. This research diverges from my work on applied astronomy knowledge in livelihood systems, to begin to probe the meanings and importance people place on their cosmologies. Including both the general and the unique, I am looking for a latitude dependence that would echo Aveni's Tropical Archaeoastronomy Theory, examining origins from the sky (with a future return to the sky), and dynamic or evolving universes among these cosmologies.

## 1. Cosmology, Cosmogony, and Creation Myths

From the American Heritage New Dictionary of Cultural Literacy, Cosmology is defined as:

A system of beliefs that seeks to describe or explain the origin and structure of the universe. A cosmology attempts to establish an ordered, harmonious framework that integrates time, space, the planets, stars, and other celestial phenomena. In so-called primitive societies, cosmologies help explain the relationship of human beings to the rest of the universe and are therefore closely tied to religious beliefs and practices. In modern industrial societies, cosmologies seek to explain the universe through astronomy and mathematics. Metaphysics also plays a part in the formation of cosmologies. (Ahndel 2005)

Creation myths are simply the stories told about how things began without particular emphasis on theories or how things developed into structures that are present today. Cosmogony focuses on the theories and explanations that are part of cosmologies, origin stories, and creation myths. Though the title of this article is "African Cosmology", it is an exploration of African creation myths. However, in this article these creation myths are analyzed for cosmogony and cosmology content.

Myths from as many different African countries as possible were considered in the hopes that many different physical and climatic environments were included. In all 50 creation myths were examined and of these 26 were selected for this study. Given that there are over 50 countries in Africa, the initial sample fails to include every one. Also, it must be emphasized that given the great ethnic diversity of Africa the initial 50 creation myths grossly under samples the number of African ethnic groups. Thus, the final 26 creation myths cannot be said to be representative of African creation myths.

There were three criteria for the selection of the final sample of creation myths: 1) Myths that indicated a starting point that was before the earth was created. 2) Myths that include people that came from the sky. 3) Myths that indicate a changing Universe rather than a static one. Analyzing the creation myths revealed common themes across ethnic groups but not present in every myth. These themes are explored in more detail in the following sections.

## 2. Original States

The Mande people of West Africa have a creation myth that begins with a seed. The seed, like normal seeds, has the intrinsic ability to grow and create Dieterlen (1957); Griaule (1948); Griaule & Dieterlen (1951); Pettersson (1956). Thus, the seed creates the Universe. The Mande speaking people of West Africa include the Dogon (Mali), Bamana (Mali), Malinke (Mali, Guinea, Guinea Bissau, Sierra Leone, Senegal, Cote d'Ivoire), Mandinka (Gambia), and Mande (Burkina Faso), however, the names Malinke, Mandina, and Mande are often used interchangeably throughout West Africa. The Fang (Cameroon) also have a seed as the starting point of their creation myth Pettersson (1956); Tessmann (1913).

The Bushongo (DRC) and Yoruba (Nigeria) begin their creation myths with everything being a watery chaos or simply the Earth being covered with waterMorton-Williams (1964); Sproul (1979); Torday (1911); Torday & Joyce (1910). The first point of their creation myths is how the land emerged from the water. Another theme is how the sky and the earth became separate - the origin state for these myths has the sky and earth together (Banyoro (Uganda) and Krachi (Togo))Cardinall & Tamakloe (1931); Fisher (1970); Radin (1970). The Mbuti (Congo), Temne (Sierra Leone), Fon (Benin), and the San/Khoisan (South Africa) begin their creation myth with a supreme deity or pantheonHahn (1881); Herskovits (1938); Lamp (1985); Orpen (1874); Schlenker (1861); Sproul (1979); Turnbull (1965), as is the same for Christians and Muslims in Africa. A theme found within these is why the supreme deity left humans in most cases to go live in the sky as found among the Shluh (Morocco), Batammaliba (Togo & Benin), and among the Mande people of West AfricaBlier (1987); Dieterlen (1957); Sproul (1979).

## 3. Dynamic Universe

Once the initial state of the universe has been described, something or someone triggers the beginning of the changes that transform the universe into what is seen today. Having a person who is a God, Goddess, or genderless Deity start the process is the most common. This person has the intrinsic ability to create the universe using either their thoughts or their words. Uniquely, the Bushongo of the Democratic Republic of Congo has their deity Bumba who vomits up the Sun and MoonSproul (1979); Torday (1911); Torday & Joyce (1910)! The Sun then dries up the water exposing the land. The process of creation continues with the creation of humans being a pivotal point. Man sometimes then has the role of keeping chaos at bay as with the Fang and the Mande, but other creation myths are to establish royal lineages, which is discussed in more detail below. Only two creation myths in this sample have the universe possibly ending: The

Temne of Sierra Leone, and the Amhara of Ethiopia Levine (1965); Schlenker (1861). The Amhara are Christains but their creation myths includes that in 2508 A.D. the Universe will collapse or will be destroyed. The Temne creation myth has their supreme deity making the Earth which is the head of a giant. Already, one giant has died and his head was transferred to another giant. The world may end when the current giant dies.

# 4. Christian and Muslim Beginnings, Societal Structure, and Sky Ancestors

Islamic North African creation myths follow the traditional Genesis story but added to it are local variations. The Bedouins of Libya place particular emphasis on the role of Eve and the fall from grace to justify women's role in their society Abu-Lughod (1986). The Hausa (Nigeria) have a local pantheon of spirits in addition to the traditional Islamic beliefs Besmer (1983). Some Christian groups similarly have local variations to their creations myths, for example the Tiv (Nigeria) have a God that is also a Sky-God or Heaven God. Another Christian group is the Banyoro (Uganda), which has supreme deity that created everything Fisher (1970), but their creation myth goes on to show how the three classes of people in their society were divinely created: "chiefs, herdsmen, and peasants." Thus, similar to the Bedouins, their creation myth is used to explain present societal structures. Other ethnic groups that include divine explanations for societal structures include the Bemba (Zambia), Buganda (Uganda), Bulu (Cameroon), Lozi (Zambia), Nandi (Kenya), Ngombe (DCR), Temne (Sierra Leone), and Yao (Malawi) Feldmann (1963); Hinfelaar (1994); Hollis (1909); Krug (1912); Labrecque (1933); Lamp (1985); Leach (1956); Macdonald (1882); Ray (1991); Schlenker (1861); Smith (1950); Sproul (1979); Tanguy (1949).

Many ethnic groups have societal structures and royal lineages that began when a person descended from the sky and married with a human. This is true of the Banyoro (Uganda), Bemba (Zambia), and the Bugunda (Uganda). The Bemba and Bugunda creation myths have a woman falling from the sky, the Banyoro has a complicated story beginning with the brother of the creator god and his children. These do not end with a return to the sky of the descendents though in some myths the original sky person returns to the sky. Similar to the exit of the Gods myths, the sky person usually becomes discouraged or angry at the humans and leaves.

#### 5. Discussion

Several assumptions and theories were considered when studying the myths. The first was that there would be similarities present that could be categorized across ethnic groups. With the possibility of over interpretation always present, this appeared to be true. The creation myth themes that emerged are presented as individual sections in this article.

The Tropical Archaeoastronomy theory was to be tested through this study. In the broadest terms, the theory states that there will be a latitude dependent difference in local astronomy knowledge and sky related beliefs because of the different apparent motion of celestial bodies at different latitudes Aveni (1981);

Aveni & Urton (1982). The conclusions drawn from the creation myths about this theory are presented in the conclusions.

In addition to these assumptions for the analysis, there were assumptions made about the creation myths. First, that the creation myths published were representative of their ethnic group. Many of the creation myths included were recorded before the development of standardized methods of qualitative data collection and analysis, and therefore may not be representative. In addition, historically, researchers have tended to focus on the knowledge of leaders, men, and elites; and their knowledge may not be representative of their entire ethnic group and they may have not had the authority to speak for their ethnic group on such matters.

The second assumption, the creation myths are not influenced by outside ideas or outside religions, that instead they may have overlap with nearby ethnic groups, only, that in turn are assumed to have no outside influences. Seven of the 26 creation myths are from ethnic groups that claim to be Christian or Muslim. In some cases, the ethnic groups who identify themselves as Christian or Muslim have creation myths of these religions. However, others have creation myths that are independent of these in spite of their current religious affiliation. Thus, the interaction between Christianity, Islam, and the creation myths needs further analysis. The Swahili (East Africa) had regular contact through Indian Ocean trade networks both with Muslims and the religions of Southeast Asia. Most of the creation myths were collected during the last 100 years which means these ethnic groups were under European colonization at the time. Thus, this assumption is just that until such a time that the impact of these outside influences on creation myths can be better understood.

Third is the assumption that the creation myths are representative of the beliefs of that ethnic group at the time the myth was recorded. The time period represented by the myths is nearly 100 years. No assumptions are being made on myths recorded recently being representative of those 100 years ago, or vice versa. Also, the date of publication may or may not be within five years of when the myth was recorded. In some cases the myth was recorded up to fifty years before it was published. As a result, there are many built in inequalities in the sample of creation myths used for this analysis with more recent myths being more reliable in terms of ethnic representation because of better data collection methods; with there being no time overlap among myths; and with other unknown inequalities due to the differences in who recorded the creation myth and outside influences.

These assumptions have to be kept in mind to understand the limitations of the following conclusions.

## 6. Conclusions

Table 1 summarizes the themes of the creation myths for each ethnic group. The central latitude for each country is tabulated in order to draw conclusions about the tropical archaeoastronomy theory. The tropics are defined as the region between 23.5 degrees south and 23.5 degrees north, spanning the equator. Most of the ethnic groups included in this sample lie within the tropics. The parts of North Africa outside of the tropics are dominated by Islamic creation myths

Table 1. Summary of Creation Myth Themes Sorted by Latitude.

Ethnic Group	Category	Country	Average Latitude	Reference
Shluh	Muslim, Societal Structure	Morocco	31° 20' North	
Bedouin	Muslim, Societal Structure	Libya	27° 0' North	Abu-Lughod 1986
Mande	God/Supreme Being, Seed	West Africa	$5^{\circ}$ - $15^{\circ}$ North	Sproul 1979 (citing Di- eterlen 1957)
Dogon	Seed	Mali	14°20' North	Petterson 1956 (citing Griaule 1948, 1951)
Fon	God/Supreme Being	Benin	10°30' North	Sproul 1979 (citing Herskovits 1938)
Yoruba	Seperating Earth from Sky, watery Earth	Nigeria	9°45' North	Mortin-Williams 1964
Hausa	Muslim, Societal Structure, +Pantheon	Nigeria	9°45' North	Besmer 1983
Kanuri	Muslim	Nigeria	9°45' North	
Tiv	Christain, Societal Structure	Nigeria	9°45' North	Bohannan & Bohan- nan 1969
Krachi	Seperating Earth from Sky	Togo	8°30' North	Sproul 1979 (citing Radin 1970, Cardinall 1931)
Temne	God/Supreme Being, Dynamic, Societal Structure	Sierra Leone	8°30' North	Lamp 1985, Schlenker 1861
Batammaliba	Exit of God	Togo, Benin	8°30' North	Blier 1987
Swahili	God/Supreme Being	East Africa	8° North - 13° South	Sproul 1979 (citing Knappert 1970)
Amhara	Christain, dynamic universe, possibly collapsing	Ethiopia	8°0' North	Levine 1965
Fang, Pangwe	Seed	Cameroon	6°0' North	Petterson 1956 (citing Tessman 1913)
Bulu	Human/Societal Structure	Cameroon	6°0' North	Sproul 1979 (citing Krug 1912-1913)
Nandi	Human/Societal Structure	Kenya	0°45' North	Sproul 1979 (citing Hollis 1909)
Buganda	Societal Structure, Sky Origin	Uganda	0°45' North	Ray 1991
Banyoro	Christian, Exit of God, Separation of Earth and Sky, Sky Origin, God/Supreme Being, Societal Struc- ture	Uganda	0°45' North	Fisher 1970 (1911)
Bushango	God/Supreme Being	DCR (Zaire)	2°0' South	Sproul 1979 (citing Torday and Joyce 1910), Torday 1911
Ngombe	Human/Societal Structure	DCR (Zaire)	2°0' South	Sproul 1979 (Feldman 1963, Smith 1950)
Mbuti	God/Supreme Being	Congo	2°0' South	Turnbull 1965
Yao	Human/Societal Structure	Malawi	13°0' South	Sproul 1979 (citing Leach 1956, Macdon- ald 1882)
Barotse (Lozi)	Human/Societal Structure	Zambia	13°45' South	Sproul 1979 (citing Feldmann 1963, Smith 1950)
Bemba	Societal Structure, Sky Origin	Zambia	13°45' South	Hinfelaar 1994 (citing Labrecque 1933 and Tanguy 1949)
San and Khoisan	God/Supreme Being	South Africa	28°40 South	Sproul 1979 (citing Orpen 1874, Hahn 1881)

with some local variations to explain present societal structures. Southern Africa outside of the tropics is poorly represented in this sample, so no overall trends can be put forth with any confidence. The creation myths of the tropics are very diverse with all of the themes represented. Spatially large ethnic groups like the Mande people have related creation myths, which is expected due to their common origin. In contrast, the several ethnic groups representing Uganda have only minimally related creation myths.

In terms of creation myths Africa is diverse with no themes that stand out for a given latitude which has relevance for the tropical archaeoastronomy theory. It has to be considered that a latitude dependence is not the only factor which influences local beliefs and relationships to the sky. In the case of Africa, there has always been extensive trade networks, colonization, and the introduction of Islam and Christianity all of which may influence local creation myths. For example, many of the societal structures described the relationship between white and black men such as with the Temne (Sierra Leone).

Cultural astronomers have not adequately theorized about the effect of climate, topography, and fauna on sky knowledge in general and creation myths indirectly. This study was by no means exhaustive and the limiting criteria have been presented clearly, therefore the solidity of the conclusion is only within those limits.

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