Sanctuary of the Spirits: *Okwu-muo*, *Ori Oke* and *'Mammy Water'* in the Veneration of Sacred Natural Sites in Southern Nigeria

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ABSTRACT

The worship and veneration of sacred trees, groves, mountains and surface waters is very common in Yoruba traditional religion and culture, to the extent that almost all communities have designated sacred natural sites. Information for this study was gathered from the author's visits to different sacred sites, from folklore, and through open-ended interviews with elderly people in South-western Nigeria between September 2012 and April 2013. Additional information was also acquired through the study of relevant published papers in 2014. Findings include a list of existing sacred trees, groves, mountains and surface waters in South-west Nigeria and beyond that are still venerated and worshipped. The importance of these sacred natural sites to environmental sustainability, and the threats they face, are discussed. Three-pronged recommendations on the effective conservation of these sacred sites are also put forward.

Keywords

Sacred trees, Sacred groves, Sacred mountains, Sacred waters, Sacred Natural Sites (SNS), Dendrolatry, Tree worship, Biodiversity conservation, Traditional religion, Nigeria

Introduction

The historical development of most cities and communities in South-west Nigeria and Nigeria at large would not be complete without reference to forests, mountains and surface waters. They play an important role in the location and sustenance of many communities, and consequently, have become an important part of those communities' cultural and spiritual values. Not only are trees important in rural communities, they also play a significant role in urban life such as in landscaping, parking lots, urban greening and market places.[1] At a global level, trees feature in the national colours and symbols of many countries. This includes the laurel tree (*Ocotea foetens*) on the Canary Islands' national coat of arms[2] and the maple leaf and the cedar of Lebanon on the national flags of Canada and

Lebanon respectively, while individual states in the United States of America all have their official trees and plants.

The most common cultural significance of trees is their veneration as gods or as the representatives of gods, and their use in religious rituals and spiritual ceremonies. Tree worship (dendrolatry) refers to the practice in many cultures and societies of worshipping or mythologising trees. Garg[3] defined sacred trees as:

> *...those which are subjected to practical manifestation of worship, adoration and profound veneration to honor a deity or to please a devil, demon, or any other ghostly creature, provide sanctuary for spirits, remind present generations of ancestors, or to protect a sanctified place from willful damage and exploitation.*

The South-western region of Nigeria is populated by the Yoruba who constitute 21% of the Nigerian population, estimated at about 40 million people and spread across Kogi, Kwara, Oyo, Osun, Ondo, Ekiti, Ogun, Lagos and Edo States, as well as their descendants in the Caribbean, Central and South America (including Trinidad and Tobago, Cuba, and Brazil, among others), West Africa (Benin, Burkina Faso, Ghana, Liberia, Sierra Leone, and Togo), and recent migrants to Europe, Asia and North America. The pre-colonial religion in South-west Nigeria was the traditional Yoruba religion, which comprised diverse religious and spiritual concepts;[4] but currently South-west Nigeria is dominated by Christianity and Islam and less than 10% of the population practise the traditional religions.

Besides the Creator, the Sovereign God (*Olodumare*), the traditional Yoruba religious system involves belief in, and worship of, the Yoruba pantheon which includes 401 *Orisha*, which are spirits or deities that represent God. The Yoruba religious system and its variant religions (for example, *Anago, Candomblé, Lucumí/Santería, Oyotunji* and *Shango*) are still practised in Argentina, Benin, Brazil, Cuba, Guyana, Haiti, Jamaica, Puerto Rico, Suriname, Trinidad and Tobago, the United States, Uruguay and Venezuela, as well as in parts of Asia, and Europe.[5]

This article elucidates the different cultural and spiritual values of trees and sacred natural sites in the religious systems of South-west Nigeria. This includes a description of the uses and environmental values of sacred trees, groves, mountains and surface waters in South-west Nigeria, and the successes and challenges of traditional ways of conserving biodiversity. Data used in this article was obtained from open-ended interviews with selected elderly people in South-western Nigeria, and from the author's visits to some of the sacred sites between September 2012 and April 2013; and it is augmented with additional information from folklore and published literature.

Sacred trees in South-west Nigeria

Tree worship involves establishing shrines under sacred trees or tying cloths around the tree trunks which symbolise historical consciousness, territoriality and the transfer of spiritual power to the cloth which can then be used for healing purposes.[6] [See Plate 1]



Plate 1
Charm nailed to the bark of a *Milicia excelsa* tree in Ibadan, Nigeria.
Photo: Author, 2012.

One of the most revered trees in South-west Nigeria and across West Africa is *Milicia excelsa* (the *iroko* tree), which is worshipped and also used for various spiritual purposes and cultural festivals. Across South-western Nigeria and beyond, it is believed that spirits, known by different names including *oluwere* and *iroko*, live in the tree,[7] as well as the spirits of babies who died prematurely (called *abiku* among the Yoruba).[8] Some witch doctors also use the tree to harm other people. For example, during a study on *M. excelsa* in Ibadan, South-west Nigeria, the author identified four stands of trees on whose trunks charms had been nailed [Plate 1] as reported in Babalola et al.[7] Attaching charms to the trunks of *iroko* trees is a very common practice throughout South-western Nigeria. Furthermore, rituals are also offered to *iroko* trees in different Yoruba communities.

Okoubaka aubrevillei is noted for its ability to prevent other trees from growing nearby because spirits are believed to live in it. It is worshipped in many places, notably Iwara town, Osun State[9] and some parts of Edo State. Highly revered, *Okoubaka* is called a 'mysterious tree' and according to some traditional incantations it is believed to be the only tree that can never be struck by lightning.[10]

Adansonia digitata, another tree worshipped among the Yoruba people, is associated with fertility. Idi Ose ('under the baobab tree') village, a suburb of Ibadan, is situated around a baobab tree called *Iya-Olomo* ('mother of children'), and used to be a centre of worship for many people. Up to the 1960s, broken pots and local gin bottles could be seen under the tree and goats were sacrificed to it, while the village head reported that the tree had protected the community against outbreaks of smallpox.[11] In addition, there was another baobab shrine along the Ede-Iwo road which had a band of white cloth tied to its trunk.[12]

Newbouldia laevis, also revered among Yoruba people, is grown in shrines and its leaves are used in the inauguration of kings or chieftains. Other sacred trees include *Bombax buonopozense; Cola acuminata, Aframomum melegueta, Ceiba petandra, Garcinia kola, Khaya grandifoliola, Sterculia tragacantha, Colocasia esculenta, Dacryodes edulis* and *Trema sp.*[13-17] *Kigelia africana* is associated with women's reproductive ability and breast enlargement; *Erythrophleum suaveolens* and Croton *zambesicus* are said to be sacred and are used to scare away witches.[18]

Furthermore, seven, eight or sixteen palm kernels from the fruit of the *Elaeis guineensis* and four-lobed kola nuts (*Cola nitida*) are used for divination in the *Ifa* religion,[19] and palm oil is commonly used as a ritual ingredient. The Oke Mogun shrine in Ile-Ife was built in the hollow of a sacred *Ficus thonningii* tree.[20] The Oka Akoko people are known to worship *Harungana madagascariensis* and *Aframomum melegueta*, while the white yam (*Dioscorea rotundata*) festival is celebrated annually on the first Saturday in August,[14] among the same people. Furthermore, Kadiri et al.[21] reported 31 plant species used for different ceremonial purposes including naming children, weddings, housewarmings and coronations.

Not only were trees venerated, but they were also used to name streets and villages in South-western Nigeria. Typical examples include *Idi-Ose* ('under the *Adansonia digitata* tree'), *Idi-Ayunre* ('under the *Albizia odoratissima* tree'), *Idi-Oro* ('under the *Irvingia gabonensis* tree'), *Idi-Osan* ('under the *Citrus sp.* tree'), *Idi-mangoro* ('under the *Mangifera indica* tree'), *Idi-Ishin* ('under the *Blighia sapida* tree'), *Idi-Araba* ('under the *Ceiba petandra* tree') and *Idi-iroko* ('under the *Milicia excelsa* tree').[1]

Sacred groves in South-west Nigeria

Oviedo and Jeanrenaud[22] have defined Sacred Natural Sites (SNS) as areas of land or water having special spiritual significance to a society; and this encompasses all venerated natural areas, including sacred trees,[23] burial grounds for ancestors,[24] sacred forest or groves,[25] mountains, or bodies of water.[26]

Traditional Nigerian societies are full of sacred groves which are believed to harbour the spirits of ancestors, demons and the gods of the land, as well as ritual relics and burial grounds for important ancestors. Almost all South-eastern and South-western communities in Nigeria have at least one sacred grove. So much importance was attached to sacred forests that many rural settlements in Africa appointed forest chiefs[27] or chief hunters whose responsibility was to regulate access to, and the exploitation of, some economic tree species or to the community forest, but sometimes the community head assumed this responsibility.

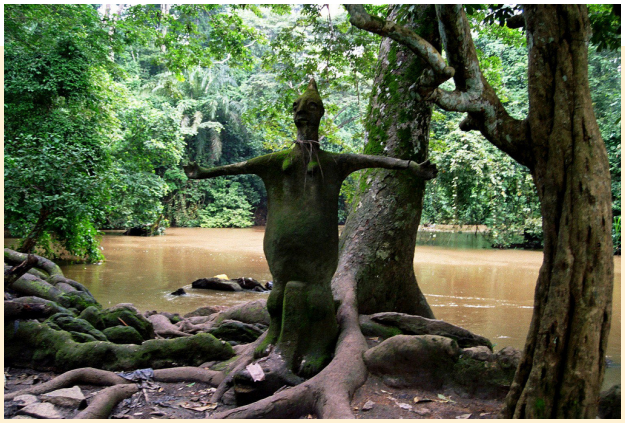


Plate 2
Osun grove.
Source: Robert Sarjant,
http://www.philipcarr-gomm.com/the-osun-osogbo-sacred-grove/



Plate 3
Olumo rock, Abeokuta.
Source: Niyi Osundare, http://www.ktravula.com/2014/04/abeokutas-living-history/

The most popular sacred grove in South-west Nigeria is the Osun Shrine and grove in Osogbo, Osun State. [Plate 2] Other sacred groves include *Igbo Igunuko* and *Igbo so'ro* ('evil forest') in parts of Ogun State, Nigeria,[28] the royal forest of Igboho (the burial site of four previous kings of the old Oyo Kingdom), *Igbo ode* ('hunter's forest'), *Igbo Oba* ('King's forest'), *Igbo erin* ('elephant's forest'), *Igbo efon* ('buffalo's forest'), *Igbo oroo* ('the Oroo deity's forest'), *Igbo Olodumare* ('God's forest'), *Igbo Irunmole* ('the Irunmole deity's forest'), *Igbo egbee* ('forest of sorrow'), *Igbo Agala, Igbo Ile, Igbo Olua, Igbo Gbopo*, and *Igbo Olokun*, among others. Ile-Ife city in South-west Nigeria, for example, houses several shrine forests including the Yemoo grove, the Olokun grove, the Osara shrine, the Yeyewara shrine and the *Igbo Irudi* sacred forest.[29]

These sacred forests and groves are protected by traditional laws called 'taboos' which are defined as *social prohibitions regulating or restraining individuals, families and communities from using biotic resources.*[30]

Sacred mountains in South-west Nigeria

Though there are thousands of sacred mountains and holy hills in the world, there are only a few traditional sacred mountains in South-west Nigeria, some of which are revered for the sacred forests on them. The two mountains most commonly worshipped in South-west Nigeria are *Oke-'badan* in Ibadan and *Oke Olumo* (Olumo rock) in Abeokuta. [Plate 3] The history of their two cities describes how the ancestors escaped from their enemies by retreating into the mountains. Consequently, this is commemorated by worshipping the mountains at popular annual festivals, and daily by priests, priestesses and the faithful at traditional shrines on the mountains.

At the same time, there are over 500 hills and rocky outcrops called 'sacred prayer mountains' concentrated in South-western Nigeria. Most of these were established by indigenous Christian churches, such as the Christ Apostolic Church, the Celestial Church of Christ, the Eternal Sacred Order of Cherubim and Seraphim Church and other related churches; there is also one which was established by the Roman Catholic Church. These sacred prayer mountains, commonly called *Ori Oke* in Yoruba, are used mainly for prayer retreats. This is based on Jesus Christ's frequent retreats to the mountains to pray, and for the notable miracles and teachings He performed on mountains, as recorded in the Bible.

Renowned sacred prayer mountains in South-west Nigeria include *Ori oke Iyanu* ('Mountain of Miracles', where a male pawpaw tree bore fruit), Ori oke Aanu ('Mountain of Mercy'), *Ori oke Idande* ('Mountain of Deliverance'), *Oke Maria* (Roman Catholic 'Grove of Mary') [Plate 4] *Ori oke Abiye* ('Mountain of safe delivery'), *Ori oke Dasofunjo* ('Mountain of Celebration'), *Ori oke Olorunkole* ('Mountain of God who builds the house'), *Ori oke Agbara Jesu wa sibe* ('Mountain of Jesus' power still exists'), *Ori oke Alaseyori* ('Mountain of One who succeeds'), *Ori oke Gbebemi* ('Mountain of 'God answer my plea'') and others too numerous to mention. The author, during visits to some of these prayer



Plate 4
Oke Maria site in Oka Akoko, Ondo State, Nigeria.
Photo: Benjamin Bola Hussein, 26 September 2015.
https://plus.google.com/100557817261797835372/posts/QUqHp5Haj1J

mountains, observed watersheds under a *Ficus sp*. tree and under the rocks on the Mountain of Miracles, Ekiti State and on the Mountain of 'Answer my plea' in Oyo State respectively. The water oozing out from under the *Ficus sp*. tree is considered sacred and is named after one of the Church's late founding fathers, Apostle Joseph Ayodele Babalola. It is used strictly for healing, miracles and other religious purposes.

Sacred Waters

Most surface waters in Nigeria, including lakes, ponds, streams, rivers, lagoons and even the Atlantic Ocean are considered sacred by many coastal communities, based on the belief that spirits, called water or marine spirits or water goddesses (*Yemoja*, meaning 'mother of fishes') or the ocean god (*Olokun*, King of the Sea) live within them. These water spirits are often pictured as mermaids. Not only do followers of the traditional religion believe in these spirits, even Christian exorcists believe these water spirits exist and have a spiritual influence on life on land. The water goddesses are believed to promote fertility, protect babies and give abundant wealth to believers. It is also believed that many of the devastating floods that befell Ibadan and other South-western cities in the past were punishments from water goddesses for disobedience. There are many accounts of people in Southern Nigeria who have had physical and spiritual encounters with water goddesses.

Many streets in Southern Nigerian cities are named after these water goddesses, including Popoyemoja (*Yemoja's* post) and Opoyeosa (*Yeosa's* post) streets in Ibadan and Olokun Street and roundabouts in Lagos and Ile-Ife respectively. Annual festivals are held between May and August to worship these water goddesses.

The Olokun goddess has an important place in traditional Yoruba worship, especially in Ile-Ife where her original brass monument was unearthed by a German explorer in the early 20th century in Olokun grove. Hence the Olokun crowned head became an important symbol of the Yoruba religion and a big commemorative statue was erected in Ile-Ife.

The River Osun is the most revered stretch of surface water in South-west Nigeria. Other revered rivers include the Rivers Ogun, Ogunpa, Oba, Ose, Owena and many others. Several mysterious phenomena have been

reported in or around these waters. In areas with strong traditional laws, visits to these rivers at certain periods, and fishing or collecting water from them are strictly prohibited, as their waters are used only for spiritual purposes. Related to this are taboos that prohibit drawing well-water at certain hours of the night in South-west Nigeria.

The largest, and perhaps the most revered body of water in Nigeria, is the River Niger, which is worshipped in many places along its course. Many people believe in the powers of the water spirits in the river and believe the spirits are responsible for boats capsizing and road accidents on the bridges. There were stories that the resident water goddess was responsible for the mysterious death of the main contractor of the company which built the River Niger Bridge at Onitsha because he refused to offer a sacrifice to her before constructing the bridge.

Even some indigenous churches use surface waters for spiritual purposes. Apart from baptism, some Christians go to the shores of the Atlantic Ocean to pray and collect sea water for religious purposes, while some Christian sects (e.g. the Celestial Church of Christ) prefer to build their churches near rivers. Furthermore, a river that ran through a church retreat centre in Ikeji Arakeji, Osun State, South-west Nigeria is also considered sacred. However, while worship of the surface waters themselves is the hallmark of traditional Yoruba religions, Christian sects only use the water for religious purposes.

Dendrolatry and the worship of sacred sites in other regions of Nigeria

After the Islamic conquest of northern Nigeria in the 1800s, the traditional Hausa and Fulani religions declined sharply, as strict adherence to Islam was enforced under Sharia law; however, traditional religions were not completely rooted out as traditional belief in the sacredness of trees survived. Though Islam forbids tree-worship, trees such as *Vitellaria paradoxa, Khaya senegalensis, Diospyros mespiliformis, Adansonia digitata* and *Ceiba pentandra* among others are still considered sacred because of the belief that they harbour spirits or can be used for spiritual protection.[31-32] In addition, the Anago people of Benue State considered a stand of fruitless *Holarrhena floribunda* trees to be sacred;[33] while Dagba et al.[34] listed trees that are sacred to the Tiv people of Benue State, Nigeria and are therefore protected from exploitation.

Tree-worship is also a central part of traditional worship for descendants of the Yoruba in Central and South America. Voeks[35] and Cabrera[36] listed several hundreds of sacred tree species native to Africa's rainforest that were introduced into Central and South America for religious purposes.

The Ibo people of South-east Nigeria have a long history of worshipping sacred groves and forests which is still upheld in the region in spite of the dominance of Christianity. This is demonstrated by the huge respect still shown for taboos associated with sacred trees, rivers, groves and other natural sites in the region, and is orchestrated by strong traditional rulers and occultic groups. Andoh[37] listed several trees sacred to the Ibo, including *Newbouldia laevis, Pterocarpus mildbraedii, Pentaclethra macrophylla, Treculia africana, Chrysophyllum albidum, Mammea africana, Ricinodendron heudelottii, Cola acuminata* and *M. excelsa*. Moreover, the yam (*Dioscorea rotundata*) festival is more widely celebrated among Ibo people[38] than in South-west Nigeria.

The Ibo hold three types of forests sacred, these are *ajo-ofia* (evil forests), *okwu muo* (sacred groves) and *ana nso* (sacred land). Sacred groves are the earthly abode of the guardian spirits of Igbo land, while sacred sites are lands where mystical and miraculous events took place in the past.[39] However, some evil forests were created on land in which an offender killed by a deity is buried, or as gifts from the people as gestures of appreciation to deities who had granted them favours. The most revered evil forests in the region are Okija (Anambra State), Nziko and Ogugwu (Imo State). Furthermore, Emeasoba and Ogbuefi[39] reported 32 sacred groves in Anambra State, South-east Nigeria. These shrines are widely reported to be visited frequently by popular Nigerian politicians and other people looking for power, good fortune and long life.

Equally important among the Ibo people are sacred rivers and other surface waters, notable among which are Obi Pond, Abua Lake, Usede Lake, Atochi Stream, River Ethiope[40] and Oguta Lake. A big river that recently sprang up in an Enugu village has become a focus of

religious pilgrimage for those seeking healing. The worship of water goddesses is deeply entrenched in traditional worship in South-eastern Nigeria where many people claim to have had personal encounters with - or to have married - water spirits, who are often called 'mammy water'. Popular musicians from the region sing about these water spirits. Sacrifices are frequently offered at specific locations on these sacred waters and taboos on their use are strictly enforced.

The South-southern region of Nigeria comprises the Ijaw, Ibibio, Efik, Bini, Urhobo, Itsekiri, Oron, Anaang, Ukwuani, Isoko and several minor tribes occupying the Niger Delta region. They share many traditional religious beliefs with the Ibo people in terms of the veneration of sacred trees, groves and surface water. Eneji et al.[41] noted that there is hardly any community in Cross River without a sacred grove, evil forest, sacred pond, evil stream or some other part of the environment that is set aside for the worship of the gods. This includes sacred tracts of mangrove forest in the Niger Delta region,[42] and Ikot Efre Etak and Asanting Ibiono sacred forests in Akwa Ibom State.[43]

Okoubaka aubrevillei has strong spiritual significance in parts of Cross River State where visitors are refused access to the tree - this included the author's request to collect leaf samples for research.[44] Furthermore, literature from the South-southern region of Nigeria indicates that *Newbouldia laevis, Ceiba petandra, Colocasia esculenta* and *Xanthosoma mafaffa* are sacred plants and used mainly for spiritual protection in Cross River State. In addition, snake worship is very common in many communities in the South-east and South-southern regions of Nigeria.[45]

The contribution of SNS to environmental conservation in South-west Nigeria

Across the world, sacred groves are said to be the abodes of rare, indigenous and endangered species of flora and fauna,[46] the repositories of genetic diversity,[47] home to medicinal plants, sanctuary for endangered flora and centres of seed dispersal,[48] genetic reservoirs of tree species for forestry,[49] and hotspots of biocultural diversity.[50] They also serve as corridors and landscape links between bigger protected areas.[51]

However, the significance of SNS in South-west Nigeria for biodiversity needs to be discussed case by case, as many sites, especially those in close proximity to urban areas, have been desecrated which raises doubts about their conservation value. Also, hardly any sacred surface water in the region is preserved and protected from fishing and other anthropogenic activities. Sacred prayer mountains are open to the public for religious purposes only, but the existence of human activities and buildings on these mountains also raises doubts as to whether these mountains have much environmental value.

Though sacred sites in Nigeria are said to be valuable for conservation,[30] there is no specific mention of any rare, threatened or indigenous species being protected exclusively in sacred groves in Nigeria, unlike those reported from India and other parts of Asia. So far, only one published study has compared biodiversity in sacred groves and that in Government-managed protected areas in Nigeria. Onyekwelu and Olusola[52] reported higher species richness, a more even spread of species and a higher number of threatened species in *Osun-Osogbo* forest than in other primary forests. However, the study also reported the lowest level of species richness in the *Igbo Olodumare* sacred forest.

Some of the sacred groves in South-west Nigeria are still left intact and are used strictly by mystics, herbalists and traditional rulers for harvesting medicinal plants and for religious purposes, while the communities which manage them have diverse laws controlling their use. Therefore these undisturbed sacred forests are likely to be vital sites for the conservation of biodiversity and ecosystems, though this obviously depends on the size and vegetation heterogeneity of the sacred grove.

Sacred trees across South-west Nigeria and Nigeria in general, are relatively well-protected by agroforestry and urban forestry. Throughout Southern Nigeria, most landowners and farmers spare sacred trees like *M. excelsa* and *N. laevis* when clearing the forest for building and subsistence farming, thus promoting agroforestry. An exception to this is *O. aubrevillei*, which cannot be incorporated into agroforestry due to its hemi-parasitic properties. This perhaps accounts for the high number of stands of *M. excelsa* reported from Ibadan metropolis.[53]

Sacred prayer mountains in Nigeria also contribute to environmental protection. For example, forbidding the exploitation of resources in the sacred prayer mountains helps ensure the protection of watersheds on the mountains of 'Miracles' and 'Answer my plea', while the trees found on the eleven sacred prayer mountains visited by the author appear to be protected by church owners compared to the surrounding areas where the trees have been felled and the land converted to farming.

However, many traditional SNS in Nigeria have become tourist sites, creating sources of employment and income for the indigenous people. For example, *Osun Osogbo* sacred grove receives a high number of visitors annually, including over 40,000 of the faithful and tourists attending the annual Osun festival. Consequently, Osun grove has 75 employees, most of whom are indigenous people.[54]

Threats to sacred natural sites in Nigeria

As in the rest of the world, sacred groves and trees in Nigeria are faced with the destruction of their habitat. The author noted the complete destruction of the much-revered *Igbo Agala* sacred forest by Ibadan residents who were in desperate need of firewood during the mid-1990s when there was an acute fuel shortage. Furthermore, sacred trees after which streets and villages were named have been felled or blown down by high winds.

It is estimated that more than 50% of the sacred groves in South-west Nigeria have been destroyed, while another 40% are threatened. The fundamental threats to sacred groves in Nigeria are the erosion of cultural beliefs, embracing western culture, and political and religious change. Western culture and education have reshaped societal values and greatly reduced people's respect for traditional institutions. This is evidenced by the high rate of urbanisation and urban expansion in the region, leading to the incorporation of adjacent rural areas as suburbs.

Political changes induced by western culture have led to the adoption of democratic systems of government both in Nigeria and in Africa at large, leaving no place for traditional institutions. Furthermore, the Land Use Act of 1978 (now L5 Laws of the Federation of Nigeria, 2007) gave land ownership in Nigeria to State Governors, and made no provision for lands owned by traditional institutions for religious worship. This means essentially that State Governors have the legal right and power to demolish such sacred sites.

Religious change is perhaps the most significant threat to sacred sites in Southern Nigeria. More than 80% of Nigerians today are either Christians or Muslims, and both religions discourage traditional worship and have influenced the destruction of many sacred groves. For example, there is no report of a single sacred grove in the Islam-dominated part of Northern Nigeria, while the destruction of sacred trees and groves is a gradual process in Southern Nigeria. Since independence, there has hardly been a political leader in Nigeria who has had any affiliation to traditional religions, while a significant number of the traditional rulers have converted to either Christianity or Islam.

These factors combined have led to the weakening of traditional institutions and rulers, loss of respect for taboos and fading reverence for sacred sites. Consequently, traditional rulers lack the resources to manage these sacred resources effectively, while State Governors have often approved the destruction of sacred sites to allow for urban expansion, road construction and other government projects.

Furthermore, stories and evidence of inhumane activities occurring in some of these sacred sites in Southern Nigeria have spurred on law enforcement officers and local youths to invade, desecrate and destroy some sacred sites. The unlawful practice of human sacrifice still goes on in some sacred groves, and the bodily remains of sacrificed victims have been exhumed from some of the raided sacred sites. Moreover, victims who escaped from their captors have described the ordeals they suffered - and this partly explains the number of unsolved kidnappings in Southern Nigeria.

Chima and Nuga[55] reported that 97% of sacred groves in parts of Abia state have been demolished completely; while Emeasoba[39] reported that most of the sacred sites in Anambra State have almost completely disappeared. Notwithstanding these occurrences, many traditional sacred sites still exist in Southern Nigeria, under the protection of traditional rulers who have strong political influence, or of armed secret cults feared by the

communities. There are unconfirmed reports that cult members kill or sacrifice intruders to the resident gods in the sacred forests.

While many writers blamed Christianity exclusively for the destruction of sacred trees and groves,[41,55-56] the author gathered stories of the harmful behaviour of many local community leaders associated with the establishment of church institutions and the destruction of ancient sacred groves. It was said that when Christian missionaries approached the leaders of some villages and towns to preach and build churches, the traditional leaders deliberately allotted sacred forests or shrines to them in the hope that the resident evil spirits would devour them. However, in most cases the missionaries 'overpowered' the spirits, cleared the forests and established their churches. Ironically, this then facilitated the conversion of many followers of traditional religions and Muslims to Christianity, and also accounts for the large tracts of land possessed by many churches and church-established schools in South-west Nigeria.

Additionally, scientific knowledge has illuminated the traditional mysteries surrounding some sacred trees as biological phenomena; and this also contributed to the decimation of respect for such sacred trees. For example, *O. aubrevillei* was highly respected because of the belief that the tree's resident spirits were responsible for preventing other trees from growing near it. However, science attributed this phenomenon to the tree's inherent hemi-parasitic potential.[57] Similarly, Babalola et al.[7] noted that the Ibadan people believed that the *iroko* tree plants itself naturally or is planted by the spirits inside it. However, studies have shown that the tiny *iroko* seeds are dispersed by nocturnal bats.[58] Furthermore, the fruit-bearing male pawpaw tree (*Carica papaya*), protected in one of the sacred prayer mountains, is not new to science. Several authors have explained the hermaphroditic potential of the pawpaw tree which is controlled by genetic factors but rarely demonstrated phenotypically.[59] The same goes for some sacred trees whose trunks are twisted or abnormally bent. This was considered mysterious and sacred by the locals but is probably actually due to a phototropic reaction.

While *M. excelsa* and other sacred trees are protected in farmlands and urban areas, existing stands of wild trees are exploited commercially and locally for their high quality wood and other products. Though Nigerian foresters consider *M. excelsa* highly endangered due to heavy local exploitation, the IUCN Red List of threatened species only rated it as 'nearly threatened' due to the high number of existing populations across many African countries.

Additionally, many taboos that previously carried heavy consequences for the offenders are being violated with impunity. Many such taboos have been described by other authors.[60-61] This includes the taboo that restricts people from harvesting *Irvingia gabonensis* fruits directly from the tree, but decrees they should wait till the fruit falls. This is being violated without any known or reported repercussions.

The future of sacred natural sites in southwest Nigeria

Two sacred groves lie within Nigeria's UNESCO World Heritage properties and consequently are protected by the Government; in addition *Igbo Olodumare* sacred forest is officially recognised and protected by Ondo State. Realising the limited ability of traditional institutions to protect sacred sites, other sacred natural sites and areas of historical significance and species richness are being proposed for similar designation, including Alok Ikom Stone monoliths, Ogbunike caves and Idanre Hills, among others. At the same time literate followers of traditional religions are exploring legal ways and litigation to protect their religious sites from government incursions.

Furthermore, there are calls for the government to recognise and help manage the remaining sacred forests, but this is difficult as provision for land ownership in the Land Use Act has led to legal battles between traditional institutions and State Governments. Furthermore, the significance of sacred forests and the effectiveness of taboos in protecting them are being questioned and criticised.[62-63]

A three-pronged strategy is therefore recommended for the sustainability of these sacred sites:

1. **Policy and Law**

   Relevant laws need to be revised to recognise these sacred sites and their ownership by traditional

institutions. Likewise, all sacred natural sites in Nigeria should be identified, formally documented and given varying degrees of protection based on their size and biodiversity. Also, the indigenous knowledge of traditional institutions should be protected under the Access and Benefit Sharing (ABS) mechanism and also safeguarded under the 2003 *Convention for the Safeguarding of Intangible Cultural Heritage*.

2. Management Strategy

A treaty should be agreed to allow for joint management by the government and traditional institutions of these sacred sites. Local people should be trained and equipped to protect their sacred sites. Profits from eco-tourism should be shared equally with the local communities to enable local capacity building. Furthermore, leaders of other religions should be taught to be sensitive about the destruction of sacred sites.

3. Research

Provisions should be made to allow naturalists to have access to the sacred sites for research purposes. Papers published from such fieldwork would facilitate public and scientific awareness about the sacred sites.

Conclusions

Dendrolatry and the veneration of sacred natural sites are mostly limited to rural areas where the people are the custodians of indigenous knowledge and heritage, while these practices are largely ignored by urban dwellers. Sacred natural sites, like other protected areas in the world, are threatened with extinction which could potentially lead to the loss of invaluable biodiversity and indigenous heritage. Saving the remaining sacred sites should involve government assistance via protection and the formulation of policies. This can only be achieved if all stakeholders – government, traditional institutions and religious leaders – are actively involved in fruitful dialogue and creating pragmatic strategies.

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