

ICOMOS

INTERNATIONAL COUNCIL ON MONUMENTS AND SITES
CONSEIL INTERNATIONAL DES MONUMENTS ET DES SITES
CONSEJO INTERNACIONAL DE MONUMENTOS Y SITIOS
МЕЖДУНАРОДНЫЙ СОВЕТ ПО ВОПРОСАМ ПАМЯТНИКОВ И ПОСТОПРИМЕЧАЕЛЬНЫХ МЕСТ

WORLD HERITAGE LIST

N° 516

A) IDENTIFICATION

Nomination : Natural and Cultural Sanctuary of the Bandiagara Escarpment

Location : Region of Mopti

State Party : Mali

Date : December 29, 1988

B) ICOMOS RECOMMENDATION

That this property be included on the World Heritage List on the basis of criterion V relative to the inclusion of cultural properties and criterion III relative to the inclusion of natural properties.

C) JUSTIFICATION

In 1979 the government of Mali proposed that the "Dogon Country" be included on the World Heritage List. This is a vast cultural site extending from 14° to 15°5' latitude north and from 1°5' to 4° longitude west. Subsequent to the recommendation made by ICOMOS, the Committee deferred the request in 1981 pending a more precise definition of the property. Following a seminar held at Bamako in 1987 and a on-site visit by an expert from ICOMOS, a new nomination concerning "The Natural and Cultural Sanctuary of the Bandiagara Escarpment" was submitted. Today, the protected zone has been strictly defined and a topological and typological inventory of the traditional Dogon habitats found on the property has been carried out. In addition, a management policy has been outlined for these fragile sites, which are threatened by changing perceptions and socio-economic conditions as well as by the very climate of the Sahel region. Therefore, it is now possible to make a positive recommendation for the inclusion of this property, which in 1981 was retained solely on principle.

Covering an area of 350,000 to 400,000 hectares, the proposed zone stretches from Gani-do in the south/southwest to Koudianga in the north/northeast, along the road linking Bankas, Koporo, Madougou and Diankabou. Its northern border is the parallel at 14°40' latitude north. Then follows the main road from Komodia to Bandiagara and Gani-do.

Corresponding to the Nommo's chest was the ginna. This large family dwelling was generally built on two levels. The façade was windowless but had a series of niches and two doors often decorated with sculptured rows of male and female characters which symbolized, like the niches themselves, the family's successive generations. The size of the usual house was almost exactly half that of the ginna and generally was on one floor. As in many animist societies women were temporarily excluded from the domestic group during their menstrual period. One or two circular-shaped women's houses were built at one end of the village for their use at this time. According to Griaule, these houses represented the hand of the Nommo in the Dogon symbolic spatial layout.

A deliberate distinction between the sexes was also made in the size of the granaries. Though sometimes circular the granaries were generally square. The men's structure measured 6 cubits on the side (about 2.7 m) whereas the women's measured 4 cubits (about 1.8 m). The symbolic number for men was 3 and its multiples, and for women it was the number 4.

Special areas were reserved for traditional shrines of which a great variety can be found. Some, found in the caves, probably perpetuated the ritual sites of the Tellem cult. Others built of banco conform to several types of architecture. The most venerated are the responsibility of the Hogon, the priest who works for several villages. Living alone, his source of inspiration is the snake, whose totem is often sculpted near the door to his dwelling. The oldest mosques -Islam strongly developed in the Dogon country during the 19th century- were built by local masons alongside the togu-na on the village common, where there were also sometimes animist altars or shrines.

The integration of new elements in the traditional architecture is clear proof of the strength the Dogon civilization was in the face of external contributions. ICOMOS is wholeheartedly in favor of the inclusion of the Bandiagara escarpment on the World Heritage List, on the basis of criterion V relative to cultural properties and of criterion III relative to natural properties. However, it must stress the precarious preservation of these traditional habitats and handicraft techniques, lifestyles and way of thinking which helped the Dogon people to survive. The observations below are accompanied by specific wishes, which for the most part were expressed by Jean-Louis Michon, ICOMOS expert, after his mission in 1988.

The above observations point out the need for the rapid adoption of an integrated conservation plan.

If the inventory of the sites and the protection of cultural heritage can be assured at little expense by measures of regional deconcentration and the creation of a museum, the inclusion on the World Heritage List of a vast zone representative of the Dogon Country demands in exchange a certain number of different investments. Hence digging wells would provide the double advantage of helping to maintain farmers imperiled by the drought and of supplying one of the essential elements in Dogon architecture -water- since water and soil are the two most important ingredients in banco.

Having noted with great interest the conclusions of the mission report prepared on July 18, 1988 by Sheik Oumar Mara, head of the traditional architecture section of the Ministry of Arts, Sports and Culture, and seeing that the Mali authorities and the ICOMOS consultant share the same views, ICOMOS expresses the wish that the measures recommended by these experts be rapidly adopted by the government of Mali.

ICOMOS, April 1989

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МЕЖДУНАРОДНЫЙ СОВЕТ ПО ВОПРОСАМ ПАМЯТНИКОВ И ДОСТОПРИМЕЧАТЕЛЬНЫХ МЕСТ

LISTE DU PATRIMOINE MONDIAL

N° 516

A) IDENTIFICATION

Bien proposé : Sanctuaire naturel et culturel de la falaise de Bandiagara

Lieu : Région de Mopti

Etat partie : Mali

Date : 29 décembre 1988

B) RECOMMANDATION DE L'ICOMOS

Que ce bien soit inscrit sur la Liste du Patrimoine mondial au double titre du critère V relatif à l'inscription des biens culturels et du critère III relatif à l'inscription des biens naturels.

C) JUSTIFICATION

En 1979, le Mali avait proposé, pour inscription sur la Liste du Patrimoine mondial, le "Pays Dogon", vaste ensemble culturel s'étendant du 14° au 15°5' de latitude nord et du 1°5' au 4° de longitude ouest. Suivant la recommandation de l'ICOMOS, le Comité avait différé en 1981 cette demande, dans l'attente d'une définition plus précise du bien considéré. A l'issue du séminaire réuni en 1987 à Bamako et d'une mission effectuée sur le site en 1988 par un expert de l'ICOMOS, une nouvelle proposition d'inscription, intitulée "Sanctuaire naturel et culturel de la falaise de Bandiagara" a pu être formulée.

Une délimitation rigoureuse de la zone protégée, un inventaire topographique et typologique des habitats Dogons traditionnels qui s'y trouvent, l'esquisse d'une politique de gestion de ces sites fragiles, menacés par l'évolution des mentalités, par les mutations socio-économiques mais aussi par les facteurs climatiques propres à toute la zone sahélienne, permettent aujourd'hui de conclure par une recommandation favorable à l'inscription, dont seul le principe avait été retenu en 1981.

La zone proposée, d'une superficie de 350.000 à 400.000 hectares, s'étend de Gani-do au sud/sud-ouest à Koudianga au nord/nord-est en suivant la route qui passe par Bankas, Koporo, Madougou et Diankabou. Elle est limitée, au nord, par un parallèle, à 14°40' de latitude nord, puis suit vers le sud la route principale de Komodia à Gani-do, en passant par la ville de Bandiagara.

En raison du caractère exceptionnel de ses monuments - dont le plus célèbre est l'Auvent des masques, ensemble rupestre mondialement connu - le village de Songo, situé à 15 km à l'ouest de la ville de Bandiagara forme une enclave, hors de la zone précédemment définie.

La délimitation retenue est claire et satisfaisante. Du nord-ouest au sud-ouest, la zone principale englobe trois types de paysages différents : le haut-plateau ou toro, la falaise ou koko, la plaine ou seno (encore désignée par le terme de manu). Elle comprend près de 250 villages Dogons traditionnels, dont les plus nombreux se pressent le long de la falaise, haute en certains points de près de 500 m. La représentativité de cette zone par rapport à l'ensemble plus considérable du Pays Dogon est excellente et toute extension, en direction du nord notamment, constituerait une redondance inutile. En revanche, l'inclusion de larges secteurs du toro, faiblement habité et du manu peuplé de façon permanente depuis 1920 seulement, doit être considérée de façon positive, ces deux zones protégeant notamment des risques du tourisme les habitats les plus spectaculaires, installés dans les anfractuosités de la falaise de grès ou juchés sur des monceaux d'éboulis détachés de sa corniche.

La civilisation des Dogons - l'une des ethnies africaines les plus étudiées sinon les mieux connues - est née du regroupement au pied de la falaise de Bandiagara, il y a environ huit siècles, de populations chassées du Mandé et de leur fusion avec des autochtones, les Tellem, qui vivaient dans les cavernes et les abris sous roche et pratiquaient depuis une époque très ancienne la métallurgie.

Animistes, les Dogons ont conservé un certain nombre de sanctuaires rupestres de leurs prédecesseurs mais ont développé au cours des siècles une organisation sociale et rituelle originale dont l'architecture restitue fortement les structures essentielles. S'il faut en croire Marcel Griaule, le pionnier des études sur les Dogons, l'appropriation de l'espace par le village Dogon est à la fois cosmogonique et anthropomorphique : le village s'étend du nord au sud en reproduisant dans ses parties essentielles la forme du Nommo, le grand ancêtre dont sont issus tous les êtres. Quoi qu'il en soit, l'ensemble des constructions traditionnelles utilisant la pierre, le bois, le banco est d'une remarquable diversité et illustre, selon une typologie claire, des fonctions religieuses et sociales originales.

L'une des formes les plus caractéristiques du Pays Dogon est celle du togu-na (littéralement : le grand abri). Cette maison de la parole, construite en tout premier lieu lors de la fondation d'un village, abrite sous un toit de branchages supporté par des poteaux de bois non équarris une plateforme accessible à tous les hommes, jeunes et vieux, qui se réunissent sur des bancs pour se

livrer à des activités artisanales, comme la vannerie, mais surtout pour palabrer et tenir conseil, les décisions prises en ce lieu ayant un caractère solennel. Le togu-na correspondrait à la tête du Nommo.

Correspondant à la poitrine du Nommo, le ginna, ou grande maison de famille, comporte généralement deux niveaux. Sa façade, dépourvue de fenêtres, est néanmoins percée d'une série de niches et de deux portes, souvent ornées de motifs sculptés : des rangées de personnages masculins et féminins symbolisant, comme les niches elles-mêmes, les générations successives. La maison ordinaire, de dimensions sensiblement égales à la moitié du ginna, ne comporte généralement pas d'étage. Comme dans beaucoup de sociétés animistes, la menstruation exclut temporairement les femmes de la communauté familiale : elles sont alors accueillies dans une ou deux Maisons des femmes, de forme circulaire, à l'extrémité du village; selon Griaule, ces maisons restitueraient dans la symbolique spatiale des Dogons l'image des mains du Nommo.

La ségrégation des sexes se marque encore, de façon délibérée, dans les dimensions des greniers, constructions parfois circulaires, mais généralement carrées : ces derniers mesurent 6 coudées de côté (environ 2,70 m) lorsqu'ils appartiennent aux hommes; 4 coudées de côté (environ 1,80 m) lorsqu'ils appartiennent aux femmes, le chiffre 3 et ses multiples étant symboliques de l'homme, le chiffre 4 symbolique de la femme.

Lieux privilégiés, les sanctuaires traditionnels sont d'une grande variété : certains, dans des cavernes, perpétuent, sans doute, des lieux de culte Tellem; d'autres, bâtis en banco, obéissent à plusieurs types architecturaux. Les plus vénérés sont à la charge du Hogon, prêtre de plusieurs villages vivant seul, sous l'inspiration d'un serpent, dont le totem est souvent sculpté près de la porte de sa demeure. Les plus anciennes mosquées - l'islamisation du Pays Dogon s'est accentuée au XIXème siècle - construites par des maçons locaux coexistent généralement sur la place du village, avec le togu-na, parfois avec les autels ou sanctuaires animistes.

L'intégration d'éléments nouveaux à l'architecture traditionnelle est une preuve évidente de la forte résistance de la civilisation des Dogons à tout apport extérieur. L'ICOMOS n'hésite pas à formuler un avis favorable à l'inscription de la falaise de Bandiagara sur la Liste du Patrimoine mondial, au double titre du critère V concernant les biens culturels et du critère III concernant les biens naturels, mais se doit toutefois de souligner la précarité de la conservation de ces habitats traditionnels comme d'ailleurs des techniques artisanales, des modes de vie et de pensée qui en conditionnent la survie. Les observations présentées ci-après s'accompagnent de souhaits, dont la plupart ont été formulés par Jean-Louis Michon, expert de l'ICOMOS, à l'issue de sa mission de 1988.

Observations de l'ICOMOS

1) Considéré à juste titre comme un "sanctuaire" par l'Etat malien, dont la constitution garantit la liberté confessionnelle, le Pays Dogon doit être protégé de tout vandalisme de nature religieuse. Les "religions du livre" y sont inégalement représentées : le christianisme n'a guère marqué que ses franges et les principales villes, l'Islam l'a pénétré plus profondément. Les zélateurs des religions monotheïstes ont tenté parfois de s'en prendre aux sanctuaires de la religion traditionnelle et à ses objets cultuels, qualifiés de fétiches. Lorsque leur prosélytisme se conjugue avec l'action des marchands et des amateurs de souvenirs pour faire déposer des pièces archéologiques ou des panneaux de bois sculptés, voire pour violer des sépultures Tellem, dont seule l'inaccessibilité relative a garanti jusqu'ici la conservation, le dommage est immense. D'autre part, il faut opposer à la construction des petites mosquées de quartier, parfaitement intégrées à l'architecture traditionnelle, celle de grandes mosquées du Vendredi comme on peut en voir à Kani Kombolé. L'échelle de ces édifices cultuels, leur style, importé de la région de Djenné, introduit de graves éléments de rupture dans le paysage architectural Dogon.

2) Si le tourisme est encore peu représenté en Pays Dogon, avec des flux inférieurs à 5.000 visiteurs par an, il n'en constitue pas moins une grave menace potentielle, d'autant que le Plan directeur du développement du tourisme au Mali prévoit, d'ici 1990, l'aménagement d'équipements susceptibles d'accueillir 10.000 visiteurs par an.

Le pillage du patrimoine artistique, favorisé par l'isolement du Pays Dogon pendant de nombreuses années, se complique aujourd'hui d'une banalisation de l'artisanat, qui produit de façon répétitive pour le gros des visiteurs des statues et des masques non consacrés.

Le risque de déculturation au contact des touristes est unanimement dénoncé, conjointement à celui d'une déstabilisation sociale qui se manifeste en particulier par l'apparition toute récente d'une "fausse mendicité".

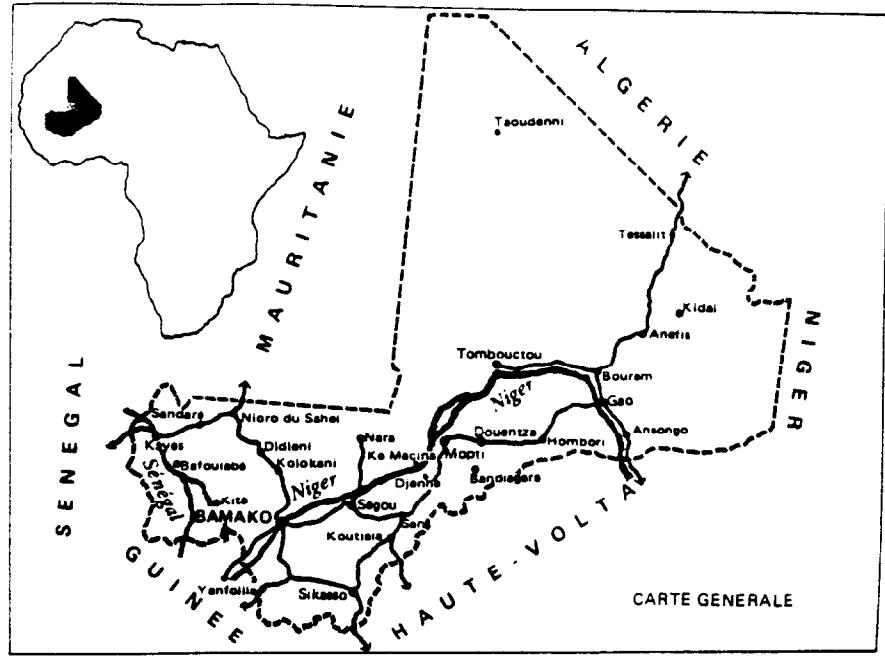
3) La plus grave menace encourue par le Pays Dogon est probablement celle de l'exode rural. Au cours des deux dernières décennies, la sécheresse qui a sévi dans toute la zone sahélienne n'a pas épargné la région. Beaucoup de villageois, renonçant à l'agriculture, ont recherché en ville des conditions de vie meilleures. L'exode rural a presque entièrement dépeuplé plusieurs villages de la falaise de Bandiagara.

Ces observations plaident en faveur de l'adoption rapide d'un plan de conservation intégrée.

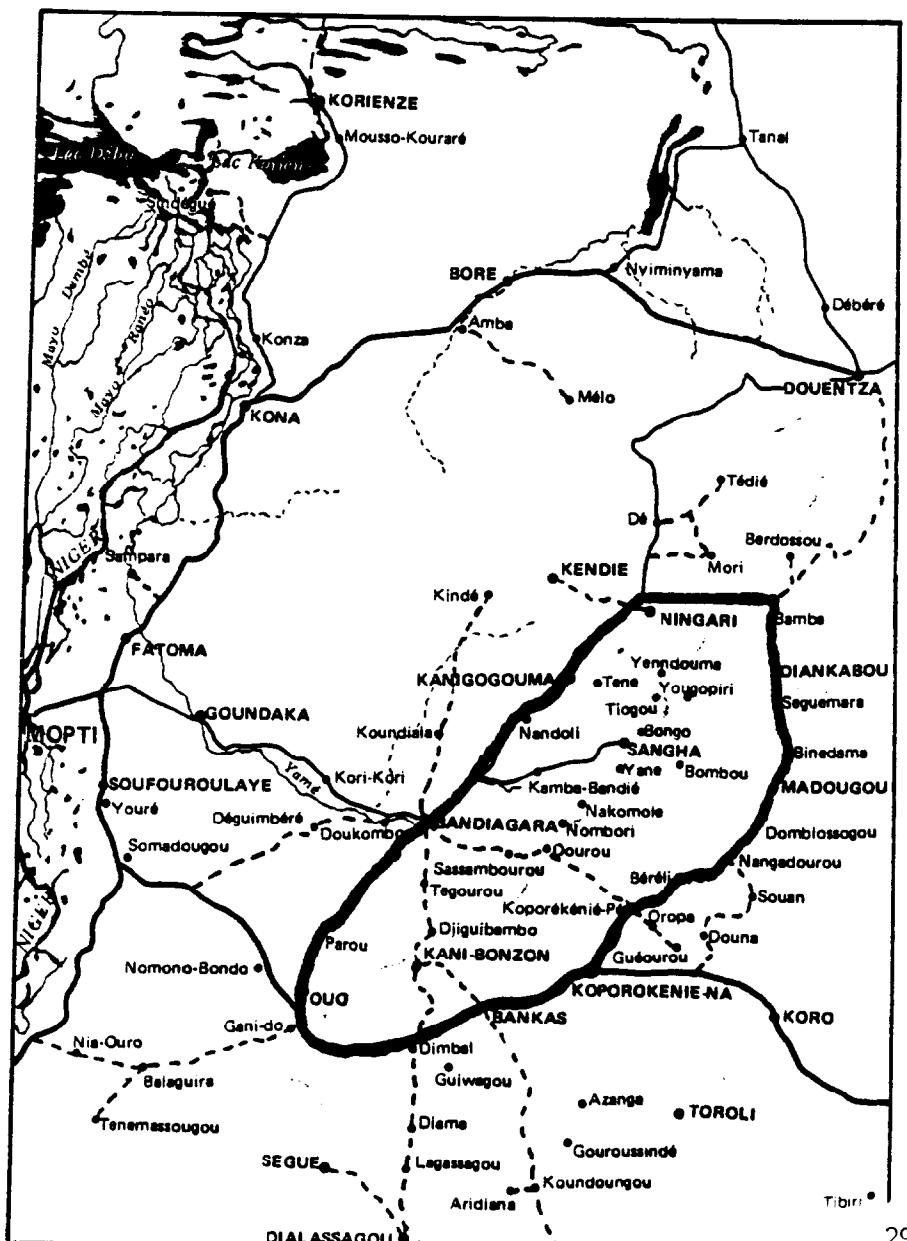
Si l'inventaire des sites, la protection du patrimoine peuvent être assurés à peu de frais par des mesures de déconcentration régionale et par la création d'un musée, l'inscription sur la Liste du Patrimoine mondial d'une vaste zone représentative du Pays Dogon exige en contrepartie un certain nombre d'investissements de nature très diverse. C'est ainsi que le forage de puits aurait le double avantage de fixer une population agricole fragilisée par la sécheresse, mais aussi de fournir l'un des composants essentiels de l'architecture Dogon : on se souvient que l'eau est l'élément primordial du banco, au même titre que la terre.

L'ICOMOS, ayant pris acte avec grand intérêt des conclusions du rapport de mission formulées le 18 juillet 1988 par Cheick Oumar Mara, chef de la Section des Architectures traditionnelles au Ministère des Arts, des Sports et de la Culture, et ayant constaté la concordance de vues des responsables maliens et de son consultant, souhaite l'adoption rapide par le gouvernement malien des mesures préconisées par ces experts.

ICOMOS, Avril 1989



CARTE GÉNÉRALE



Map of the Dogon Country

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LISTE DU PATRIMOINE MONDIAL

WORLD HERITAGE LIST N° 118

A) IDENTIFICATION	A) IDENTIFICATION
<u>Bien proposé:</u> Pays Dogon <u>Lieu:</u> 5ème région du Mali <u>Etat partie:</u> la République du Mali <u>Date:</u> 14 Mai 1979	<u>Nomination:</u> The Land of Dogon <u>Location:</u> the 5th Region of Mali <u>State party:</u> The Republic of Mali <u>Date:</u> May 14, 1979
B) RECOMMANDATION DE L'ICOMOS	B) ICOMOS RECOMMENDATION
Que l'inscription du bien culturel proposé soit différée jusqu'à ce qu'une définition topographique plus précise ait été obtenue du gouvernement du Mali .	That the inclusion of the proposed cultural property be deferred until a more precise topographical definition has been obtained from the government of Mali.
C) JUSTIFICATION	C) JUSTIFICATION
<p>Le pays dogon ne forme pas une entité géographique naturelle, dans la mesure où il s'étend à la fois sur le plateau, la falaise et la plaine mais plutôt une unité ethnique et socio-culturelle, bien définie par l'organisation du terroir, les formes de l'architecture, le folklore et l'art. La civilisation des dogons, qui a résisté à toute atteinte extérieure du Xème siècle à nos jours est incontestablement l'une des plus riches du monde africain. A ce titre, l'inscription sur la Liste du Patrimoine Mondial est très souhaitable.</p> <p>Reste à savoir ce que l'on entend protéger matériellement et topographiquement, à l'intérieur d'une contrée qui s'étend du 14° au 15°5' de latitude nord et du 1°5' au 4° de longitude ouest. Une civilisation, si riche soit-elle, constitue-t-elle un bien culturel dans le sens donné à ce terme par l'ICOMOS ?</p>	<p>To the extent that the land of Dogon is spread out over plateaus, cliffs and plains, it does not form a natural geographic unity but rather an ethnic and socio-cultural unity, well defined by the organization of the land, the architecture, folklore and art. The civilization of the Dogon which resisted all exterior penetration from the 10th century to the present, is indisputably one of the richest of the African world. By virtue of this, the inclusion of the land of Dogon on the World Heritage List is, indeed, desirable.</p> <p>It remains, however, to be seen, what it is the intention to protect, materially and topographically, within a region which extends from 14° to 15°5' northern latitude and from 1°5' to 4° western longitude. Does a civilization, no matter how rich it may be, constitute a cultural property in the sense that this term is defined by ICOMOS ?</p>

ICOMOS, Paris, 1981.05

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WORLD HERITAGE NOMINATION --IUCN SUMMARY

LE SANCTUAIRE NATUREL ET CULTUREL DE LA FALAISE DE BANDIAGARA (MALI)

DOC#:

WHL

Summary prepared by IUCN (March 1989) based on the original nomination submitted by the Government of Mali. This original and all documents presented in support of this nomination will be available for consultation at the meetings of the Bureau and the Committee.

1. LOCATION:

The village of Sangha (Sanga or Songo), on the crest of the Bandiagara plateau escarpment, is located at the centre of the sanctuary. It overlooks the village of Banani at the Bandiagara cliff base, 44km north-east of Bandiagara town and 107km east of Mopti, in the Mopti fifth administrative and economic region. 14°00'-14°45'N, 3°00'-3°50'W. The sanctuary totals 400,000ha.

2. JURIDICAL DATA:

The area was constituted as a natural and cultural sanctuary, initially based on Ordinance No. 52 of 3 October 1969 regulating the export of objects of art and subsequently by Law No. 85-40/AN-RM of 26 July 1985 and Decree No. 203/PG-RM of 13 August 1985 safeguarding the cultural heritage, whilst Decree No. 299/PG-RM of 19 September 1986 relates to the excavation of sites. The Law No. 68-8/AN-RN of February 1968 sets out the Forestry Code and Ordinance No. 60/CMLN of 11 November 1969 sets out the Hunting Code.

3. IDENTIFICATION:

The sanctuary lies at the southern limit of the Sahara in an arid sahelian region with averages of 580mm of rainfall per year. The area exhibits three distinctive geomorphological features: Bandiagara plateau, Bandiagara escarpment and the plaine du Sino. The landscape consists of an ancient eroded terrain of flat tablelands, messa and sandstone buttes. The rock substrate is predominantly upper sandstone of the Cambrian and Ordovician periods, formed into horizontal strata and characterised by a great variety of facies. Exposed horizontal strata periodically result in rock polygonation. In some areas the plateau is crowned by laterite, ironstone shield or impervious conglomerates. The Bandiagara escarpment extends over 150km in a south-west - north-east direction from Douentza in the north to Ouo in the south and varies in height from 100m in the south to over 500m in the north. The escarpment has formed into numerous irregularities, indentations, promontories and is pierced by thalweg ravines, gorges, or rocky passages connecting the plain and plateau. Thalwegs maintain a humid and shaded microclimate able to support dense vegetation. Water is also retained in rock fissures, resulting in seasonal boggy areas on horizontal or gently sloping rock strata.

The predominant vegetation type is Sudano-Sahelian open wood savanna with mosaics of steppe and chasmophytic flora. The plateau of Bandiagara is covered in a typically sudanian savanna vegetation, including communities of Daniella oliveri in association with Eutrospermum parkii and Terminalia macroptera, and brush species such as Combretum micranthum and Guiera senegalensis. Along the edge of the plateau, the terrain is rocky and arid and characterised by Euphorbia balsamifera and Senecio cliffordianus. Cliff and ravine vegetation is often very diverse and dense, the chasmophytic flora includes Cissus quadrangularis, Ficus lecardii, Euphorbia sudanica, Lannea microcarpa and Combretum leocardii, along with notable hygrophilic species such as Pachystela pobeguiniana and Diospyros mespiliformis as well as Selaginella sp., Begonia rostrata and Ceratopteris cornuta. At the foot of the escarpment, such as in the plain of Douentza, there is a preponderence of sahelian species such as Acacia raddiana, Dalbergia melanoxylon, Combretum aculeatum and Tamarindus indica.

A wide range of animal species is found in the region. The cliff and rock habitats support a diversity of species including fox-kestrel Falco alopec, Gabar goshawk Melierax gabar, yellow-billed shrike Corvinella corvina, scarlet-chested sunbird Chalcomitra senegalensis, abundant cliff chats Thamnolea cinnamomeiventris and rock doves Columba livia. Mammal species which occur in the region and probably exist in the Bandiagara escarpment region include rock hyrax Procavia capensis, porcupine Hystrix spp., wild dog Lycaon pictus, common jackal Canis aureus and pale fox Vulpes pallida. Tree, shrub and savanna species include the bustard Eupodotis senegalensis and stone partridge Ptilopachus petrosus. Dorcas gazelle Gazella dorcas (V) and dama gazelle Gazella dama (V) are also reported in the area.

The region is one of the main centres for the Dogon culture, rich in ancient traditions and rituals, art culture and folklore. The village of Sangha or Songo, with its 130,490 Dogon inhabitants, is celebrated for its triennial circumcision ceremonies and its rock carvings. The Dogon subsistence farmers themselves did not arrive until the 15th and 16th centuries, yet the region is rich in unique architecture, ranging from flat-roofed huts to unusual tapering granaries each capped with thatch, and cliff cemeteries. Symbolic relationships occur with the environment such as with semi-domesticated crocodiles, pale fox and the jackal, and the development of elaborate masks, head dresses and ritual dances.

4. STATE OF PRESERVATION/CONSERVATION:

Hunting is restricted under the Hunting Code Ordinance of November 1969 and scrub and tree felling prohibited under Forestry Code of February 1968. The natural and cultural sanctuary is an area set aside to protect and conserve particular species, communities or cultural heritage.

Responsibility of cultural heritage management belongs to the Ministère de la Jeunesse, des Sports, des Arts et de la Culture (Ministry of Sports, Arts and Culture). With management under local authority by the Direction Régionale de la Jeunesse, des Sports, des Arts et de la Culture, Division Régionale du Patrimoine Culturel at Mopti. The Direction Régionale is charged with preserving and conserving the ensemble of national cultural heritage in its administrative region. In practice, the cultural and historic elements are protected by the local populations.

The greatest threats to the area include the Sahelian drought and desertification. The most significant human impact on the sanctuary would appear to be the influence of uncontrolled tourism which is adversely affecting the economic structure and Dogon traditions. The savanna vegetation has been profoundly degraded by fire and scrub clearance, most notably in the vicinity of the villages.

5. JUSTIFICATION FOR INCLUSION ON THE WORLD HERITAGE LIST:

The Sanctuaire naturel et culturel de la falaise de Bandiagara Nomination, as presented by the Government of Mali provides the following justification for designation as a World Heritage property:

C) Cultural heritage properties

(iv) An outstanding example of an architectural ensemble of the Dogon culture.

(v) An outstanding example of a traditional human settlement which is representative of the Dogon culture and which has become vulnerable under the impact of tourism.

D) Natural heritage properties

A single justification for inclusion of natural properties has been listed by the Government of Mali:

a (iii) Exceptional combinations of natural and cultural elements. The complex ritual relationships of the Dogon people with the environment include the use of curative and medicinal wild plants and the sacred associations with pale fox, jackal and crocodile.

DATE March 1989

2371p

NAME Le Sanctuaire Naturel et Culturel de la Falaise de Bandiagara
(Bandiagara Escarpment Natural and Cultural Sanctuary)

MANAGEMENT CATEGORY VII (Anthropological Reserve)

BIOGEOGRAPHICAL PROVINCE 3.12.07 (Western Sahel)

GEOGRAPHICAL LOCATION The village of Sangha (Sanga or Songo), on the crest of the Bandiagara plateau escarpment, is located at the centre of the sanctuary. It overlooks the village of Banani at the Bandiagara cliff base, 44km north-east of Bandiagara town and 107km east of Mopti, in the Mopti fifth administrative and economic region. 14°00'-14°45'N, 3°00'-3°50'W

DATE AND HISTORY OF ESTABLISHMENT Existing legal provisions relate to the cultural heritage and include the following: Ordinance No. 52 of 3 October 1969 regulating the export of objects of art, Law No. 85-40/AN-RM of 26 July 1985 dealing with the protection and promotion of the national cultural heritage and Decree No. 275/PG-RM of 4 November 1985 regulating archaeological excavations. Both Law No. 86-61/AN-RM of 26 July 1986 and Decree No. 299/PG-RM of 19 September 1986 specifically control excavations, commerce and the export of cultural objects. Law No. 68-8/AN-RN of February 1968 sets out the Forestry Code and Ordinance No. 60/CMLN of 11 November 1969 sets out the Hunting Code.

AREA 400,000ha

LAND TENURE Sangha villagers private ownership and state lands.

ALTITUDE 518m near Sangha rising to 777m at Mount Bamba to the northeast (Jaeger and Winkoun, 1962).

PHYSICAL FEATURES The area exhibits three distinctive geomorphological features: Bandiagara plateau, Bandiagara escarpment and the plaine du Sino. The escarpment and Bandiagara plateau extend beyond the sanctuary to the Mossi massif, which separates the Sino plain from the low-lying Niger wetlands (inner Niger delta). The site consists of an ancient eroded terrain of flat tablelands, messa and sandstone buttes. The rocks are predominantly upper sandstone of the Cambrian and Ordovician periods, formed into horizontal strata and characterised by a great variety of facies. Exposed horizontal strata periodically result in rock polygonation. In some areas the plateau is crowned by a hard layer of laterite, ironstone shield or impervious conglomerates.

The flat Bandiagara plateau is sandstone, with rock slabs riddled with holes, faults and caves that link into seepages along the base of the cliffs as springlines. At low levels the ravines are blocked by immense detached blocks of rock (Wright, pers. comm. 1989).

The Bandiagara escarpment extends over 150km in a south-west - north-east direction from Douentza in the north to Ouo in the south and varies in height from 100m in the south to over 500m in the north. The escarpment has formed into numerous irregularities, indentations, promontories and is pierced by thalweg ravines, gorges, or rocky passages connecting the plain and plateau and is noted for the abrupt cliff plateau edge near Sangha-Bongo. Thalwegs maintain a humid and shaded microclimate able to support dense vegetation. Water is also retained in rock fissures, resulting in seasonal boggy areas on horizontal or gently sloping rock strata.

CLIMATE No recent data is available, but precipitation levels averaged 580mm per year at Bandiagara up to the early 1960s (Jaeger and Winkoun, 1962). Drought lasts for up to eight months per year and the irregular rainy season occurs mainly from June to September. In May the shade temperatures are reported to be some of the highest in the Sahel region (Pern, 1985).

VEGETATION Sudano-Sahelian vegetation encircles Bandiagara and Sangha, dominated by open savanna and steppe with scattered Acacia raddiana, A. Nalbida, Balanites aegyptiaca and Cenchrus ciliaris (Jaeger and Winkoun, 1962). The plateau of Bandiagara is covered in a typically Sudanian savanna flora, including communities of Daniella oliveri in association with Butyrospermum parkii, Parkii biglobosa, Terminalia macroptera, Khaya senegalensis, Vitex cienkowskii, Prosopis africana and brush species such as Combretum micranthum, Heeria insignis and Guiera senegalensis (Jaeger and Winkoun, 1962).

Along the edge of the plateau, the terrain is rocky and arid and characterised by Caralluma dalzielii, Euphorbia balsamifera and Senecio cliffordianus. Open scattered vegetation includes xerophytes, cryptograms and deep-rooted trees in rock fissures where they are protected from fire.

Cliff and ravine vegetation is often very diverse and dense, the chasmophytic flora includes Cissus quadrangularis, Ficus leocardii, Boscia angustifolia, Euphorbia sudanica, Lannea microcarpa and Combretum leocardii (Rousselot, 1939; Jaeger and Winkoun, 1962). In rainy seasons the horizontal rock strata contain water which gives rise to boggy areas which act as refugia for species such as Cyanotis rubescens, Ramphicarpa fistula and Bulbostylis sp. The escarpment thalwegs maintain a humid microclimate supporting Combretum along with Stereospermum kunthianum, Gloriosa simplex, Cissus populnea, Acacia ataxacantha and A. sieberiana. Notable hygrophilic species include Celtis integrifolia, Pachystela pobeguiniana and Diospyros mespiliformis, as well as Selaginella sp., Begonia rostrata, Fleurya aestuans and Ceratopteris cornuta. At the foot of the escarpment, in the plain of Douentza, there is a preponderence of Sahelian species such as Acacia albida, A. raddiana, Dalbergia melanoxylon, Combretum aculeatum and Tamarindus indica (Jaeger and Winkoun, 1962).

The Sangha rock pool depressions support aquatic plants such as Nymphaea maculata, Naias graminea, Ottelia ulvifolia, Cyperus sp., Saccolepis sp. and Melochia corchorifolia. Other shallow water vegetation includes floating carpets of Pistia stratiotes, Neptunia oleracea, Ipomoea reptans and Naias graminea (Jaeger and Winkoun, 1962).

FAUNA The diverse vegetation communities support notable resident and migratory bird fauna, including cliff species such as fox-kestrel Falco alopec, Gabar goshawk Melierax gabar, yellow-billed shrike Corvinella corvina, scarlet-chested sunbird Chalcomitra senegalensis, rose-ringed parakeet Psittacula krameri, abundant cliff chats Thamnolea cinnamomeiventris and rock doves Columba livia. The pools act as haven for Egyptian plover Pluvianus aegyptius and grey-headed kingfisher Halcyon leucocephala, whilst tree, shrub and savanna species include bustard Eupodotis senegalensis, stone partridge Ptilopachus petrosus and laughing dove Streptopelia senegalensis. Species abundant around the villages include grey-headed sparrow Passer griseus and hooded vulture Necrosyrtes monachus (Rousselot, 1939; Pern, 1985).

Mammal species which occur in the region and probably exist in the Bandiagara escarpment region include rock hyrax *Procavia capensis*, porcupine *Hystrix* spp., wild dog *Lycaon pictus*, common jackal *Canis aureus* and pale fox *Vulpes pallida*. Dorcas gazelle *Gazella dorcas* (V) and dama gazelle *Gazella dama* (V) are also reported (Sayer, 1977).

CULTURAL HERITAGE The region is one of the main centres for the Dogon culture, rich in ancient traditions and rituals, art culture and folklore. The village of Sangha or Songo is celebrated for its triennial circumcision ceremonies and its rock carvings. Archaeological evidence suggests human occupancy of the cliffs for at least the last 1,000 years, although the Dogons themselves did not arrive until the 15th and 16th centuries. By tradition they consisted of four tribes, the Dyon, Ono, Arou and Domno which migrated from the land of Mandi. The present-day local Dogon population is divided into small village communities, each Dogon member having a village surname shared by every inhabitant (Diakite, 1988). Village communities are divided into the inneomo and innepuru, living men and dead man respectively, the latter forming a symbiotic union with the inneomo. In some cases there has been the development of secret languages. Symbolic relationships occur with the environment such as with the pale fox and the jackal, and the development of elaborate masks and head dresses (Griaule, 1941). Semi-domestic crocodiles are kept as sacred village protectors of Bandiagara and its ancient founder, Nangabanou Tembèly. They are also revered so as to ensure continued rains in the ritual rain dances (Yaro and Diko, 1940).

The Bandiagara region is rich in unique architecture, ranging from thatched flat-roofed huts to distinctive tapering granaries each capped with thatch. The Bandiagara escarpment abounds in a whole series of cliff cemeteries accessed by Dogon-style ladders (Jaeger and Winkoun, 1962).

LOCAL HUMAN POPULATION The resident population consists of desert-edge subsistence farmers who inhabit the plateau area. There are 130,490 Dogon inhabitants in the village of Sangha and its surrounding areas (part of the estimated 701,460 Dogon people in Mali) (Pern, 1985; Diakite, 1988). Subsistence crops primarily include millet and also sorghum, calabash and cassava. Rice is grown in cultivated rock pools and gardens are found on horizontal sections of the cliffs. The Dogon rely for permanent water on supplies from springlines along the base of the Bandiagara escarpment (Jaeger and Winkoun, 1962; Pern, 1985; Diakite, 1988).

VISITORS AND VISITOR FACILITIES There is a small airfield at Bandiagara and another at Mopti and rest houses at Sangha and Bandiagara. Mopti is a centre of tourism and a hotel has been constructed. The Mali Office of Tourism publicises the historic sites of the Bandiagara region (FAO, 1969).

SCIENTIFIC RESEARCH AND FACILITIES The Division de la Recherche Forestière et Hydrobiologique of the Ministère de l'Elevage et des Eaux et Forêts maintains a hydrological laboratory at Mopti. The laboratory carries out research on fish systematics and biology. Work on the botany of the area was initiated between 1950-1952 by G. Dieterlen and followed by Jaeger and Winkoun in the 1960s for the Institut Français d'Afrique Noir. A herbarium collection of 300 species was made from the region of Sangha (Dieterlen, 1952; Jaeger and Winkoun, 1962). A current fauna and flora survey is being undertaken on behalf of the "cantonnements forestiers" (Diakite, 1988).

CONSERVATION MANAGEMENT Hunting is restricted under the Hunting Code ordinance of November 1969 and scrub and tree felling prohibited under Forestry Code of February 1968. The Bandiagara Natural and Cultural Sanctuary is an area set aside to protect and conserve particular species, communities and cultural heritage. Responsibility of cultural heritage management belongs to the Ministère de la Jeunesse, des Sports, des Arts et de la Culture (Ministry of Sports, Arts and Culture). With management under local authority by the Direction Régionale de la Jeunesse, des Sports, des Arts et de la Culture, Division Régionale du Patrimoine Culturel at Mopti. The Direction Régionale is charged with preserving and conserving the ensemble of national cultural heritage in its administrative region. In practice, the cultural and historical elements are protected by the local populations (Diakite, 1988).

The government justification for conserving the area is based on the exceptional architectural structures and the interaction between man and the natural environment. One of the key management aims is the maintenance of traditional Dogon culture and their associated houses, granaries, ritual sanctuaries and "toguna". Also of importance are the surrounding natural features and landscape (Daikite, 1988).

The Bandiagara plateau near Sangha-Bongo has been described as one of the most impressive geological and landscape features in West Africa (Jaeger and Winkoun, 1962). The botany of the region is of great phytogeographic interest. The escarpment represents important refuge biotopes rich in relict species and haven for vegetation otherwise felled or burnt by man's activities in more accessible localities. The Sangha flora communities represent a crossroads and interface between different phytogeographical regions (Sudano-Sahelian and Sahelian) and consist of residual ravine vegetation (ancient humid flora) in an otherwise Sahelian arid climate (for details see report by Jaeger and Winkoun, 1962). Restricted species include the localised endemic *Acridocarpus monodii* (R) found in the Bandiagara escarpment at Kikara (Jaeger and Winkoun, 1962).

MANAGEMENT PROBLEMS The greatest threats to the area include the Sahelian drought and desertification. Uncontrolled tourism is affecting the economic structure and menacing the basis of the Dogon culture. Dogon traditions are also under threat from the continued islamisation and evangelism taking place in certain localities within the region (Diakite, 1988). The savanna vegetation has been profoundly degraded by fire and scrub clearance, most notably in the vicinity of village communities (Jaeger and Winkoun, 1962).

STAFF No information

BUDGET No information

LOCAL ADMINISTRATION Gouverneur de Mopti, 5ème région, Direction Régionale de la Jeunesse, des Sports des Arts et de la Culture, Division Régionale du Patrimoine Culturel

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