

Using Cultural Resources in Host Communities and the Environs to Enhance the Natural Resources Attractiveness of Ecotourism Development in Omo Biosphere Reserve (OBR), Nigeria

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Abstract

The study was undertaken to evaluate the cultural resources in Omo Biosphere Reserve (OBR) host communities and its environs that can enhance the attractiveness of ecotourism development which can ultimately lead to the sustainable development of the area. OBR is in waterside area of Ogun State, Nigeria. It is a UNESCO designated Man and Biosphere (MAB) site. OBR natural resources has been under threat of overexploitation in the last few decades and hence the need to sustainably conserve and protect these resources using ecotourism. Fauna direct sighting particularly the large mammals like the forest elephants (*Loxodonta africana cyclotis*), forest buffalo (*Syncerus caffer nanus*) and others have been rare although their presence have been established. Interview and direct observation methods were used to collect primary data. Data collected were analysed and presented in tables. The result showed that there were significant festivals in OBR environs that can attract visitors to OBR. The study identified the incorporation of festivals in the OBR as added attractiveness for the natural resources in OBR in its ecotourism development. Development of ecotourism will not only conserve the endangered fauna and flora species of Omo Biosphere Reserve but will also provide additional income and job opportunities for the communities and will equally ensure peaceful co-existence of the people.

Keywords: cultural heritages, festivals, ecotourism, Omo biosphere reserve, communities

1. Introduction

Omo biosphere reserve, Southwest Nigeria natural resources has been overexploited in the last few decades and many flora and fauna species are under threat of extinction or becoming rare and this without will affect the eco balance of the biodiversity of the reserve. This unsustainable utilization of the natural resources of the reserve must be stopped and reversed. This paper looks at the opportunity of using cultural resources to enhance the natural attractiveness of the reserve to establish sustainable ecotourism.

The natural resources of OBR have a lot of implications for the families in the communities for their livelihood. It is also vital for the continued existence and ecosystem balance of the biodiversity of the reserve and the global warming implications of deforestation of the area.

Growing concern about the decline of natural rainforests, loss of endangered species and global warming has brought conservation issues to the forefront of public debate (Geldenhuis, 2004). Ecotourism depends on the sustainable use of the world's most ecologically and culturally fragile destinations (Manning, 2004). Forests are under the spotlight as never before. They are globally important in regulating climate and locally important in sustaining communities and supporting biodiversity. But with unsustainable logging, and agriculture and biofuel producers competing for land, forests, and the people who depend on them, are under increasing pressure (IUCN, 2012). Sustainable development is also a normative outlook on the world, meaning that it recommends a set of goals to which the world should aspire. In this normative (or ethical) sense, sustainable development calls for a world in which economic progress is widespread; extreme poverty is eliminated; social trust is encouraged through policies that strengthen the community; and the environment is protected from human-induced degradation (Sachs, 2013).

Biosphere reserves are sites established by countries participating in the MAB Programme to promote biodiversity conservation and sustainable development based on local community efforts and sound science. They are ideal places to test and develop innovative tourism models that benefit local people and maintain cultures, biodiversity and associated values, UNESCO (2013). Biosphere reserves exist to promote and demonstrate relationship between people and Nature. They endeavour to demonstrate and promote a balanced relationship by focusing on ecosystems, not on specific natural features, or conspicuous species, nor on preservation for its own sake, but on the interaction between ecosystems and human activities in a place where a range of actions and effects can be studied scientifically. This is achieved, in a successful Biosphere Reserve, through the three interdependent functions of conservation, social and economic development, and logistics support for research, communication, and education (Roots, 2002). Biosphere reserves can become institutions, which take on the tasks of sustainable development. They can become places for social learning. They are already education sites for sustainable development, which could have a far-reaching effect-from the neighbourhood to the global network (Persha, Agrawal, & Chhatre, 2011). To be successful within Biosphere reserves, the ecotourism activities and tourist experience should be compatible with all the characteristics of ecotourism in protected and managed areas and in addition should also help the tourist to understand, take part in, and contribute to the three main functions of a Biosphere Reserve: Conservation of: Ecosystems, ecological functions, landscape, hydrology/coastal features, and habitats, historical and local cultural attributes; Improvement of social, economic and cultural development and sustainability; Provision of sites and opportunities for research, monitoring, education, communication and international contact and exchange (the logistic function) (UNESCO, 1999).

Ecotourism comes with a definitional promise to promote responsible travel to natural areas, to make a positive contribution to environmental conservation, and to enhance the well-being of local communities, Zambrano, Broadbent, and Durham (2010). It is important to appreciate the need for increased efforts at community environmental education in the areas surrounding ecotourism ventures, helping locals to appreciate non-consumptive use of natural resources as suggested by Zambrano *et al.* (2010). Ecotourism is a form of tourism widely considered as an opportunity for local people to derive positive socio-economic benefits from tourism development whilst conserving forests as opine by Mensah and Ernest (2013). Ayodele (2002), described ecotourism potentials as ranging from the aesthetic and cultural values to the recreational and economic contributions, as they are not only generating revenue but are also capable of replenishing themselves. Agbelusi (2009) reported that the importance of wild resource to local economy in terms of cash income derived from the collection and exchange or sale of wild products is of great

value to rural people. Kiper, Ozdemir, and Saglam (2011), posited that ecotourism focuses on the local culture of a certain region (area) as well as the natural beauty, the geological structure, the natural vegetation and the fauna. And in the same vein, Abu-Izzeddin (2009) maintains that the link between tourism and protected areas is becoming more important as tourism activities are relying more on natural heritage combined with cultural heritage. Hargrove (2002) quoting The National Trust for Historic Preservation describe heritage tourism as travelling to experience the places, artifacts and activities that authentically represent the stories and people of the past and present. While cultural tourism according to Lamza-Maronic, Glavas, and Mavrin (2009), is becoming the leading trend in the world tourism. Ever growing numbers of travellers put all their free time and available resources in visiting and exploring of cultural sites. Opportunities to capture the economic benefits of tourism must be structured in a way that is culturally appropriate, and therefore accessible to the target population. Charnley (2005) opines that tourism benefits to local communities must be more than economic; they must promote deeper social and political justice goals that, if left unaddressed, restrict people's ability to enjoy the economic benefits of tourism. Bergl (2008) reported that Bird Life International has designated Omo Biosphere Reserve as one of the 27 Important Bird Areas in Nigeria. This adds to the ecotourism resource value of the reserve.

2. Methodology

2.1 The Study Area

The study was conducted in Omo Biosphere Reserve in Ogun State, Nigeria. OBR is part of the Omo forest reserve which was legally constituted as a forest reserve by Order No 10 of 1925 and the Order was amended in 1952 (Ola-Adams, 1999). Previously the forest was practically unexplored by then. The forest was ceded to Government for reservation on the 8th October, 1918. The agreement was made between the District Officer, Ijebu-Ode on behalf of the Government and Awujale of Ijebu-Ode on behalf of the Ijebu Native Administration. The area of Omo forest reserve was 1305.5km². Within the forest reserve certain rights were granted the local people such as the right to hunt, fish, tap rubber, collect snails, tortoises, fruits and other minor forest products. The communal owners of the land were also granted 17% of the royalties on timber harvested in the reserve. Farmlands were also allocated to the various communities. The core (SNR), which covers an area of 8km², was managed as a Strict Nature Reserve (SNR), and is located within Area J4. It was approved by UNESCO as a Biosphere Reserve in 1977. A buffer zone (Extension) covering an area of 142km² was demarcated in 1995 (Ola-Adams, 1999).

2.2 Methods

In this study, the instruments for data collection were transect survey and direct observation. Data were collected on Wildlife Species through direct sighting, hunters' bag, hunting camp, processing centre, foot print, calls/vocalization, and information as highlighted by Ola-Adams (1999). Transect sampling was used for the transect survey. Data were collected in 2012 (Oct and Nov), 2013 (May and June).

2.3 Population and Sampling Procedure

The study focused on the OBR communities which are: Abeku, J4 Camp, Olooji, Etemi Oke, Mile 1, Aberu 1, Ajebamidele, Fowowa J4, Abakurudu, and Osoku. The OBR environs which include Ijebu-Ife, Itele, Imusin, Ijebu-Igbo, Ijebu-Ode. Iwopin, Makun, and Ode-Omi are OBR environs that have water based recreational resources that can complement OBR resources. Samples of OBR communities were drawn from the target population using Krejcie and Morgan (1970) method for determining sample size. To obtain the sample for the OBR communities, a random sample of communities within 0-5km, 6-10km, and 11-15km were sampled.

3. Results

3.1 Cultural Resources in OBR Communities and Environs

Table 1 provides the cultural resources in OBR communities and its environs. In all, the OBR communities possess 14 festivals, 1- deity and 4 cultural groups. Abeku had the highest number of cultural resources (12), this was followed by Etemi Oke (7). In OBR environs, there were 46 festivals, 34 masquerades, 21 deities, 12 cultural groups and 8 unique cultural heritages. Ijebu-Ode had the highest number of cultural resources (33), followed by Itele (26) and Ijebu-Igbo (24)

Table 1. Cultural resources in OBR communities and environs

OBR Communities	Festivals	Masquerades	Deities	Groups; cultural, drama	Unique cultural heritage	Total
Etemi Oke	4	-	2	1	-	7
Abakurudu	-	-	-	-	-	-
Mile 1	-	-	-	-	-	-
Ajebamidele	-	-	-	-	-	-
Osoku	1	-	1	-	-	2
Aberu 1	1	-	-	-	-	1
J4 Camp	2	-	-	1	-	3
Olooji	2	-	1	-	-	3
Abeku	4	-	6	2	-	12
Fowowa J4	-	-	-	-	-	-
Total	14	-	10	4	-	
OBR Environs						
Ijebu-Ode	12	8	6	3	4	33
Ijebu-Igbo	7	6	5	6	-	24
Itele	11	5	5	3	2	26
Ilese	3	5	-	-	2	10
Iwopin	3	2	5	-	-	10
Ode-Omi	5	8	-	-	-	13
Makun-Omi	5	-	-	-	-	5
Total	46	34	21	12	8	

Source: Field Survey, 2012

3.2 Fauna Resources in OBR that Support Ecotourism Development

Table 2 & 3 presents the fauna resources in OBR. Among the avifauna, the African grey hornbill (*Tockus nasutus*), the crested guinea fowl (*Numida meleagris*) and the sun bird (*Nectarinia reicheniwi*) have the highest relative abundance of 0.170, 0.049 and 0.026 respectively. The mammalian fauna with highest relative abundance are mona monkey (*Cercopithecus mona*), red capped mangabey (*Cercocebus torquatus*), forest elephant (*Loxodonta africana cyclotis*) of 0.246, 0.104 and 0.087 respectively. The only carnivorous mammalian fauna sighted, civet cat (*Civettictis civetta*) has a relative abundance of 0.006. The relative abundance is the abundance of a particular specie divided by total number of abundance of all sighted species.

Table 2: Fauna resources sighted in the transects in OBR

Species	Zoological name	Abundance	Relative Abundance
Akun eagle Owl	<i>Bubo leucostictus</i>	5	0.009
Red eye dove	<i>Streptopelia semitorquata</i>	4	0.008
Black kite	<i>Elanus axillaris</i>	4	0.008
Sun bird	<i>Nectarinia reicheniwi</i>	8	0.016
African greyHornbill	<i>Tockus nasutus</i>	73	0.146
Crested Guinea fowl	<i>Numida meleagris</i>	50	0.099
King fisher	<i>Alcedo cristata</i>	2	0.004
Thomson's gazelle	<i>Eudorcras thomsonii</i>	4	0.007
Red capped mangabey	<i>Cercocebus torquatus</i>	44	0.088
Mona monkey	<i>Cercopithecus mona</i>	108	0.216
Red flanked Duiker	<i>Cephalophus rufilatus</i>	51	0.102
Bush buck	<i>Tragelaphus scriptus</i>	40	0.080
Bush pig	<i>Potamochoerus porcus</i>	15	0.030
Grass cutter	<i>Thryonomys swinderianus</i>	2	0.004
Porcupine	<i>Hystricomorph hystricidae</i>	3	0.006
Mongoose	<i>Bdeogale nigripes</i>	6	0.012
Civet cat	<i>Civettctis civetta</i>	2	0.004
Antelope		29	0.058
Forest Elephant	<i>Loxodonta africana cyclotis</i>	36	0.072
Warthog	<i>Phacochoerus aethiopicus</i>	8	0.016
Monitor lizard	<i>Varanus niloticus ornatus</i>	3	0.006
Tree squirrel	<i>Sciurus carolinensis</i>	4	0.007

Source: Field Survey, 2012

Table 3. Sighting frequency of fauna resources of OBR

S/N	Common Name	Species	Family	Number Sighted
1	Akun eagle Owl	<i>Bubo leucostictus</i>	<i>Strigidae</i>	2
2	Red eye dove	<i>Streptopelia semitorquata</i>	<i>Columbidae</i>	4
3	Black kite	<i>Elanus axillaris</i>	<i>Accipitridae</i>	4
4	Sunbird	<i>Nectarinia reicheniwi</i>	<i>Nectariniidae</i>	8
5	Helmeted guinea fowl	<i>Numida meleagris</i>	<i>Phasinidae</i>	15
6	African grey hornbill	<i>Tockus nastutus</i>	<i>Bucerotidae</i>	52
7	King fisher	<i>Alcedo cristata</i>	<i>Alcedinidae</i>	3
8	Thompson's gazelle	<i>Eudorcras thomsonii</i>	<i>Bovidae</i>	1
9	Red capped mangabey	<i>Cercocebus torquatus</i>	<i>Cercopithecidae</i>	32
10	Mona monkey	<i>Cercopithecus mona</i>	<i>Cercopithecidae</i>	76
11	Red flanked duiker	<i>Cephalophus rufilatus</i>	<i>Bovidae</i>	14
12	Bush buck	<i>Tregelaphus scriptus</i>	<i>Bovidae</i>	26
13	Bush pig	<i>Potamochoerus porcus</i>	<i>Suidae</i>	12
14	Grasscutter	<i>Thryonomys swiderianus</i>	<i>Thryonomyidae</i>	1
15	Porcupine	<i>Hystricomorph hysricidae</i>	<i>Hystricidae</i>	1
16	Mongoose	<i>Bdeogale nigripes</i>	<i>Herpestidae</i>	5
17	Civet cat	<i>Civettctis civetta</i>	<i>Viverridae</i>	2
18	Antelope		<i>Bovidae</i>	13
19	Elephant	<i>Loxodonta africana cyclotis</i>	<i>Elephantidae</i>	27
20	Warthog	<i>Phacochoerus aethiopicus</i>	<i>Suidae</i>	8
21	Monitor lizard	<i>Varanus niloticus ornatus</i>	<i>Veranidae</i>	2
22	Tree squirrel	<i>Sciurus carolinensis</i>	<i>Sciuridae</i>	2

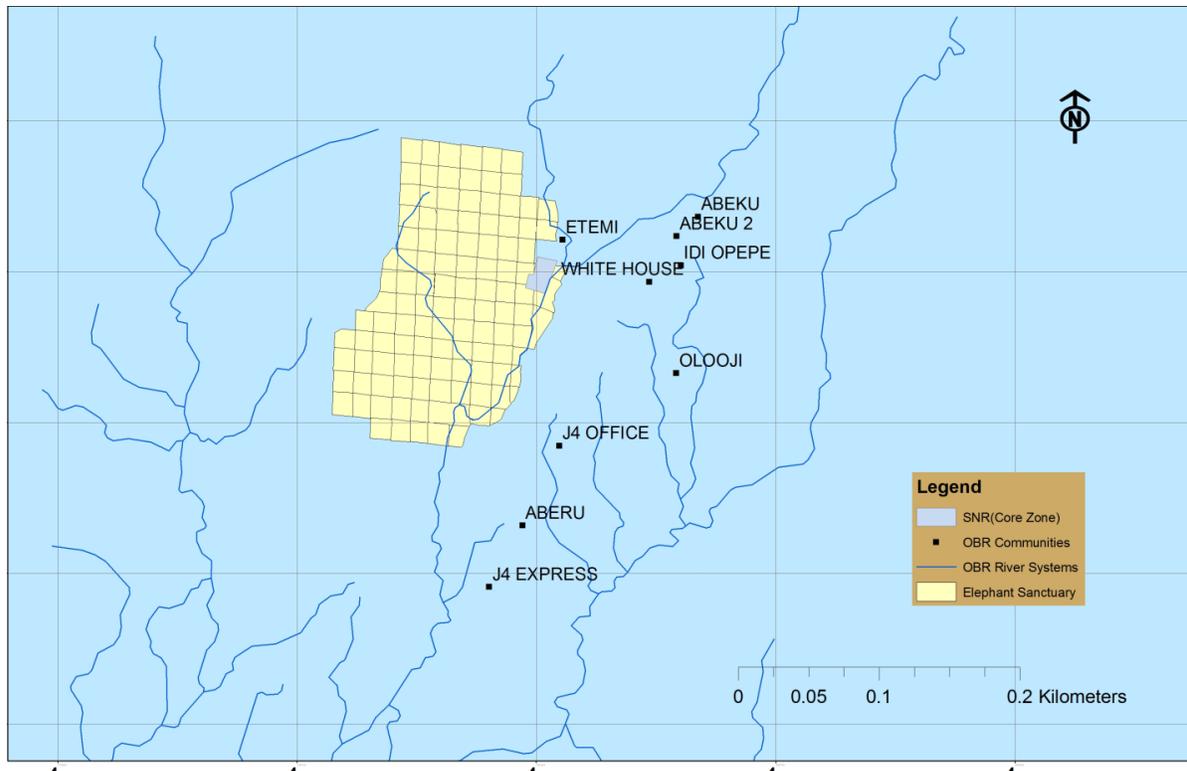


Figure 1. OBR indicating SNR (Core zone), BEA (Biosphere Extension Area) and its Communities

4. Discussion

In table 2, fauna that are easily sighted in OBR include Mona Monkey (*Cercopithecus mona*) with relative abundance of 0.216 followed by African grey hornbill (*Tockus nastutus*) 0.146, closely followed by Red flanked Duiker (*Cephalophus rufilatus*) 0.102, Red capped Mangabey (*Cerocebus torquatus*) 0.85 and Bushbuck (*Tregelaphus scriptus*). Whereas, the forest elephant (*Loxodonta africana cyclotis*) had a low sighting rate of 0.072. This negates the view of Newsome, Moore, and Dowling (2001) that in 1989 the viewing value of elephants in Kenya was approximately US\$ 20-30 million, because the Western tourists that make up the bulk of Kenya's tourist market placed seeing an elephant high on their list of priorities. The avifauna are more physically sighted with examples of African grey hornbill (*Tockus nastutus*) 0.146, Crested Guinea fowl (*Numida meleagris*) 0.099 and Sunbird (*Nectarinia reicheniwi*) 0,016. The monkeys and the birds are a lot more interesting for ecotourists than most other fauna as they are visible, able to make calls and move from one location to the other drawing attention to themselves, giving sighting, entertainment and activity values. The fact that OBR has been designated an important bird area (Bergl, 2008) adds to its ecotourism value.

Table 1 provides information on the cultural resources in OBR communities and environs. Abeku, Etemi Oke, Oloooji and J4 Camp are the OBR communities with significant cultural resources particularly the festivals, Deities and cultural groups. Whereas, the environs (with larger human populations) have more cultural resources in festivals, masquerades, Deities, cultural and drama groups, and unique cultural heritage. Ijebu-Ode is particularly endowed with 33 cultural resources compared with 28 in all the ten OBR communities and 4 unique cultural heritages compared with a total of 8 in all the area (OBR communities and the environs) (figure 1).

4.2 Conclusion

Results from this study indicate there are appreciable natural and cultural resources in OBR and its environs that can support sustainable development. But because of the poor visibility of the dense rainforest, it is very challenging to view fauna on a regular basis. It is vital to protect and conserve the endangered flora and fauna species in the OBR, therefore, ecotourism should be developed to generate alternative sources of income and jobs for the communities to reduce and possibly eliminate poaching and over-harvesting of the reserve resources. The study indicated that there are significant cultural resources in OBR environs that can be incorporated into its ecotourism development. Cultural resources should be added to enhance the attractiveness of the reserve for patronage to increase both in numbers of visitors and the length of stay. Development of ecotourism will not only conserve the endangered fauna and flora species of Omo Biosphere Reserve but will also provide additional income and job opportunities for the communities and will equally ensure peaceful co-existence of the people and this will invariably lead to sustainable development of the OBR and its communities.

References

- [1] Abu-Izzeddin, F. (Revised) (2009). *Marketing & business plan for Shouf biosphere reserve rural products—Restoration of income generation affected by the war to support conservation of Shouf biosphere reserve*. GTZ Project: Al-Shouf Cedar Nature Reserve - 2010, Shouf Biosphere Reserve.
- [2] Agbelusi, E. A. (2009). Wildlife resource: A national heritage. *Inaugural Lecture Series 55*. Delivered on 3rd November, 2009 at Federal University of Technology, Akure, Nigeria.
- [3] Ayodele, I. A. (2002). *Essentials of tourism management*. Ibadan: Elshaddai Global Ventures Ltd.
- [4] Bergl, R. (2008, February 4). *Surveying wildlife in Nigerian forests*. Field Trip Earth Field Reports. Retrieved February 4, 2008, from <http://www.fieldtripearth.org/article.xml?id=1335>.
- [5] Charnley, S. (2005). From nature tourism to ecotourism? The case of the Ngorongoro Conservation Area, Tanzania. *Human Organization*, 64(1), 75-88.
- [6] Geldenhuys, S. (2004). Ecotourism assessment: An overview. In D. Diamantis (Ed.), *Ecotourism: Management and assessment*. London, UK: Thompson Learning.
- [7] Hargrove, C. M. (2002), Heritage Tourism. *Cultural Resource Management*, 25(1), 10-11.
- [8] IUCN. (2012). *About forest conservation*. International Union for Conservation of Nature. Retrieved from <http://www.iucn.org/about/work/programmes/forest/>
- [9] Kiper, T., Ozdemir, G., & Saglam, C. (2011). Environmental, socio-cultural and economic effects of ecotourism perceived by the local people in the northwestern Turkey: Kiyikoy case. *Scientific Research and Essays*, 6(19), 4009-4020.
- [10] Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement*, 30, 607-610.
- [11] Lamza-Maronic, M., Glavas, J., & Mavrin, I. (2009). Potentials of Osijek as a centre of cultural tourism. *Interdisciplinary Management Research*, 5, 711-720.
- [12] Manning, E. W. (Ted) (2004). Indicators and risk management for ecotourism destinations. In D. Diamantis (Ed.), *Ecotourism: Management and assessment*. London, UK: Thompson Learning.

- [13] Mensah, I., & Ernest, A. (2013). Community participation in ecotourism: The case of Bobiri forest reserve and butterfly sanctuary in Ashanti region of Ghana. *American Journal of Tourism Management*, 2(A), 34-42.
- [14] Newsome, D., Moore, S. A., & Dowling, R. K. (2001). *Natural area tourism: ecology, impacts, and management*. Channel View Publications, Clevedon.
- [15] Ola-Adams, B. A. (Ed.) (1999). *Biodiversity inventory of Omo biosphere reserve, Nigeria: country report on biosphere reserves for biodiversity conservation and sustainable development in Anglophone Africa (BRAAF) project*. United Nations Educational Scientific and Cultural Organization (UNESCO).
- [16] Persha, L., Agrawal, A., & Chhatre, A. (2011). Social and Ecological Synergy: Local rulemaking, Forest Livelihoods and Biodiversity Conservation. *Science*, 331(6024), 1606-1608.
- [17] Roots, F. (2002). *EuroMAB workshop program on the role of ecotourism in UNESCO MAB biosphere reserves*. Workshop program meeting held between May 24th-25th, 2002 at Quebec, Canada.
- [18] Sachs, J. D. (2013). Coursera: The age of sustainable development. Retrieved from <https://www.coursera.org/course/susdev>.
- [19] UNESCO. (1999). *Biosphere reserves: The Seville strategy & the statutory framework of the world network*. United Nations Educational, Scientific and Cultural Organization (UNESCO)—Man and the Biosphere Programme. Paris, France.
- [20] UNESCO. (2013). *Ecological sciences for sustainable development: Biosphere reserves-learning sites for sustainable development*. United Nations Educational, Scientific and Cultural Organization (UNESCO).
- [21] Zambrano, A. M. A., Broadbent, E. N., & Durham, W. H. (2010). Social and environmental effects of ecotourism in the Osa Peninsula of Costa Rica: The Lapa Rios case. *Journal of Ecotourism*, 9(1), 62-83.

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