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Safari Through an African Slide Journal
Laura Andersen
University of Nebraska

Luella Buros first set foot on the African continent in 1956 when she arrived on the shores of Mombasa, Kenya. From Mombasa, she and her husband Oscar, who had won a senior Fulbright award, trekked across southern Kenya via Land Rover to Kampala, Uganda. They resided here for the year while Oscar taught statistics at Makerere University College. When Oscar was not working, they traveled extensively around Eastern Africa. However, Buros was no ordinary traveler. She was a meticulous record-keeper and logged her trips in a journal. Buros’ talents also included photography, and throughout her trips to Africa and at least three other continents she took nearly 12,000 slides. She had the gift to capture the scene before her with the trained eye similar to that of a National Geographic photographer, whether her subjects were people, landscapes, or animals. These slides, along with numerous other artifacts, comprise the Luella Buros Collection housed at the University of Nebraska State Museum.

The Luella Buros Collection, including her slides, was featured in the February 1998 issue of Museum Notes (No. 99). The collection was acquired in 1995 and is a major asset to the Museum because it is highly valuable as a primary source of African cultural and natural history. Buros’ photographs portray a transitional Africa from the end of colonialism to the beginnings of the independence movements that swept the continent in the 1950s and 60s. She portrayed Africans and their continent just as they were culturally, politically, and environmentally over forty years ago.

Buros’ five trips to Africa occurred in the years 1956-1957, 1959, 1960, 1961-1962, and 1965-1966. I mapped her trips based on the information in her slide journal and information from the slides themselves. Typically, she and Oscar would arrive by air or ship, travel by Land Rover or car, and they would normally stay at game park lodges or hotels.

From September 1956 of that Fulbright year to January 1957, they explored Kenya, Uganda, northern Tanganyika (now Tanzania), western Belgian Congo (now Democratic Republic of the Congo), and southern Sudan. Buros’ slide notes are incredibly detailed for this trip, her first safari in Africa. She included specific dates and localities on most of these slides. In 1959, on their second trip, Oscar and Luella arrived in Dakar, Senegal by ship. They drove through the West, Central, and East African regions, which included the countries Senegal, Gambia, Guinea Bissau, Guinea, Sierra Leone, Liberia, Côte de Ivoire, Ghana, Togoland (now Togo), Dahomey (now Benin), Nigeria, French Cameroons (now Cameroon), Central African Republic, Belgian Congo, Uganda, Kenya, and Tanganyika. They arrived in Dar es Salaam, Tanganyika, and from there they boarded a ship that circumvented the southeast coast of Africa all the way to Cape Town, South Africa. Land stops on the trip included Lourezo Marques (now Maputo, Mozambique), Durban, East London, and finally Cape Town.
Their third trip in 1960 included travel throughout West Africa. After arriving in Accra, Ghana, they flew to Johannesburg, South Africa. During the years 1961-1962, they traveled on a fourth trip from Kenya to South Africa and north again to Tunisia. On this trip they traveled in Kenya, Tanzania, Northern Rhodesia (now Zambia), Southern Rhodesia (now Zimbabwe), Nyasaland (now Malawi), South Africa, Uganda, Sudan, Egypt, Libya, and Tunisia. Luella and Oscar returned to live in Africa in 1965 when Oscar was appointed by the Ford Foundation as an advisor on educational testing in several African countries. He and Luella resided in Nairobi, Kenya but frequently made trips to game reserves in Kenya, Tanzania, Zimbabwe, South Africa, South West Africa (present-day Namibia), and Angola. Unfortunately, the slides from these trips are the least detailed with only the country as a locality. A route for this trip is not included on the accompanying map.

My specific interest in the Luella Buros Collection was in the significant number and variety of African mammal species that she captured in her photographs. Her earlier records were detailed enough to pinpoint the geographic locality of mammals portrayed in the slides. I compared the geographic distributions of these animals from over forty years ago with current geographic ranges given by Skinner and Smithers in *The Mammals of the Southern African Subregion*. Any change in distributions of mammal species could signal changes in habitats. It is clear that range constrictions have occurred from a variety of factors, the most obvious of which are poaching and habitat alteration.

Most of the slides from the years 1957 to 1962 were carefully labeled with specific geographic locality, date, and even subject. The slides taken in the years 1965-1966 were labeled as the “C” rolls of film and contain well over half of the total species of mammals seen overall. Unfortunately, these slides do not contain specific geographic localities as in the slides of previous trips. Here, Buros took many in a short span of time. For most of these slides, usually only the country or directional part of the country, such as northern Tanzania, were recorded. As such, these slides are less useful as evidence for past distributions of species of mammals.

I visually scanned the entire slide collection searching for slides of mammals. The number of each slide from a particular locality in Africa was recorded by Buros in her field catalog. I found mammals in 1,300 of the 12,000 slides in the African collections (approximately 10%).

I examined the slides both with a light table and a stereo microscope. The slides are kept in plastic sleeves of 25 slides each and housed in a temperature and humidity regulated room in the Museum’s research collections. They are organized in ascending order by roll number and then slide number. When I found a slide containing a mammal species, I recorded the roll number, slide number, species name, number of mammals per slide, locality, and any additional pertinent information. The locality of the mammal species is based upon Buros’ journal notes and notes written on the slide itself. I also recorded habitat, vegetation and environment descriptions, the common name of the species, and special behaviors of the mammals if applicable.


Once identified, I annotated the slide database of the Luella Buros Collection in the Anthropology division of the State Museum with the species of mammals. The database contains: film roll number, slide number, city, state/province, country, subject, species, and text. Each slide containing a mammal species was entered into the database, completing every data field possible. Most slides contain only one mammal species, but some slides depict as many as three. The species range in size from the Cape ground squirrel to the largest land mammal, the elephant. The integration of the mammal slides into the database
allowed me to extract an alphabetical sorting of mammal species including locality information. With this list, I mapped distributions of each of the 41 species identified in the slide collection. Species and common names of the mammals are listed in the Table.

I created a map of the African continent for each species using the most recent distribution maps compiled by Skinner and Smithers, authors of *The Mammals of the Southern African Subregion* (1990). Localities of mammals found in the slides were plotted on the recent maps. The current geographic distributions of several large mammals in Africa have changed from the distributions documented by Buros' slides of forty years ago.

Only one species, *Giraffa camelopardalis* (giraffe), was found outside the range presently accepted for the species. In 1956, Buros photographed giraffes on the road between Eldoret and Nakuru in central Kenya. According to the 1990 distribution maps compiled by Skinner and Smithers, the range of giraffes no longer includes the area surrounding the central Kenyan equatorial regions. If Skinner and Smithers are correct, then the range of *Giraffa camelopardalis* has constricted in the last forty years. At the time this slide was taken, the Nakuru-Eldoret road was an unpaved, dirt road, susceptible to wash outs in the rainy season. The road has since been paved because of the rural to urban migration characteristic of most African countries. Naturally, traffic on the road has increased tremendously in the last several decades. Eldoret is a thriving town of over 105,000 people. Likewise, Nakuru is a city with a population of 360,000 and continues to grow rapidly. The increase in urban migration causes an increase in traffic on the road. Increased traffic is detrimental to the native habitat for several reasons. Expansion of the road creates easier access to the land around it, which can be used for farming. Expanding farmland destroys the surrounding vegetation and native habitats. As traffic on the road increases, so does pollution caused by motorists. The pollution degrades the natural habitat of the giraffe, and giraffes are forced to retreat further from the road. Noise pollution from the road may also have forced giraffes to retreat away from the road.

Additionally, cattle have most likely been introduced on the outskirts of the cities of Eldoret and Nakuru, or perhaps along the road itself. The browsing giraffe would indirectly be in competition for habitat with grazing cattle. Giraffes rely on trees for food; thus, the clearing of trees by herders for grazing land would eliminate a food source of the giraffe. The area along this road is not part of a game reserve or national park in Kenya and would have had limited protection and preservation of a variety of mammal species, including the giraffe. While one does not automatically think of giraffes as possessing high value body parts like the tusks of the African elephant or the horns of the white or black rhino, giraffe tails were sold in tourist shops as flyswatters in the 1970s. Whole animals were killed just for the small tufted tail.

In 1959, Buros also photographed giraffes at Lake Nakuru in central Kenya. Lake Nakuru is located 160 kilometers northwest of Nairobi. It was established as a National Park in 1968, nine years after Buros' visit. The park was created to protect the nearly one million lesser pink flamingos that were permanent residents. Lake Nakuru has become an integral part of wildlife preservation in Kenya because it provides sanctuary to many mammal species including both the vulnerable black and white rhinoceros.

Although Skinner and Smithers' hypothesized range does not include Lake Nakuru, giraffes, specifically the reticulated giraffe, are still found there. The reticulated giraffe is a subspecies of giraffe characterized by its white legs and very dark body patches with star-like shapes inside the patches. According to the Kenya Wildlife Service, reticulated giraffes were reintroduced into the park in 1974 from the Soy plains of Eldoret. Their populations have been steadily climbing, which has resulted in some of them being donated to Uganda in 1996. However, their existence, as well as many other bird and mammal...
species in the park, could be threatened by pollution
due to uncontrolled dumping of waste from the
Nakuru municipality into the lake.

Several slides contain photographs of the
waterbuck, *Kobus ellipsiprymnus*, from areas including
Murchison Falls and Queen Elizabeth National Park
in Uganda, northern Tanzania, Wankie Game Reserve
in then Southern Rhodesia (now Zimbabwe). Controversy has existed over the taxonomy of this
species. In 1969 Dorst considered what is now a single
species of waterbuck as two distinct species: *Kobus ellipsiprymnus* and *Kobus defassa*. However, Haltenorth
and Diller (1970) and present taxonomists consider
these as one species. These authors recognize that there
is one species of waterbuck consisting of two
subspecies, *Kobus ellipsiprymnus ellipsiprymnus* and *Kobus ellipsiprymnus defassa*. The two are easily distinguished
by physical characteristics, most notably by the color
pattern on the rump. *Kobus ellipsiprymnus ellipsiprymnus*,
the common waterbuck, is characterized by possessing
a broad, white ring encircling the rump. The defassa
waterbuck, *Kobus ellipsiprymnus defassa*, has a broad
white patch on the entire rump. Ansell reported in
1972 that the two subspecies only overlap in
northeastern Tanzania and Kenya. Buros photographed these two feeding together in Nairobi
National Park in south-central Kenya in a slide as early
as 1959, indicating that the two forms did coexist
generically. This evidence existed before Dorst’s
research of Samburu National Reserve in Kenya shows
initially, I thought that the range of the impala
(*Aepyceros melampus*) had diminished. The distribution
map of Skinner and Smithers showed that the range
of the impala did not include central Kenya. However,
documentation from a Buros slide places an impala at
the Samburu National Reserve, which is located in
central Kenya, 325 kilometers north of Nairobi. Further
research of Samburu National Reserve in Kenya shows
that impala are thriving within the borders of the park,
which existed before Buros’ first visit. Impala are
afforded protection within these borders whereas many
mammals outside them are not. Thus they are able to
thrive even while their natural range has been
diminishing slowly southward in the last five decades.

Ideally, Buros’ expeditions should be retraced with
a camera and a botanist to document the changes in
habitats that have occurred over the last forty years.
Buros’ primary sources, including her slides,
notebooks, and journals, provide direct proof for past
localities of mammal species on the continent. The
collection gives an indication of several interesting
changes in distributions of mammals, including
evidence of range constriction in giraffes. The value of
this slide collection to the Museum is significant
because it documents specific localities in time. The
slide collection from the Buros’ expeditions is one of
the rich resources that the State Museum maintains for
current and future generations. The Museum is
fortunate to possess this stunning collection.

### Common Name | Species Name
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Bush pig | Potamochoerus porcus
Warthog | Phacochoerus aethiopicus
Hippopotamus | Hippopotamus amphibius
Giraffe | Giraffa camelopardalis
Guenther’s dik dik | Madoqua guentheri
Steinbuck | Raphicerus campestris
Nyala | Tragelaphus angasii
Greater kudu | Tragelaphus strepsiceros
Bushiuck | Tragelaphus scriptus
Eland | Tragelaphus oryx
Sable antelope | Hippotragus niger
Gemsbok | Oryx gazelle
Bohor reedbuck | Redunca redunca
Ugandan kob | Kobus kob
Waterbuck | Kobus ellipsiprymnus
Red hartebeest | Alcelaphus buselaphus
Topi or Tsessebe | Damaliscus lunatus
Blue wildebeest | Connochaetes taurinus
Impala | Aepyceros melampus
Clark’s gazelle | Ammodorcas clarkei
Grant’s gazelle | Gazella granti
Thompson’s gazelle | Gazella thomsoni
Springbok | Antidorcas marsupialis
African buffalo | Syncerus caffer
African wild ass | Asinus africanus
Burchell’s zebra | Equus burchelli
Mountain zebra | Equus zebra
White rhinoceros | Ceratotherium simum
Black rhinoceros | Diceros bicornis
African elephant | Loxodonta africana
Cape ground squirrel | Xerus inauris
Black-backed jackal | Canis mesomelas
Wild dog | Lycaon pictus
Bat-eared fox | Otocyon megalotis
Cheetah | Acinonyx jubatus
Lion | Panthera leo
Leopard | Panthera pardus
Spotted hyena | Crocuta crocuta
Vervet monkey | Cercopithicus aethiops
Olive baboon | Papio anubis
Chacma baboon | Papio ursinus

Mammals photographed by Luella Buros in Africa.

*Editor’s note. Author, Laura Andersen, who has a double major in
Biology and African Studies, completed this project and manuscript
as an Independent Study under the direction of Patricia Freeman,
Professor and Curator of Zoology.*

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