

**West Midland Safari Park
African Village**

<http://www.zoolex.org/zoolexcgi/view.py?id=1453>
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ZooLex



Ring-tailed lemurs. © West Midland Safari Park, 2011



African Village entrance with replicated African carvings.
 © West Midland Safari Park, 2011



African village hut replica. © West Midland Safari Park, 2011

LOCATION

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KEY WORDS

theming

ANIMALS

Family	Species	Common Name	Capacity
Bovidae	<i>Capra hircus pygmy</i>	West African Pygmy goats	14
Bovidae	<i>Ovis aries aries cameroon</i>	Cameroon sheep	6
Bovidae	<i>Ovis aries dom</i>	Somali sheep	10
Herpestidae	<i>Suricata suricatta</i>	Meerkat	21
Lemuridae	<i>Eulemur albifrons</i>	White fronted brown lemurs	3
Lemuridae	<i>Eulemur rubriventer</i>	Red bellied lemurs	3
Lemuridae	<i>Lemur catta</i>	Ring tailed lemurs	20

DESCRIPTION

The brief was to design an exhibit for all age groups. Meerkat Mayhem offers a series of glass viewing into meerkat exhibits. Village Goats is a walk-through goat feeding area, allowing visitors to experience an African village atmosphere. Lemur Woods was developed in an area encompassing a large lakeside paddock and an area of mature woodland. The aim was to keep the woodland as natural as possible, for three species of lemur to wander free among the general public. The village was conceived from a variety of African influences based around a village centre with huts. Tortoises and mongoose may be added later.

The West Midland Safari Park in-house creative team worked closely with the animal team and formulated initial design concepts. Environment and husbandry requirements were paramount for the project. Other facilities were visited to look at best practice. Mixtures of African cultures were explored before the final look was agreed on. Great care was taken in designing buildings, which would look authentic but be durable and resistant to British weather. Once husbandry requirements were agreed, footfall and flow of visitors through the site were discussed with a local architect. A blueprint was then drawn up and submitted for planning. Exterior details, such as materials, thatch and renering, as well as internal operational aspects were integrated into the plan. Areas visible to visitors were designed with their perspective in mind, including an electric power substation that was themed into the exhibit since it could not be moved.

An environmental impact assessment was completed before the development began. The creative team used many of the skills that African tribes would apply to their own dwellings. They coloured and aged the buildings to add an authentic atmosphere. The village was themed with curiosities imported from Africa.

Visitors first reach Meerkat Mayhem with a hut that shelters the meerkats and their adjacent outdoor exhibits. The meerkats cross the visitor path in between through underground tunnels that are set into themed termite mounds in their exhibits, indoors and outdoors. Next, visitor pass an interpretation hut and get to the lemur house. This building consists of four animal enclosures, a kitchen/keeper area and a quarantine. The quarantine is separated from the main house by the visitor entrance into Lemur Woods. Visitors access the woods through a double gate system. The path winds through Lemur Woods in a shorter and a longer optional route. The pathways are fenced with a low rail so that guests stay on the designated routes. The lemurs are often seen sitting on the paths or fence conveying visitors an immersive experience. Seating areas were carved into some of the trees that needed to be felled for safety reasons. All the trunks and brash were left piled in the woods for adding structure and enrichment. A natural lake borders the woods and builds a barrier for the lemurs. The remaining perimeter is chain-link fencing with electric wires to keep the lemurs off the fence.

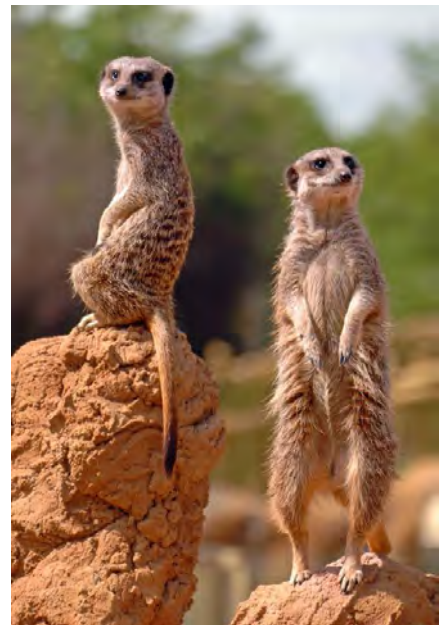


The African village garden is planted with wild flowers and vegetables. © West Midland Safari Park, 2011

The exit through another double gate system leads from Lemur Woods into Village Goats, a walk-through goat and sheep area. The stables for these animals are designed to look like African village huts. The paddock is enclosed with a fence from wooden sticks. A nursery paddock for young animals is fenced in the same style. The nursery paddock is not accessible on foot for visitors but visitors can touch the goats through the wooden rails and over the top of the fence.

SIZE

The site consisted of 2,200 square metres of open goat paddock with an additional woodland of 5,600 square metres.



Meerkat sentries. © West Midland Safari Park, 2011

COSTS

£ 1,000,000

OPENING DATE

March 2011

DESIGN

Beginning: February 2009
 Concepts and Design: David Powner, West Midland Safari Park

CONSTRUCTION

Beginning: November 2010
 Main site construction: Lee Willson Construction, Bewdley Worcestershire
 Exhibit Theming: Art and maintenance team, West Midland Safari Park



Themed termite mounds link underground tunnels with the meerkat indoor and outdoor exhibits. © West Midland Safari Park, 2011



An individual look was created for the village signage and several forms of visual and non visual interpretation used to deliver information relating to the area. These particular signs were all digital drawings produced by the in-house team. © West Midland Safari Park, 2011



View looking down onto Meerkat Mayhem. © West Midland Safari Park, 2011

PLANTS

The lemur area was an established wood, consisting of beech, oak, lime and predominantly Spanish chestnut with an understory of elder. Saplings of the main species were planted to replace fallen mature trees. The village was planted with a range of plants including wild cherry, rowan and false acacia which will provide shade for animals and the visiting public, once mature. A seed mixture of woodland and wildflower species was scattered in all areas to enhance insect diversity.

In the village garden, the keepers have planted sunflowers, courgettes, beans, pumpkins, marrows and tomatoes and

other crops and harvested them for the lemurs and meerkats to eat.

FEATURES DEDICATED TO ANIMALS

The meerkat exhibits consist of four separate enclosures that are all connected to indoor enclosures in a divided house. Three meerkat groups are on display - a male, a female and a breeding group. An off-show enclosure gives flexibility when an animals need to be off display for a period of time. The off-show enclosure looks the same as the exhibit, but is slightly smaller. A wide variety of enrichment has been themed to give an impression of the animal's natural environments. For

example, desiccated wood offers cavities for insect foraging, faux termite mounds offer viewpoints for sentries and a mixed sand base allows the meerkats to burrow.

Lemur Woods is a natural woodland where the lemurs live free-range and can utilise the trees, the grassland and the woodpiles. The wood has clearings for sunbathing. The natural landscape of the woodland provides adequate enrichment for the three lemur species and themed shelters provide heat and cover during inclement weather. The three lemur species are mixed in the wood but tend to keep to their groups. In the house they return into species specific separation enclosures for the night.

The heating of the meerkat and lemur holding buildings is thermostatically controlled. Lemurs, meerkats and the hoof stock have heat stations with heat lamps in the outdoor exhibits for use during the colder months.

FEATURES DEDICATED TO KEEPERS

The purpose-built kitchen is a self contained unit, incorporated into the main lemur building. It is simple and provides everything required for husbandry for all species in the village. The building is insulated and heating is thermostatically controlled. The ventilation can be through the windows and extractor fans in the ceiling.

FEATURES DEDICATED TO VISITORS

Glass panels in the meerkat holding building offer views from the public



Heat lamps are themed into the timber work. © West Midland Safari Park, 2012

footpaths that wind through semi-arid savannah-style exhibits. All paths are wheelchair accessible. The interpretation hut is themed to illustrate a village home. Visitors can see it from outside.

A wash station is positioned at the exit to the village, providing hot water and soap for guests to wash hand after touching the goats and sheep.

The village garden is left to grow wild, in order to attract insects and butterflies.

INTERPRETATION

Interpretation for the village was jointly devised by the wildlife team, the learning team and the creative department. It was agreed that the area should have its own identity and that information should be conveyed by various media.

Notice boards were designed to provide several pieces of information in small snippets. They describe the habitats that the species would roam in the wild. Information fact boards for the woodland walk were designed to sit comfortably in the forest environment. Lemur facts were sketched out and then graphically interpreted to fit low level wooden boards. Artwork was converted to digital paths and sent to a local CNC cutter for final routing into oak boards. All signage fact boards and direction signs in the Lemur wood area are CNC'd into oak panels. Animal interpretation boards were digitally sketched and illustrated by an artist on staff and printed locally. Rustic frameworks were developed for the signs that match the exhibits. Lemur



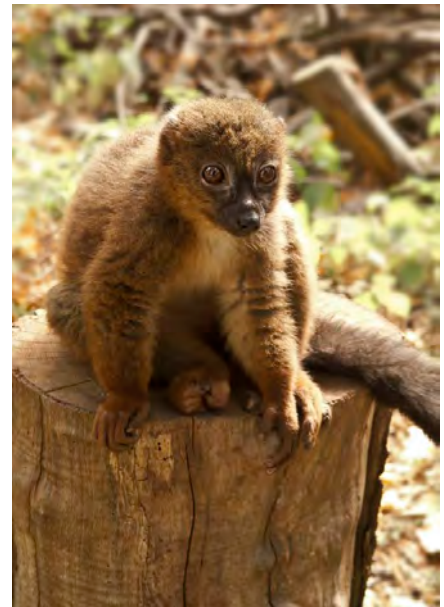
Sun bathing ring-tailed lemurs (*Lemur catta*). © West Midland Safari Park, 2011

statues were carved into tree trunks and placed around the woodland.

Keeper talks take place several times a day. They are a good opportunity to see the lemurs, as they usually come down to the paths at these times. Talks are also delivered at the meerkats and at the village interpretation hut to educate visitors about African village life.

MANAGEMENT

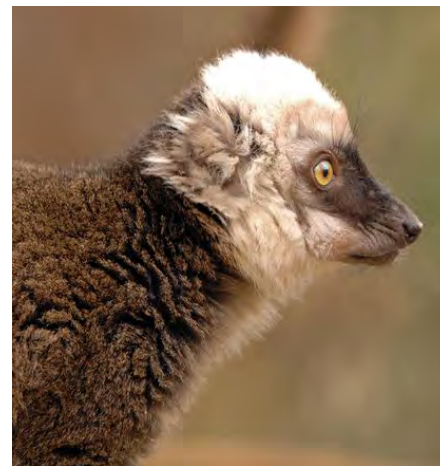
Three keepers are in-charge of animal care and visitor interaction at the African Village. Lemur Woods is manned throughout opening hours to supervise visitors in the lemur walk-through. Keepers interact with guests, pointing out where the lemurs are, imparting information and ensuring the rules are abided. Guests are not



Red-bellied lemur (*Eulemur rubriventer*). © West Midland Safari Park, 2011



The pathway through the Lemur Woods is suitable for wheelchairs. © West Midland Safari Park, 2011



White-fronted brown lemur (*Eulemur albifrons*). © West Midland Safari Park, 2011



A number of wooden sculptures along the woodland trail were carved by a local artist. © West midland Safari Park, 2011.



Facts and directions within the woodland were CNC'd into oak boards. © West Midland Safari Park, 2011.



Several themed notice boards are situated in the village area. These are very flexible, allowing easy up-date and improving information for the guests. © West midland Safari Park, 2012.

allowed to feed or touch the lemurs. Rails in the wood are disinfected daily by spraying SAFE4 disinfectant with a garden plant sprayer and wiping spots. Paths are kept free of faeces. Keepers wear disposable gloves for this task.

Lemurs and meerkats are lured and locked indoors at night. The animals are released at 8.30 daily and in summer have access to the woods up until 9pm during August. By being brought into the house each night, the animals can be easily health checked on a daily basis and trained to be weighed and have their micro chips read weekly. The staff are able to know

the lemurs individually and develop a good working relation with them. If there was a fence fault the lemurs can easily be called into the house at any time.

A separate quarantine unit is used for the introduction of new individuals and new species.

RESEARCH

The research department at West Midland Safari Park had the task of designing a method of assessing the success of the exhibit from an animal point of view. It was decided that this required a long-term project with

several stages. The largest feature of the area is Lemur Woods. This is also the section where visitors spend most time, sharing the space with the animals. Therefore it was decided that the resources should be focused on this area. An undergraduate worked with the West Midland Safari Park research officer and conducted a pilot study with the objectives to investigate

- (i) whether the hypothesis of the design team – that the natural surroundings of the woods provide an environment which promotes good animal welfare and
- (ii) the extent to which the element of visitors in the environment influences behaviour and welfare of the lemurs.

The outcome of this project was presented in a poster at the BIAZA Research Symposium 2012. The work identified by the pilot study will be carried out by a summer volunteer researcher under supervision of the West Midland Safari Park Research Officer. This study combines visitor surveys and animal behavioural observation to (a) gauge visitor enjoyment of the lemur wood and (b) better understand the influence of lemur activity levels on visitor enjoyment.

CONSERVATION

The lemur groups are established breeding groups.

Signage will be expanded to cover the plight of flora and fauna in Madagascar - i.e. a conservation education goal. Lemur Woods is also designed as a habitat that can provide high standards of welfare and therefore aid successful breeding and rearing of young. Gaining expertise in breeding ring-tailed lemurs will help with breeding more conservationally important species in the future and thereby assisting the captive breeding programmes of Madagascan primates.

LOCAL RESOURCES

West Midland Safari Park staff controlled and directed the construction of the exhibit. Internal departmental expertise were integral with design and construction. Local builders and staff were recruited to carry out the bulk of the construction work.