The Congo's First Thorough Biological Survey

The First Comprehensive Survey of Northeastern Congo

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Until the late nineteenth century, the million-square-mile inland portion of Central Africa's Congo Basin was inaccessible to those who did not live there. To the north stretched the scorching Sahara Desert, to the east were high mountain ranges, and to the south impenetrable jungles and swamps. One hundred miles of fierce rapids divided the upper reaches of the Congo River itself from the short lower portion that opened to the Atlantic Ocean. Until the Congo River was followed to its source in 1877, its headlands were completely unknown to mapmakers.

Once the river was mapped, Belgium's King Leopold II established a colony in the Congo and began extracting a fortune in rubber and ivory. He built a railroad to bypass the Congo River's rapids, allowing transport of goods by river and rail thousands of miles from Central Africa to the sea. By the turn of the twentieth century, "exploration" of Africa's heart had become a Western industry. Adventurers such as Sir Henry Morton Stanley penetrated it, seeking adventure and fame. Hunters such as Theodore Roosevelt launched expeditions into it, emerging with big-game trophies and incredible tales. Robber barons gutted parts of it, taking millions of African lives as they went.

But to the natural science community, the Congo represented a different kind of challenge and opportunity. It was brimming with uncatalogued and scientifically unexplored forms of life. Tantalizingly incomplete reports were many, but few systematic studies of the extraordinary and abundant plants, animals, and cultures of the Congo had been attempted, and, because of the difficulties of working in so remote a region, none had been completed.

When the President and Director of the American Museum of Natural History approached the colonial administrators of the Congo in 1907, they sought to begin cataloging one of the most extraordinary but least understood biological regions on Earth. A deal was completed a year later. Belgium offered to provide access and some funding, and requested that the American Museum expedition give duplicate specimens to the Musée royal du Congo (now the Musée royal de l'Afrique centrale) in Tervuren, near Brussels. Money for the project was raised among some of New York's most influential philanthropists, including William K. Vanderbilt, A. D. Julliard, Robert W. Goelet, William Rockefeller, and J.P. Morgan, who was a personal friend of King Leopold II.

Mammalogist and photographer Herbert Lang was chosen to lead the expedition. He had worked at the American Museum as a taxidermist since 1903, and in 1904 he had represented the museum on a successful mammal gathering expedition in Kenya. Lang chose as his assistant James P. Chapin, a 19-year-old Columbia University student and museum volunteer. The expedition was originally funded for two years. It took six. In 1909, Chapin left New York a university sophomore with barely a hair on his chin. When he returned in 1915, he was a seasoned field biologist and a world expert on the fauna of Africa, particularly its birds.
Lang and Chapin traveled up the Congo River to areas in Africa's interior where no thorough biological surveys had yet been conducted. This map shows their itinerary.
The Mangabetu spent a great deal of time and energy enhancing their beauty with scars, jewelry, and hats.
The Congo Expedition brought 5,800 mammal specimens back to New York. Although Lang and Chapin were the only scientists on the expedition, the majority of specimens were actually caught and processed by their African assistants. Lang bought this pangolin (genus *Manis*) from an African man in Stanleyville. This anteater rolls into an armored ball as a defense against predators.
The south facade of the American Museum of Natural History circa 1900.
The mission, in the minds of the explorers and the Museum's administrators, was to capture as broad a picture of the Congo's biota and cultures as possible. But big adventures always have public mascots, and the Congo expedition focused on a pair of animals so rare and exotic that they were almost mythical: the okapi (Okapi johnstoni), a small, short-necked relative of the giraffe that had been discovered by Western science only ten years before, and the square-mouthed rhinoceros (Ceratotherium simum cottoni), also known as the white rhinoceros.

The expedition left New York Harbor on May 8, 1909, aboard the SS Zeeland. Lang and Chapin first stopped in Antwerp, where they gathered the provisions, permits, and contacts they would need in Africa. From Belgium they sailed aboard the steamship SS Leopoldville to Boma, a city on the Congo River Estuary that was then the capital of what was known as the Congo Free State. By rail and boat, they traveled a thousand miles up the Congo River to Stanleyville (now Kisangani) and, with the help of about 200 porters, walked through the dense rain forest to Avakubi, the base camp where they would store the tons of biological and anthropological collections they would accumulate in the years to come.

In early September, after spending three months training fifteen African men to collect and preserve plant and animal specimens, Lang and Chapin finally began their extended trips into the sparsely inhabited rain forests south of the Nepoko River. Big mammals were plentiful there, and the shy and elusive okapi was known to inhabit the region. Within a year, they had collected most of what they needed for an okapi exhibit for the Museum, but the expedition's second publicized mission, acquisition of a display-worthy white rhino, had not yet been accomplished. In late 1910, the Museum granted funds for the continuation of the expedition into the savanna country of the upper Uele, where Lang and Chapin worked from January 1911 through July 1913. In addition to finding good examples of the rhino (including one with a 42-inch-long horn) they found thousands of other valuable plants and animals.

At any given time, Lang and Chapin might have as many as 200 porters and more than a dozen hunters and animal preparators with them. Without the support of those Africans the expedition would have been impossible. The porters carried everything from tents and provisions to firearms, photographic equipment, and portable animal-preparation labs.

As their experience in Africa deepened, Lang and Chapin became increasingly interested in the African people they were living and working with. Over time, Lang's photography, which at first focused on documenting animals and then Africans and their cultural artifacts, became far more personal. Known for his enterprise and energy, Lang would collect specimens and take photographs all day long and then stay up half the night processing the film that was his real passion.

Lang was probably one of the best ethnographic and wildlife photographers of his day, and Chapin was a gifted illustrator. That combination of talents made for extraordinarily rich documentation the early twentieth-century Congo.
After taking a train around the rapids that make much of the lower Congo River unpassable, Lang and Chapin traveled the rest of the way upriver by steamboat, barge, and on foot.
In the 1890s, the explorer Henry Morton Stanley described the Okapi as a kind of forest donkey. Others had thought it might be an antelope. When the explorer Sir Harry Johnston sent a piece of striped okapi skin to the British Museum, London scientists announced the discovery of a new species of forest zebra. When a complete okapi was finally found 1901, biologists were astonished to find that its closest living relative was the giraffe.
Collecting specimens of the rare white, or square-lipped, rhinoceros (*Ceratotherium simm cottoni*) was one of the Congo Expedition's primary missions. These rhinos were caught by Lang in the Uele District above Niangara. They have been on exhibit in the museum's Akeley Hall of African Mammals since 1936.
Image # 227033
Lang's note: The line of 200 porters and native assistants of the Congo Expedition emerging from the dense forest after 22 days of march from Stanleyville to Avakubi. Mr. Chapin is about the 9th from the front. Near Avakubi, Congo Belge, Sept 30, 1909.

During their six years in Africa, Lang and Chapin employed a total of 38,000 African porters and assistants. It was common for as many as 200 Africans at a time to assist the expedition's movements from place to place. This photograph was taken early, when the expedition was still making its way to its base camp in Avakubi.
Image # 222147
Lang's note: Common white nosed and red tailed Cercopithecus, male. No skin. Niangara, Congo Belge, June 1913.
It was hard for Lang to photograph living animals in the field. For one thing, they rarely stayed still during the long exposures required in photography's early years. However, Lang took quite a few good portraits of primates, such as this red-tailed monkey (*Cercopithecus ascanius*), and he was a master at making them appear to be alive.

When, in July 1914, word of World War I made its way to Lang and Chapin, they hurriedly began the mammoth task of getting their collections back to the coast of Africa and then on a ship for New York City. After months of hauling crates through the rain forest and along the Congo River, Chapin made the journey home with the collections by way of Liverpool, running a German blockade of the harbor. For Lang, who was born in Germany (which, in 1915, was an enemy of the U.S.), the return to New York was more complex and time consuming. He went by way of Angola, Lisbon, and a Portuguese steamer to New York. Back home, Lang became an Assistant in Mammalogy at the American Museum and spent the next few years processing his African specimens.

By the end of their six years in the Congo, Lang, Chapin, and their assistants had collected spectacular specimens of okapi and square-lipped rhinos (still on exhibit in the Museum's Carl Akeley Hall of African Mammals). More importantly, they had collected the most complete record of the plants, animals, and cultures of the Congo Basin up to that time, including 5,800 mammals, 6,400 birds, 4,800 reptiles and amphibians, 6,000 fish, over 100,000 invertebrates, and 3,800 anthropological objects. In addition, they had 9,890 photographic negatives, more than 300 watercolor paintings, and many volumes of field notes. At least fifteen volumes of scientific findings were later published based on the expedition's work, many of which continue to stand as both seminal and definitive works in their fields.

In 1990, the museum mounted an exhibition called African Reflections, documenting the expedition, the ethnographic collections, and the impact that the Lang-Chapin expedition had on the art and cultures of the region. The exhibition traveled to five museums throughout the United States and its catalogue won the Arts Council of the African Studies Association trienniel award for Best Book on African Art.

The Lang-Chapin collections are still used by scientists who come to the American Museum of Natural History from around the world. Lang, Chapin, and their thousands of African assistants never could have imagined that their collections would one day be digitized and made universally and instantaneously accessible on the Web. They would surely be pleased to see the Digital Library Project breathing new life, reach, and power into their work.
At Stanleyville, the expedition left the course of the Congo River and headed north toward the Ituri Forest, where Lang and Chapin hoped to find the elusive Okapi.
Over the five and a half years they were in Africa, Lang and Chapin employed approximately 38,000 porters to transport collections and gear from place to place. These Azande porters are carrying animal skin specimens and other loads on their heads.
Belgian administrators would send orders to local chiefs, commanding that they produce a certain number of porters for the expedition on a certain day. The porters were paid in cloth, salt, and other goods. "It is true," Chapin later wrote, "that this was rather oppressive, but it must be remembered that there were no bullocks or other beasts of burden in that forested part of Africa."

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