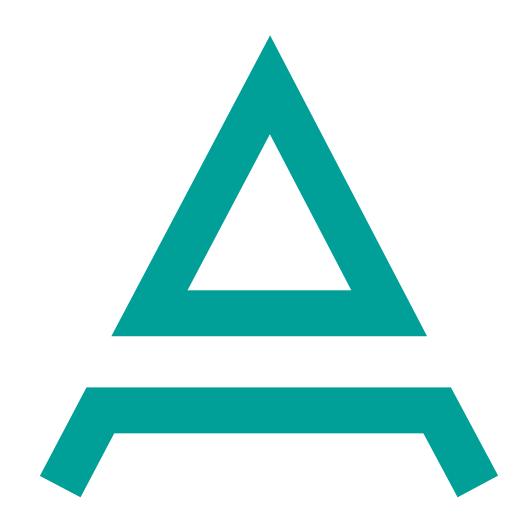


### ANNUAL REPORT 2019





 ${\it Guido\ Gryseels, director\ general\ of\ the\ RMCA}$ 



# Introduction Guido Gryseels Director general of the RMCA

2019 was the first full year for the museum since it reopened its doors. If the interest demonstrated by the public was any indication, we can say with no hesitation that the year was marked by success. We surpassed the expected number of visitors by a comfortable margin, and the press made mention of AfricaMuseum all throughout the year. Nonetheless, it was a year for evaluating and adapting, be it for technical matters or museological purposes, or in terms of the content or the activities that we offered the public. The renovation, which took over 10 years, always kept in mind a continuous process of dialogue and investigation in terms of content, and this continued to be the guiding principle for this first year since the reopening. The range of reactions, with some saying we went too far and others not far enough, pushes us to revisit and reassess our choices. There was intense debate surrounding the issue of restitution for African cultural heritage both in Belgium and around the world. Moreover, the past year obliged us to reckon with our limits, both financially and in terms of our human resources. These past ten years, the federal government has pursued a policy of budgetary prudence, forcing AfricaMuseum to make considerable budget cuts in terms of operations and staff. In concrete terms, in the past decade, the number of RMCA personnel went from 280 employees in 2009 to 208 in late 2019 - a 25% reduction in staff size. Meanwhile, publicly

We can say with no hesitation that the year was marked by success.
We surpassed the expected number of visitors by a comfortable margin, and the press made mention of AfricaMuseum all throughout the year.

accessible areas practically doubled in size following the renovation, from  $6000 \text{ m}^2$  to almost  $11,000 \text{ m}^2$ .

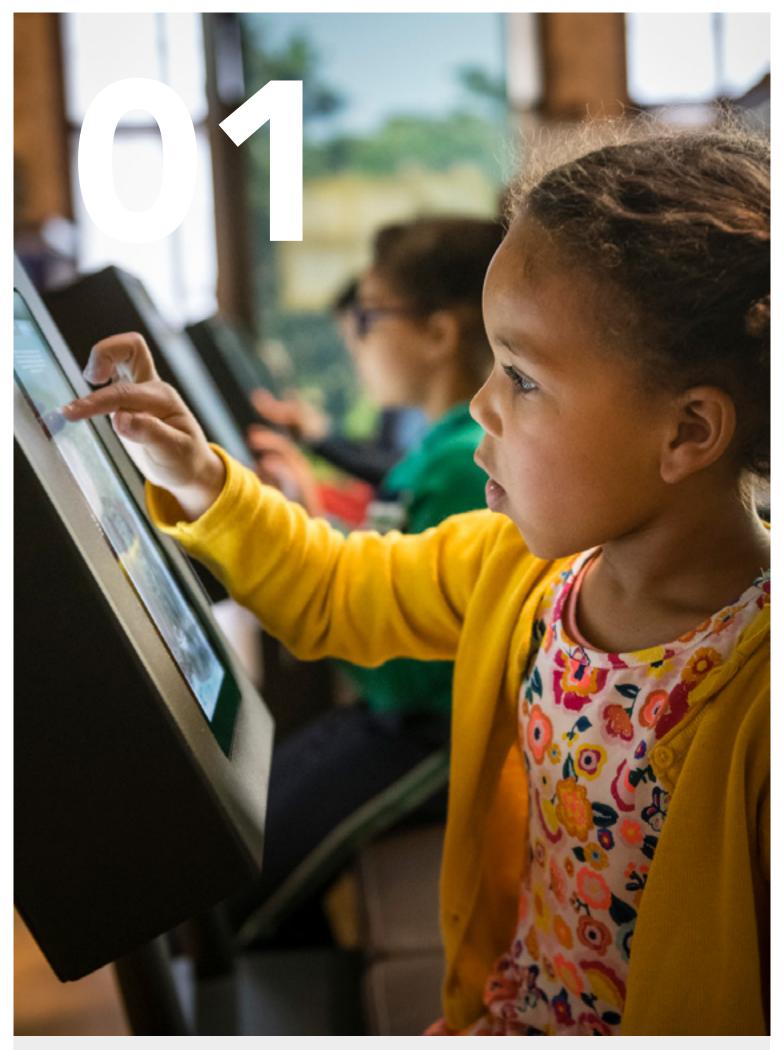
Our researchers managed to maintain high scientific productivity, once again publishing more than 100 peer-reviewed articles. This year was also particularly rich in terms of advising doctoral candidates. In 2019, no fewer than 68 doctoral candidates were affiliated with the museum.

Some 20 new scientific programmes saw the light of day, in fundamental research as well as in cooperation projects. For instance, we began a partnership with the government of Rwanda, the Foreign Affairs ministry, and the Royal State Archives to catalogue, digitize, and transfer all of the historical archives found in Belgian and that were relevant to Rwanda, where we also have ties with the national museums, the Rwanda Mines, Petroleum and Gas Board, the University of Rwanda and the Rwanda Academy for Languages and Culture. Among our accomplishments, I would also like to make special mention of the inauguration, in April 2019, of a new wood biology laboratory in the Yangambi biosphere reserve in the heart of the Congo basin. This is a first in sub-Saharan Africa. Congolese and international scientists conduct cutting-edge research to gain a better understanding of how forests can help us mitigate and adapt to the effects of climate change. In a word, 2019 was a remarkable year where the museum again managed to defend the strong position it occupies in the international scene as

a centre of reference for Central Africa, and to produce excellent results once more. For this reason, I give my sincere thanks first and foremost to the personnel. If the institution is capable of maintaining its level of excellence, it is above all because of the deep commitment of each and every one of them. We hope that the next federal government will carry out necessary reforms at Federal Science Policy and provide us with the additional means needed to maintain our full capacity.

I also wish to thank our structural and institutional partners: Federal Science Policy, the Directorate General for Development Cooperation, the Ministry of Foreign Affairs, the National Lottery, the Federal Buildings Administration, and all the sponsors of our renovation.





After reopening, the AfricaMuseum is determined to remain a family-friendly place. No fewer than 56,000 children under the age of 18 visited it in 2019.

# 







AfricaMuseum welcomed

329 226 visitors



including 67 899 taking a guided tour



**760** groups participating in a school activity



y 40 000 visitors from abroad, mainly from the Netherlands, France, and Germany



It is a year that the museum will not soon forget, and that it can take pride in. This first full year after reopening, it attracted nearly 330,000 visitors – much more than its original target of 250,000 – and 56,000 of whom were below 18 years of age.

#### The new Africa Museum,

#### a year after reopening

AfricaMuseum now has a year under its belt. It is a year that the museum will not soon forget, and that it can take pride in. This first full year after reopening, it attracted nearly 330,000 visitors – much more than its original target of 250,000 – and 56,000 of whom were below 18 years of age, showing that it remains a family-oriented museum.

It continues to make headlines in international media, both online and print. Rather than contenting itself with having contributed to the discussions on heritage restitution, it was a catalyst in the debate on decolonization.

#### Finishing touches to the exhibition

When the museum reopened, some of the galleries were still in their final stages. Thus, throughout 2019, the different galleries were systematically checked and completed. Two new interactive rooms were inaugurated: Studio 6+, for families with young children, and Rumba Corner, which invites visitors to learn a few steps and dance. A few more showcases were added to the resource paradox gallery, and the Afropea gallery welcomed the addition of objects and photos provided by Belgo-African visitors. Lighting and text readability were also enhanced for a number of galleries, and their multimedia equipment was optimized. Some outdoor aspects still need to be ironed out: the lack of parking spaces and insufficient signage led to a few complaints, and the underlying issues were tackled.



Two corner rooms have been added, including the Rumba Corner. Here, visitors of all ages can learn a few steps and lose themselves in the lively rhythms of Congolese music.

#### **Public activities are relaunched**

Once the rollout and teething problems were addressed, the museum could concentrate on restarting a dynamic programme of activities for the public. Co-creation is now one of the keywords of our activities: in all that we undertake, we seek out active collaboration with external partners and experts of African origin. These activities are divided into two programmes, Campus and Forum.

#### **Campus**

Campus activities focus on knowledge dissemination for the general public. In this framework, school activities were launched according to different phases. They are composed of guided tours and workshops on different themes, and are intended for preschool, primary, and secondary school students. A permanent programme was supplemented with a more specific workshop on wood, for youths wanting to work with this material. The workshop, dubbed 'Triple E-wood', was co-produced by Woodwise, Unilin, Zagerij Pauls, the AfricaMuseum xylarium, the RTC (Regionaal Technologisch Centrum) Vlaams-Brabant, and MOS (Milieuzorg op School).

Demand for guided tours has been enormous since the museum reopened. In total, 4,259 groups took a guided tour in 2019. Continuous training for guides was put in place to ensure the quality of their work.

The numbers show how much families appreciate the AfricaMuseum, which takes heart from these figures as it aims to be a family-oriented museum. Families are given special attention. Facilities were designed with them in mind, with lower counters and toilets for children, and a special kids tour was created in a short time. It is presented as a booklet for different age groups. In November, AfricaSundays (family days that feature African artists every first Sunday of the month) were launched. To end the year on a high point before continuing in 2020, an alternative and inclusive feast of Saints Nicolas and Maurice, the 'Zwarte Piet affair', was presented in collaboration with Belgik MoJaik and Source plurielle.

#### **Forum**

The Forum programme maintains the collaboration established with the African diaspora and key players in the African cultural scene and aims to provide access to the expertise at the AfricaMuseum. At the same time, it offers greater visibility for African presence and influences, highlighting these in a constructive manner. Moreover, communications regarding these activities rely specifically on Belgians of African origin.



The Afropea room is simultaneously an exhibition space, a meeting point, and a documentation centre. This collaboration with persons of sub-Saharan African origin was completed in 2019 with objects and photographs contributed by Belgo-African visitors.

#### Residencies

In 2019, AfricaMuseum pursued its programme of artist and journalist residencies.

The artist Géraldine Tobé (Kinshasa, DRC) was in residence from 8 April to 22 June. The residency allowed her to create 12 pictorial works on a theme that no other artist had tackled in

In all that we undertake, we seek out active collaboration with external partners and experts of African origin. These activities are divided into two programmes, Campus and Forum.

the museum. Her project, 'L'esprit des ancêtres' ('spirit of ancestors') is ongoing and will be executed in several European museums. In a symbolic manner, her pictorial art and her work in the museum collections open with the much-sought-after return of objects to the DRC. Five of her twelve works were displayed in the exhibition JRSLM - Paradise Lost Again, organized for the 50th anniversary of the Vrije Universiteit Brussel (from 17 October to 14 December).

\_\_\_\_\_\_ https://www.africamuseum.be/en/get\_involved/artists/tobe

Ghislain Ditshekedi (Lubumbashi, DRC) stayed in Belgium as part of the Biennale de Lubumbashi to obtain more information at the Royal Belgian Institute of Natural Sciences (RBINS) and AfricaMuseum on the origins of the Ishango bone, an archaeological find conserved at the RBINS and viewed by some as proof that mathematical knowledge traces its roots to the DRC. The results of his research were presented at the Biennale de Lubumbashi, from 24 October to 24 November.

AfricaMuseum was an active supporter of the Biennale, by providing financial support, contributing to the facilitation of visits by local school groups, and by opening its collections to artists who wish to participate in the Biennale itself.

The museum also provided access to its collections to numerous artists who were not in residence: Freddy Mutombo, Arno Luzamba Bombere, David Bangiricenge, Fabricio Monteiro and Steven Sach, among others.

As part of the 'Journalists in residence' project,



In collaboration with Belgik MoJaïk and Source plurielle, the museum offered an innovative 'alternative' and 'inclusive' feast day celebration for Saints Nicolas and Maurice, 'The Zwarte Piet affair'.

AfricaMuseum hosted Kinshasa-based journalist Nioni Masela, who works for the papers Les Dépêches de Brazzaville and Le Courrier de Kinshasa, as well as a weekly cultural magazine, Les Dépêches du Bassin du Congo. Nioni Masela is practically the only journalist in Kinshasa to work in the cultural press.

Through her work, she hopes to promote AfricaMuseum in the Congolese capital, and 'reintroduce' pieces to the country as part of heritage restitution. This residency resulted in a large series of articles featuring interviews of museum personnel. These articles are available on our website:

https://www.africamuseum.be/en/get\_involved/journalists/nionimasela



Artists-in-residence Géraldine Tobé and Ghislain Ditshekedi in the renovated museum.

#### 'Decolonize'

As dynamic as it is diverse, the African diaspora is nonetheless outside the public eye. During the reopening, its call for the decolonialization of society was ever clearer and did not fall upon deaf ears. In this first year of reopening, the theme of decolonization has become increasingly important within and beyond the museum. AfricaMuseum personnel took an active role in different discussions organised around the topic in Belgium and abroad, not least of which was the international project 'Everything Passes Except The Past' launched by the Goethe Institut of Brussels. At UGent, an academic congress was held on the theme 'Restitution of Colonial Collections in Europe' The museum also hosted decolonization-themed guided tours conducted by members of BAMKO-CRAN, CECong, and

Collectif Mémoire coloniale et Lutte contre les Discriminations (CMCLD).

AfricaMuseum took a step towards the decolonization of the institution – one that is perhaps simply common sense, but is nonetheless important, by establishing a code of ethics that must be adhered to by all partners wishing to organize an event in the museum or its immediate surroundings. It adapted a number of installations in the permanent exhibit, such as the sculpture depot, to refine its message, and entered into talks with the Agentschap Onroerend Erfgoed with a view to present the protected but highly colonial statues in the Grand Rotunda using a different approach. Finally, it created a guided walk in Tervuren park inviting visitors to reflect on the history of the human zoo installed there for the 1897 International Exposition.

#### The question of heritage restitution

In addition to the call for decolonization, another hotly debated issue was the restitution of African artistic heritage. A large portion of the latter is indeed found in Western museums and private collections. The discussion is obviously relevant to AfricaMuseum collections, as they had been assembled in large part during the colonial period. For the reopening, the guestion was openly asked: how were the pieces acquired, and could they be returned to their country of origin? Taking an open and constructive attitude, the director participated in several debates in Belgium and abroad. One of them in particular was held in Dakar, in the presence of Hamady Bocoum, director of the Musée des Civilisations noires (MCN), and Felwine Sarr, co-author of the Macron report on the restitution of African cultural heritage. As a guest expert, Guido Gryseels also participated in a consultation held by the German Federal Parliament on the colonial past and the question of restitution. Other invited experts included a number of German museum directors as well as Bénédicte Savoy, the other co-author of the Macron report.

While our institution did not receive any formal requests for restitution in 2019, it nonetheless opened a dialogue with the national museums of the countries involved, maintaining partnership ties with the national museums of the DRC and Rwanda and with the MCN in Dakar, on whose



The gilded statues of the grand rotunda are on the protected heritage list, but they send a flagrantly colonial message. The museum has begun talks with the Agentschap Onroerend Erfgoed to present these works under a different angle.

demand capacity-building programmes were launched in the areas of collection management, restoration, and public activities. The museum devoted itself to making its collections more accessible to African museums and to pursue the digitization of cultural heritage pieces in its care,

In addition to the call for decolonization, another hotly debated issue was the restitution of African artistic heritage.

such as archives, photographs, and films, so that these may be transferred to the relevant countries in digital format. It also redoubled efforts to retrace the origin of pieces that may have been acquired irregularly.

In 2019, debate raged over the issue of restitution of artistic heritage. In this framework, the director participated in a number of discussions, including one held in Dakar during the 'Forum de l'innovation' with Hamady Bocoum (right), director of the Musée des Civilisations noires and Felwine Sarr (left), co-author of the Macron report.

#### AfricaMuseum thanks its partners who made the reopening possible:

Federal Buildings Agency, National Lottery,
Toerisme Vlaanderen, National Bank of Belgium,
Puilaetco Dewaay, Adecco, Umicore, Texaf, KBC,
American Express, Ackermans & Van Haaren,
Rotary, Zeb, Visit Brussels, De Standaard, VRT,
Le Soir and RTBF; and all those who, through
donations or bequests, supported the activities
and research efforts of Africa Museum.

#### The first year and media \*

1131

articles in the Belgian press

#### over 50

articles in the international press, in 11 countries

more than 14 000

followers on Facebook

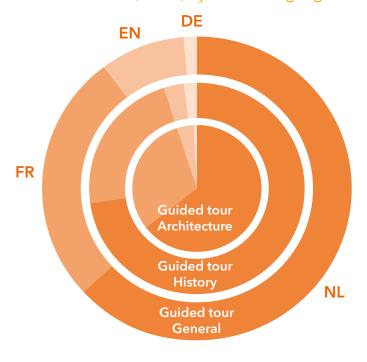
**5500** 

followers on Twitter

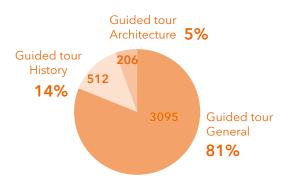
\* (see also p. 49)

#### The first year and guided tours

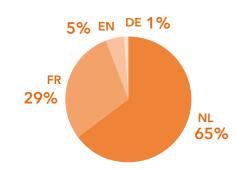
Guided tours, adult, by theme/language



Guided tours, adult, by theme



Guided tours, adult, by language



#### The first year for events and tickets

150

presentations and conferences by the director

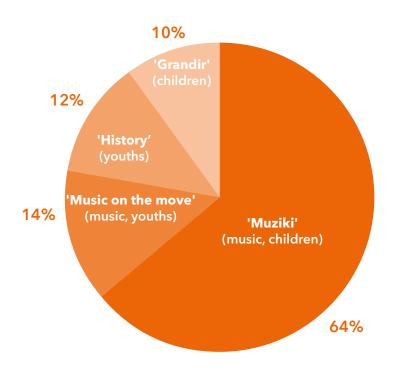
166

company events, including the 100th anniversary of the broadsheet *De Standaard* 



in income from the sale of admission tickets

#### The first year for workshops





# JU M S

## The RMCA as a scientific institute: research into the societies, biodiversity, and geology of Africa

The Royal Museum for Central Africa is a research institute with internationally-recognised expertise. More than 80 scientists and around 120 African PhD students and trainees conduct research into past and present societies, biodiversity, and geology of Africa. They rely on the museum's unique collections, fieldwork, and collaborative networks with international, and in particular African, institutions. The RMCA is active in more than 20 African countries and emphasises the exchange of knowledge with its African partners, as well as capacity-building. Contributing to the sustainable development of Africa is a priority in the research programmes, with a significant environmental, social and economic impact.

The RMCA has three research departments >>



#### 1. CULTURAL ANTHROPOLOGY & HISTORY

FOCUS Societies of the past, the colonial past, political systems, cultural expressions, languages and music of peoples in or from Africa.

The Cultural Anthropology and History department covers various disciplines dedicated to African societies of today and the past, in particular how they functioned and what they achieved. The researchers study languages, deep history and archaeology, the (post)colonial past, political systems, cultural expressions, and music of population groups in or from Africa. The fieldwork is done in Africa, but also among the African diaspora.

#### 2. BIOLOGY

FOCUS Biodiversity of animal species and sustainable management of the tropical rainforests in Africa.

The Biology department enhances the knowledge of the biodiversity of animal groups in Africa. The biologists study the taxonomy and phylogeny of different groups of vertebrates and invertebrates. The wood biologists unravel the structure and function of wood, as well as the role of trees and fauna in African ecosystems, and contribute to the sustainable management of the tropical rainforests in Africa. The fieldwork goes hand in hand with the study of the vast and unique collection.

#### 3. EARTH SCIENCES

FOCUS Mineral resources, geodynamics, surface environments and natural hazards in Central Africa.

The scientists in the Earth Sciences department study the geology, geodynamic processes, and natural (mineral) resources in Central Africa with a view to sustainable management and the impact of extraction on human societies. They study volcanoes, seismic events, and landslides for the effective management of these natural hazards. By determining the evolution of soils in Africa, they evaluate the impact of global changes on the natural environment of the continent.

A selection of the most important research activities from 2019 is highlighted.

#### A first in sub-Saharan Africa: wood biology lab opens in DRC

The Congo basin is the second largest tropical rainforest in the world. It plays an important role in carbon storage and climate regulation. To protect this ecosystem, it is fundamental to understand the characteristics of tree growth, the history of vegetation, and the properties of wood.

This is the context in which the RMCA opened a new wood biology laboratory in DRC. Inaugurated on 28 April 2019, it is found in the Yangambi biosphere reserve, in the heart of the Congo basin. Unique in sub-Saharan Africa, the lab possesses the most sophisticated equipment and will be used by Congolese and international scientists to carry out cutting-edge research on wood anatomy and dendochronology (the study of tree growth rings). This will help researchers understand the role of forests in adapting to and mitigating climate change.

The laboratory will benefit Congolese universities and institutes such as the Université de Kisangani and INERA (Institut national pour l'Étude et la Recherche agronomiques). Master and doctoral students of the Université de Kisangani will have access to the lab, making it a meeting place for Congolese and international researchers.

The laboratory was created in the framework of the FORETS (Formation, Recherche et Environnement dans la Tshopo) project. This project is funded by the European Union and coordinated by the Centre de recherche forestière internationale (CIFOR). To ensure the sustainability of the initiative, the RMCA trains Congolese researchers in laboratory management, so that the lab will be self-sustaining when the FORETS project comes to an end in 2021.





The RIETMA team recording Elombo dances in Gabon.

#### Exchanging glances at European and African musical traditions

Despite greater collaboration between North and South on often-similar research topics, the ways in which the 'Other' is represented in the two hemispheres are not fully identical.

A project funded by the Federal Science Policy Office, RIETMA (Réseau international d'étude des traditions musicales africaines) brings together several partners in Europe and Africa:

- · Musée national des Arts, Rites et Traditions de Libreville (Gabon);
- · Musée de la Musique de Ougadougou (Burkina Faso);
- · Nyege Nyege Festival, Jinja (Uganda);
- · Musical Instruments Museum, Brussels;
- · Muséum national d'Histoire naturelle de Paris;
- · Royal Museum for Central Africa, Tervuren.

Launched in 2019, the project seeks to compare and contrast the viewpoints of conservators, researchers, musicians, and cultural players in both North and South, by investigating and representing traditional musical practices in the two hemispheres. The first study delved into Gabonese musical traditions in the form of the Elombo healing dances. In 2020, the second part will look into the carnivals of Hainaut province in Belgium and the traditions of the 'Gille' character in Binche. At the end of the project, audiovisual documentation collected by the researchers will be used to create a short documentary directed and edited by the partners. This film can later be screened in the different museums.

Through these networked activities, we hope to promote long-term cooperation between the participating institutions.

#### **GEODYNAMICS AND MINERAL RESOURCES**

#### Georesources as a major contributor to sustainable development



Overview of the Kivuvu tantalum mine (Kabarore province, Burundi).

The development of modern societies relies to a large extent on the exploitation of georesources (mineral, water, and energy resources). Geological research is increasingly considering the environmental, economic, social, and public health dimensions of resource exploitation in Central Africa, particularly the deposits of strategic minerals such as cobalt and tantalum. In 2019, the RMCA launched the project 'Georesources: a major contributor to sustainable development in Central Africa'. Funded by Belgian Development Cooperation (DGD), the project is carried out in collaboration with the Centre de Recherches géologiques et minières (CRGM, Kinshasa), the Université Marien Ngouabi (Republic of Congo), and the universities of Kinshasa, Bukavu, Lubumbashi, Burundi, and Rwanda. The project seeks to improve academic expertise in Central Africa on the geology of mineral resources and its impact on society. It falls within the broader scope of integrated management that involves all relevant stakeholders: communities, experts, economic actors, and public authorities. Its final goal is to have the global demand in mineral resources serve the interests of countries providing them, in the form of an equitable distribution of profit throughout all layers of society.

#### The fishes of Lake Edward

Found on the border between the DRC and Uganda, Lake Edward is the only Great Lake located entirely within protected areas (Virunga National Park on the Congolese side; Queen Elisabeth National Park on the Ugandan side.) Not much is known about the lake, as few studies have been carried out there

HIPE (Human impacts on ecosystem health and resources of Lake Edward) is a multidisciplinary project funded by Belgian Science Policy and led by the Université de Liège, RMCA, KU Leuven, the Institut congolais pour la Conservation de la Nature (DRC), and the National Fisheries Resources Research Institute (Uganda). The project aims to explore the role played by recent environmental changes in the declining productivity of Lake Edward. The RMCA is handling the fish ecology and biodiversity arm of the investigation.

A fourth expedition was organized in 2019. While the first three focused on lake fish species of economic importance, this one concentrated on the species populating the rivers of the Lake Edward system. Sampling was carried out in 34 zones. These expeditions made it possible to inventory the fish species present. At the start of the project, a very diverse genus, *Haplochromis*, was known to have 28 species. That number is now estimated to be between 60 and 100. These species are currently undergoing taxonomic revision. Seven new species have been described. One particularly striking discovery is that there are no fewer than five so-called 'pedophage' species. These highly specialized flying fish feed on eggs, embryos, and larvae of fishes incubated in the mouth of their mother. Researchers also determined the diet of fishes of economic importance, as well as of some *Haplochromis* species.



Fishermen with their boats and equipment on the banks of Lake Edward.



Triage of Haplochromis species found in Lake Edward. The bottom specimen is a male of a newly described pedophage species (H. relictidens). The group of four males on the left belongs to an entomophage species (H. schubotzi), while the group of smaller males, on the right, is from a species that feeds on gastropods (H. pharyngalis). The yellow female on top is from a fish-eating species that has not yet been described.



Laciris pelagica is an oblong fish found only in the deep waters of Lake Edward. It has not been collected during scientific sampling since the 1950s.

#### NATURAL HAZARDS AND CARTOGRAPHY

#### **Natural hazards in the Great Lakes region**

In Central Africa, natural hazards have a considerable negative impact on development. The Great Lakes region is regularly affected by volcanic eruptions, earthquakes, floods, and landslides, all of which claim victims and cause significant material damage. Yet these events have hardly been investigated. In 2019, the RMCA started the HARISSA project (Natural HAzards, RISks and Society in Africa: developing knowledge and capacities). Funded by Belgian Development Corporation (DGD), this project relies on the successes and network of partners established during previous programmes in the region. It is conducted in collaboration with some 10 Burundian, Congolese, and Ugandan partners. The goal is to study natural risks and develop tools to improve their management, thereby reducing the risk of catastrophes and promoting sustainable land use. HARISSA is aimed at all the relevant stakeholders for disaster management: scholars, politicians, and citizens. In 2019, six doctoral candidates from Burundi, DRC, and Uganda began their research. The Institut géographique du Congo (IGC) benefited from capacity building for 21 members of their staff. The goal is to strengthen this institute at the national level, in Kinshasa, Goma, Bukavu, and Kindu. Finally, two citizen science platforms were established. The first involves 20 members of the civil protection teams in Nord- and Sud-Kivu, while the second counts 30 persons from communities in southwestern Uganda.



Citizen observers from southwestern Uganda were trained as part of the HARISSA project. Their role is to use a smartphone app to inventory the natural risks affecting their communities (Kabale, Uganda, November 2019).



The Institut géographique du Congo has abundant archives. Their inventory and classification are at the heart of HARISSA project activities. This preliminary work will make it possible to optimize them in the future, for instance through digitization (Kinshasa, December 2019).



#### Sourcing copper ingots



Grave containing copper ingots discovered during the archaeological excavations led by J. Nenquin in 1957 at the Sanga necropolis (Katanga, DRC).

The distribution of copper ingots is a primary source for reconstructing trade networks in precolonial central Africa. Archaeological excavations of grave goods in the Upemba Depression (northern Katanga, DRC) carried out in the 1950s and 1970s offer a chronological context for some of them and show how these ingots varied in shape, size, and degree of standardisation through time. The position of the objects in the graves also illustrates how, at times, they were a symbol of prestige or were part of a currency system.

Ingots started being produced in the Copperbelt around the sixth century. While the Copperbelt, which lies over 200 km south of Upemba, was considered the most likely production centre, no provenance studies were ever conducted on the ingots themselves to confirm this. Chemical and lead isotope analysis was thus performed for the first time on 45 artefacts from the museum and study collections from Northern Katanga. The results show that the shift in the type of ingot around the 14th-15th century CE - a transition period between two cultural phases - also corresponds to two distinct geochemical signatures. Not only does this suggest a different origin for the metal; supply from different source areas or production centres over time also indicate changes in trade networks or even political spheres of influence. Moreover, ingots bundled together in graves do not always have the same geochemical signatures. This signals that the objects were in circulation, probably as currency, before being buried as funerary goods, reflecting the dynamic nature of the trade networks where the ingots were in use. Further refinement of the geochemical composition of various ores from the Copperbelt and beyond, to the south, will allow an assessment of the extent of regional copper markets and long-distance trade networks.

These results were produced by the collaboration between archaeologists and geologists of the RMCA and KU Leuven.

They were published in 2019 in the Journal of Archaeological Science. The geochemical and lead isotope analyses were part of the EACOM (Egyptian and African Copper Metallurgy in Federal Collections: Contextualisation, Preservation, Patrimonial Value) project, which drew to a close in the same year.



For the first time, geochemical and lead isotope analyses were carried out on copper ingots to determine their origin.

#### **INVERTEBRATES**

#### Artificial lakes: a paradise for parasites?



Masters student Kudzai Muzarabani collects snails and water hyacinths in Lake Kariba, Zimbabwe.

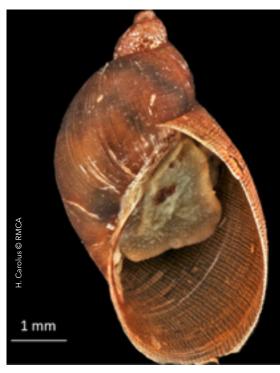
Dams provide electricity and drinking water to millions of people around the world. But in tropical regions, the artificial lakes created by these dams serve as a breeding ground for dangerous infectious diseases such as malaria, schistosomiasis, and fasciolosis.

Researchers from the RMCA, KU Leuven, and the University of Zimbabwe studied such phenomena in Zimbabwe's Lake Kariba. Their investigations show that the creation of this artificial lake, the largest in the world, has encouraged the proliferation of freshwater snails that are native to North America. The researchers also found that a significant proportion of these snails were infected with liver flukes. The liver fluke is a flatworm that causes fasciolosis, a disease that affects livestock, wild animals, and humans.

The team of scientists also identified a second invasive species: the water hyacinth, originally from South America. This aquatic plant is the ideal habitat for freshwater snails and its presence probably explains the abundance of these invasive animals. This cascade of biological invasions occurs more readily in artificial lakes. Such new ecosystems offer new, vacant ecological niches that are easily occupied by invasive species.

The results of these investigations have been shared in universities, hospitals, and in international conferences. There is also an animated video for younger audiences that allows findings to be shared in schools:

https://sciencejournalforkids.org/articles/why-do-invasive-species-like-artificial-lakes/



An invasive freshwater snail, native to North America (Pseudosuccinea columella).



Liver fluke.

#### Why are there no continents on Mars?

Earth is the only planet in the solar system with continents. But why is this the case?

A team of researchers from the RMCA, Macquarie University (Australia), and the University of Johannesburg (South Africa) published a study in the journal Nature Geoscience, explaining that basaltic source-rock silica enrichment through contact with primitive seawater was the crucial factor in continental growth. This was the missing piece of the puzzle and finally explains how continents form.

The bulk of the continental crust that now makes up today's continents was formed over 3 billion years ago. But how? Scientists suspected that the deciding factor for continental growth could be the presence of water on earth. Upon contact with the primitive ocean, the rocks produced by the fusion of mantle would lead to the formation of hydrated basalt, which would in turn melt to produce continental crust. But there was a problem with this model. As hydrated basalts are transported to depth, they progressively lose water before melting. How then can fusion and continental crust formation be explained? The researchers discovered a crucial element which answers this question. Rocks making up the primitive continents contain an abnormally high amount of silicon-30, the heaviest isotope, which could only be derived from the primitive seawater. The water played a fundamental but indirect role in the formation of continents. This water, rich in dissolved silicon, interacted with basalts on the primitive ocean floor and enriched them in silicon-30. This incorporated silicon allowed the basalt to melt at lower temperatures as it was being transported into the depths of the earth.



Silicified basalts dating 3.47 billion years where the round, pillow-shaped structures that are attributed to the extrusion of lava under water are preserved. Barberton, South Africa.



Silicified basalts dating 3.41 billion years where the pillow-shaped structures characteristic of underwater lava extrusion have been flattened during post-silicification deformation. The grey-blue areas consist of pure silicon (SiO2). Nondweni, South Africa.

#### BIOLOGICAL COLLECTION AND DATA MANAGEMENT

#### When digitization reveals a snake's reproductive secrets



Aparallactus modestus ubangensis.

With nearly 50,000,000 natural history specimens between them, the RMCA and the Royal Belgian Institute of Natural Sciences curate an incomparable heritage relating to past and present biodiversity. Of all these specimens, 0.5% enabled the description of species (type specimens) or were the object of detailed illustrated descriptions. These 250,000 specimens comprise a heritage that is unique in the world.

As part of the federal DIGIT-3 programme, the RMCA and RBINS are making high-resolution digital scans of these specimens of great scientific value. The techniques used were developed and validated as part of a previous project, AGORA3D. Micro-CT scan is one of the techniques used for digitization. Its advantage is that it allows observation of internal structures without damaging the specimen itself.

Aparallactus modestus ubangensis is a sub-species of Central African burrowing asps. The RMCA's collections includes the holotype, that is, the specimen that allowed the description of the species. When a micro-CT scan was performed on the specimen, museum researchers found that it was a female carrying four eggs. No reproductive data had been available for this serpent up to that point, making the discovery an important one.

#### HISTORY AND POLITICS

#### Faune sauvage et colonisation. Une histoire de destruction et de protection de la nature congolaise (1885-1960)

While the Congo basin is one of the global areas most affected by the loss of biodiversity today, this alarming phenomenon is far from new. Published in December 2019, this book ('Wildlife and colonization. A history of destruction and protection of nature in Congo (1885-1960)') shines a light as never before on the history of the Belgian presence in Congo, analysing the manner in which colonization affected wildlife management on its territory.

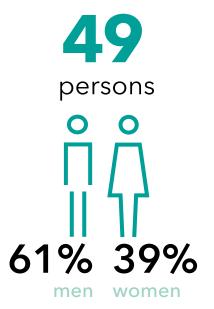
Analysis of historical documents reveals that the destruction of wildlife follows a pattern of predatory systems implemented in Central Africa as from the second half of the 19th century and amplified during the Congo Free State era and Belgian colonization. Elephant hunting, fuelled by the quest for ivory, provided significant revenue to the government, while other species were hunted not only for financial gain but also for reasons of sport, science, or prestige.

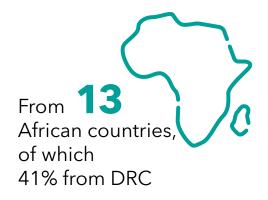
By the late 19th century, worried by the destruction of wildlife in most of the African colonies, prominent figures – scientists, hunters, politicians – alerted their respective governments and swayed public opinion in several European cities. Influenced by these international trends, significant efforts were undertaken by Belgian authorities to limit this environmental damage: legislative texts, inspection tools, protected nature zones and national parks – a host of measures that produced mixed results.

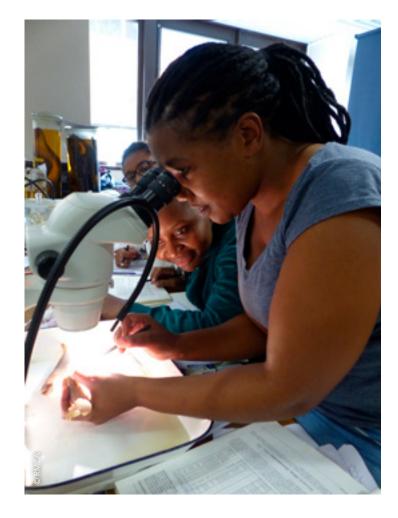


Patricia Van Schuylenbergh. 2019. Faune sauvage et colonisation. Une histoire de destruction et de protection de la nature congolaise (1885-1960), series 'Outre-Mers', vol. 8. Brussels: P.I.E. Peter Lang, 376 pp.

#### **Training and study visits for African researchers**







#### 49 African researchers benefit from the capacity-building programme

Thanks to the financial support of Belgian Development Corporation (DGD), the RMCA has been organizing training programmes for early career African researchers for several years now.

49 persons benefited from it in 2019. The program is carried out in the museum as well as in the field, as part of projects developed in Africa.

In 2019, the RMCA began implementing a new multi-year programme. The six strategic goals for projects carried out in the programme's framework are in line with nine of the United Nations Sustainable Development Goals (SDGs). Training grants are awarded based on project objectives and a strategic goal in line with the SGDs. These capacity-building activities are diverse and conducted in Belgium or other partner countries. They include scientific or technical training for individuals or groups, as well as grants for pre-doctoral, doctoral, and postdoctoral candidates, participation in conferences, and artist or journalist residencies.

In 2019, the RMCA organized a training course on the use of FishBase and the taxonomy of African fishes. FishBase is the largest fish database in the world. Five African researchers including four women took this three-month training course.

Moreover, the museum continues to organize courses in Africa. These basic courses usually train a larger group of people and are developed in collaboration with a local institution, in order to highlight local skills and reinforce South-South capacity-building networks. In 2019, the RMCA and the Sokoine University of Agriculture (Tanzania) organized a course for 12 African entomologists on the identification of fly pollinators.

Finally, artist and journalist residencies allow the selected individuals to study the museum's collections, talk with specialists, and translate their findings into artworks or articles.



Rwandan delegation for the 'Rwanda Archives' project in August 2019. This project aims to digitize archives, photos, and films kept in Belgium and which are relevant to the country. The digitized files are then transferred to Rwanda.



Participants in the FishBase and African fish taxonomy course.



Workshop on fly pollinators in Tanzania.



Kisekelwa Tchalondawa defends his thesis, 'The Fish Fauna of the Kahuzi-Biega National Park Region (DRC): Taxonomy and Ecology', on 11 April 2019 at KU Leuven.

#### **European Journal of Taxonomy**



The consortium welcomed its 10th member, the Natural History Museum of Prague. The impact factor for the journal, announced in June 2019 for the year 2018, was 1.188, a significant change (in the 2018 announcement for the year 2017 it stood at 0.872.) This ranks the EJT higher than its commercial competitors: *Zootaxa* 0.990; *Zookeys* 1.143; *Phytotaxa* 1.168. Out of 316 authors published in *EJT* in 2019, only five were African. This

percentage remains low. We hope it will increase in the future, notably with the scientific publishing workshops (see below) that should enable early-career authors from Central Africa to submit texts that meet international selection criteria in these zoological fields. Meanwhile, several volumes featured African species, including some described by RMCA researchers. Volume 500 was published in 2019.

#### The annual Conjonctures de l'Afrique centrale

In 2012, the RMCA partnered with E-CA/CRE-AC to publish the annual volume *Conjonctures* under its 'Cahiers africains' series. Originally called *Conjonctures congolaises*, this was expanded in 2018 to become *Conjonctures de l'Afrique centrale*. These edited volumes contain articles on the DRC, Rwanda, Burundi, and the Great Lakes region. Authors are either established researchers or early-career scholars from both the North and the South.

Each annual volume is presented upon release at the Maison des Parlementaires (Brussels) by State Minister and CRE-AC president Herman de Croo, surrounded by researchers who contributed chapters.

in-chief, and ARES scholars, among others. The plan is to conduct it again in 2020, this time for a broader university audience.

The seminar was also tailored for other target audiences: students of the Academy des Beaux-Arts, early-career artists, cultural or didactic guides of the Bilembo centre.



Workshop at the RBINS in October 2019.



Seminar delivered at the Université de Kinshasa in May-June 2019.

#### Scientific publishing seminar

The RMCA has been organizing workshops for early-career researchers in training at the RMCA and RBINS. In 2019, this seminar was conducted in DRC for the first time, at the Université de Kinshasa. It gathered around a hundred participants from several faculties and disciplines: vice-deans, professors, doctoral and post-doctoral students, journal editors-

#### LIST OF RMCA PUBLICATIONS

#### **Exhibition catalogues and guides**

RMCA. 2019 Royal Museum for Central Africa. Guidebook. Kontich/Tervuren: Bai/RMCA, 176 p.

**Volper, J. (ed.)** 2019. *Unvergleichliche Kunst.* Kontich/Tervuren: Bai/RMCA, 104 p.

#### **Natural Sciences**

**Mees**, F. 2019. *The Type Mineralogy of Africa*, series 'Tervuren African Geoscience Collection', no. 110. Tervuren: RMCA, 644 p.

Languy, M. 2019. The Birds of Cameroon. Their status and distribution. Series 'Studies in Afrotropical Zoology', no. 299. Tervuren: RMCA; partnership with RBINS, 567 p.

#### Social Sciences and Humanities

Geenen, S., Nyenyezi Bisoka, A. & Ansoms, A. (ed.). 2019. *Conjonctures de l'Afrique centrale.* 2019. Series 'Cahiers africains'(no. 93). Paris/ Tervuren/Antwerp: L'Harmattan/RMCA & CRE-AC, 484 p.

de Saint Moulin, L. 2019. *La Place de la religion à Kinshasa et en RDC*. Series 'Cahiers africains' (no. 94). Paris/Tervuren: L'Harmattan/RMCA, 248 p.

Omasombo, J. (ed.) et al. 2019. Mai-Ndombe. Mosaïque de peuples établie sur un patrimoine naturel. Series 'Monographies des provinces de la République démocratique du Congo', no. 12, Tervuren: RMCA, 606 p.

Omasombo, J. (ed.) et al. 2019. Nord-Ubangi. L'État-Zaïre englué dans l'entité ethnique de Mobutu. Series 'Monographies des provinces de la République démocratique du Congo', no. 13, Tervuren: RMCA, 546 p.

**Devos, M. & Maniacky,** J. 2019. *Africana linguistica* 25: 388 p. (PR; IF 0,154)

#### Online publications

www.africamuseum.be/research/publications/rmca/online

Jaarverslag/Rapport annuel/Annual Report 2018, see supra.

Nurse, D. 2019. *Data for Tense and Aspect Systems in Bantu*. Series 'Documents on Social Sciences and Humanities', 365 p.

#### Open access

**European Journal of Taxonomy** (published by a European consortium including the RMCA), vol. 491 to 589 within some papers by RMCA's scientists:

Jocqué, R., Jocque, M., Stock, W., Rin, N. & Henrard, A. 2019. 'The new Southeast Asian genus Cambonilla gen. nov. (Zodariidae, Araneae): Bis repetita placent. European Journal of Taxonomy 501: 1-24. https://doi.org/10.5852/ejt.2019.501 (PR; IF 1.188)

Keklikoglou, K., Faulwetter, S., Chatzinikolaou, E., Wils, P., **Brecko, J.**, Kvaček, J., Metscher, B. & Arvanitidis, C. 2019. 'Micro-computed tomography for natural history specimens: a handbook of best practice protocols'. *European Journal of Taxonomy* 522: 1-55. https://doi.org/10.5852/ejt.2019.522 (PR; IF 1.188)

Chester, C., Agosti, D., Sautter, G., Catapano, T., Martens, K., **Gérard, I.** & Bénichou, L. 2019.' *EJT* editorial standard for the semantic enhancement of specimen data in taxonomy literature'. *European Journal of Taxonomy* 586: 1-22. https://doi.org/10.5852/ejt.2019.586 (PR; IF 1.188)

#### Various publications

Benichou, L., **Gérard, I.**, Chester, C. & Agosti, D. 2019 'The *European Journal of Taxonomy*: Enhancing taxonomic publications for dynamic data exchange and navigation'. *Biodiversity Information Science and Standards*, https://doi.org/10.3897/biss.3.37199. Conference abstract.



















#### THE SCIENTIFIC INSTITUTE IN FIGURES

#### Who?

3

departments

70

researchers

more than

15

disciplines

**70** 

African partner universities and institutions

#### What?

In 2019

- 136 ongoing projects19 started in 2019 \*
- More than 130 presentations in scientific conferences
- 174 published articles,
   of which 105 were peer-reviewed \*\*
- · Missions
  - 89 missions carried out in 20 different African countries (i.e. 36% of all multi-day missions abroad)
  - 46% of missions in Africa were in DRC

#### **Doctoral theses**

- 7 doctoral degrees completed in 2019
- 68 doctoral programmes ongoing in 2019 \*
  - · Including 21 that began in 2019
  - · 57% of researchers come from 10 African countries
  - · 31% of doctoral candidates are Congolese
  - · 25% are Belgian

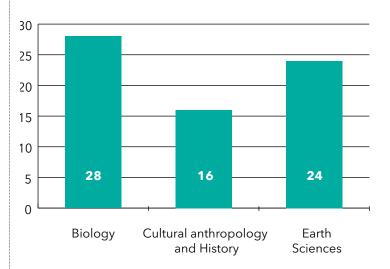
With the support of Umicore

· Supervision of 27 masters

#### 595 visits to RMCA by researchers

for their investigations and/or to consult the collections

#### Number of doctoral students by department

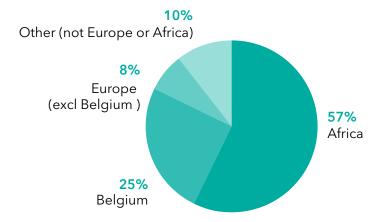


\* (see also p. 71)

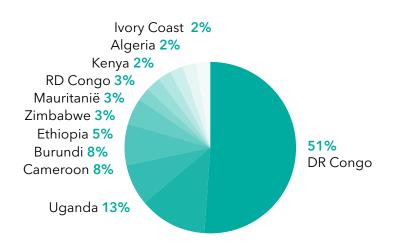
#### Doctoral students by nationality



#### Origin of doctoral students



#### Countries of origin of African doctoral students



#### **Taxonomy**

new animal species described

fishes

spiders

millipedes



Enteromius thespesiosis is one of the new fish species described in 2019. It lives in the Luvilombo river, near the waterfalls of the same name in Upemba National Park, and is characterized by the vivid red colour of some fins in males of the species.



## QO U

The RMCA's international reputation is based on its vast expertise and its unique collections from the humanities and natural sciences from the Central African region. These collections are both valuable heritage and of great scientific value. They form the basis for the large range of research projects. The fact that less than 1% of the collections can be seen in the new permanent exhibition gives an idea of its vast size.

The museum is responsible for the physical management of these diverse and extensive collections, to conserve them and digitize them. It makes its collections available to the public in various ways. The collection is promoted through research, exhibitions, publications, and databases. Collection pieces are loaned out all over the world for exhibitions or scientific research. In addition, researchers can also consult documents or analyse artefacts and specimens on-site. The collection continues to grow. These days, it expands primarily in the context of research projects in collaboration with African universities and museums.

The museum also has a network of libraries, consisting of a central library and more than ten specialised sub-libraries in various disciplines within the humanities and natural sciences. The complete collection of the museum contains more than 130,000 books and several thousand journals, as well as valuable historical works.

### A SAMPLE FROM THE COLLECTIONS

### Cultural Anthropology & History

120 000

ethnographic artefacts

75 000

archaeological artefacts

9 000

musical instruments

3 000

published ancient maps

500 000

historical photographs

20 000

historical objects and Western artworks

3 km

historical archives

650

historical films on the Belgian Congo, Rwanda and Burundi (1940-1960)

### **Biology**

10 000 000

specimens among which:

6 000 000

insects

1 000 000

fishes

500 000

butterflies

300 000

spiders

195 000

amphibians

150 000

birds

135 000

mammals

80 000

wood samples

45 000

reptiles

17 000

snakes

### **Earth Sciences**

180 000

rock samples

200 000

aerial photographs

20 000

geological maps

18 000

palaeontological specimens

17 000

minerals

### FIGURES FOR COLLECTIONS, ARCHIVES AND LIBRARIES

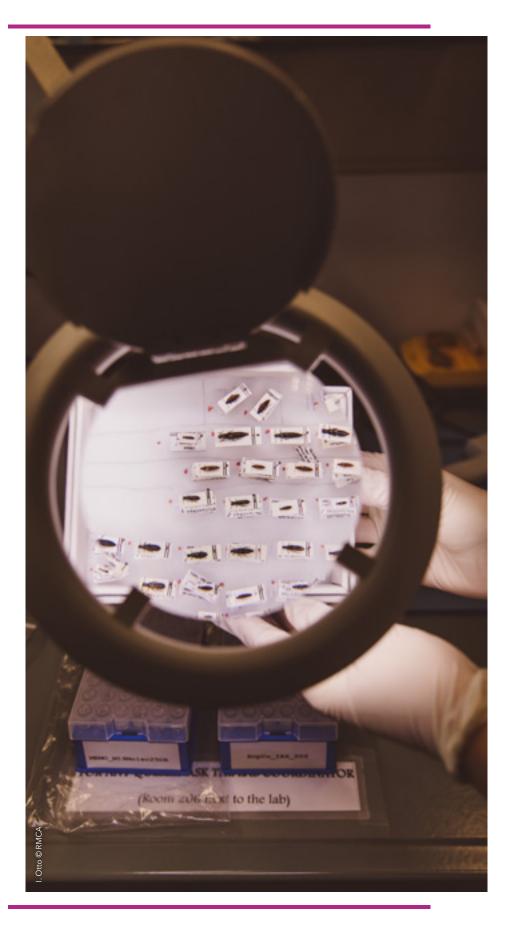
Loans

600 wood samples

and more than 3000 zoological specimens loaned out for research

203 objects on loan

for 14
exhibitions in 2019 in
Belgium,
France,
Germany,
Austria,
Switzerland,
Sweden,
Monaco,
and the United States.



### **Expertise** and services

Over **150**assessments
of ethnographic
and archaeological artefacts

Identification of 59 wood fragments

analyses in earth sciences laboratories

hoverflies identified for various institutions and universities

### **Acquisitions**

220 wood samples

More than 18 000 new zoological specimens (fishes, gastropods, insects, etc.)

from 16
African countries

archive fonds, musical instruments, etc.

### **Libraries**

271 visitors at the central library

visitors at the Colonial History library

visitors at the Contemporary History library

### **RESTAURATION**

### The new Archives online platform

The RMCA conserves no fewer than 3 km of historical archives, produced between the mid-19th century and the present day. In spring 2019, the museum launched its new platform (archives.africamuseum.be). Thanks to the platform, visitors can search the museum's full archive collections using a single search portal. In the past, inventories were scattered all over different databases, PDF files, and so on. Today, if a visitor searches for documents on Patrice Lumumba, a single click will provide an overview of all the relevant documents. More than 10,000 archive descriptions are already online and

More than 10,000 archive descriptions are already online and the platform is being constantly updated. The system also provides for the possibility of adding ditigized archive documents that visitors can consult in high resolution. More than 200,000 scans are ready to be published online. Their publication will enable visitors, half of whom are foreign, to consult the archives directly from home.

In 2019, the platform was consulted by nearly 2,000 unique visitors. Most of them came from Belgium, France, the United States, and DRC.



The RMCA has 3 km of archives.

### Training the conservators and restorers of tomorrow

In October 2019, the RMCA organized a 10-day workshop in Kinshasa on the conservation and restoration of ethnographic objects, together with the Institut des Musées nationaux du Congo (IMNC) and the Académie des Beaux-Arts (ABA). The intensive course was attended by 17 participants.

It focused on preventive conservation, that is, long-term management and preservation methods. The course also included an important practical component: 8 ethnographic pieces from the IMNC reserves were restored by the participants. These objects, of different materials, provided the opportunity to try numerous restoration techniques.

Presentations by their colleagues also gave participants a broad general idea of the different items conserved at the IMNC.



 $\textit{Participants of the conservation and restoration workshop organized in \textit{Kinshasa}.}$ 

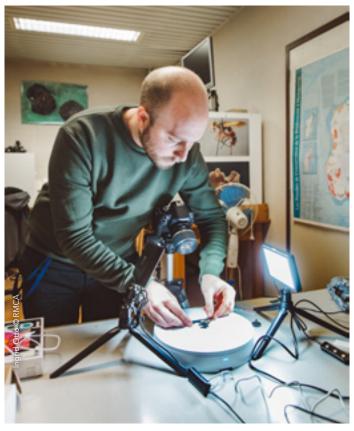


Restoration of ethnographic objects from the Institut des Musées nationaux du Congo.

### Continuing the digitization of collections

Funded by Belspo, the DIGIT04 project aims to digitize the heritage of the federal scientific institutions.

By the end of 2019, the museum had more than 175,000 archive scans and over 46,000 studio photographs of ethnographic objects. 100 insect storage boxes were photographed in high resolution, making it possible to study each of the insects in the containers. Nearly 18,000 specimen photos were taken and used to generate 600 2D+ photos. Over 300 3D models were also created from 49,000 photos. Finally, 233 micro-CT scans were performed on 156 specimens.



The RMCA has a 2D and 3D digitization laboratory.



Ongoing digitization of maps from the map library. The RMCA geocatalogue (geocatalogue.africamuseum.be) has 18,000 entries, 17,000 of which are from the RMCA itself.

### **DIGITIZATION**

### Transferring archives, photos, and films to Rwanda

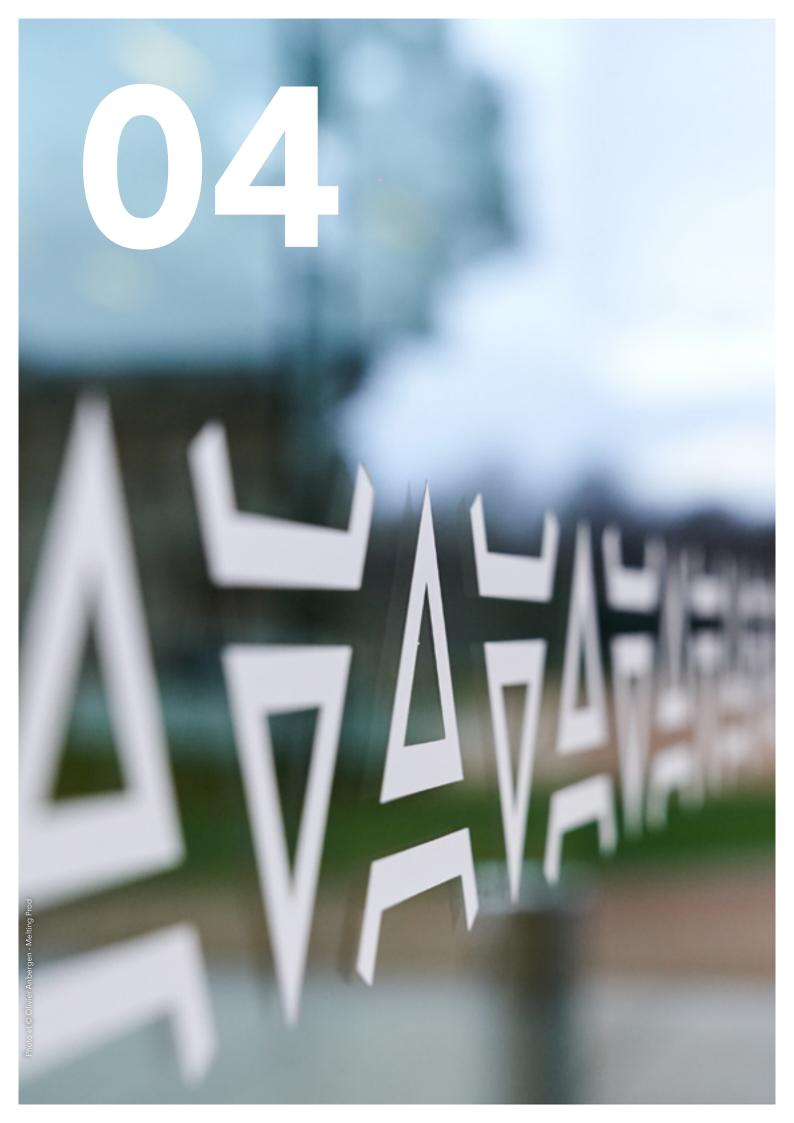
In collaboration with the Belgian State Archives and the Foreign Affairs ministry, the RMCA has been working since 2019 with the Rwandan government, its archive services, and the Institute of National Museums of Rwanda to digitize the archives, photos, and films in Belgium that are relevant to the country. Digitized files are transferred to Rwanda. Once the inventories were completed, more than 1,700 maps were digitized and nearly 44,000 archive scans were performed in 2019.

### Transferring historical mining and geological data to Rwanda

The RMCA works with the Rwanda Mines, Petroleum and Gas Board (RMB) to retrieve and transfer the historical geological and mining data found in RMCA archives regarding Rwanda's subsoil. Data turnover is scheduled for March 2020.

A second component of the project consists of reinforcing the country's capacities for academic research in geology and mining, through knowledge transfer activities.

The project is supported by Enabel (Belgian Technical Cooperation) and the Study and Expertise Fund of Rwanda.



### 

### **FINANCIAL REPORT**

	2015	2016	2017	2018	2019
Expenditure and revenue (in k€)					
Revenue	17.398	15.482	15.070	17.518	19.561
Expenditure	15.510	16.249	15.387	20.009	18.127
Balance	1.877	-767 <sup>(1)</sup>	-317 <sup>(1)</sup>	-2.491 <sup>(1)</sup>	1.434.(1)
Sources of revenue			,		
Human resources envelope	6.431	6.343	6.356	(2)	_ (2)
Endowment	4.649	3.491	3.931	10.197	10.197
Own funds	426	389	504	952	3382
Projects	5.213	4.861	4.010	5.560	4.967
Other	678	398	269	809	1.015
Total	17.398	15.482	15.070	17.518	19.561
Expenses by source (in k€)					
Personnel	11.454	11.599	11.476	11.294	11.985
Human resources envelope	6.431	6.343	6.356	0	0
Personnel own funds	5.023	5.255	5.120	0	0
Statutory personnel				5.230	5.841
Contractual personnel				6.063	6.144
Operations	3.585	3.818	3.242	4.962	5.328
Equipment and library	482	833	670	3.753	814
Total	15.521	16.249	15.387	20.009	18.127

<sup>(1)</sup> Deficit and derogation from ESA balance with the approval of the Minister for the Budget

<sup>(2)</sup> Since 01.01.2018, endowment and human resources envelopes have been merged

### **STAFF**

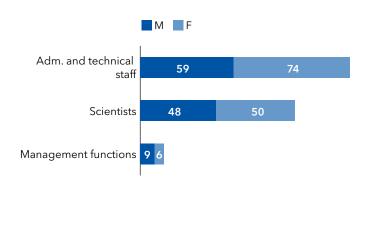
### Distribution of statutory and contractual staff according to level

	2016	2017	2018	2019
Scientists	115	108	109	105
Statutory	34	33	36	31
Contractual	81	75	73	74
Level A	23	21	23	20
Statutory	10	10	13	12
Contractual	13	11	10	8
Level B	34	34	33	33
Statutory	22	24	23	22
Contractual	12	10	10	11
Level C	34	30	39	47
Statutory	20	17	18	18
Contractual	14	13	21	29
Level D	34	34	40	39
Statutory	1	1	1	1
Contractual	42	40	39	38
	249	234	244	246

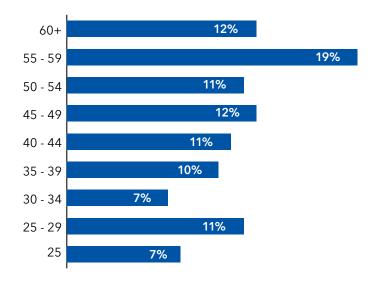
### **Distribution by level**

### Level D Level C Level B Level A Scientist 240 2016 2017 2018 2019

### Distribution according to gender



### Age pyramid



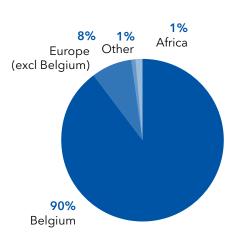
### **Cultural diversity**

### Country of birth

### 4% Africa Other 9% Europe (excl Belgium) 78% Belgium

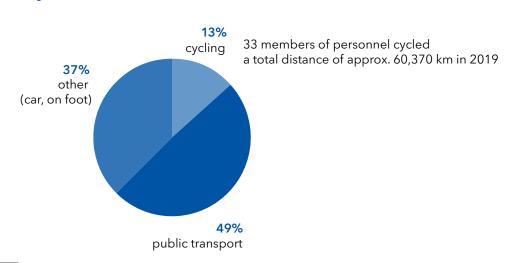
29 countries of birth: 10 countries in Europe, 11 countries in Africa, 8 other countries (Asia, North and Central America)

### Nationality



12 nationalities: 8 European, 3 African, and 1 American

### **Mobility**



### **PUBLIC SERVICES**

### **Visitors**

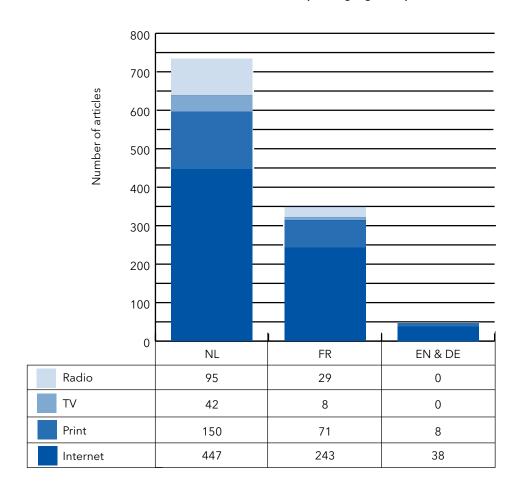
- · AfricaMuseum welcomed 329,226 visitors
- · including 67,899 taking a guided tour
- · 760 groups participating in a school activity
- $\cdot$  40,000 visitors from abroad, mainly from the Netherlands, France, and Germany.

### **RMCA** and the press

### **Belgian press**

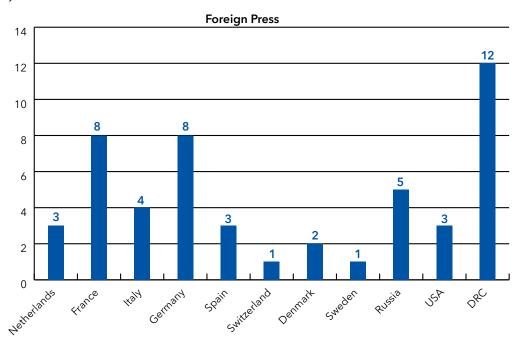
Total number of journal articles: 1131

### Number of articles per language and per medium



### **Foreign Press**

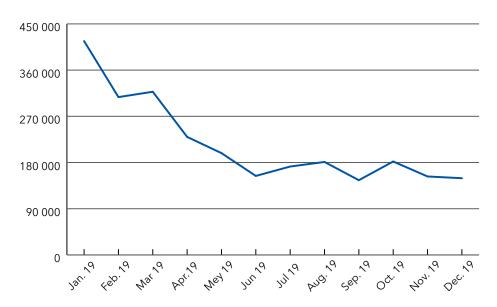
Total number of journal articles: 50



### Website

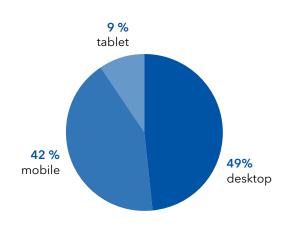
In 2019, the museum's web pages were visited 2,607,042 times, a spectacular increase of 240 % compared with 2018! This change can be accounted for by the museum's reopening in December 2019.

- The number of website visits remained high for the first few months after the opening. It then decreased gradually until stabilising at around May-June 2019.
- · Visitors:

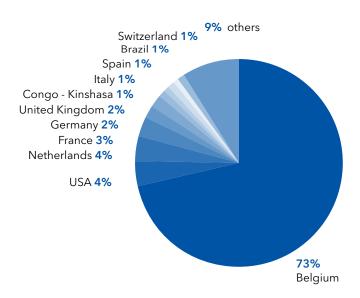


- · The website had 386,805 unique visitors (based on IP address) in 2019.
- · These visitors launched 594,847 sessions. On average, each unique visitor consulted the website 1.54 times.
- The average number of pages visited per session was 4.38 pages, a good showing compared with a general average of 3 pages per session for websites.
- · 81.2 % of visitors either arrived directly or used a search engine to reach the site. This percentage increased by 22 points compared with 2018.

### Origin of website visitors



Device



- · 48.5 % of visitors used a computer to access the site, while 51.5 % used a mobile device (smartphone or tablet). This is the first time that mobile devices accounted for more visits than computers. In 2018, these figures stood at 72 % for computers and 28 % for mobile devices.
- · 73 % of visitors consulted the site from within Belgium. This percentage rose sharply compared with 2018 (29 %). This is no doubt owing to the large number of persons who checked the website for their museum visit.
- · Only 3.8 % of total visitors came from, Africa, and most of these were from DR Congo (0.7 %). While this percentage remains low, it has still increased from the 2018 figures (3 %).

### Social media

In 2019, the number of followers on the museum's social media channels reached these figures:

- The AfricaMuseum EN Facebook page went from 8,314 to 9,604 followers, a 16 % increase.
- The AfricaMuseum België Facebook page went from 2,069 to 2,187 followers, an increase of 6 %.
- The AfricaMuseum Belgique Facebook page went from 1,669 to 1,951 followers, a 17 % increase.
- The Instagram page had 3,506 followers by the end of 2019 including 526 new followers, an increase of 18 %.
- The Twitter account had 5,530 followers by the end of 2019 including 604 new followers, an increase of 12 %.

### The most popular posts reached:

- 17,000 persons on the AfricaMuseum EN Facebook page.
- 7,000 persons on the AfricaMuseum België Facebook page.
- 3,200 persons on the AfricaMuseum Belgique Facebook page.
- 5,000 views on Twitter.



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### Mission statement

The museum must act as a world centre for research and knowledge dissemination on the past and present societies and the natural environments of Africa, in particular of Central Africa, to foster - among the general public and the scientific community - a better understanding of and interest in this field and, through partnerships, to make a substantial contribution towards the sustainable development of Africa. Thus the core tasks of this Africa-oriented institution consist of acquiring and managing collections, conducting scientific research, implementing the results of this research, disseminating knowledge, and presenting to the public a selection from its collections.

### **Governance and advisory bodies**

The RMCA is a federal scientific institution under the aegis of the State Secretary for Science Policy. Administratively speaking, the RMCA is an independently-managed public institution with three governance bodies and one advisory body.

### **Management Committee**

The management committee is responsible for the financial, material and administrative management of the RMCA, and serves the same function for the Royal Belgian Institute of Natural Sciences. Chaired by a representative of the Belgian Federal Science Policy Office, it is made up of four external members (university academics and management experts), the managing directors of each institution, and two representatives of the Belgian Federal Science Policy Office.

### Members with a deliberative vote:

- · Frank Monteny, Director General, Belgian Federal Science Policy Office, Chairman
- Guido Gryseels, Director General RMCA, Vice-Chairman
- Camille Pisani, Director RBINS, Vice-Chairman until April 2019 - Patricia Supply, Director of Support Services, RBINS from May 2019
- Jacques de Gerlache, Communication Manager, SOLVAY S.A.
- François Mairesse, Université Sorbonne Nouvelle - Paris 3
- · Ingrid Vanden Berghe, Director General, National Geographic Institute of Belgium



Members of the advisory committee of RMCA. Marc De Meyer is missing on this photo.

- Koen Verhoest, Professor, University of Antwerp - Department of Political Sciences
- Erwin Moeyaert until September 2019 Johan Schrobiltgen from September 2019

### Members with advisory rights:

- Pierre de Maret, Chairman of the RMCA Scientific Council
- · Jacques Lust, Secretary Attaché, Belgian Federal Science Policy Office
- · Erwin Moeyaert, General Finance Inspector
- Marie-Solange Mukarwema, Accountant, RBINS
- · Didier Van den Spiegel, Head of Service, RMCA
- · Luc Van Wassenhove, Accountant, RMCA
- · Noël Vandenberghe, Chairman of the Scientific Council, RBINS
- Brigitte Lauwaert, Head of Scientific Section, MUMM and RBINS

### Non-voting experts:

- Patricia Supply, Director of Support Services, RBINS
- · Tom Aarts, jurist, RBINS
- Laurent Flamend, Advisor, Belgian Federal Science Policy Office
- · Olivier Ninane, Advisor, Belgian Federal Science Policy Office
- F. Stassart, Attaché, Budget and Management Control, Belgian Federal Science Policy Office
- · A. Verbeeren, HR officer, RBINS

### **Director's advisory committee**

### Members with voting rights:

- · Guido Gryseels, Director General RMCA, Chairman
- · Luc André, Head of Department a.i. Earth Sciences
- · Els Cornelissen, Head of Department a.i. Cultural Anthropology and History
- · Marc De Meyer, Head of Department a.i. Biology
- · Isabelle Gérard, Head of Publications Service
- Jacky Maniacky, Head of Culture and Society Service
- · Didier Van de Spiegel, Head of Biological Data and Collection Management Service
- · Bruno Verbergt, Operational Director for Public Services

### **Scientific Council**

The Council provides opinions on the quality and relevance of the institution's scientific activities. Half of its members are external experts from Belgian universities and the other half are from the museum's executive scientific staff. The members of the Scientific Council are appointed to a four-year term by the Secretary of State of Belgian Federal Science Policy.

### Internal members:

- · Guido Gryseels, Director General
- · Luc André, Head of Department a.i. Earth Sciences
- · Els Cornelissen, Head of Department a.i. Cultural Anthropology and History
- Marc De Meyer, Head of Department a.i. Biology
- Jacky Maniacky, Head of Culture and Society Service
- Patricia Van Schuylenbergh, Head of History and Politics Service

### **External members:**

- · Pierre De Maret, Professor, ULB, Chairman
- · Frans Ollevier, Professor, KU Leuven
- · Éric Pirard, Professor, ULiège
- · Camille Pisani, Director, RBINS
- · Noël Vandenberghe, Professor, KU Leuven
- · Koen Vlassenroot, Professor, Ugent

### **Recruitment and promotion board**

The committee is responsible for the selection and promotion of statutory scientific staff. It is chaired by a Federal Science Policy representative and is made up of two external experts from universities and the RMCA's Director-General.

### Members:

- · Robert Van De Walle, President, BELSPO
- · Guido Gryseels, General Director, RMCA
- · Sara Geenen, Professor, UAntwerpen
- · Caroline Nieberding, Professor, UCLouvain

### **Basic Consultative Committee**

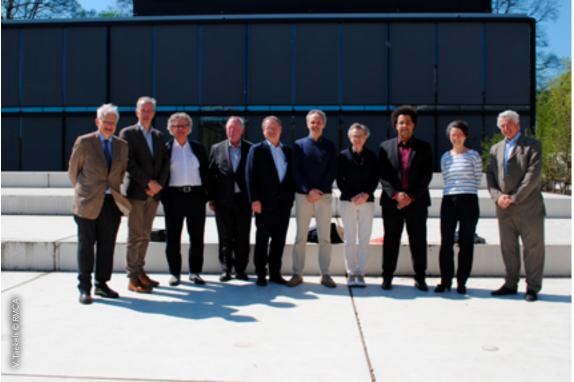
The Basic Consultative Committee is an advisory body that monitors working conditions and well-being in the workplace. Its members are representatives of personnel and labour unions.

### Management delegation:

- · Guido Gryseels, General Director, Chairman
- Bruno Verbergt, Operational Director for Public Services
- · Els Cornelissen, Head of Department a.i. History and Cultural Anthropology
- · Marc De Meyer, Head of Department a.i. Biology
- · An Spegelaere, Head of Service
- · Isabelle Gérard, Head of Service
- · François Kervyn de Meerendré, Head of Service
- · Kristien Opstaele, Head of Service
- · Dirk Verbist, Head of Service
- · Mario Thoilants, Prevention advisor

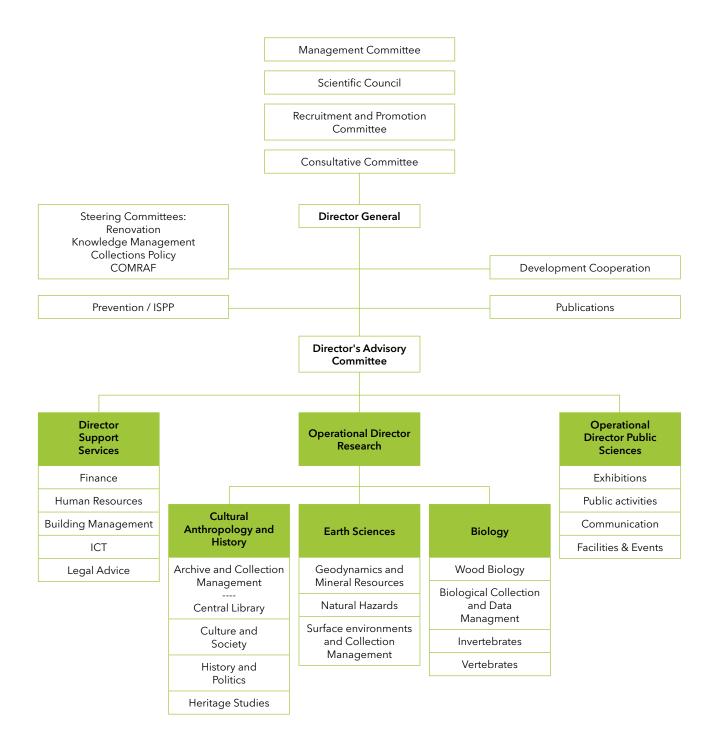
### Union representatives:

- · Valérie Demeulemeester (ACOD/CGSP)
- · Patricia Van Schuylenbergh (ACV/CSC)
- · Geert Dewulf (ACV/CSC)
- · Jean-Christophe Vancoppenolle (ACV/CSC)
- · Martine Renaux (VSOA-Gr II/SLFP-Gr II)
- · Dr. Mieke Cogge, occupational physician



Members of the Scientific Council of RMCA.

### **Organization Chart**

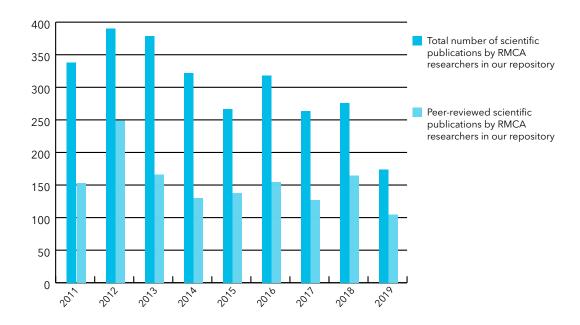




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### **PUBLICATIONS OF RMCA SCIENTISTS**

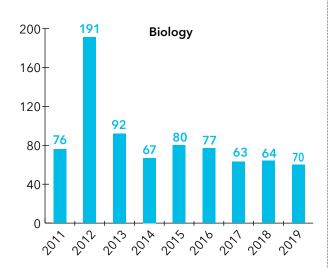
Every year, the researchers of the museum publish articles in scientific journals or books, monographs, etc. with international, highly-regarded publishers. In 2019, they published 174 texts, of which 105 were peer-reviewed.

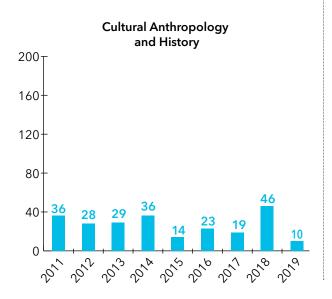


### Statistics per discipline and per type in 2019

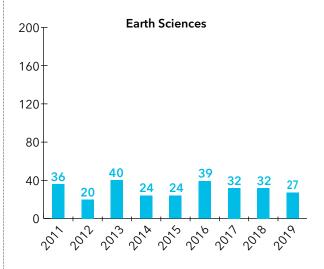
	Earth Sciences	Biology	Cultural Anthropology and History	TOTAL	
Total number of peer-reviewed scientific publications	37	60	10	107	> detail 1
Articles in scientific journals	27	57	4	88	> detail 2
Chapters in (edited) book	6	1	5	12	actan 2
Books and catalogues (as author or editor)	0	0	1	1	-
Total number of non-peer-reviewed publications	29	32	10	71	<u>.</u>
Journal articles	3	3	6	12	•
Maps	14	0	0	14	
(edited) books/catalogues	2	3	3	8	-
Chapters in (edited) book	0	2	1	3	
Chapters in (edited) catalogue	0	0	0	0	
TOTAL	66	92	20		

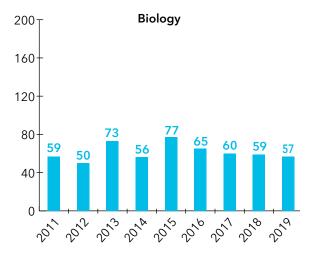
Detail 1: evolution in the number of peer-reviewed scientific publications

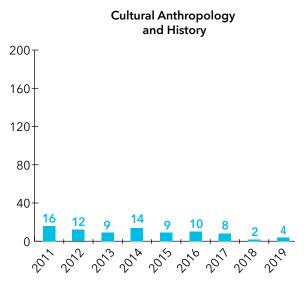




Detail 2: evolution in the number of articles in scientific journals







### REFERENCES

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https://www.africamuseum.be/en/research/discover/publications/repository

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**Laghmouch, M., Kervyn, F.**, Mwanga, J., Kaleme, P. & Ndara, B. 2019. *République démocratique du Congo - Carte de répartition des mammifères - Ordre des Chiroptères, famille des Vespertilionidés, genres*: Myotis, Nycticeinops, Scotophilus, *échelle 1/2 500 000*. Tervuren: RMCA. ISBN: 978-9-4926-6929-2.

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Laghmouch, M., Mees, F., Delvaux, D., Kalikone, C., Ilombe, G., Ganza, G., Safari, E., Bachinyaga, J., Mugisho, E., Wazi, R., Nzolang, C., Fernandez, M., Nimpagaritse, G., Tack, L. & Kervyn, F. 2019. Carte des ressources minérales du Kivu, échelle 1/500 000. Tervuren: RMCA. ISBN: 978-9-4926-6961-2.

Omasombo Tshonda, J., Bolanzowu, D., Stroobant, E., Mumbanza, J., Krawczyk, J., Laghmouch, M. & Batamba, A. 2019. *Mai-Ndombe. Mosaïque de peuples établie sur un patrimoine naturel.* Series 'Monographies des provinces de la RD Congo', vol. 12. Tervuren: RMCA, 606 p. ISBN: 978-9-4926-6907-0 0.

Omasombo Tshonda, J., Ngbakpwa te Mobusa, L., Gonzato Bina, D., Telo Gengi, F., Stroobant, E., Krawczyk, J. & Laghmouch, M. 2019. Nord-Ubangi. L'État-Zaïre englué dans l'identité ethnique de Mobutu. Series 'Monographies des provinces de la RD Congo', vol. 13. Tervuren: RMCA, 546 p. ISBN: 978-9-4926-6962-9.

### LIST OF COMPLETED DOCTORATES

In 2019, the following researchers completed their doctoral studies with the scientific and logistic support of the RMCA:

### **Earth Sciences**

### Adalbert Muhindo Syavulisembo

La variation spatio-temporelle de la population et l'analyse de l'accessibilité à ses ressources vitales : vers une meilleure gestion du risque volcanique à Goma, RDC

Université libre de Bruxelles

Advisers: Eléonore Wolff (ULB), Caroline Michellier and François Kervyn (KMMA)

Defended on 17 December 2019

### Sonia Brahimi

Les terranes du bouclier touareg réévalués et étendus vers la marge nord de Gondwana : contraintes magnétiques et gravimétriques

Université de Strasbourg

Advisers: J.H. Ghienne and M. Munschy (U. Strasbourg), J.-P. Liégeois (KMMA)

Defended in March 2019

### Biology

### Kisekelwa Tchalondawa

The Fish Fauna of the Kahuzi-Biega National Park Region (DRC): Taxonomy and Ecology

Advisers: Jos Snoeks (KMMA/KU Leuven), Emmanuel Vreven (KMMA) and Pascal Isumbisho (ISP-Bukavu)

Defended on 11 April 2019

### **Arnaud Henrard**

Systematics and Phylogeny of the Ant Eating Spiders (Araneae ; Zodariidae): a Total Evidence Analysis Université catholique de Louvain

Advisers: Thierry Hance (UCL), Rudy Jocqué (KMMA)

Defended on 24 June 2019

### Victor Deklerck

National Treasure: Valorisation of the Federal Xylarium in Belgium for Timber Identification and Wood Technology

Universiteit Gent

Advisers: Joris Van Acker and Jan Vandenbulcke (UGent), Hans Beeckman (KMMA)

Defended on 28 November 2019

### **Cultural Anthropology and History**

### Makavala Kalunseviko Krossy

Sociologie de l'administration congolaise : cas de Maluku, ville-province de Kinshasa

Université de Liège et Université de Kinshasa

Advisers: Benjamin Rubbers (ULg), Theodore Trefon (KMMA)

Defended on 17 November 2019

### **Camilla Lindstrom**

Weak States, Strong Elites and Acquiescent Donors: State-building and Aid Relationships in the DRC, 2006-2016

University of Sussex

Advisers: Richard Crook (University of Sussex), Theodore Trefon (KMMA)

Defended on 15 December 2019

### **LIST OF NEW PROJECTS**

In 2019, the museum was involved in 136 scientific projects, including 19 that began that year.

- · Insect Service and Biodiversity in Agroecological Farming
- · In support of the International Travel of Ethnographic Collections: Identification of Wood on Congolese Objects Using Micro- and Sub-micron Tomography
- · Digital Citizen Science for Community-based Resilient Environmental Management
- · Natural HAzards, RISks and Society in Africa: Developing Knowledge and Capacities
- · Ethnographic and World Cultures Museums as Spaces of Care
- · Connaissance des Myriapodes de Mayotte
- · Action Towards Reducing Aquatic Snail-borne Parasitic Diseases
- · Herfstschool Historisch Denken
- · Les géoressources : contribution majeure au développement durable de l'Afrique centrale (Burundi, RDC, Rwanda, République du Congo)
- · Open-Vent Volcano Remote Sensing Monitoring using Spaceborne Imagery
- · Agroecological Methodology in VEGetable Crops
- · Redefining DISpersal Potential for Adequate Fruit Fly PEST Management
- · Diversity of Pollinating Diptera in South African Biodiversity Hotspots
- · Wood Biology for Legal Logging and Sustainable Forest Use
- · Wood biology for Tree Growth Assessment
- · Wood Biology for Paleo-ecology
- · Wood Biology for Man and Biosphere
- · In-silico Boosted, Pest Prevention and Off-season Focus IPM against New and Emerging Fruit Flies ('OFF-Season' FF-IPM)
- · Archives@AfricaMuseum

### COLOPHON

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