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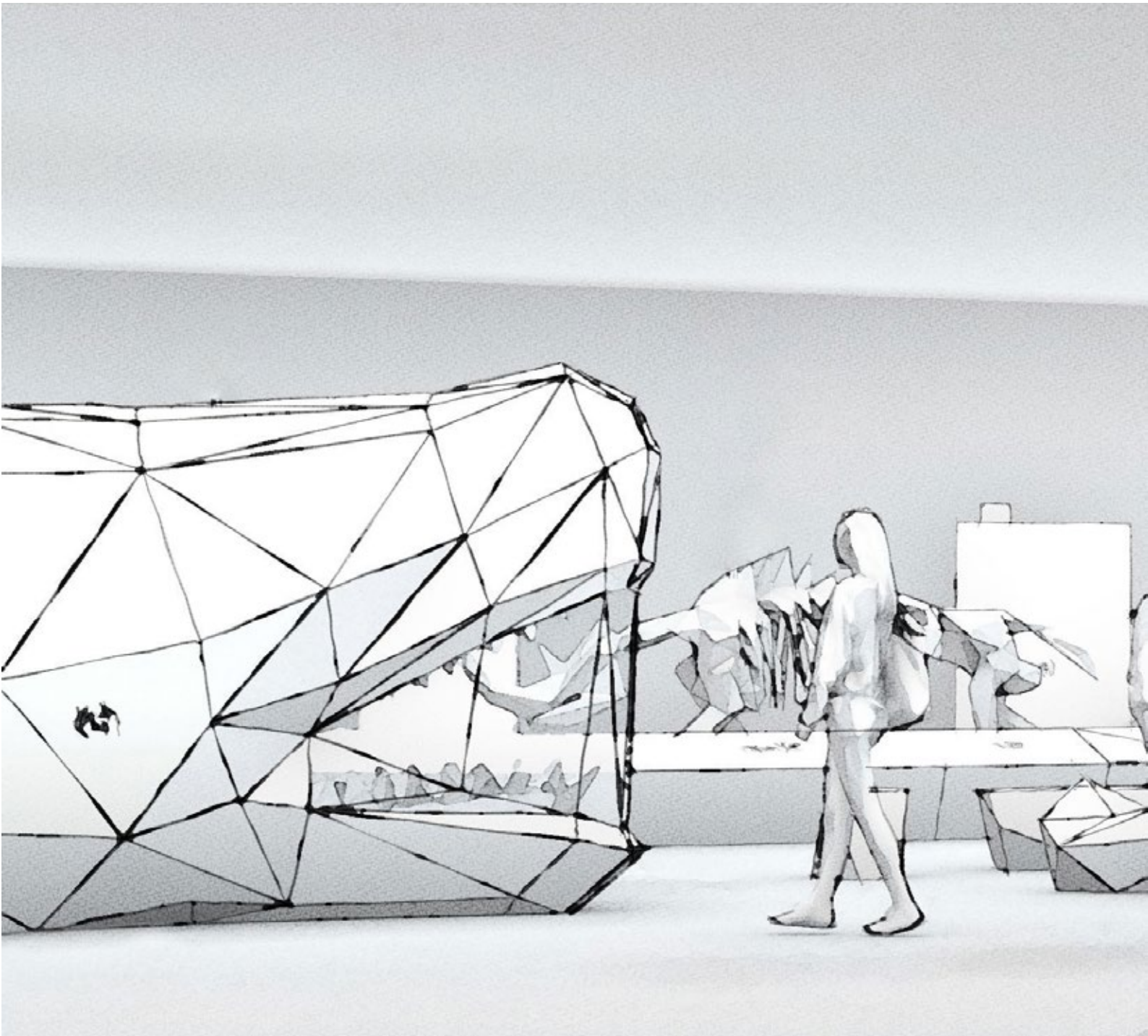
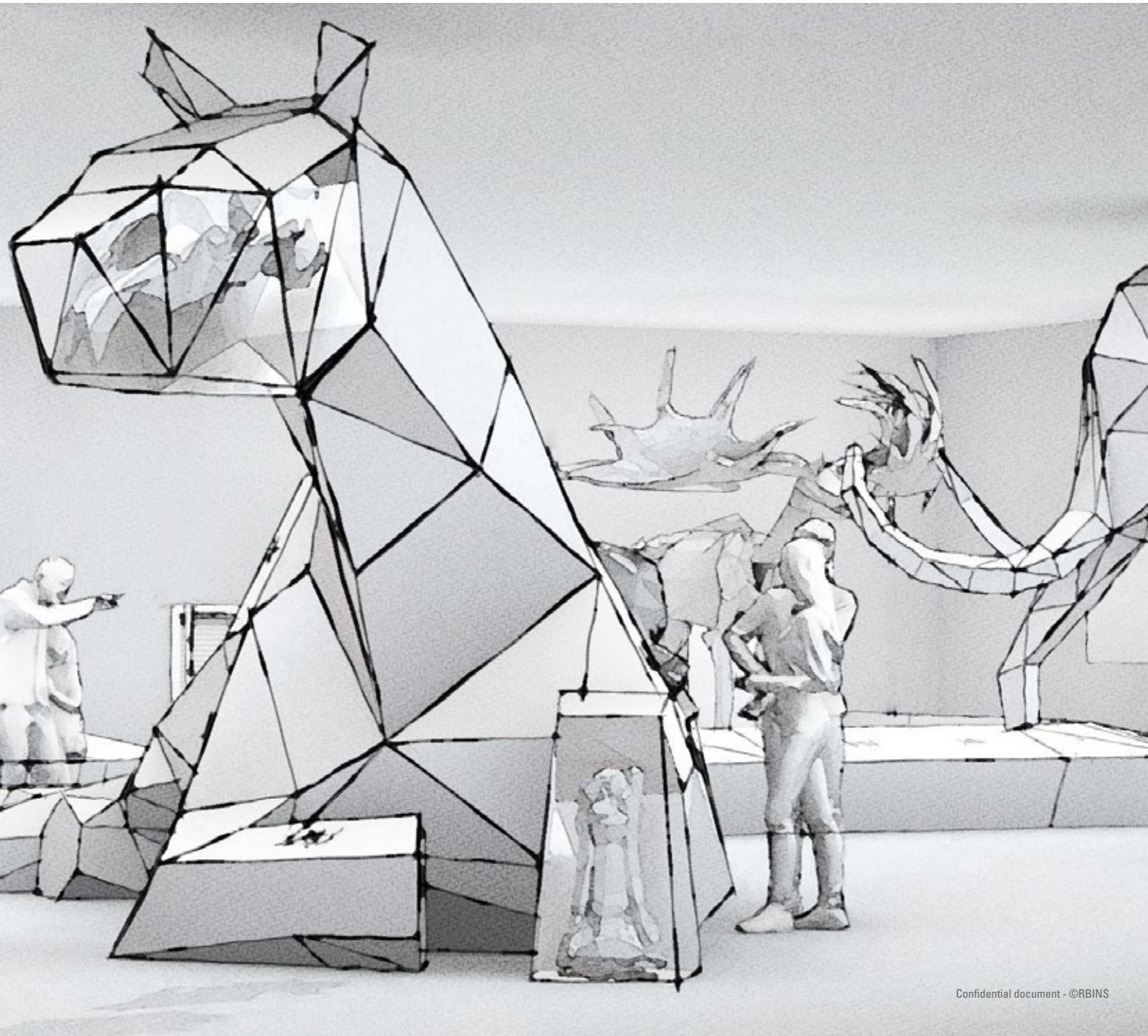


CONTENTS



Gigantopithecus blacki

THE PROJECT IN BRIEF

Did you think that dinosaurs were the only giants ever to have populated our planet? This exhibition invites you to discover a selection of giants that lived after the extinction of the dinosaurs.

WHO ARE WE?

In 2021, the Royal Belgian Institute of Natural Sciences celebrated its 175th anniversary; 175 years of service to the natural sciences that have garnered it international recognition from its peers and the public as

- a Research institute in multiple fields,
- a Conservation and Collection Management Centre
- and of course as a tool for the dissemination of scientific knowledge, through its Museum.

It is with this threefold remit and the multiple competences it covers that we decided to create this large-scale project from scratch by drawing on our collections, our scientific knowledge and our commitment to biodiversity.

THE EXHIBITION

Be amazed by fascinating creatures, larger than us, that once roamed and swam on Earth. Travel back in time and immerse yourself in the different worlds of these giants.
Discover the history of 11 selected extinct giants (habitat, biology, reason for extinction, etc.). Experience in a fun way what the tasks of a palaeontologist involve.
And discover the giants of today.

66 million years ago, a meteorite wiped out all large marine reptiles (plesiosaurs, mosasaurs), all flying reptiles (pterosaurs) and all dinosaurs, except for birds.
Their extinction was a boon for the first small mammals that gradually took over the vacant habitats. They diversified and some of them grew in size to reach gigantic proportions.
Nevertheless, many of these have also died out.
Today, giants still roam and swim on the earth, although their numbers are visibly decreasing.
This exhibition highlights the beauty of the diversity of these giants. But it also explains that beauty is fragile. It can no longer be taken for granted. Extinctions are a natural phenomenon, but today the rate at which they are occurring is much faster than in the past.

We need to learn from our mistakes and value the things that matter!

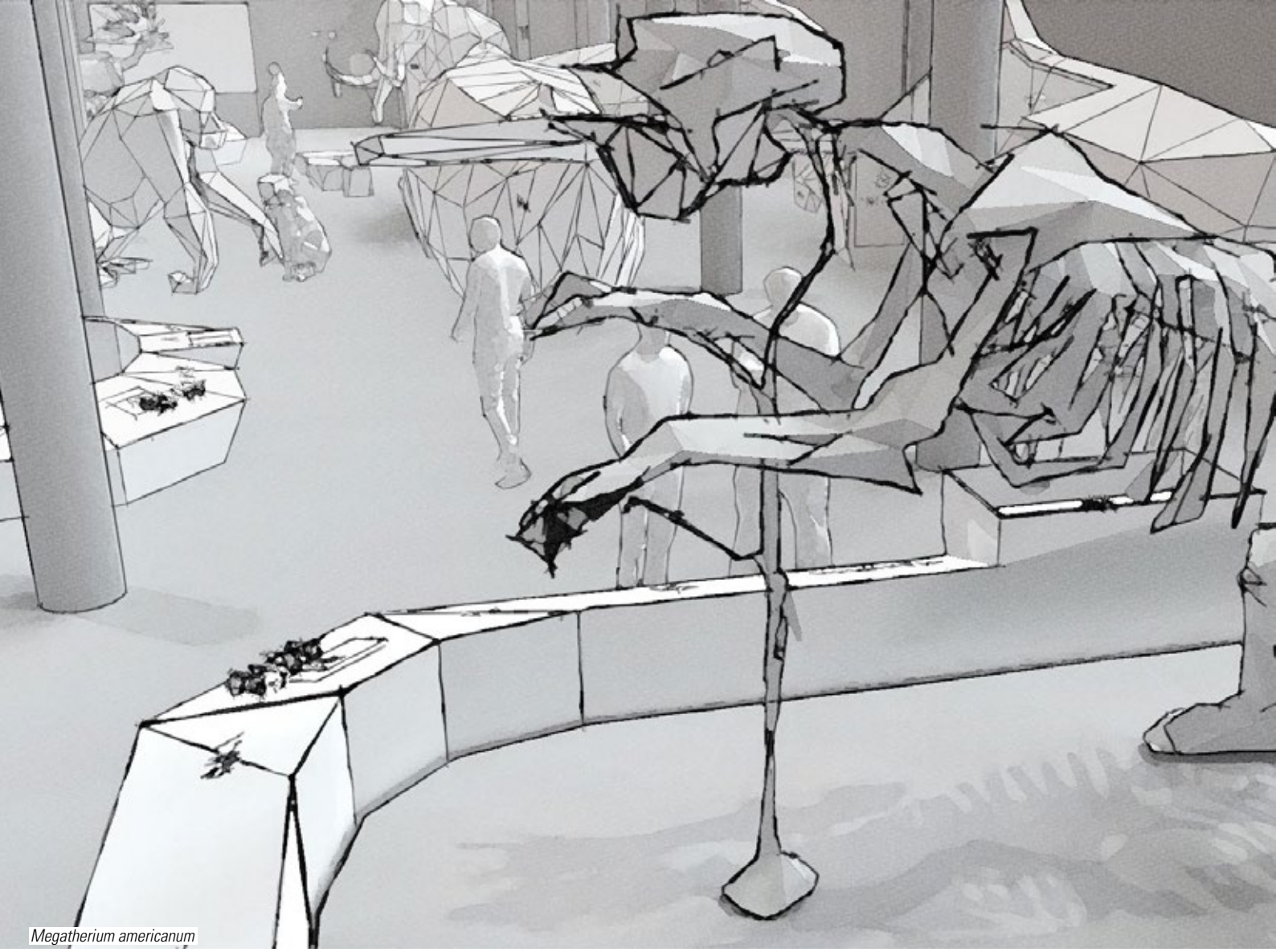
Target audience

This exhibition is intended for families with children aged 9 or older and for school groups.
For young visitors, walking among these giants and watching the videos will take them on an amazing journey of discovery.

Specifications of the exhibition

- A unique and new 750m² exhibition
- 11 giants that have died out, including 5 complete skeletons and 6 life-size 3D models
- 12 multimedia and audiovisual applications
- 2 multimedia interactives (games) and 7 hands-on interactives
- Bilingual and trilingual graphical design
- Required minimum height is 3,60m
- Required minimum dimensions for the passage of transport crates: L2,40m x W1,30m x H2,10m, with the exception of the LIVYA skull, which consists of 2 extra large transport crates: ± L3,10m x W1m x H1,88m (lower jaw) and ± L3,30m x W1,95m x H2,20m (upper jaw)

From October 2023 till August 2024 in the Museum of Natural Sciences in Brussels.
Available from October 2025!



Megatherium americanum

Smilodon populator

WHY? WHAT? HOW?

WHY?

Because it is an unknown chapter of natural history

Humans have always been fascinated by extremes. There are countless top 10 lists. When it comes to giant animals, dinosaurs would obviously be at the top of the list. However, most people don't know that after they died out, with the exception of birds, mammals took over the baton.

They lived everywhere, even in Europe. Because of their size, they had a major impact on the world and its ecosystems. Nevertheless, despite their size, these magnificent creatures became extinct. Some characteristics of giants make them more fragile, for example the need for large quantities of food, significant specialisation in terms of food, the low rate of reproduction, the relatively small size of the populations, etc. A few still remain today... but human beings - although fascinated by them - are a threat: climate change, habitat reduction, competition, disappearance of the main prey, hunting, etc.

With this exhibition, we show the beauty of the diversity of these giants. At the same time, we highlight the fact that this beauty is fragile. It can no longer be taken for granted. With an indirect and subtle approach, the exhibition aims to open the eyes of visitors to the fragility of the world. Extinctions are a natural phenomenon, but today the rate at which they are occurring is much faster than in the past.
We need to learn from our mistakes and value the things that matter!

WHAT?

A journey through time and space...

Among the many giants that lived in the Cenozoic, the period following the meteorite impact 66 million years ago, we have made a selection of 11 of them. Visitors will come face to face with the largest land mammal ever to have lived on Earth, with the largest shark ever to have swum the oceans. They will get the chance to meet the giant ground sloth and the gigantic Asian ape, larger than 2 orangutans. Megafauna roamed the grasslands in Europe too. The woolly mammoth and the cave lion are some of the actors who will take the stage.

HOW?

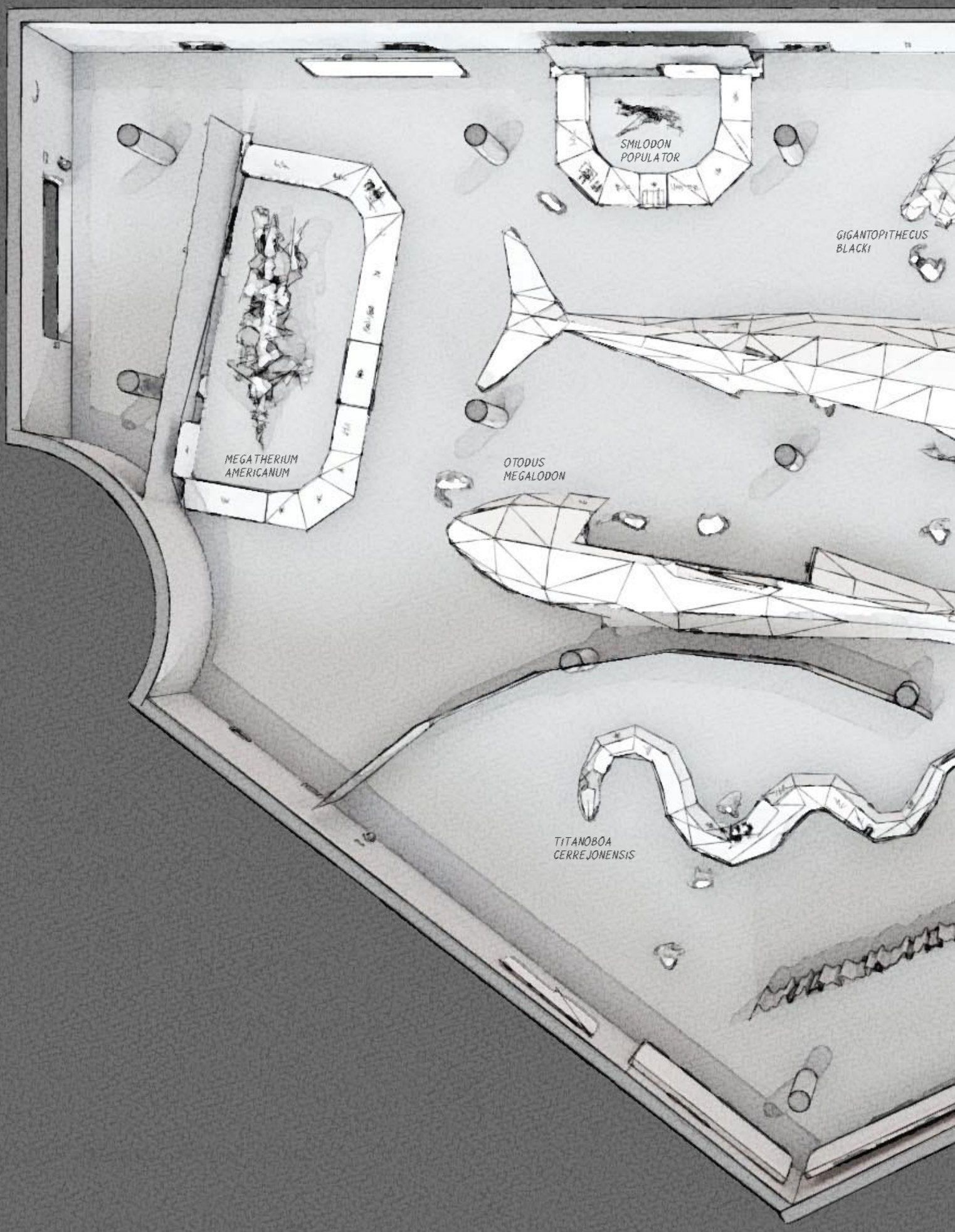
Thanks to unique collections and life-size 3D models!

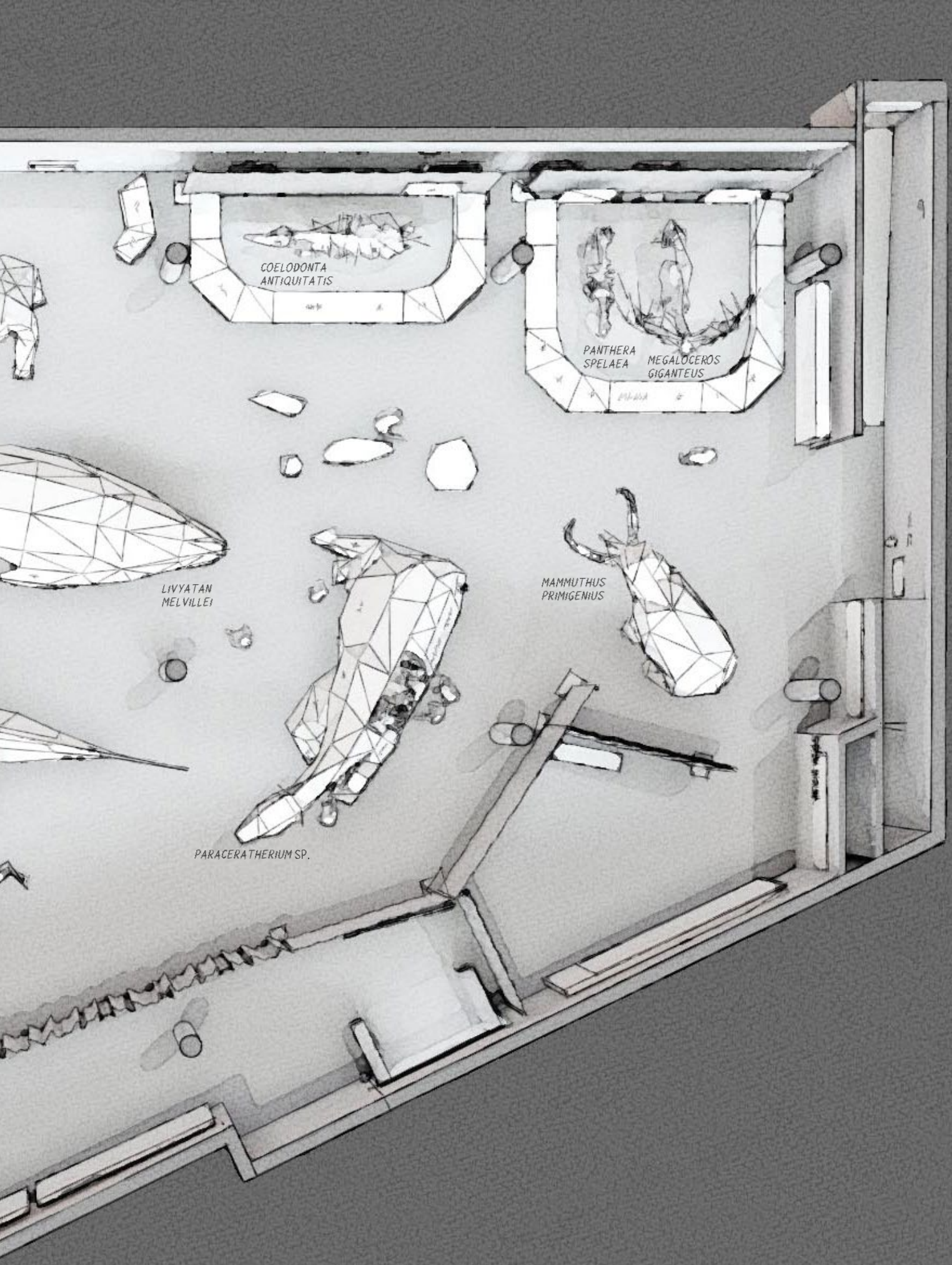
11 giants: 5 of which are represented by (almost) complete skeletons and 6, of which complete skeletons lack, by three-dimensional life-size representations. These 3D polygonal models will feature collection. As we do not know exactly how those animals looked like, we opted for an abstract translation of the scientifically validated volume.

Each giant will be accompanied by explanatory texts and graphics, which will provide the answer to the following questions:

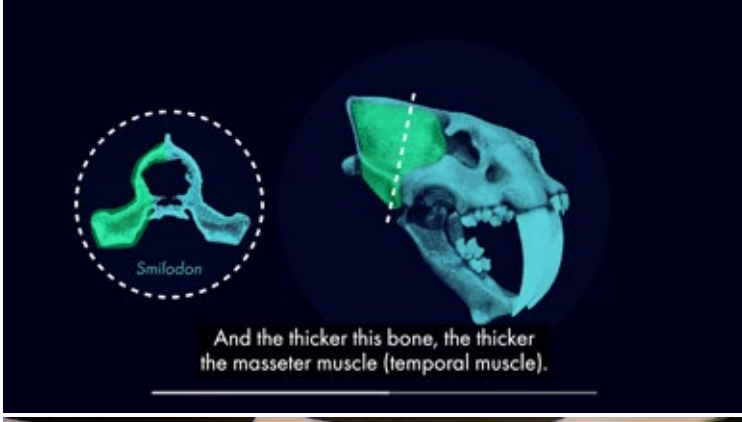
- Who is it? What makes it unique?
- How do we know how big it was?
- What factors contributed to the gigantism of a specific species? What were the advantages or disadvantages of becoming so big?
- Why did it die out?

Besides, multimedia applications will show the giants in their natural environment and audiovisual applications will tell stories related to the research on the giant, including images of the paleontologist/biologist at work.
Finally, interactives, both multimedia and hands-on, will put the visitor in the shoes of the palaeontologist/scientist. They will be able to conduct their own research or analyse the results of a specific study. All of them are related to research done by paleontologists/biologists on the giant concerned.


SMILODON
POPULATOR
GIGANTOPITHECUS
BLACKI
MEGATHERIUM
AMERICANUM
OTODUS
MEGALODON
TITANOBOA
CERREJONENSIS



Titanoboa cerrejonensis © FRENCH CONNECTION FILMS



Smilodon populator © BBC

Paraceratherium sp. © FRENCH CONNECTION FILMS

A JOURNEY THROUGH THE EXHIBITION

The exhibition consists of a main zone with an introduction and a conclusion. The main zone features 11 extinct giants.

INTRO

The disappearance of the giants

66 million years ago, almost all life on Earth came to a sudden and apocalyptic end when a meteorite crashed into Earth. This fifth mass extinction killed all large marine reptiles (plesiosaurs, mosasaurs), all flying reptiles (pterosaurs), and all dinosaurs except birds. Their extinction was a boon for the early small(er) mammals, which had always lived in the shadow of the reptiles.

Museological means:
- Multimedia and audiovisual installation
- Text and graphics

GIANTS

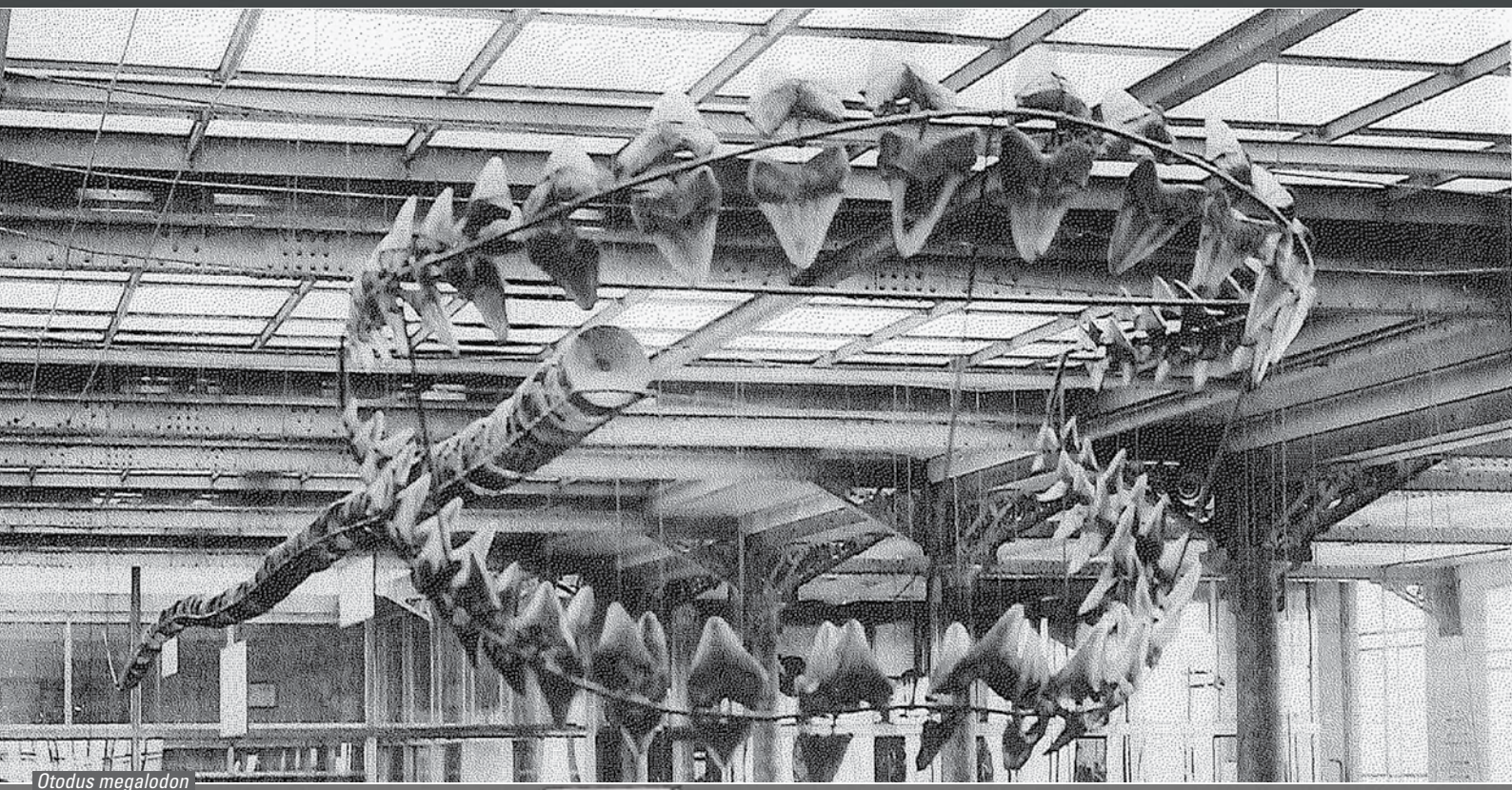
Room for new giants

After the meteorite impact, nature recovered quickly. Ecological niches, freed-up by the mass extinction on land, in the air, and in the water, were occupied by mammals that grew in size and diversified. But other vertebrates, such as birds, non-dinosaur reptiles and sharks also seized their chance.

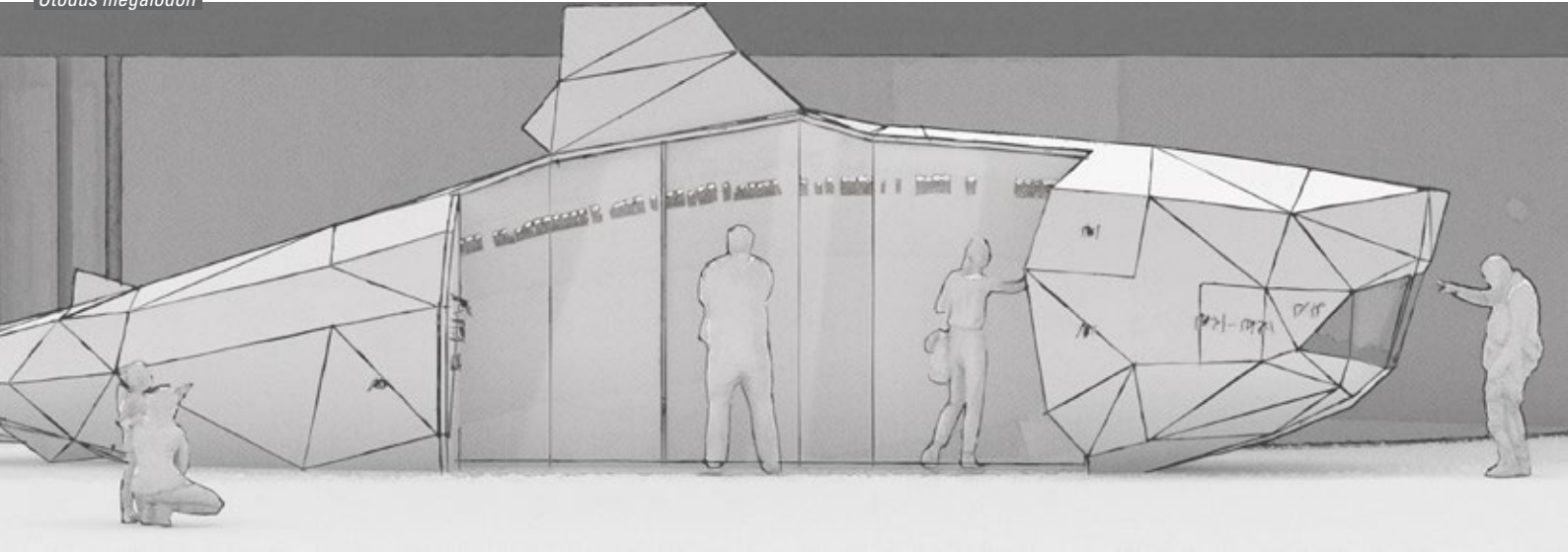
Take a journey through time, from 66 million years ago to the Ice Age, some 30,000 years ago, and come face to face with 11 of these giants. All are now extinct but through the work of paleontologists we know that all of these fascinating, giant land and sea animals once roamed our planet.

Museological means:
- Text and graphics

Paraceratherium sp.



Otodus megalodon



Titanoboa cerrejonensis

This is the largest snake ever. It lived in the rainforest of what we now know as Colombia. *Titanoboa* was a great predator. It ate whatever animals it could find: fish, crocodiles, turtles. Like the anaconda and the boa constrictor, *Titanoboa* suffocated its prey by wrapping its body around it. Then, it swallowed the prey in one bite.

Museological means:
- 1 life-size 3D model
- Collection: vertebrae and ribs
- 1 multimedia: mapping
- 1 audiovisual
- 1 hands-on interactive
- Texts and graphics

Paraceratherium sp.

Paraceratherium was the largest land mammal we know of so far. This giant is also called *Indricotherium* or *Baluchitherium*. For over 10 million years, it roamed Asia and Eastern Europe. It was a rhino without a horn. With its long neck, it could reach leaves that other herbivores could not. Just like the giraffe today.

Museological means:
- 1 life-size 3D model
- Collection: skull and foot
- 1 multimedia: mapping
- 1 audiovisual
- 1 hands-on interactive
- Texts and graphics

Otodus megalodon

Megalodon was the largest predatory shark that ever lived. For over 12 million years, it ruled the oceans. Its teeth were triangular, serrated and the size of a human hand. *Megalodon* hunted whales and dolphins. It probably went about it the way the white shark does today: it approached its prey from below, and then shot upward, its mouth wide open.

Museological means:
- 1 life-size 3D model
- Collection: spine and teeth
- 1 audiovisual
- 1 multimedia: projection (included in the multimedia of *Livyatan melvillei*)
- 2 hands-on interactives
- Texts and graphics

Livyatan melvillei

Livyatan had enormous teeth and jaws, like the killer whale. Still it was no orca, but an ancient cousin of the sperm whale. For over 5 million years, *Livyatan* swam the same waters as the giant shark *Megalodon*. It most likely hunted whales, dolphins and fish.

Museological means:
- 1 life-size 3D model
- Collection: skull, jaw and separate teeth
- 1 multimedia: projection (including also *Otodus megalodon*)
- 1 multimedia interactive: game
- Texts and graphics

Megatherium americanum

About 25 million years ago, giant sloths arose in South America and lived on the ground. When a land bridge between the two American continents was formed, they also colonized North America and Alaska. One of the largest giant sloth species was this *Megatherium americanum*. It had a blunt snout, powerful muscles and large claws. It fed mainly on leaves, branches and tubers and lived on forested grasslands.

Museological means:
- Collection: complete skeleton
- 1 multimedia: projection (including also *Smilodon populator*)
- 1 audiovisual
- 1 hands-on interactive
- Texts and graphics

Smilodon populator

Saber-toothed cats lived everywhere, except in Australia and the polar regions. The most famous and largest of them was *Smilodon populator*, in South America. Its fangs measured up to 28 centimeters in length. No wonder it was a top predator. It hunted in open grasslands. Its favorite foods were horses, ground sloths, camels, bison and large, flightless birds.

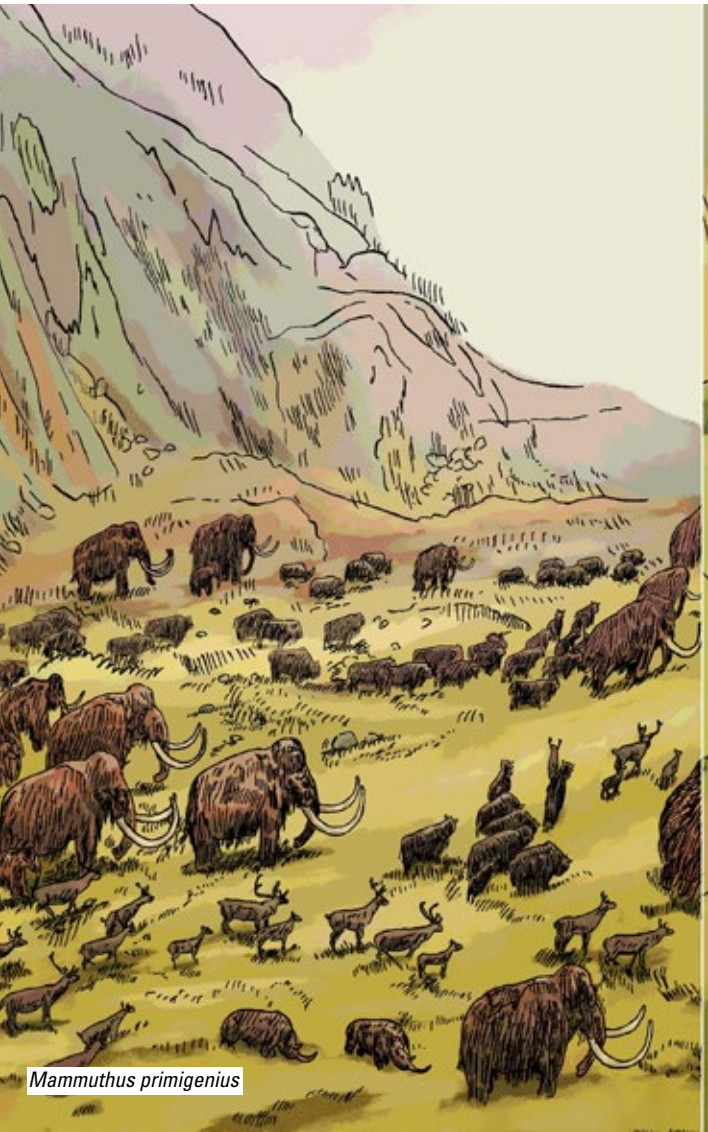
Museological means:
- Collection: complete skeleton
- 1 multimedia: projection (including also *Megatherium americanum*)
- 1 audiovisual
- 1 hands-on interactive
- Texts and graphics

Gigantopithecus blacki

Gigantopithecus, was the largest ape that ever lived. Two million years ago, it lived in the subtropical forests of what is now southern China. Most of the year it fed on rough leaves, bark, roots and shoots. In some seasons, it could eat fruit, which came as a welcome change.

Museological means:
- 1 life-size 3D model
- Collection: lower jaw
- 1 audiovisual
- 1 hands-on interactive
- Texts and graphics

Coelodonta antiquitatis



Mammuthus primigenius

Mammuthus primigenius

Mammuthus primigenius lived on the mammoth steppe. That was a vast grassland, running from Western Europe to the tip of North America, across Northeast Asia. For large herbivores, it was the perfect environment. Woolly mammoths shared the steppe with other animals, like woolly rhinos, cave hyenas, wild horses, reindeer, cave bears and cave lions.

Museological means:
- 1 life-size 3D model
- Collection: molar, humerus, radius, ulna, hand, femur, tibia, foot
- 1 multimedia: projection (including the four Ice Age animals)
- 1 audiovisual
- 1 multimedia interactive: game (including the four Ice Age animals)
- Texts and graphics

Coelodonta antiquitatis

Coelodonta antiquitatis was not much bigger than rhinos today. The large, flattened horn on its head could grow more than 1 meter long! Males used it to defend themselves and to impress females. It also came in handy to clear snow in winter, in search of grass. In summer, the woolly rhino also ate sedge and herbs, like plantain and mugwort.

Museological means:
- Collection: complete skeleton
- 1 multimedia: projection (including the four Ice Age animals)
- 1 multimedia interactive: game (including the four Ice Age animals)
- Texts and graphics

Panthera spelaea

Panthera spelaea is considered one of the largest felines. It is related to the lion. Still, we know from genetic research that the cave lion is another species. The males, for example, had no mane. But they probably were more or less the same color. Cave lions lived on the mammoth steppe and hunted cave bears and reindeer.

Museological means:
- Collection: complete skeleton
- 1 multimedia: projection (including the four Ice Age animals)
- 1 multimedia interactive: game (including the four Ice Age animals)
- Texts and graphics

Megaloceros giganteus

We know *Megaloceros giganteus* mainly for its immense antlers. They grew to be about 3 meters wide and weighed a whopping 50 kilograms. It is no wonder that the giant deer is one of the largest deer ever. It had different habitats: vast mammoth steppe to open grass steppe with scattered trees and shrubs. It ate herbs, grasses, leaves, twigs and branches.

Museological means:
- Collection: complete skeleton
- 1 multimedia: projection (including the four Ice Age animals)
- 1 multimedia interactive: game (including the four Ice Age animals)
- Texts and graphics

END

The end of the "new" giants?

The 11 extinct giants you have just marvelled at are only a fraction of what once roamed and swam on our earth after the extinction of the non-flying dinosaurs and other giant reptiles, such as plesiosaurs, mosasaurs and pterosaurs. And who knows what other animals paleontologists will dig up!

But still today, giant animals live on land and in the sea, although their numbers are visibly shrinking. In itself, the extinction of species is a natural phenomenon. Only these days, it is happening at an unprecedented speed. And that is primarily the fault of humans. Fortunately, it is not too late to slow down this phenomenon!

How long will we be able to admire them in the wild?

Museological means:
- Multimedia and audiovisual installation
- Text and graphics

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Paraceratherium sp.

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