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technologies

Jurassic Ocean

An interactive center for the study of prehistoric underwater giants

Legend

Visitors become scientists/researchers in a newly opened center at an experimental laboratory.

The center studies ancient underwater reptiles.

It also conducts experiments at the most extreme depths of the ocean.

The center's primary mission is to give visitors the opportunity to feel like a real researcher of the ancient underwater world. They can learn about evolution, when fossils were found in recent years, try to create their own giant and, most importantly, study all the different species of underwater reptiles in one place.

The center is growing quickly and new divisions are being created all the time. Work at the laboratory is racing ahead, with research and experiments constantly underway. There are farms and greenhouses at the station for growing ancient flora and fauna, reptile nurseries, a scientific adaptation building, experimental center at extreme depth, an oceanology department with laboratories and more.

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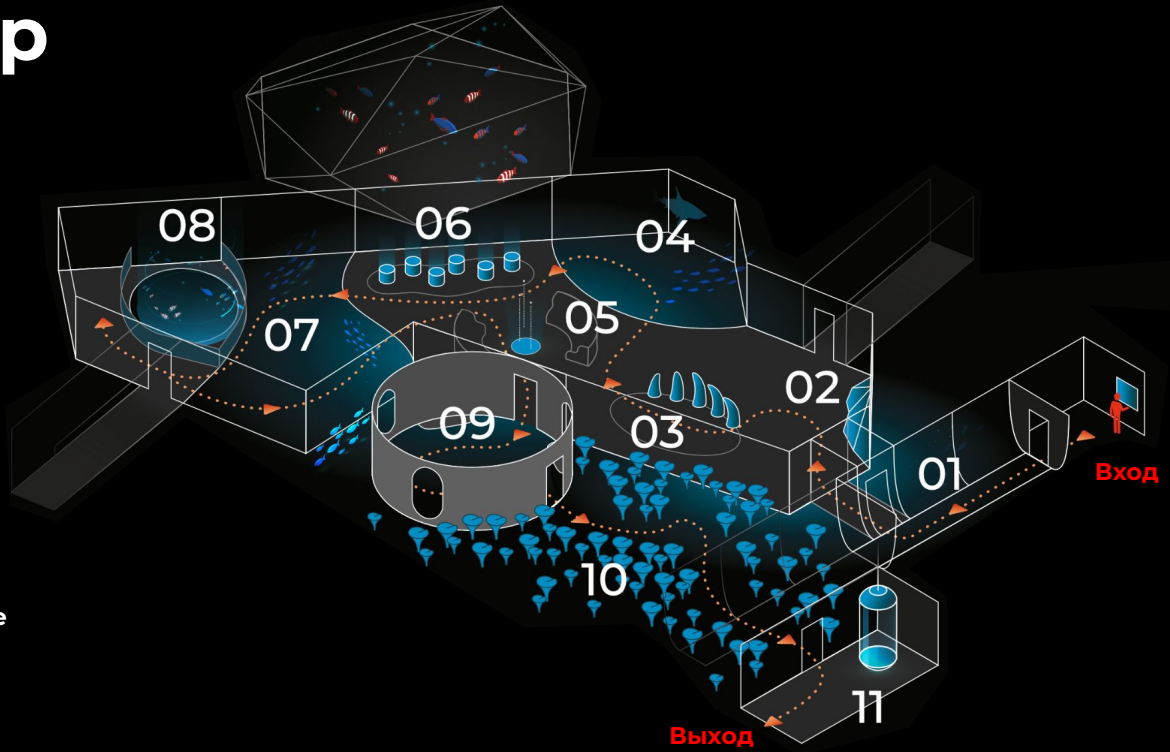
Park map

01	Tunnel
02	Evolution
03	Paleontology
04	Balcony
05	Lagoon
06	Laboratory
07	Lounge
08	Pool
09	Submersible
10	Greenhouse
11	Immersion capsule

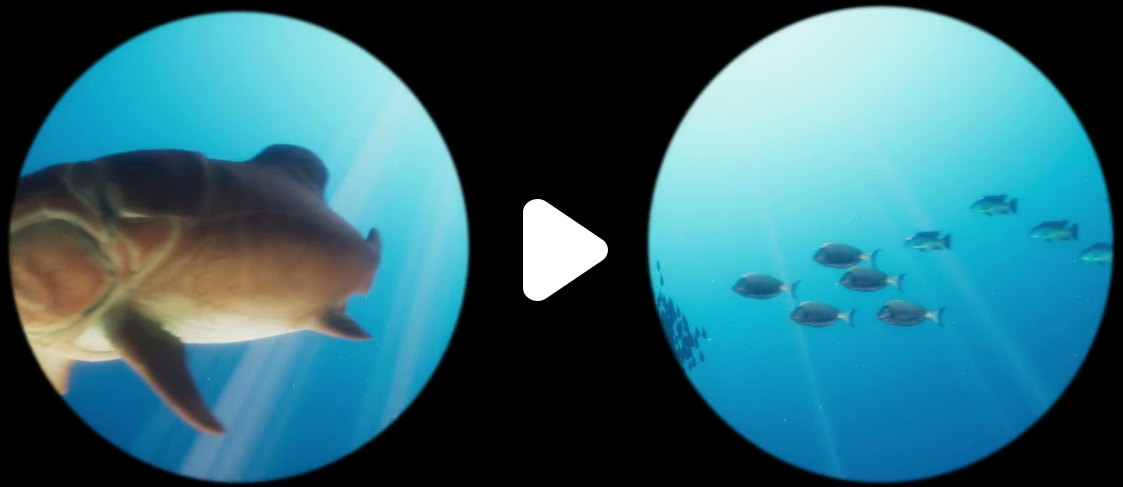


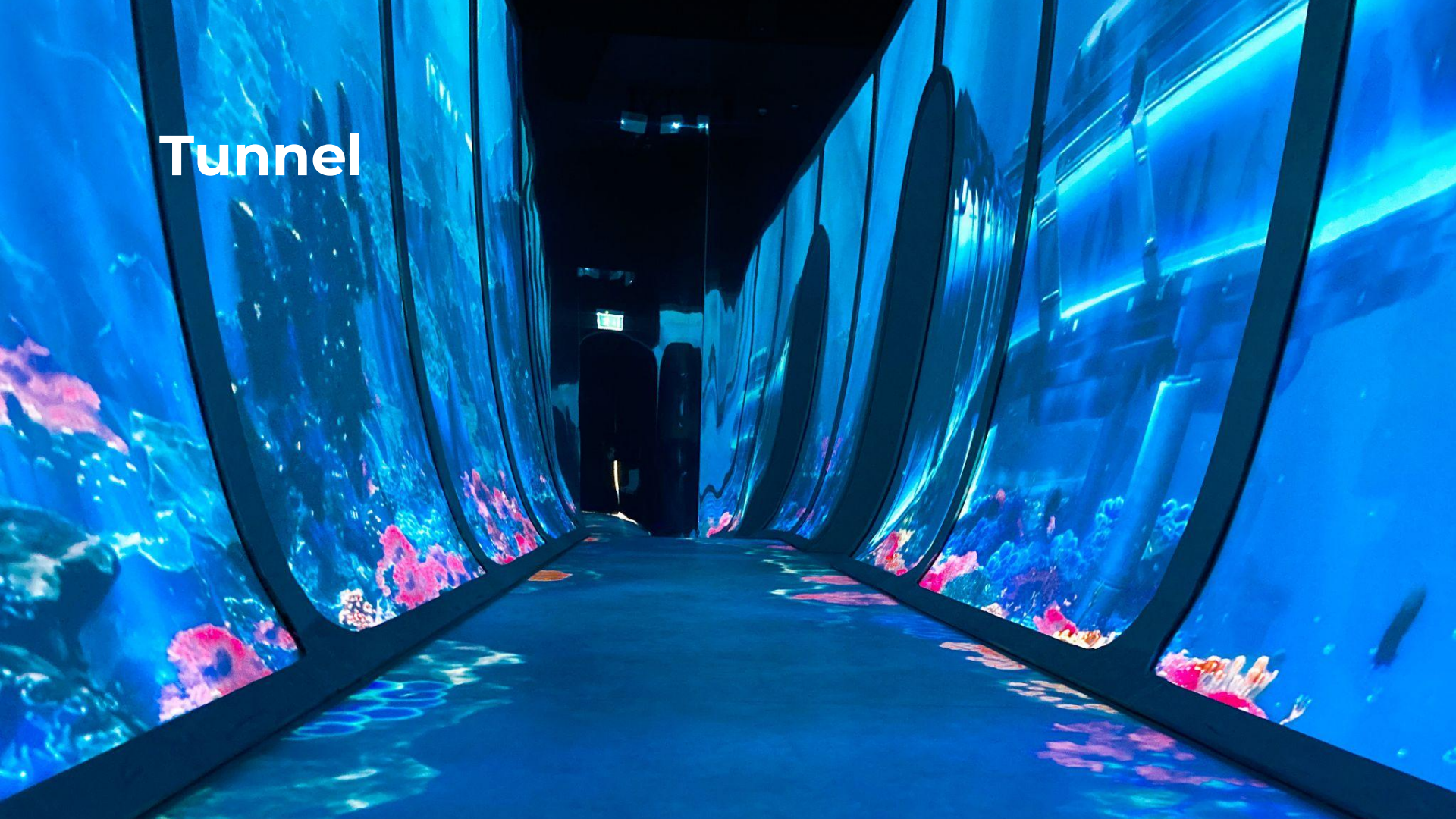
Portholes

ОКЕАН ЮРСКОГО ПЕРИОДА
ИНТЕРАКТИВНАЯ МУЛЬТИМЕДИЙНАЯ ВЫСТАВКА
НАУЧНО-ЭКСПЕРИМЕНТАЛЬНЫЙ ЦЕНТР
«ОКЕАН ЮРСКОГО ПЕРИОДА»
ПУТЕШЕСТВИЕ В ЭПОХУ ДИНОЗАВРОВ

Portholes

On the walls near the entrance, guests can see two “porthole” screens where they can look and learn more about what’s happening in the park. From time to time, ancient underwater predators swim up to the porthole from inside and look quizzically at visitors, seemingly inviting them into the exhibit..




Tunnel

Tunnel

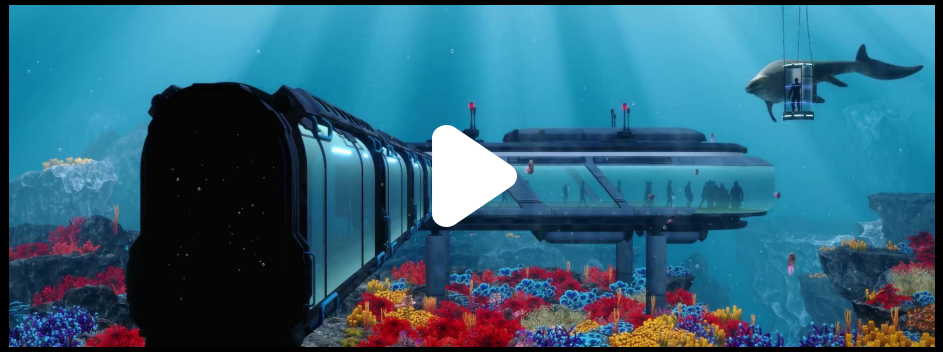
The tunnel is a transit zone from the ticket desk to the entrance leading to the main multimedia exhibit space. The walls of the tunnel feature a projection of scenes from the life of the underwater “residents” while a projected interactive floor reacts to visitors’ footsteps, changing images based on their position.

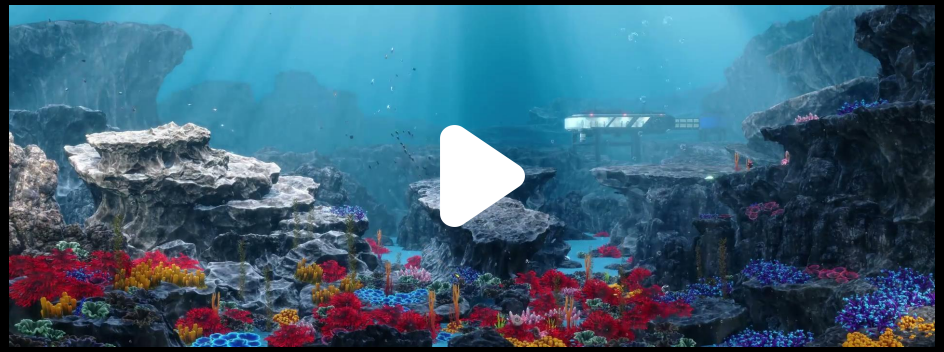
Short audio messages inviting visitors to study the laboratory are played in the tunnel.

NICA, or the Neural Intellectual Communication Assistant—the station’s AI—speaks to visitors. She tells them about the different zones of the park and invites them to walk around the laboratory, look at the never-before-seen sea creatures and come face-to-face with the giants of the deep.

Content:
Coral reef and carcass of the station in the distance. Park residents swim all around: a mosasaurus, megalodons, a family of elasmosaurids and tiny fish on the floor. We can also see a submersible departing the station and a capsule coming down from the surface into a mosasaur ambush.

Tunnel





Evolution

Evolution

An interactive story about how species replaced each other

In this zone, visitors can follow the chronology of species change over the course of evolution. NICA will tell them what happened on the planet and how evolution progressed.

Visitors will not only follow the course of events, but take part in them as well, interacting with suspended asteroids and jumping on markings on the floor.

The interactive elements will provoke evolutionary changes: if they hit an asteroid, meteors will fall to Earth, and a jump in the right place will cause volcanoes to erupt en masse.

The installation is a projection of a mountain on the scenery, divided into two parts:

- → **land** (mountains and volcano)
- → **underwater** (showing the residents and their evolution).

The chronology of events is split into 3 eras. After the installation is activated, time turns back to the distant past. At the first stage, the most ancient prehistoric animals appear. After the eruption of the volcano and meteorite impact caused by visitors and the change in era, the animals disappear and others appear in their place. At the final stage, the ocean reaches its contemporary state, and we see today's underwater denizens.

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Evolution

Interactive space

Paleontology

Paleontology

We recreated 12 denizens of the ancient ocean from their fossils

This zone is separated from the space of the park by the ribs of a mosasaurus. Past them, there is an interactive floor map of the Earth.

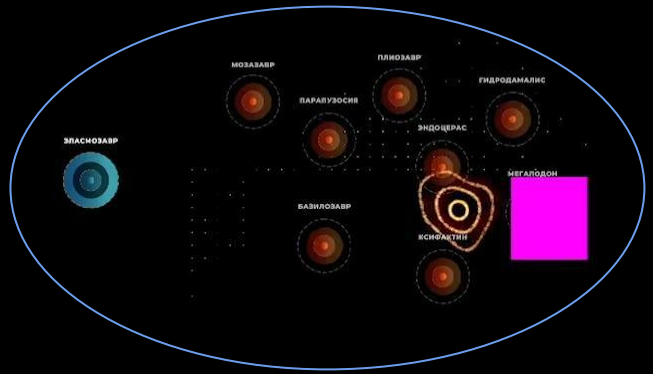
In order to activate it, visitors have to stand on one of the indicated spaces on the map. On the glass of the station, a prehistoric animal whose bones were discovered in this part of the earth appears as a hologram, along with information about it. Then the animal swims into the park.

Thanks to this scientific component, visitors can learn about the spread of various living creatures on the planet during different periods of history and the discoveries of our time.

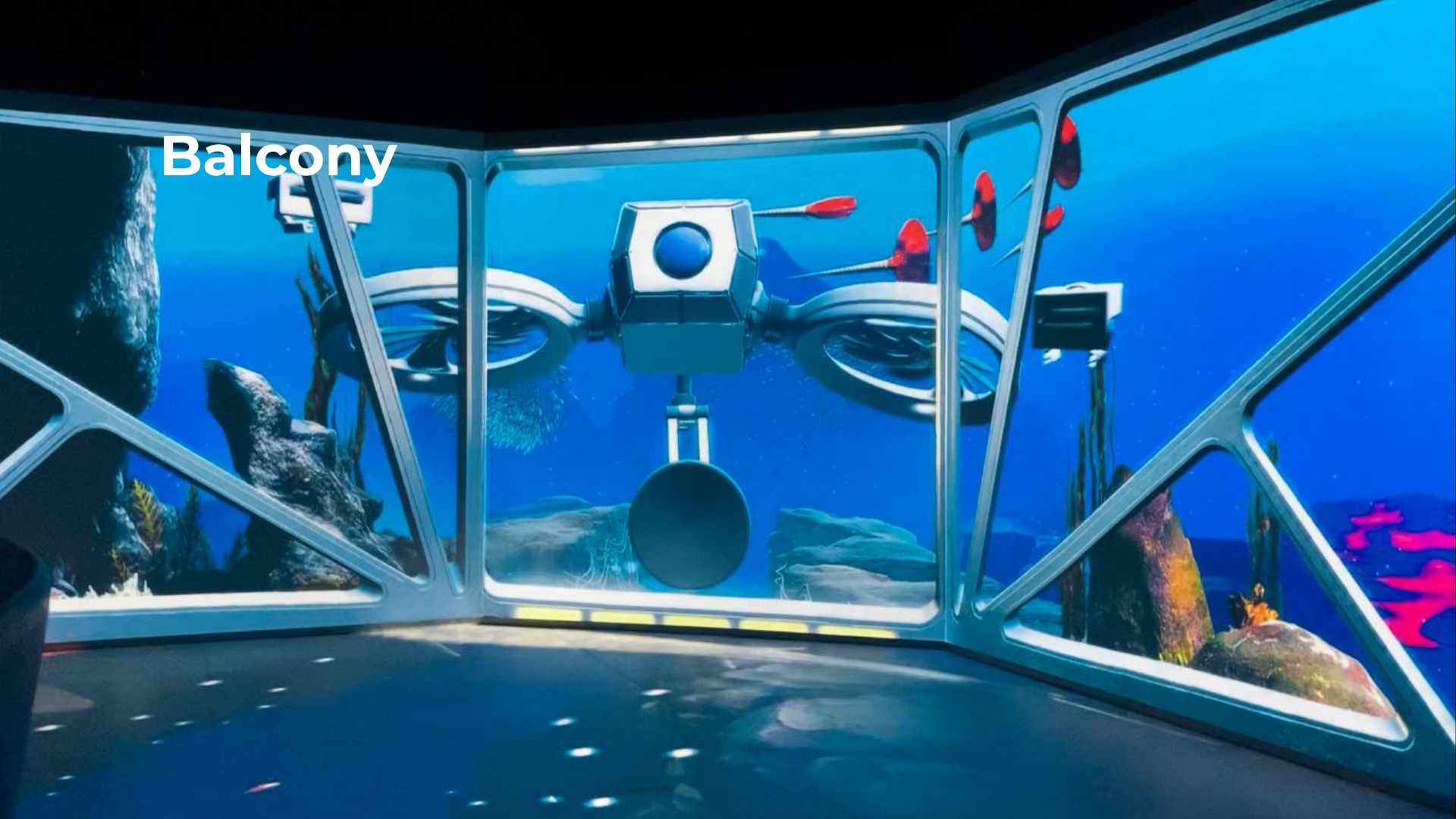
After standing at a point on the map, visitors see the character swim towards them on the wall. The virtual assistant identifies it, and an info card on the character with interesting facts appears as a hologram.

Paleontology

Installation content mockup



Map of discoveries on the floor


Balcony

Balcony - the Show

Observing the denizens of the deep during the day and at night

A zone with projections on the floor and walls. Guests arrive on a “transparent” balcony and see the ocean and its inhabitants in front of and underneath themselves.

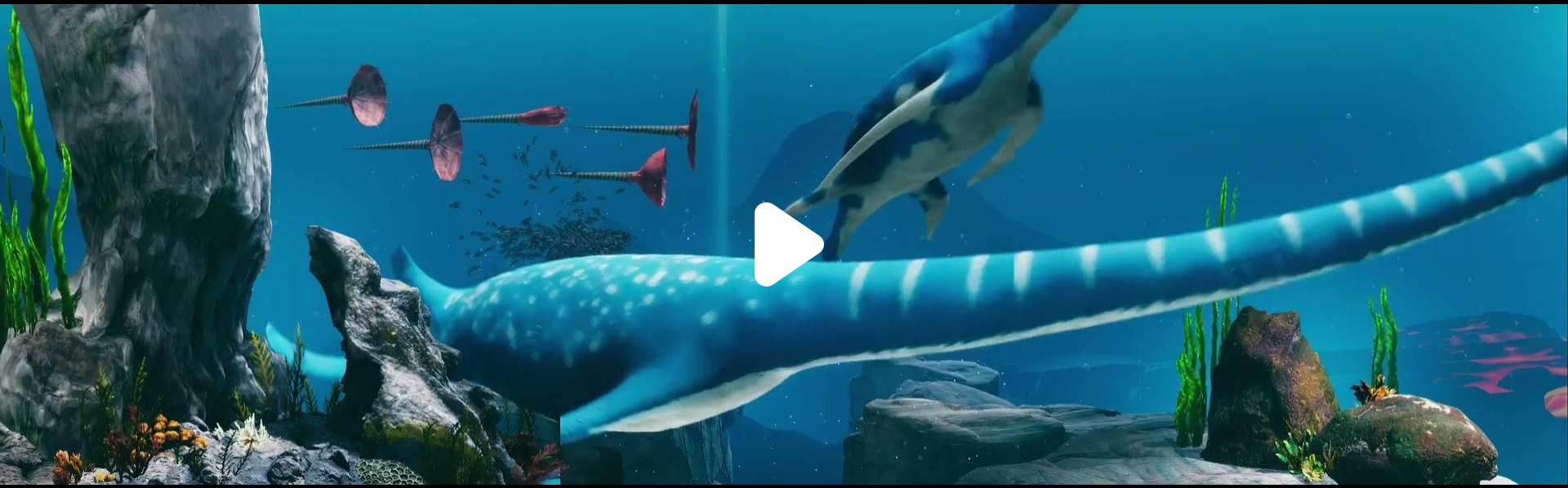
The floor is interactive, and a school of tiny fish swim up to visitors’ feet.

On the balcony, you can observe the lives of ancient reptiles, such as a school of megalograpti or two pliosauri chasing each other.

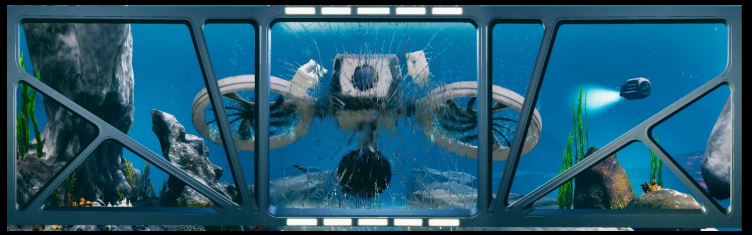
But the most exciting show begins when a family of elasmosauri swim up to the balcony. The tiny baby grabs at fish, not thinking for a moment that a mosasaurus has already begun its hunt and is getting closer and closer, coming out of the deep.

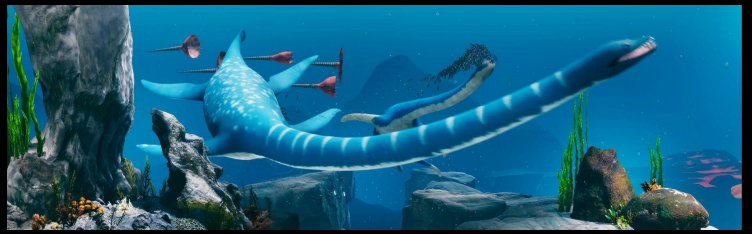
At the moment of attack, the baby and his mother miraculously manage to escape and hide. But here, the mosasaurus himself becomes prey. From below, an enormous megalodon suddenly pounces and a real fight ensues! In an attempt to grab the mosasaurus, the megalodon slams into the station window, which cracks and begins to let water in. Visitors are saved by the submersible, which arrives right in time and distracts the megalodon from the broken glass and lures it away. The glass is repaired by drones and the ocean calms down once again.

Balcony



Balcony





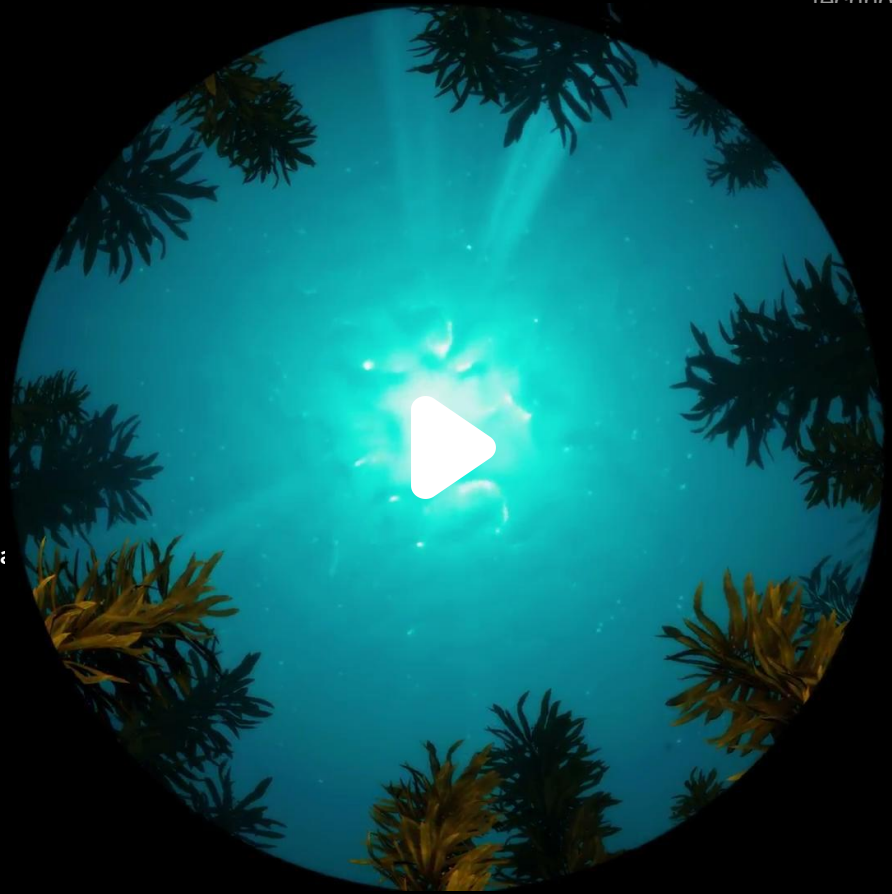
Lagoon

Lagoon

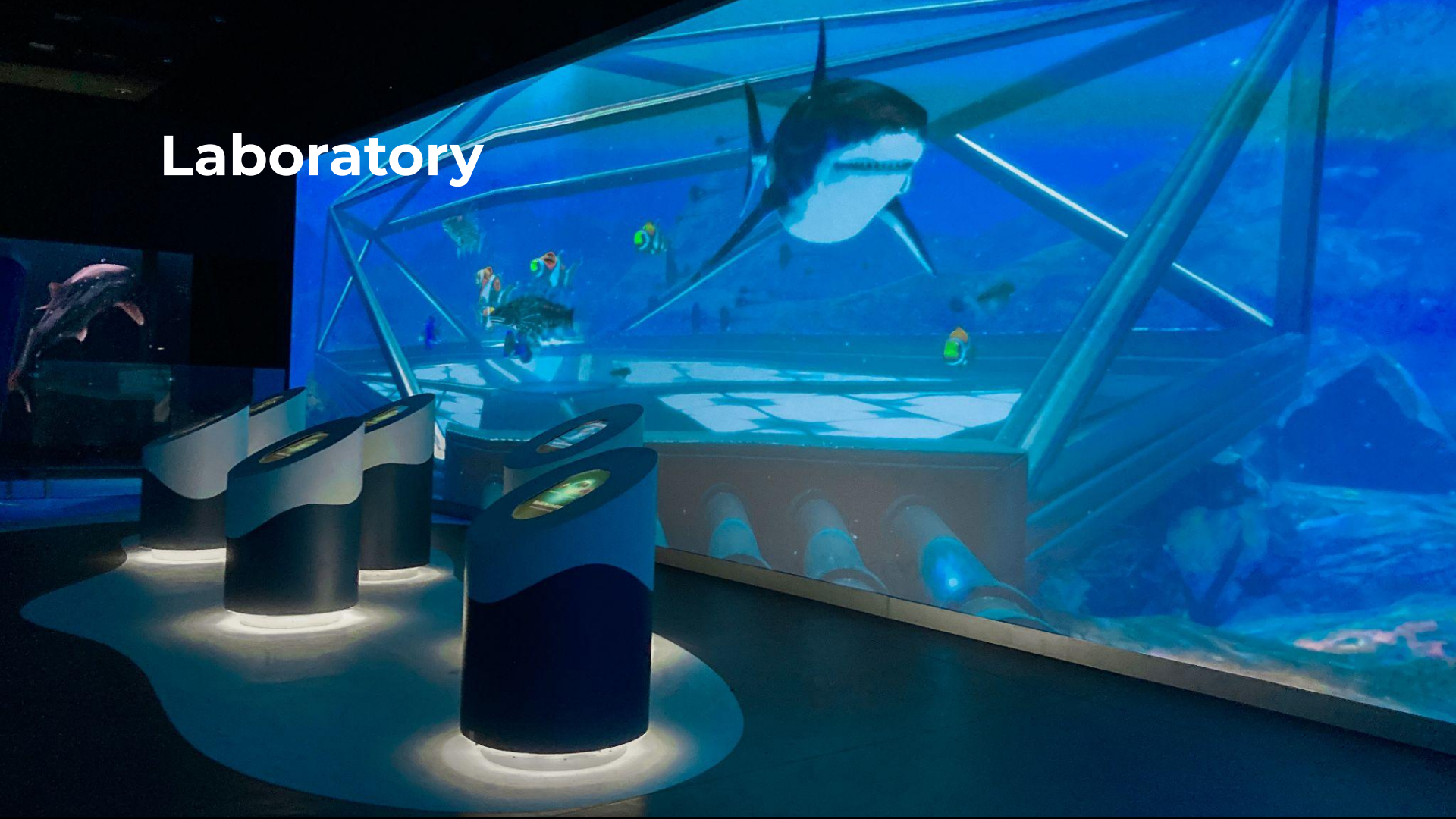
In an enormous upward-facing porthole, guests can see several stories at once.

2 elasmosauri swim over the station, circling over the audience; a group of xiphactini runs into a school of fish; and an enormous family of parapuzosiae swims by, blocking the sunlight.

NICA tells the audience who is swimming by and shares a interesting fact about them.



Laboratory



Laboratory

Creating underwater giants out of regular aquarium fish

An area with laboratory tables in front of a projection wall. The content on the tables lets audiences conduct experiments on marine predators or various jellyfish, depending on their choice.

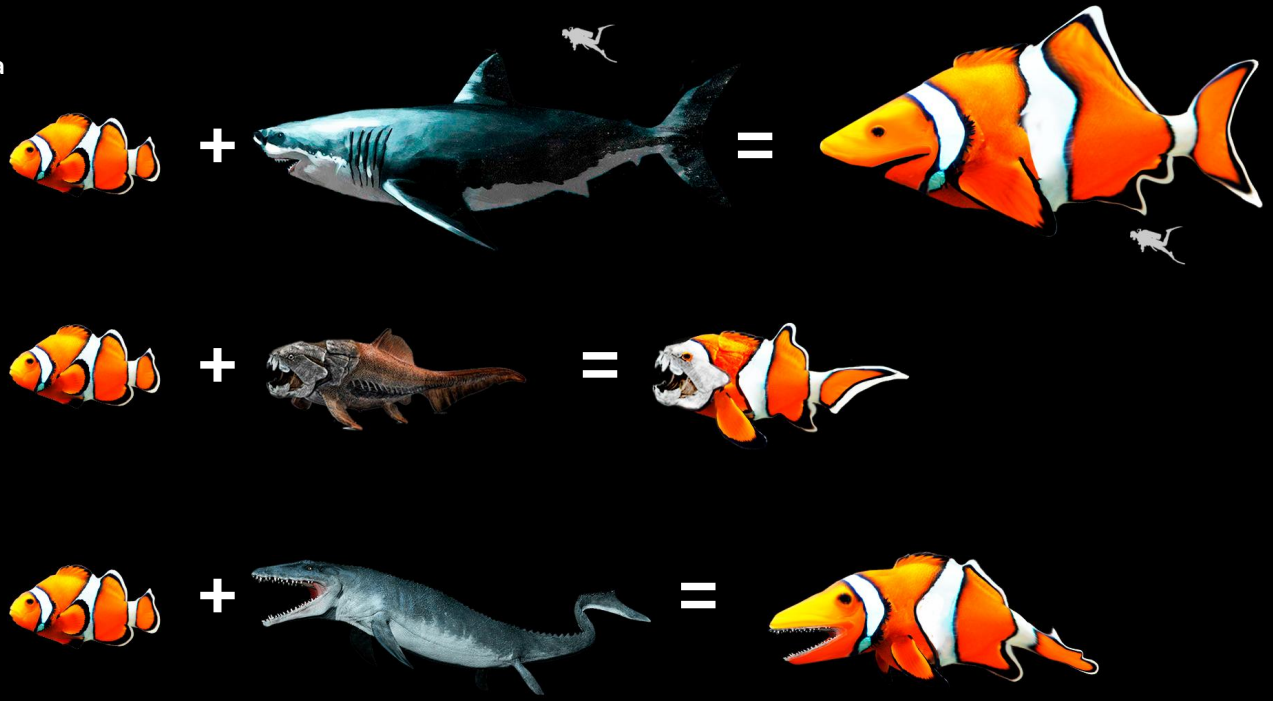
The designer on the screen lets them create ancient reptiles by combining genes from existing animals in the modern world.

Visitors choose one of five fish, then adds megalodon, dunkleosteus or mosasaurus genes to it. The fish changes based on the new DNA, then guests "send" it to the projection.

An adult hybrid of fish and reptile appears in a fenced-off aquarium, floats there with other hybrids for a while and then sails into the deep.

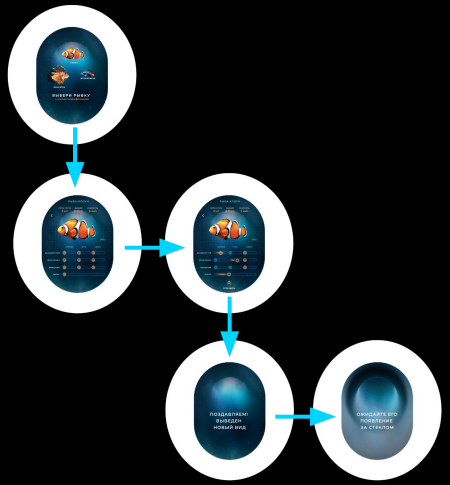
Laboratory

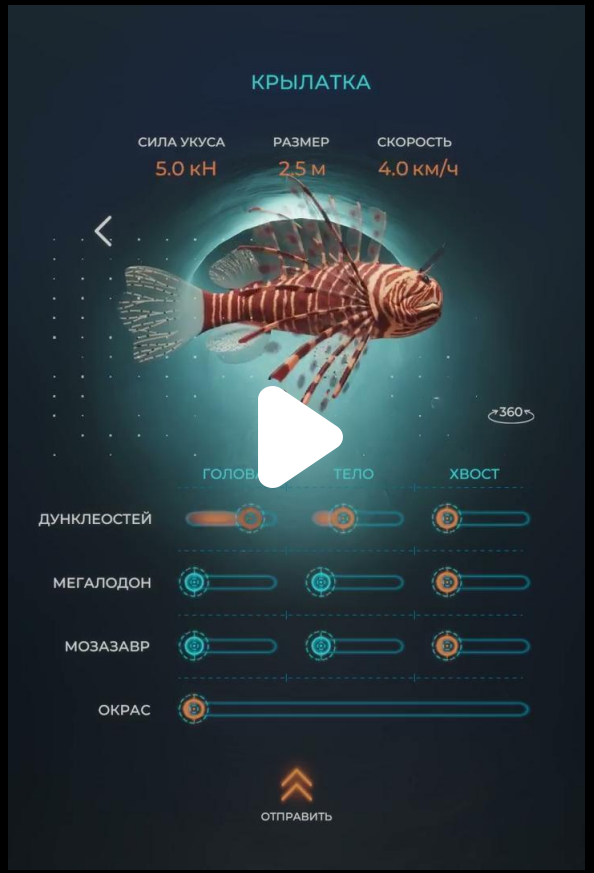
Mechanic, based on a clownfish



Laboratory

Touch interface and prototype





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Laboratory

Lounge zone

Lounge zone

Fish feeding area

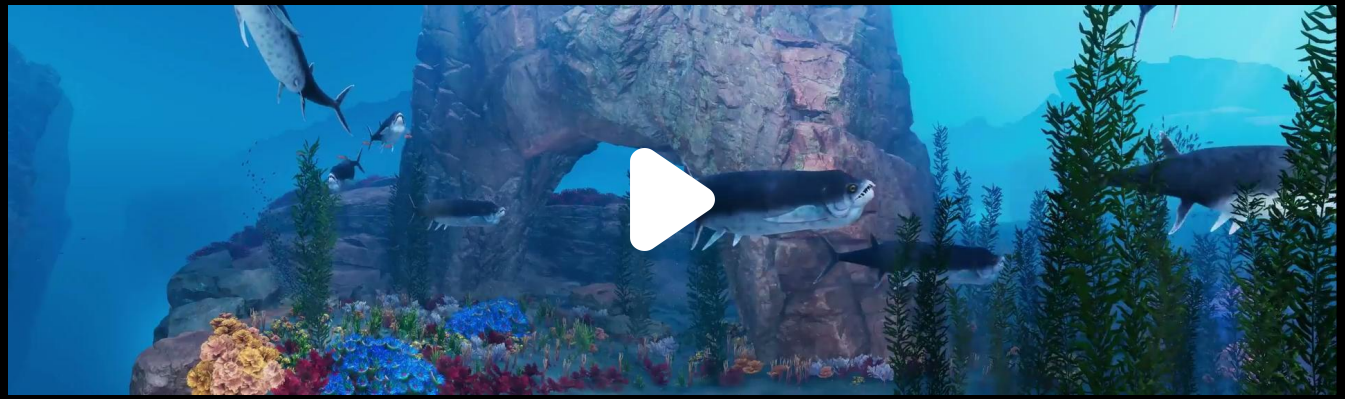
An area with projections on the walls and floor, created to help relax and enjoy the atmosphere of the park.

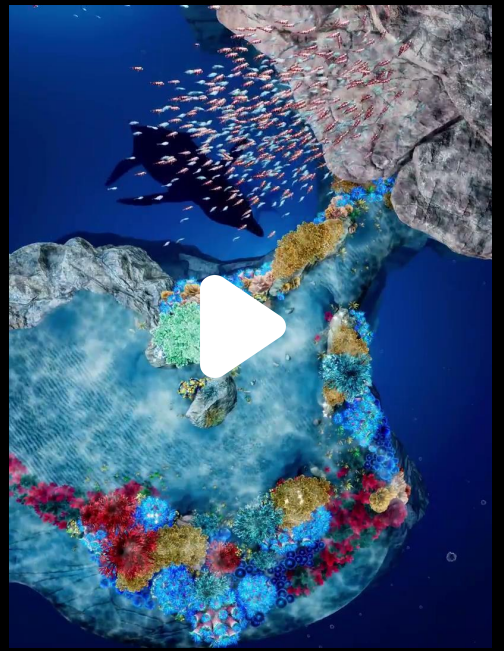
The floor in this zone is interactive. You can see the ocean under the station. Its inhabitants respond to the movement of guests around the area, circling around them or fleeing in fear. Occasionally, a large predator swims beneath the zone, only its shadow is visible deep. A family of megalograpii floats on the sandy floor, and if you step on some stones, a cephalaspis pops out from under them and burrows back into the sand nearby.

On the walls you can see the dunkleosteus, which catch parapuzosi; a mosasaurus on the hunt; a flock of jellyfish; an endoceras; and a huge clump of of xiphactini.

Interactive tags are also placed on one of the walls, and when activated, a drone with fish food arrives. There are a number of small schools of fish that look at it from different angles. When the fish get a lot of attention, they are seen by the big predators. Dunkleostei, elasmosauri or hungry xiphactini may come to the feast, too.

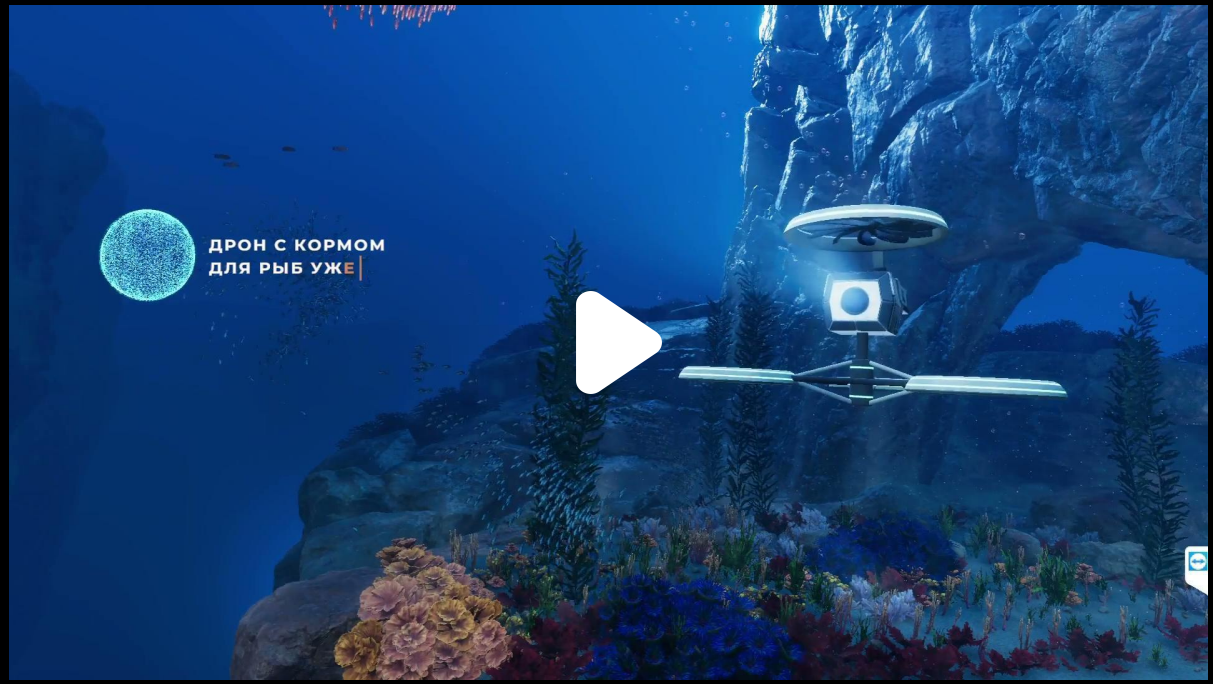
Lounge zone





Lounge zone

Interactivity
example



Hologram

Hologram

Pool for feeding predators

This installation is a swimming pool. There is a sticker with the image of water on the floor. A hologram is installed in front of the pool, where animals are projected. Behind the pool there is a visitors' area and a projection wall.

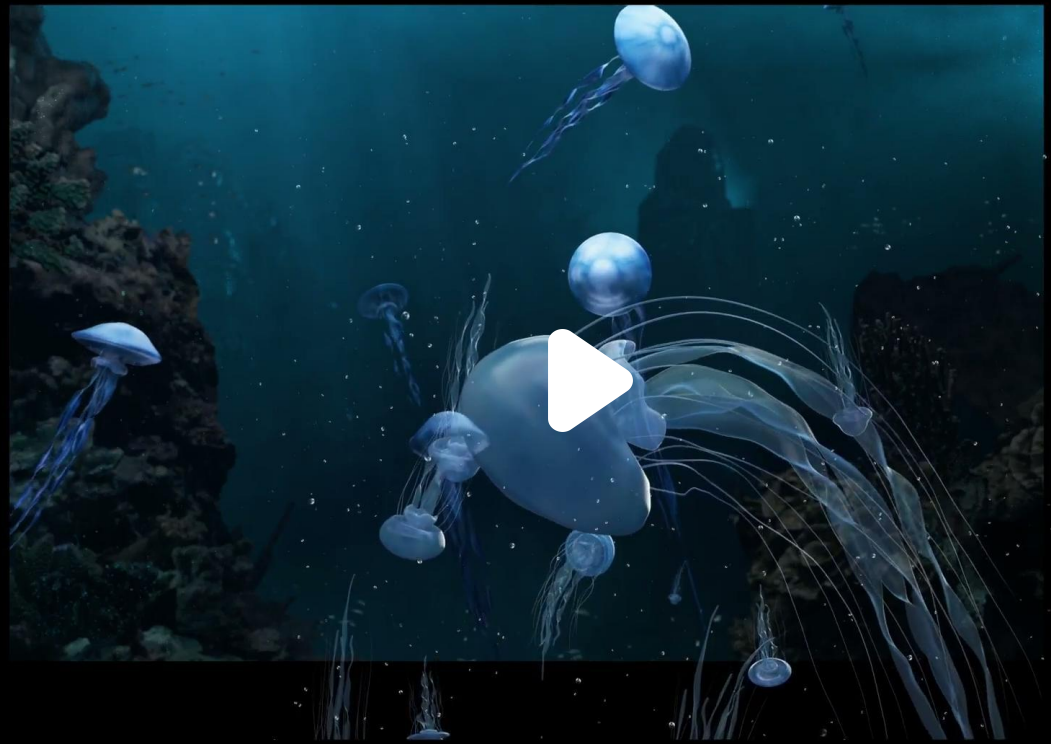
Once every 10 minutes, a show plays on the holographic surface. For the rest of the time, the installation functions as a photo zone, where visitors can go inside the hologram

In standby mode, flying fish can jump out of the pool, the head of an elasmosaurus rises on its long neck and growls at the visitor, or a livyatan emerges, slapping the water with its tail and splashing around.

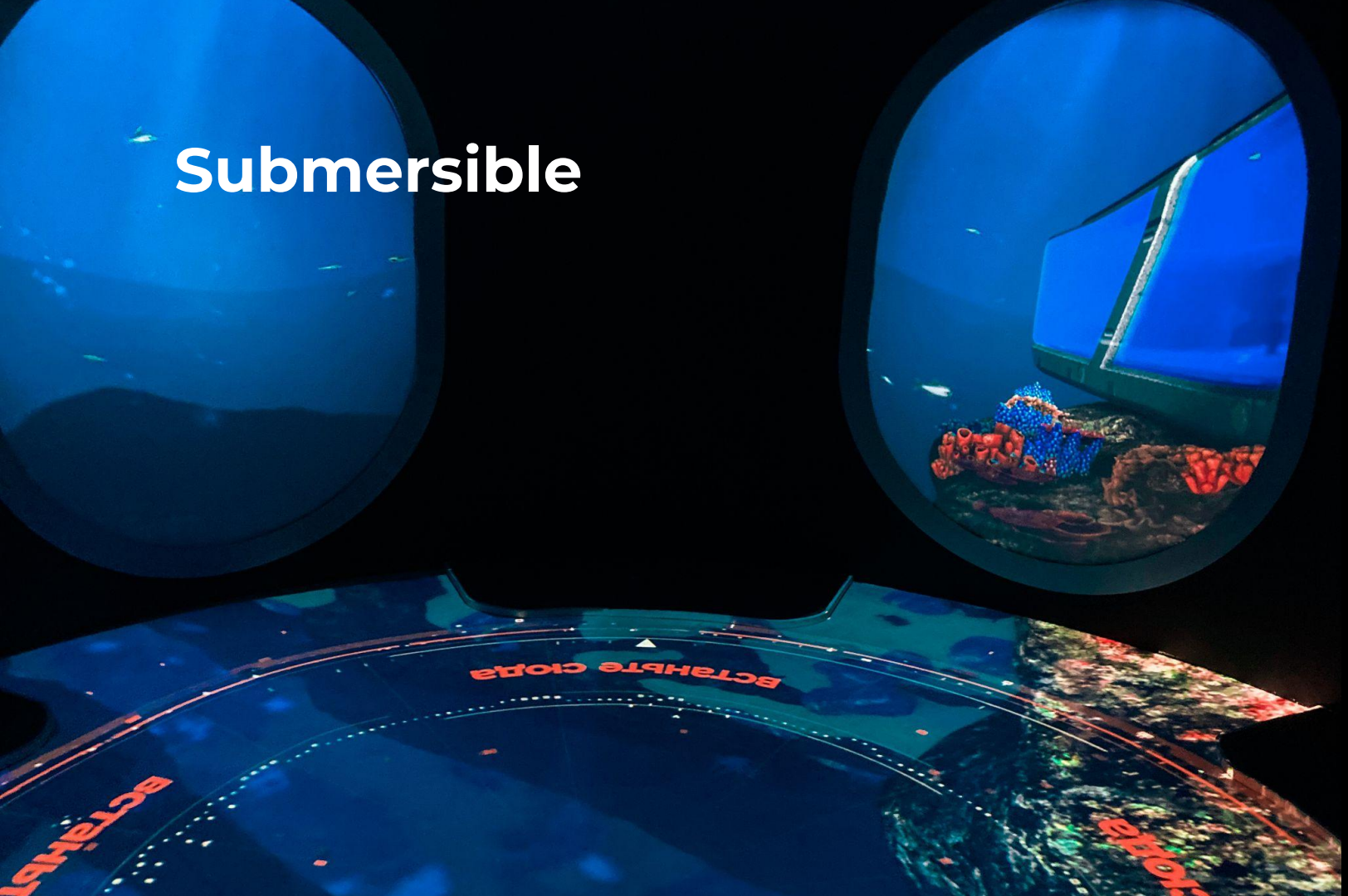
Sometimes the pool is covered with a glass bell and filled with water. Then a flock of jellyfish and parapuzosii swim into the flask. All this creates excellent backgrounds for visitors to take photos inside the hologram.

The show begins with NICA's announcement about feeding a mosasaurus. When the silhouette of a reptile appears in the distance on the rear projection, the carcass of a huge fish descends from above to attract its attention. The mosasaurus rushes to the pool and abruptly emerges, grabbing the fish and dragging it under the water.

Hologram



Submersible



Submersible

**An underwater journey
through a cave to a coral reef**

Visitors enter the zone every 4 minutes, according to a timer installed on the outer wall of the submersible. The timer signals when the submersible is ready to depart.

Inside the zone, there are projections on the floor and walls (portholes), which creates the illusion of underwater movement to another space.

The content shows the submersible diving down, swimming among the ocean's inhabitants and into the coral reef, where it will land.

NICA complements the journey with a story.

NICA greets visitors and starts counting down to the dive. The engines start, the submersible turns around and begins to descend into the crevice. A pliosaurus swims up and tries to break the glass, but the submersible accelerates and the pliosaurus lags behind. Deeper down, a mosasaurus starts circling, but quickly loses interest and swims away on its own.

When the submersible sinks to the bottom of the ocean, the searchlights go out and you can see glowing plankton and anglers.

On the way to the coral reef at the exit of the crevice, the submersible gets stuck in the rocks and visitors can hear the cracking of the hull. But a livyatan appears from the depths, and in trying to break the glass, it pushes the submersible to the exit. A minute later, the submersible successfully stops on a coral reef and visitors can walk out into the open ocean in the greenhouse area for a walk.

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Submersible

Greenhouse

Greenhouse

An underwater coral reef greenhouse

This underwater greenhouse cave is an immersive area with projections on the scenery, walls and ceiling.

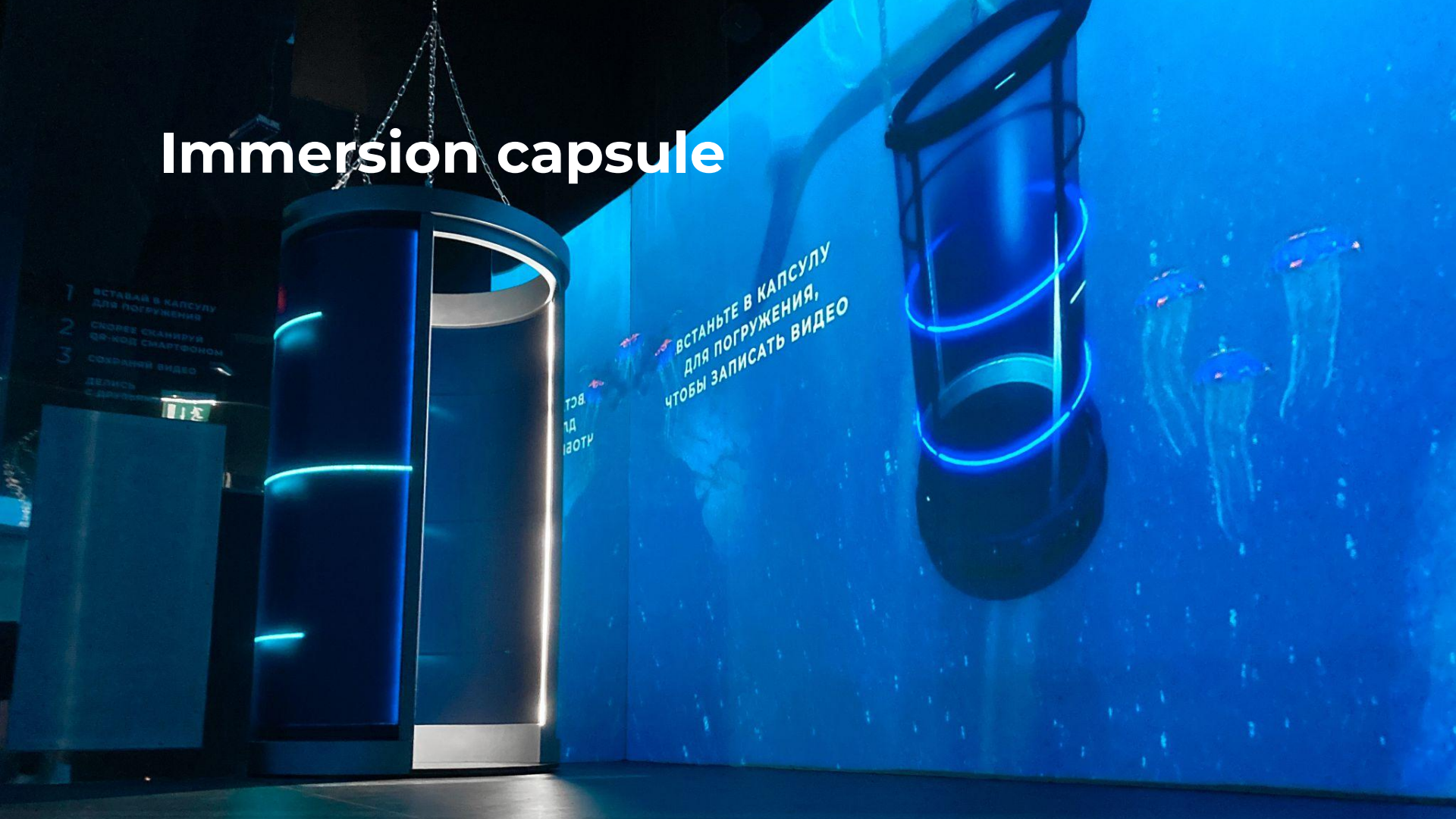
The content on the walls shows the ocean, visible through the entrances to the cave. Opposite there are mirrors that give the illusion of further depth.

The ceiling of the greenhouse is made in the shape of a wave. The projection on it creates a sense of moving water.

On the floor and near the walls of the cave, there is scenery in the form of corals, illuminated by projections. The scenery reacts by changing color and condition when visitors pass by.

At night, a huge flock of jellyfish swims into the cave, raising a storm of glowing plankton that fills the entire space.

Immersion capsule



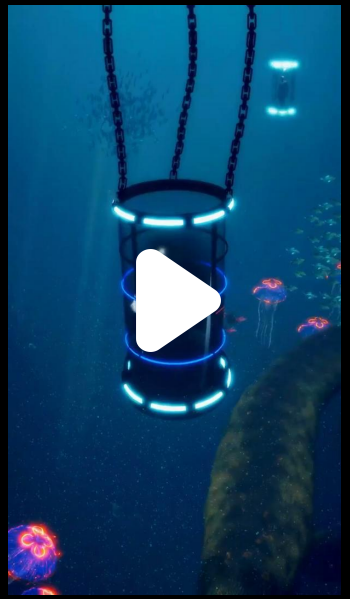
Immersion capsule

In the corner of the room, there is an underwater protective capsule—an immersive zone. Opposite the capsule is a projection where visitors see themselves in a capsule surrounded by a column of water. The rest of the walls are mirrored, giving the projection the illusion of depth.

When a visitor enters the capsule, a mosasaurus suddenly attacks the capsule from the side. Then it dives underneath and rushes at the capsule with its mouth open, trying to swallow it whole.

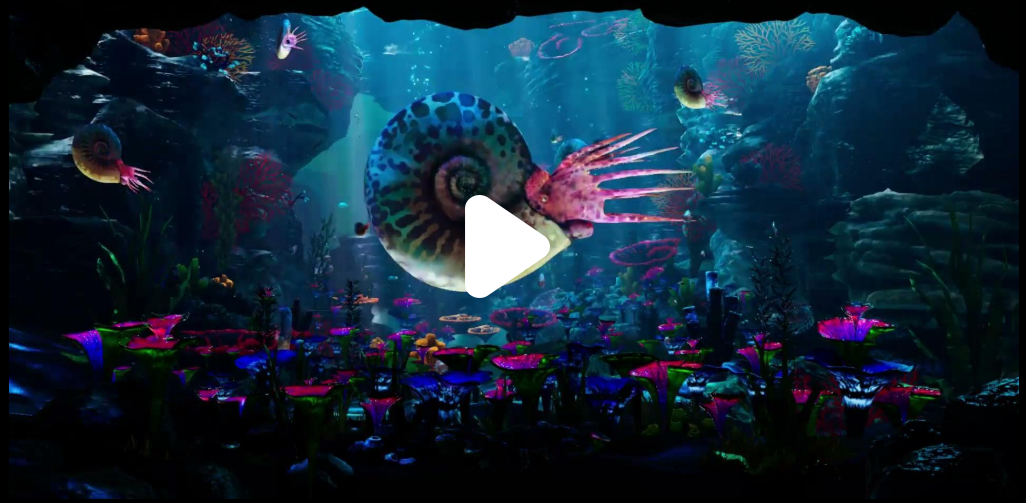
After the video ends, visitors can download a video clip of the dive and mosasaurus attack.

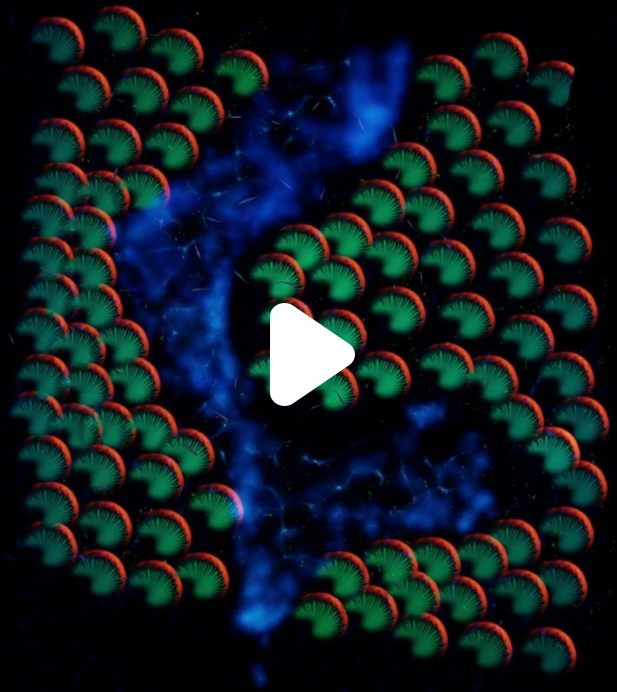
Immersion capsule



Characters

Greenhouse





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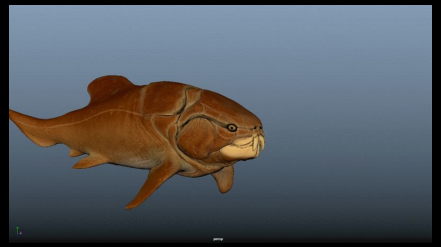
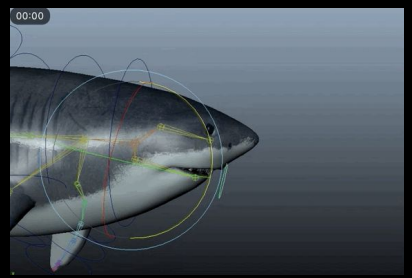
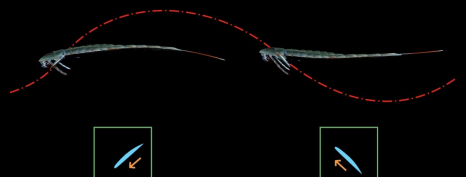
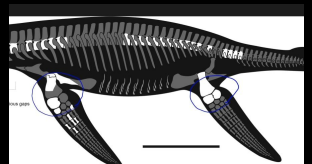
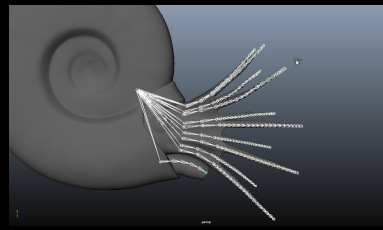
Characters

Work with paleontologists
Modeling, texturing and animation

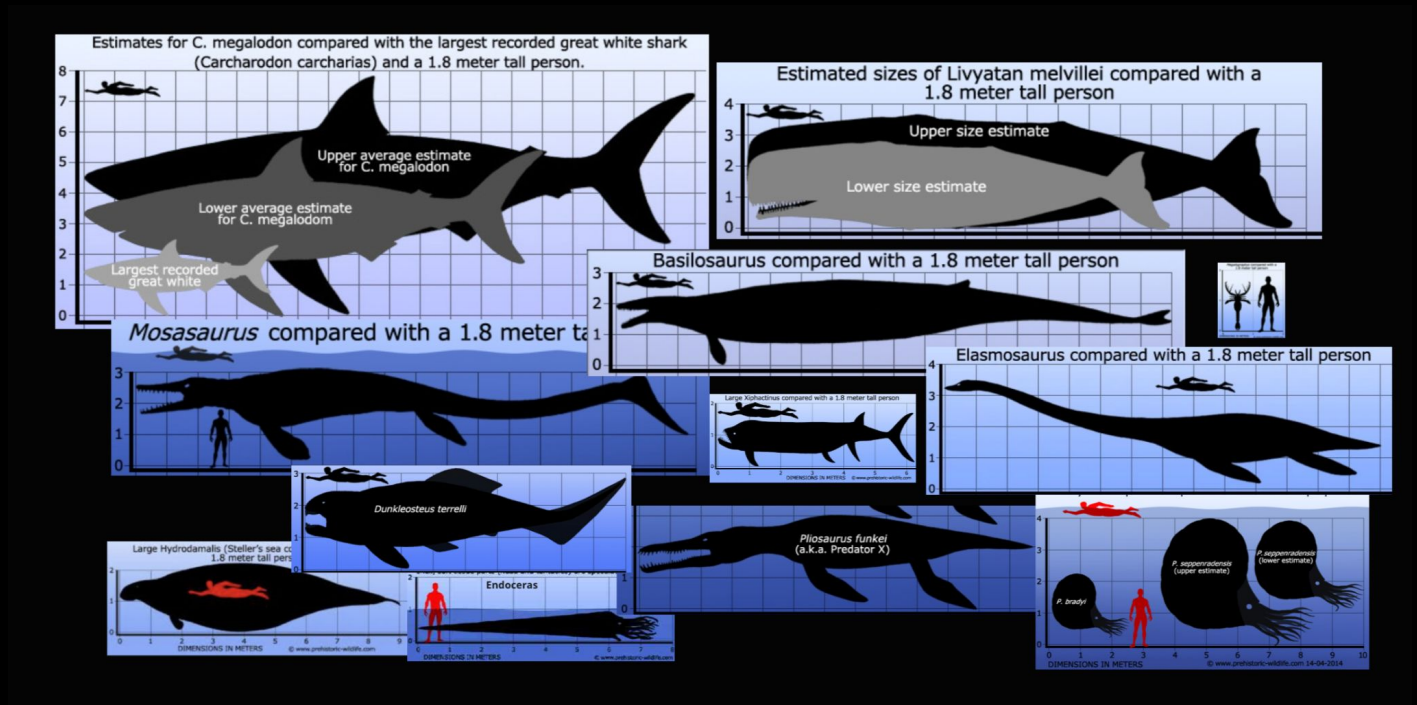




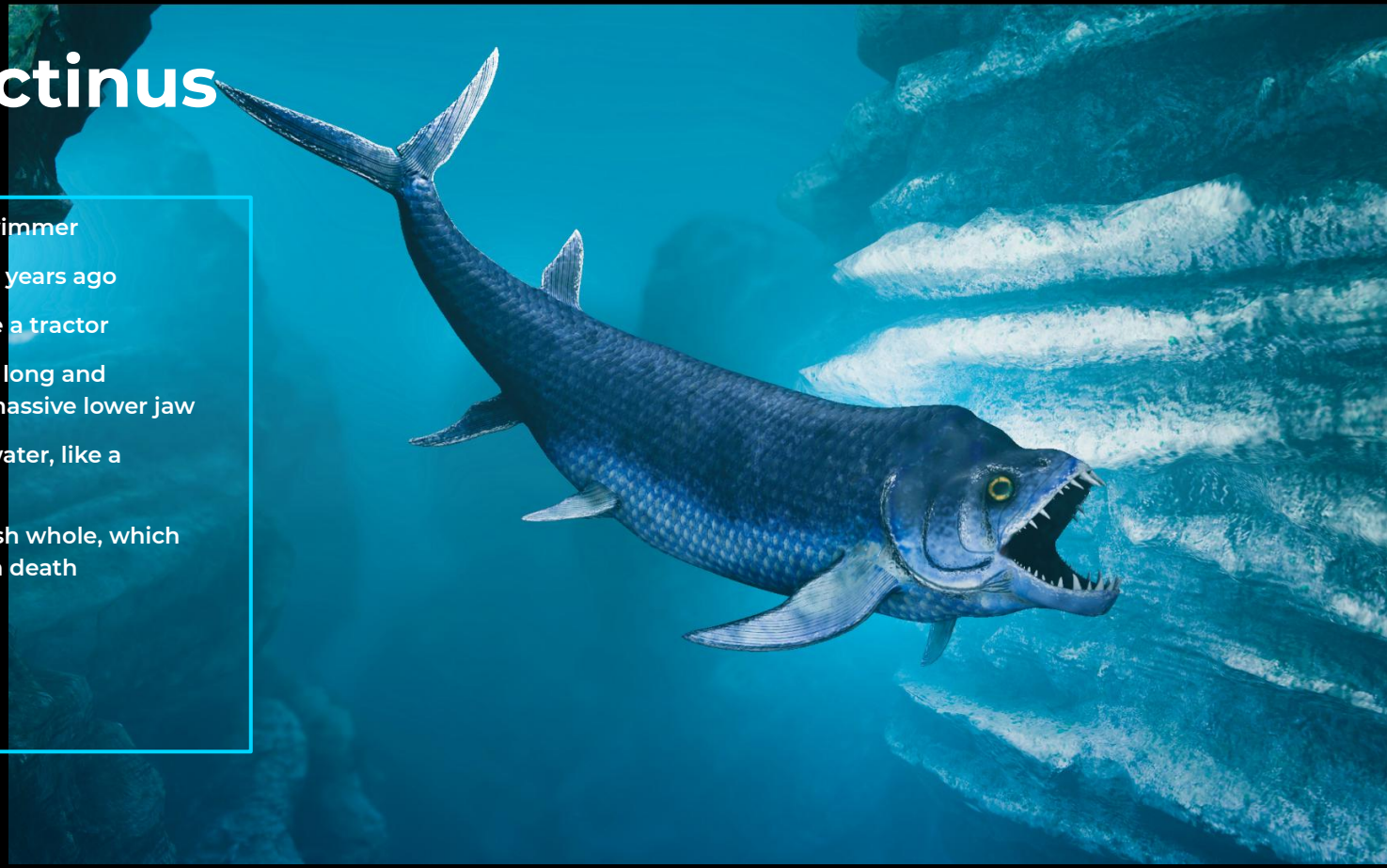





Character size



Xiphactinus



In Latin, “sword-swimmer

Lived 70-66 million years ago

6 meters long—like a tractor

A bulldog-like fish, long and predatory, with a massive lower jaw

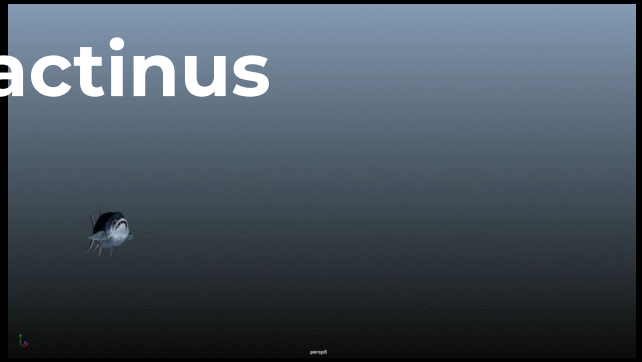
Spawned in freshwater, like a salmon

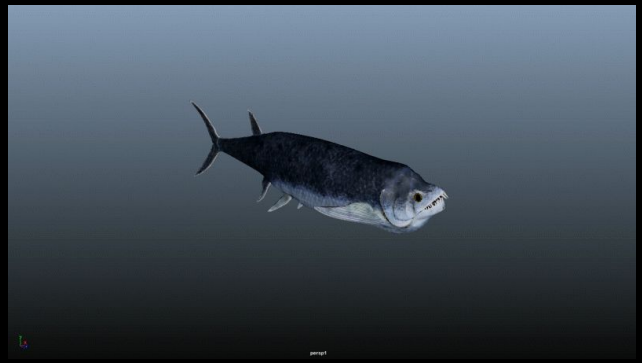
Swallowed large fish whole, which often led to its own death

Xiphactinus

Infographic design

Xiphactinus





Pliosaurus

The Russian pliosaurus

In Latin, “pliosaurus rossicus, meaning “similar to a lizard”

Lived 154-145 million years ago

13 meters long, like a crop duster plane

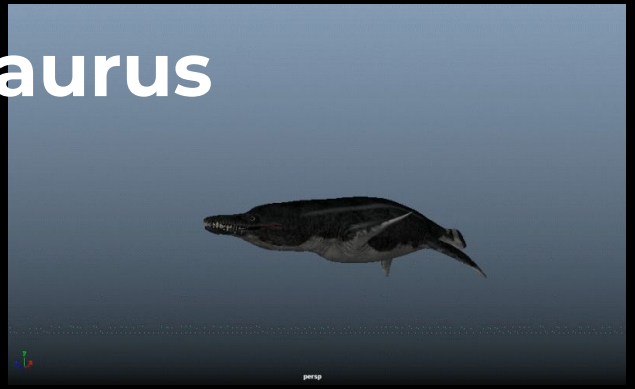
A good swimmer, moving up and down with its flippers like a butterfly

Hunted prey by smell, like a shark

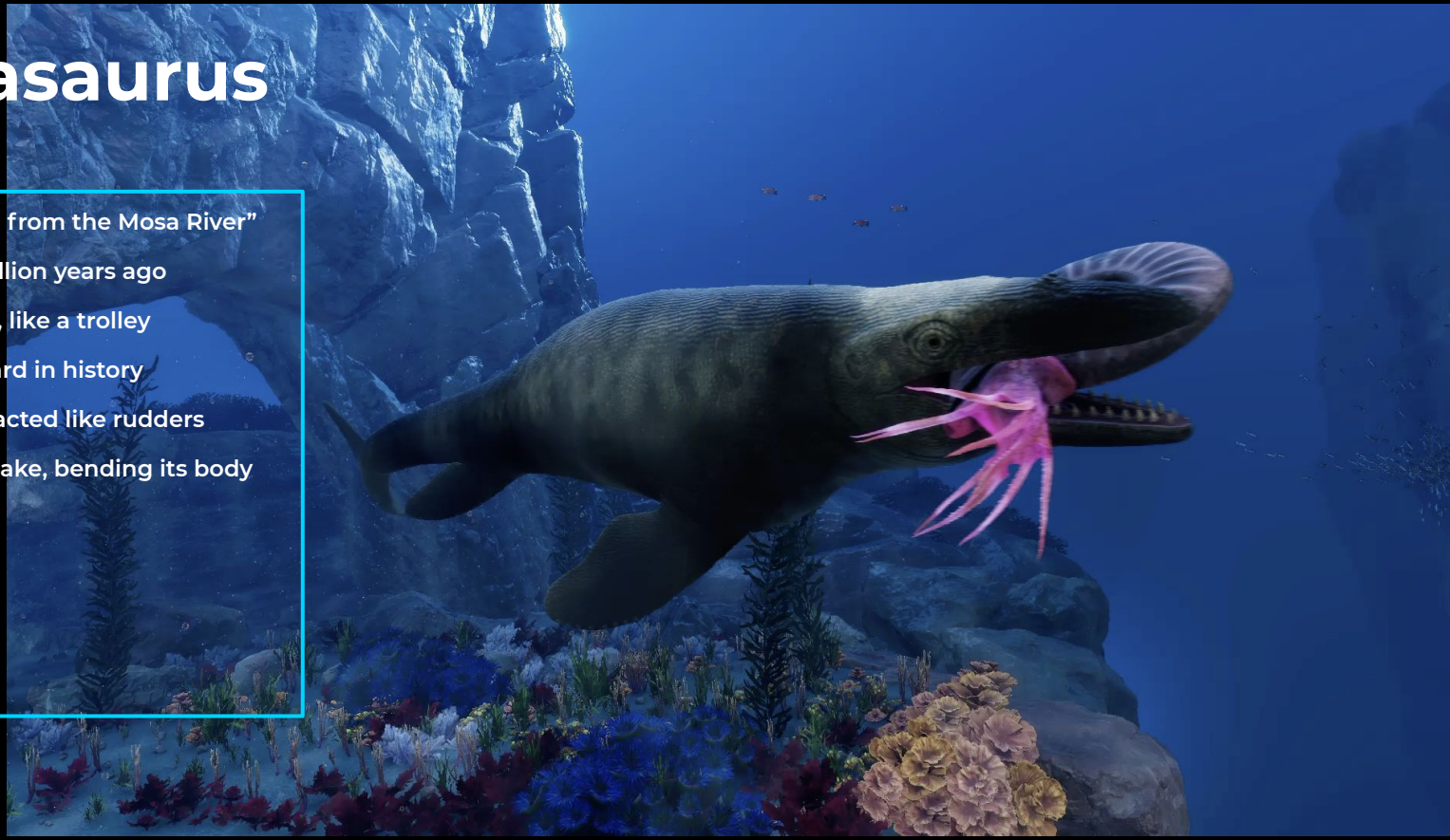
Pliosaurus

Infographic design

Pliosaurus



Mosasaurus



In Latin, “lizard from the Mosa River”

Lived 82-66 million years ago

17 meters long, like a trolley

The largest lizard in history

Small flippers acted like rudders

Swam like a snake, bending its body right and left

Mosasaurus

Infographic design

Mosasaurus

Megalodon

In Latin, “large tooth”

Lived 23-3 million years ago

15 meters long, like 3 elephants

The biggest shark in history

250 teeth in 5 rows

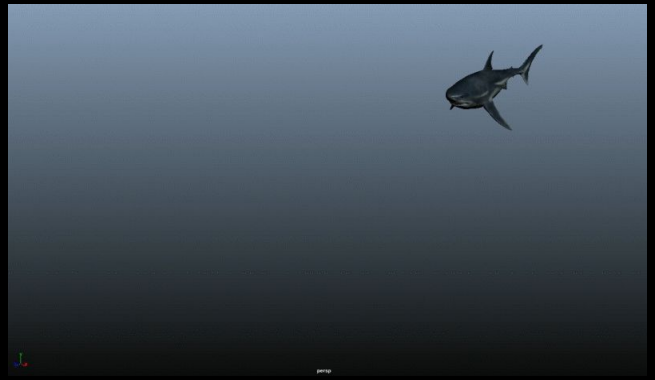
Grew several thousand new teeth over its lifespan

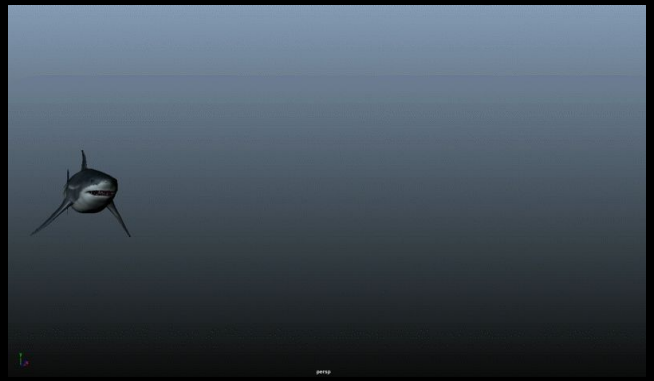
Lived 30-40 years

Megalodon

Infographic design

Megalodon





Elasmosaurus

In Latin, “lizard with thin scales”

Lived 80-66 million years ago

14 meters long, like a bus

The longest reptile in history

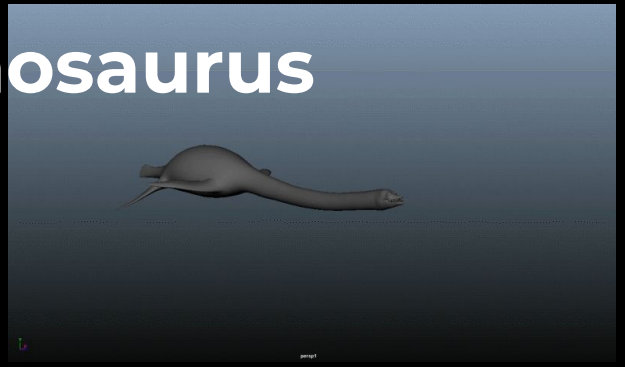
73 vertebrae, twice as many as in a person

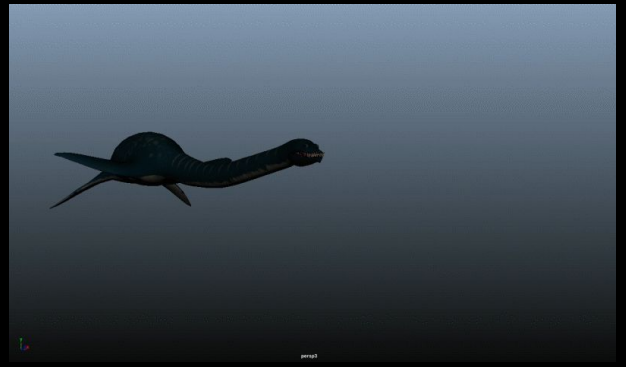
Fed on tiny fish and mollusks

Elasmosaurus

Infographic design

Elasmosaurus





Dunkleosteus

In Latin, “Dunkle’s vertebrate”

Lived 375 million years ago

6 meters long, like a tractor, как трактор

A giant armored fish

Fed on shellfish and fish

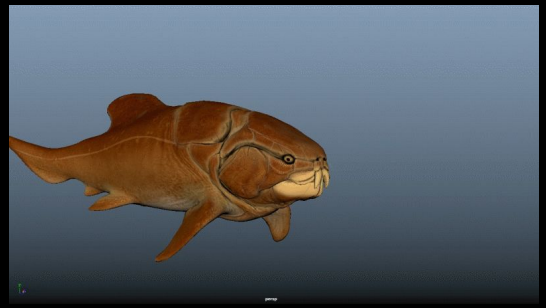
Had bony plates with sharp edges instead of teeth

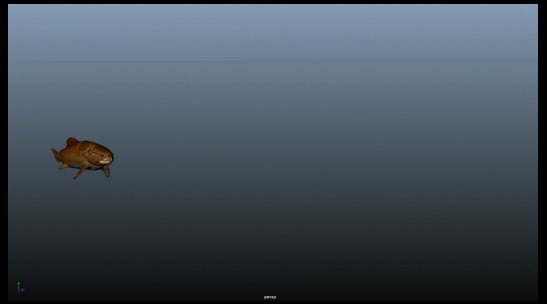
Its powerful bite let it hunt for armored sea creatures

Dunkleosteus

Infographic design

Dunkleosteus





Basilosaurus

In Latin, “king of the lizards”

Lived 41-35 million years ago

20 meters long, like a train car

The most powerful bite among all mammals

Swam like a worm, bending its long body up and down

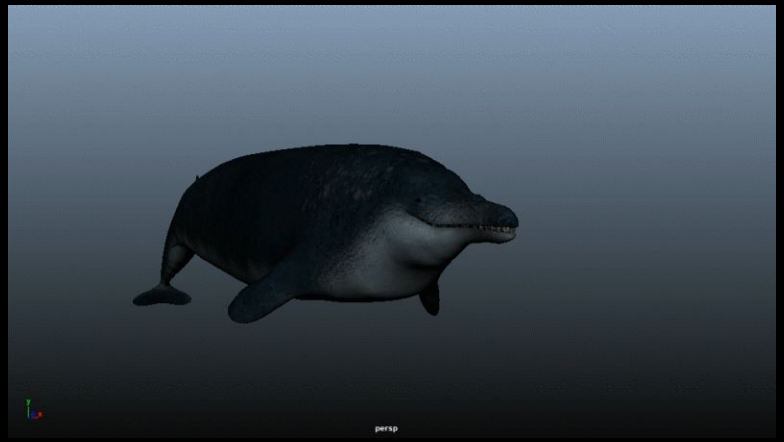
Fed on sharks and whales, grinding up their bones like cookies

Basilosaurus

Infographic design

Basilosaurus

Animation states



Parapuzosia

In Latin, “like a snail”

Lived 70 million years ago

2.5 meters long, like a grand piano

The largest mollusk of the Cretaceous period

3.5 tons, the largest shellfish found

Fed on plankton, fish and small lizards

Parapuzosia

Infographic design

Endoceras

In Latin, “inner horn”

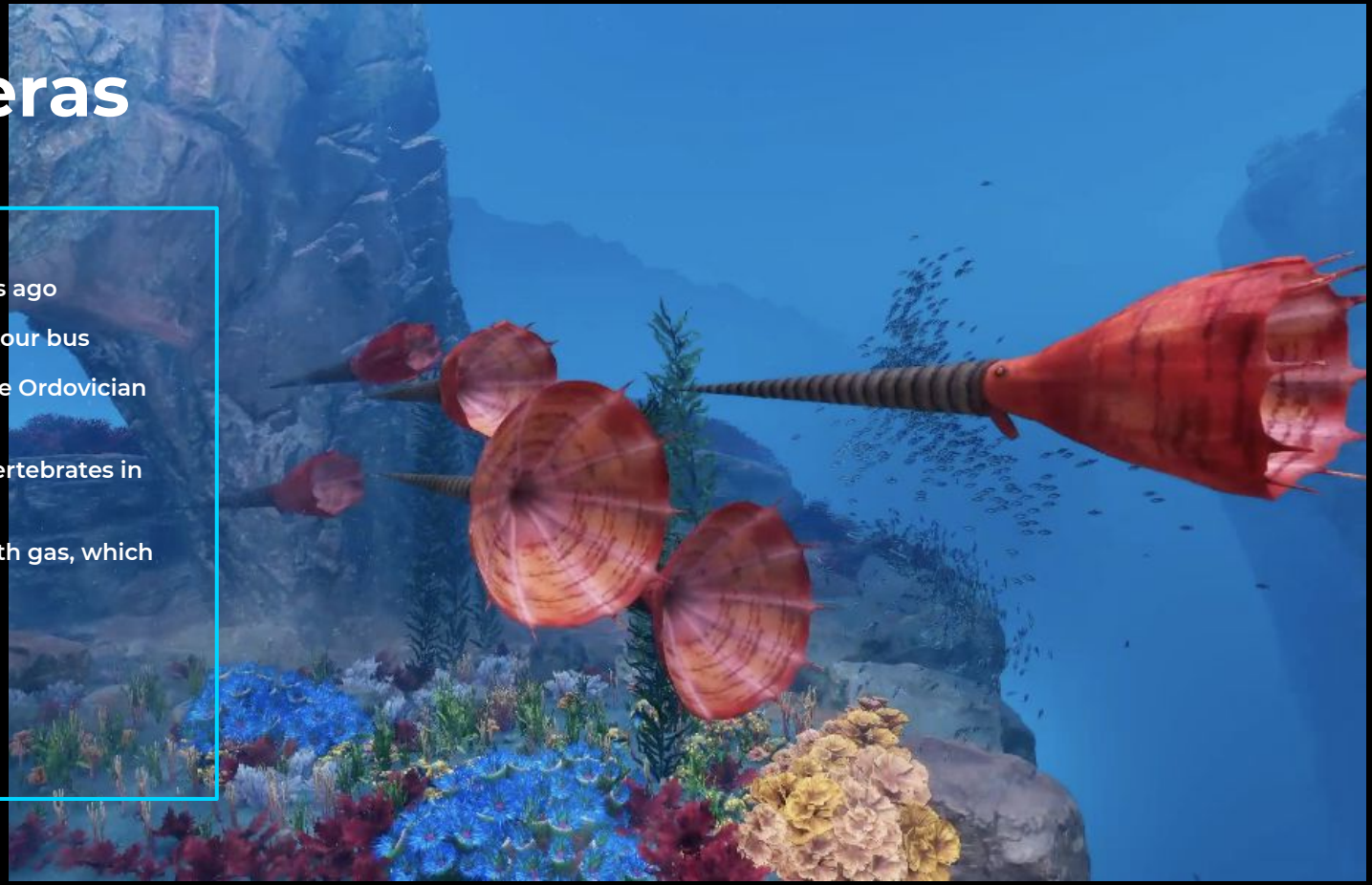
Lived 465 million years ago

10 meters long, like a tour bus

The top predator of the Ordovician period

One of the largest invertebrates in history

The shell was filled with gas, which let it change depth



Endoceras

Infographic design

Livyatan

In Latin, “aquatic beast” (from the Bible)

Lived 10-9 million years ago

17 meters long, like a tractor-trailer

The longest teeth among all vertebrates

Fed on large animals

A fat layer behind its eyes worked like sonar

Livyatan

Infographic design

Hydrodamalis

In Latin, “sea cow”

Lived 6 million years ago

10 meters long, like a bus

Enormous flocks swam in shallow bodies of water

Slow, ponderous animal

240 years ago, the last flock was killed in Kamchatka

Ripped up seaweed with its trunk

Hydrodamalis

Infographic design

Megalograptus

In Latin, “giant inscription”

Lived 450 million years ago

1.5 meters long, like a sheep

A very large scorpion, with a long spike on its tail

Numerous bristles on its claws

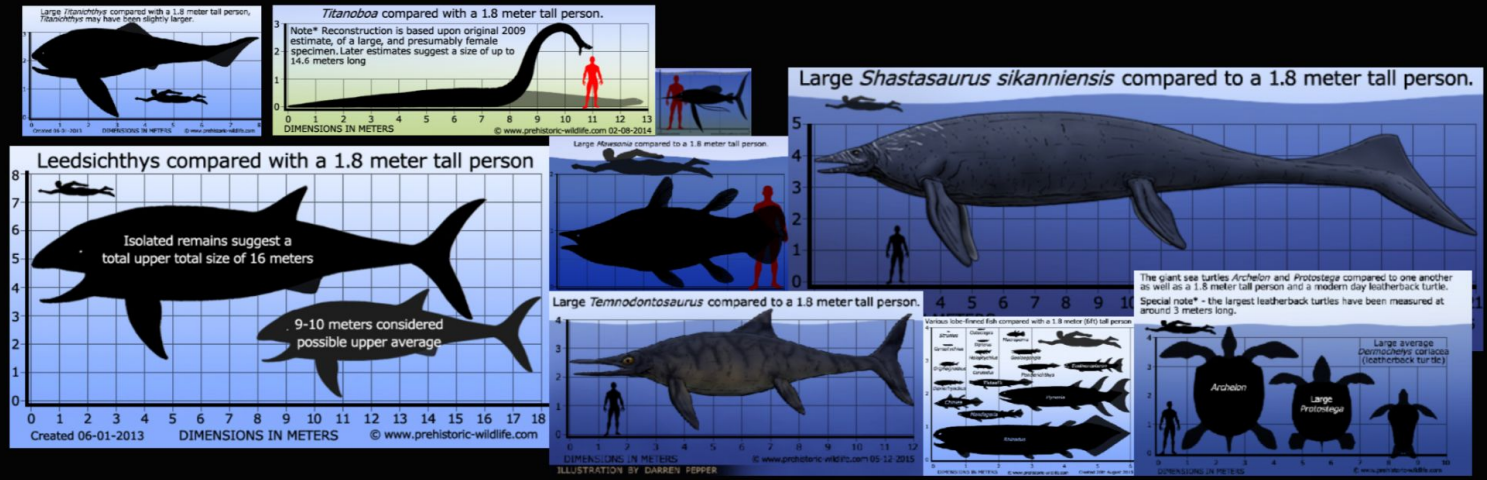
Found prey using spikes on its limbs

Megalograptus

Infographic design

Additional characters

If necessary, additional characters can be added

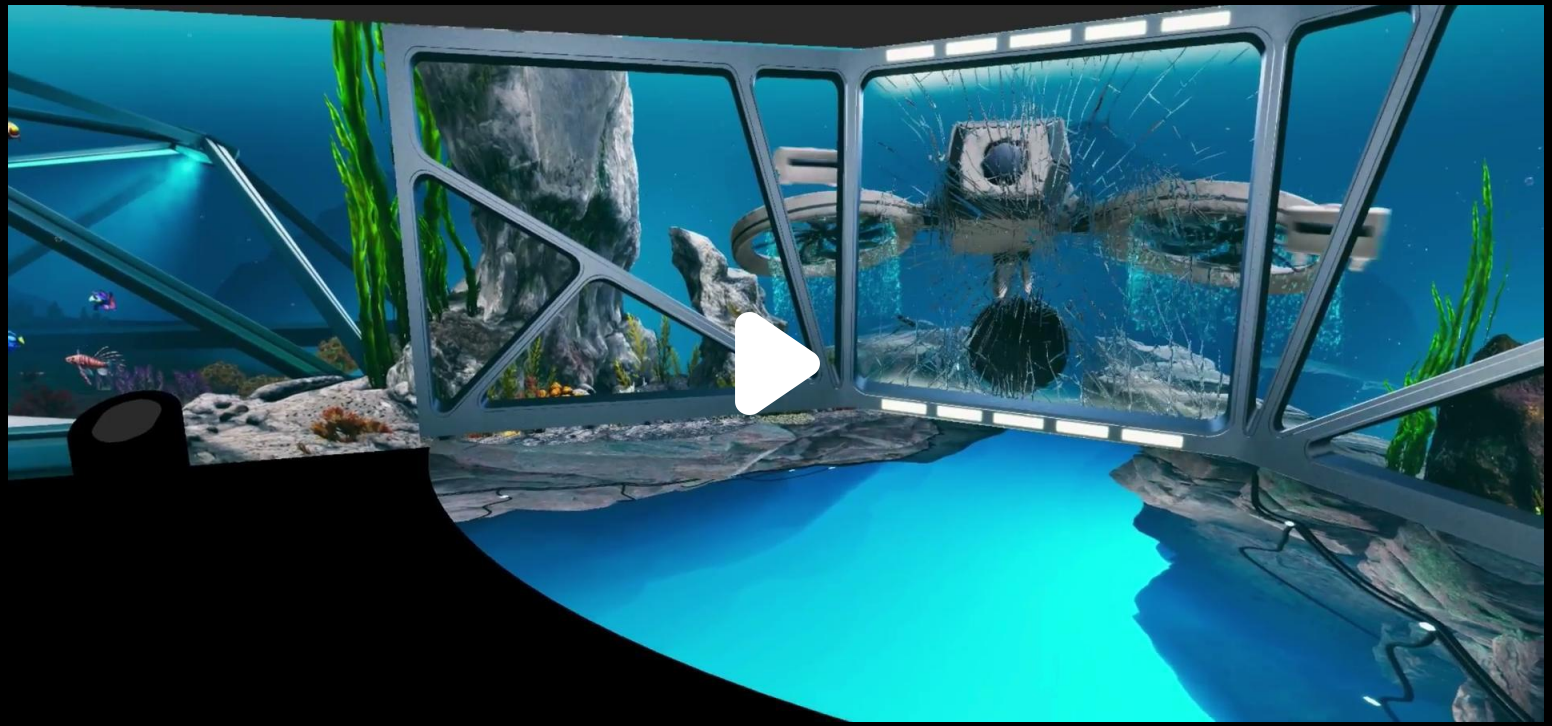


Environment

Concept

3D stage

Virtual test space



Key visual

ОКЕАН ЮРСКОГО ПЕРИОДА
ИНТЕРАКТИВНАЯ МУЛЬТИМЕДИЙНАЯ ВЫСТАВКА

Logo

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technologies

Thank you!

Let’s talk.