Fondazione Musei Civici di Venezia

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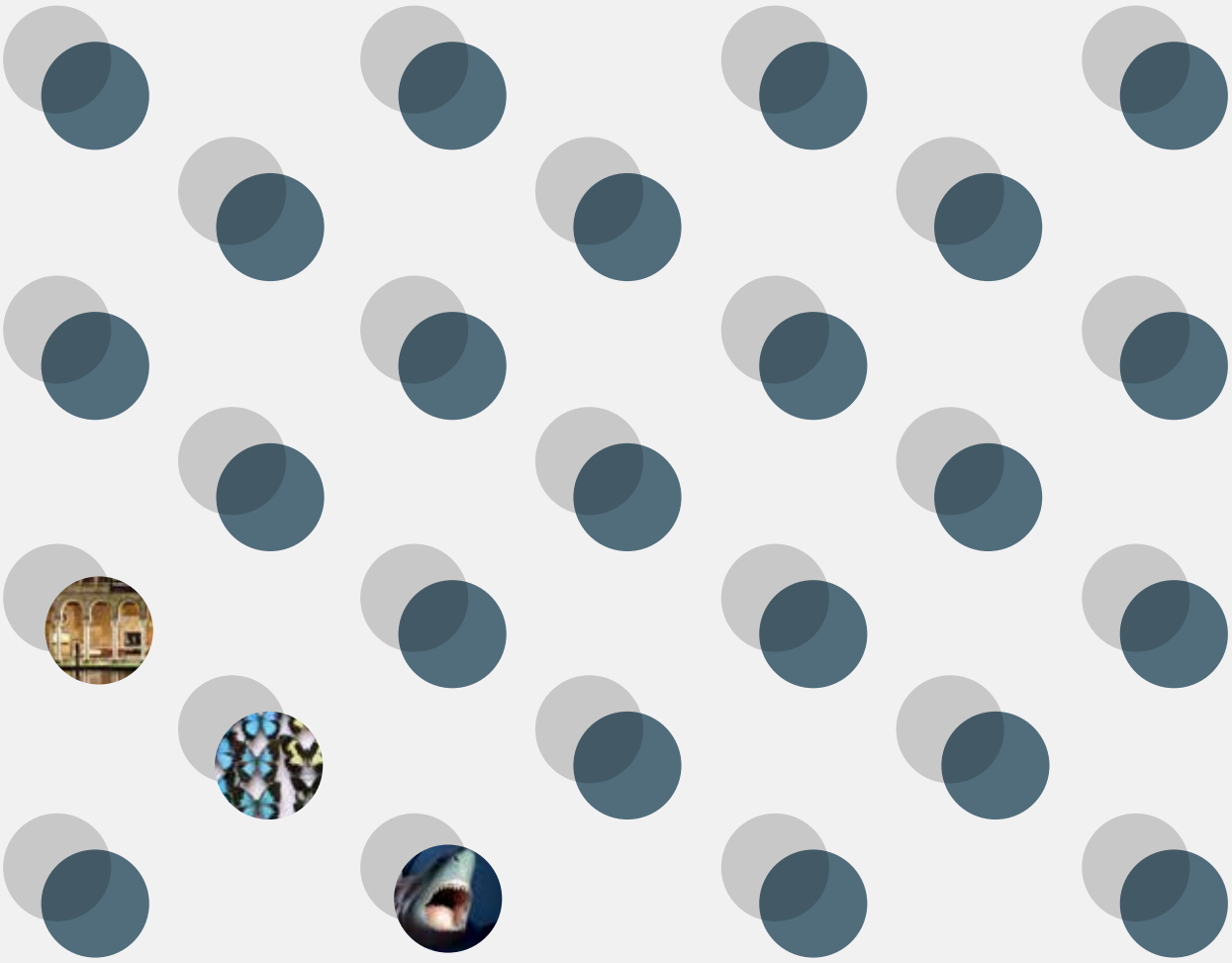
Natural History Museum of Venice Giancarlo Ligabue



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Natural History Museum of Venice Giancarlo Ligabue

Housed in the Fontego dei Turchi Palace at the Grand Canal, the museum is an institution that coordinates and conducts scientific research in the territory, ensuring the maintenance and increase of scientific collections, organizing educational activities and services to the citizens.
The new, evocative and engaging layout has a modern and original museological facility.
The complexity of subjects is mediated by a multi- level communication where visitors have an active role and interact with the unusual and attractive apparatus set up.

The building and the history

The Natural History Museum is housed in the **Fontego dei Turchi,** built as a palazzo for the Pesaro family in the 13th century.
With its imposing Grand Canal façade, it is one of the most famous secular buildings in Venice. Its double loggia in the so-called Venetian-Byzantine style reflects the purpose for which the building was created, as a trading depot for goods coming from the East; the corner towers are similar to the defensive structures that were part of Early Medieval family palazzi.

In 1381 the building was given to Nicolò d'Este, lord of Ferrara, and then (in 1621) – after changing hands several times – became the Fontego for Turkish merchants in the city (the place where they were expected to live and do their business). It was used for this purpose right up until 1838, and then from 1865 onwards underwent extensive restoration work. Thereafter it housed the Museo Correr and later, from 1923, the Natural History Museum.

The museum was set up to house various local scientific collections: from the Museo Correr, from the Istituto Veneto di Scienze, Lettere e Arti and others.

Over time, this material was added to, through acquisitions and donations, to make up the present rich, varied and fragile collection that spans 700 million years, with 2 million finds, zoological, entomological and botanical collections, fossils and anatomic preparations, as well as ethnographic collections, 'marvels' and a library with over 40 thousand volumes.

Fontego dei Turchi,
facade on Grand Canal

Fontego dei Turchi, Garden

Moonfish, fossil
Museum Collection

Polychrome anatomical model of
human body
Museum Collection

Scientific Activities

The Museum carries out scientific research activities, often collaborating with other prestigious scientific institutions. Especially important are the studies on the environment of the Venice Lagoon, the creation and implementation of biodiversity databases, field- and museum-based studies and scientific assessments.
The Museum also houses some naturalistic associations that collaborate to both research and educational activities.

Educational Activities

To promote the spread of natural sciences and the scientific culture, the Museum offers educational services directed to students, teachers, adults, trainers and technicians. Educational activities for students of all levels are carried out by professional operators, representing a true reference point for local schools and other institutions.

The Library

The Museum vast scientific library is unique in Venice, rich in over 44.000 monographs and 2.500 periodicals.
It also contains numerous 16th and 17th century publications, and 19th century manuscripts.

Exhibit Sections

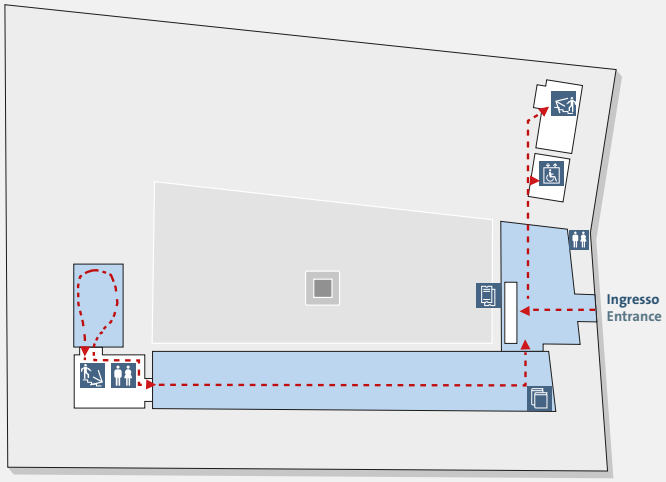
MUSEUM ITINERARY

The new, evocative and engaging layout has a modern and original museological facility. The complexity of subjects is mediated by a multi-level communication where visitors have an active role and interact with the unusual and attractive apparatus set up.

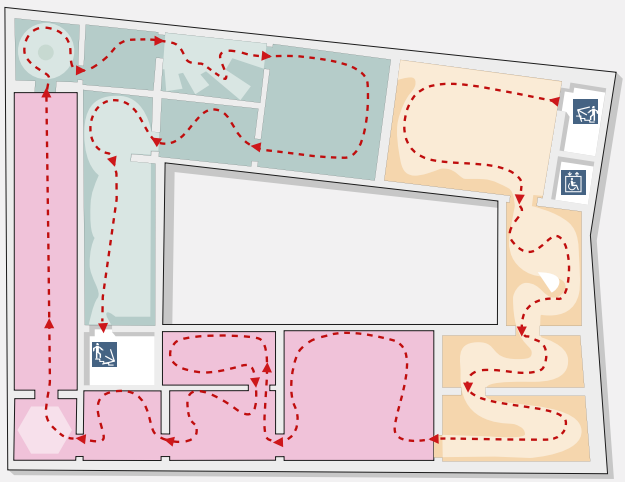
The **ground floor** of the Natural History Museum of Venice Giancarlo Ligabue houses two exhibition rooms: the ***Cetaceans gallery,*** the ***Tegnue acquarium.***

In the **second floor** there are three sections that could be considered as museums inside the museum: ***On the tracks of life***, dedicated to fossils and paleontology; ***Collecting to astonish, collecting for research***, on the evolution of naturalist collecting and scientific museology; ***The strategies of life***, form and function in living things.

Ground floor



Second floor



On the tracks of life

Collecting to astonish, collecting for research

The strategies of life

Tegnue acquariumand the Cetaceans Gallery

Ticket office

Museum Store

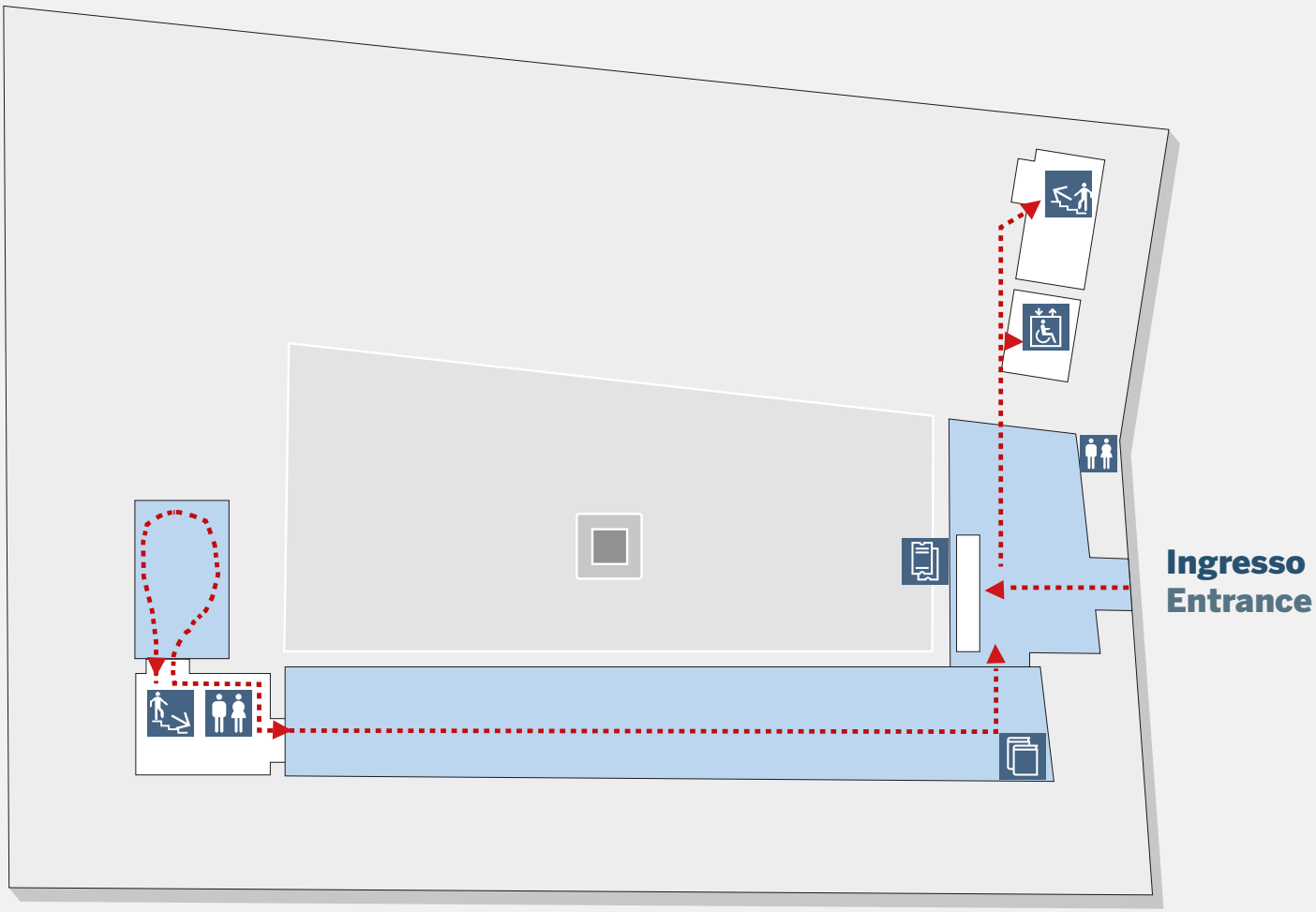
Lift

Stairs

Toilets

Natural History Museum of Venice Giancarlo Ligabue

Ground floor



Tegnùe aquarium and the Cetaceans Gallery

Ticket office

Museum Store

Lift

Stairs

Toilets

Tegnùe aquarium

Cetaceans Gallery

The Tegnùe aquarium.

This five-metre aquarium holds more than 5,000 litres of water and re-creates the extraordinary eco-system of the tegnùe and their rich varieties of animal life: more than 50 different species of fish and invertebrates.
A very accurate reproduction, this is a very effective teaching tool that makes it possible to admire these numerous species as if in their natural habitat.
Biological discovery and the study of animal behaviour are guided by the rules of a simple game.

Tegnùe
The Tegnùe aquarium

The Tegnùe aquarium

Violet sea urchin live specimen
The Tegnùe aquarium

The Cetaceans Gallery.

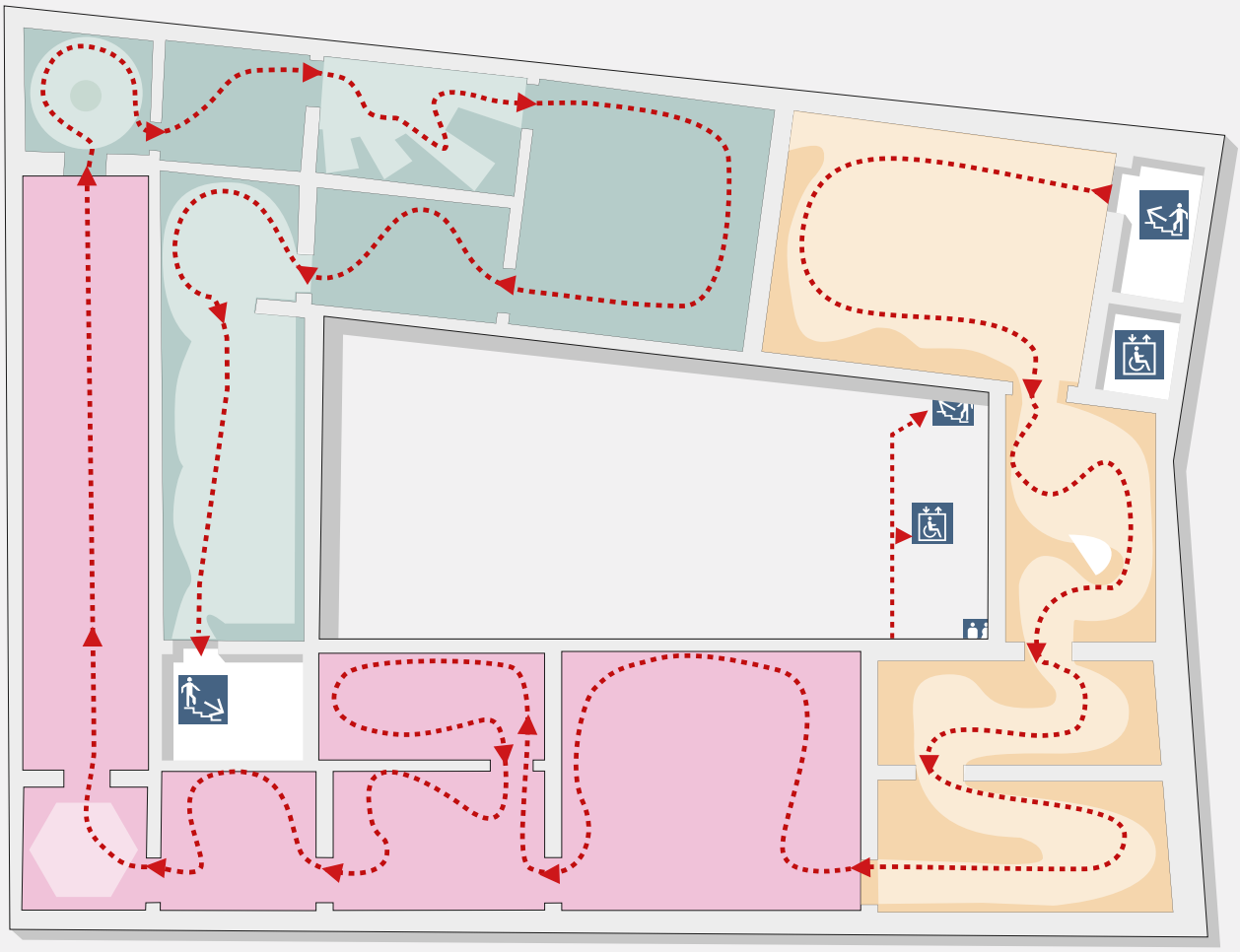
The evocative Cetacean Gallery displays the skeletons, hanging from the ceiling, of a big common fin whale (Balaenoptera physalus) and a young sperm whale (Physeter catodon).

Sperm whale
Cetaceans Gallery

Sperm whale
Cetaceans Gallery

Lagunottera
Cetaceans Gallery

Second floor



On the tracks of life

Collecting to astonish, collecting for research

The strategies of life

Lift

Stairs

Exhibition Room
On the tracks of life

G.Perale's ornithological collection
Collecting to astonish, collecting for research

On the tracks of life

Dedicated to fossils and palaeontology, this section extends along four rooms, following the 'tracks' of fossils in order to understand the origin and evolution of life on Earth, from the appearance of early single-cell organisms to that of Homo sapiens, 'just' 200,000 years ago.

Fossils are all that remain of only a small number of the species that lived on the planet. Traces of a journey that lasted millions of years that are brought to light by researchers both to understand the past and to imagine the future.

SEARCHING FOR DINOSAURS

Palaeontology and the Ligabue's scientific expedition. Buried for millions of years, fossils can be admired and studied thanks to the work of palaeontologists, who are constantly searching for tiles from the vast mosaic of the history of life. It was in this spirit that Giancarlo Ligabue organised an expedition to the Téneré Desert in 1973. Going after the huge skeletons that are rising above the Sahara sands, he uncovered the fossil remains of animals and plants dating back over 100 million years, which included a dinosaur and a giant crocodile.

Exhibition Rooms
Ligabue's scientific expedition
On the tracks of life

STONE CREATURES

Testimonies of a lost world
The work of the devil or creations of the gods? A joke of nature or the remains of dragons and giants? These "stone creatures" have never ceased to arouse both curiosity and concern, fuelling myths, legends and fanciful hypotheses. In actual fact, fossils are all that remains of countless animal and plant species that followed one another in succession on Earth from the beginnings of time until a few thousand years ago. The fossilisation process is, however, extremely rare and is linked to particular environmental conditions. Fossils are therefore a precious source of information about the natural environments of the past.

Exhibition Rooms
Stone creatures
On the tracks of life

THE PATH OF LIFE

The long and complex course of evolution. This was both the longest and the oldest age, beginning with the origins of the planet itself until just over 500 million years ago. Life rose and developed in the *Precambrian:* the oldest known fossils, the stromatolites, are around 3.7 billion years old

and are the evidence of the activity of primitive single-cell organisms. The first multi-cell beings instead, somewhat similar in shape to modern invertebrates, date back to not more than 670-700 million years ago and are represented by the so-called Ediacara biota. The *Palaeozoic* began with the Cambrian period, around 540 million years ago. In fact, a myriad of different life forms, some of which were already highly specialized, suddenly appears in the rocky layers of that age. Most marine invertebrates developed during this period, while the lands above sea level, originally deserted, were colonized first by plants and then by invertebrates, amphibians and reptiles. Towards the end of the Palaezoic, the movements of the continental masses resulted in the formation of one large continent called Pangaea, with the rise of many mountain chains. Known as the "Reptile Era" because of the great development of these vertebrates, the *Mesozoic* was also the age in which modern dominant groups, such as birds and mammals, originated. The unbelievable similarity among fossils discovered on lands separated by oceans is due to the former existence of one vast continent, the Pangaea. It was only with its later fragmentation that flora and fauna began to differentiate. At the beginning of the *Cenozoic*, the land arrangement was basically the same as we know it today and the fossils that go back to this period indicate that the climate was relatively hot, with zones characterized by tropical or warm temperate fauna and flora, even in those areas where the climate is much colder today. The disappearance of most of the Mesozoic reptiles created a considerable number of open ecological niches, which were quickly occupied by birds and mammals. The first traces of hominids appeared in the second half of the Cenozoic Era.

Exhibition Room
Palaeontology
On the tracks of life

Ouranosaurus skeleton
Ligabue's scientific expedition,
On the tracks of life

Collecting to astonish, collecting for research

This section, dedicated to past and present explorers and scholars, recounts the evolution of collecting and the rise of scientific museology. The exhibit ranges from collections organized mainly through aesthetic principles to those reflecting an authentic scientific classification, focusing especially to the history and formation of the Museum's own collections.

Rare, curious and precious objects, not only from travels and expeditions to distant lands, but also from everyday life. Natural History collections between aesthetic displays and a carefully ordered scientific tool.

EXPLORERS FROM VENICE

Tales of travels, studies and expeditions

Giovanni Miani. Autodidact, musicologist, poet, patriot and exile, Giovanni Miani adopted Venice as his native city and sought fame in his African explorations. In 1859 he organized an expedition in search of the sources of the Nile which, in 1860, after various vicissitudes, took him further up the river than any other European had ever been. Despite his perseverance and courage, he did not fulfil his aim: the sources were discovered later by the Englishmen Speke and Grant in 1862 and Miani died in Africa 10 years later.
The exhibits on display come from the 1,800 finds he collected during his first expedition, almost all of which he then donated to the city.
Giuseppe de Reali. A passionate "big game" hunter, Count Giuseppe de Reali (1877-1937) put together an impressive collection of hunting trophies and other colonial style items during his various safaris to northern and equatorial Africa. Mainly made up of large animals but also ethnographic material and evocative photographs, when he died his collection was donated by his heirs to the City of Venice. Although it had no scientific objectives, together with the materials brought to Europe by other travellers and explorers of the same period, de Reali's collection contributed to the knowledge of ethnographic and naturalist knowledge of the African continent.
Giancarlo Ligabue. A successful Venetian entrepreneur, for over 30 years Giancarlo Ligabue devoted himself with great passion to both exploration and scientific research, organizing many expeditions to five continents, often yelding the most amazing results. He is also the founder of the Study and Research Centre that bears his name.

Exhibition room dedicated to Giovanni Miani
Collecting to astonish, collecting for research

Exhibition room dedicated to De Reali,
Collecting to astonish, collecting for research

Decorated skull
Collecting to astonish, collecting for research

The ties between Ligabue's discoveries, research and collections and the Natural History Museum of Venice are very close, also thanks to his considerable donations, first and foremost the Ouranosaurus nigeriensis on display in the first room of the Museum.

Wunderkammer
Collecting to astonish, collecting for research

MUSEUM AND SCIENCE

From the "cabinet of curiosities" to scientific museum. Wunderkammer: the room of wonders.

The Renaissance saw the flourishing of the arts, sciences and culture while the study of new commercial horizons encouraged explorations beyond known borders.
European scholars in the XVI century therefore came to possess an incredible variety of objects, plants and animals, some of which had already been the subject of legends in Mediaeval bestiaries and travellers' tales in times long past.
This is how the first collections that adorned scholars' private cabinets originated, transforming them into real rooms of wonders, more alchemistical than scientific in nature.
In the first half of the 1700s these wunderkammer began to be opened to the public, thus paving the way for the future scientific museums.

Exhibition Room
Museum and Science
Collecting to astonish, collecting for research

Museum and Science

As a result of the experimental scientific method introduced during the 17th century, trust in reason and the primacy of science were established during the enlightened eighteenth century. The tendency to amaze with a wealth of shapes and sizes and the abundance of finds was replaced by the need to study the extraordinary variety of organisms and natural products adopting a common and ordered method of classification.
As did their counterparts in other countries, naturalists in Venetia undertook systematic studies throughout their territory and created outstanding collections.
Together with publications, manuscripts and scientific correspondence, many of these represent the initial nucleus of the considerable patrimony of the Natural History Museum of Venice Giancarlo Ligabue.

Entomological collections
Collecting to astonish, collecting for research

These rooms offer another 'access key' to the complexity of nature, illustrated by the survival strategies developed by animal and plant species over the course of their evolution: today's and extinct species, gigantic and microscopic organisms, inhabitants of the waters, land and air. It offers a journey through the complexity of living forms, marked by an enormous variability, profound differences, but also surprising similarities. The first room is a striking virtual display of the diversity of life.

FORM AND FUNCTION IN LIVING THINGS

Present-day and extinct species, inhabitants of waters, lands and the air, gigantic to microscopic in size. A journey in the complexity of living forms, marked by profound differences but also by surprising similarities. All living creatures share some basic features, such as the capacity to reproduce and that of using external resources as energy and as raw materials to grow. In order to find a partner, food, a suitable place to live, as well as to escape from a predator, organisms have to move, be able to perceive their surroundings and communicate with each other. So unicellular organisms, plants and animals have developed a vast number of adaptations, behaviours and strategies in order to survive. However odd and complex the form of an organism is, it is an evolutionary response to the particular needs of a species in a certain environment. All together these forms, extinct and present-day, gigantic or microscopic, aquatic and terrestrial, constitutes the incredible biodiversity of the planet Earth.

Exhibition Room
Form and function
The Strategies of life

MOVEMENT: LIVING SPACE IN A DYNAMIC WORLD.

Without moving. Adaptations to feeding and breeding staying motionless. Filter feeders.There are not many animal groups that are able to spend all or most of their life cycle remaining more or less motionless: these are all aquatic organisms that live on the seabed, anchored to floating objects or rocks, which therefore had to devise how to reproduce, defend themselves and reach their food without moving. The difficulties related to motionless feeding were overcome by sponges, bivalve molluscs, sea squirts and other marine invertebrates by making use of filtering structures, which strain the many organic particles present in the water as dissolved or suspended matter. Filtering is such an efficient solution that not only it has been retained over time by many

Exhibition Room
Without moving
The Strategies of life

groups of invertebrates, but it has also been adopted by some of the biggest creatures in the world, such as whales.
Other sessile animals, like corals, get hold of their food by capturing the particles suspended in the water with their moving tentacles. On the contrary, there are no land animals that live by filtering the air because, compared with water, it is poor in suspended particles, so that air-filtering would be too exacting and not very effective.

Exhibition Room
Without moving
The Strategies of life

Walking, running, jumping... And other ways to move about on a surface. Moving on a plane.
The capacity to move from one place to another is one of animals' most obvious characteristics: in this way they can procure food, escape from predators or catch up with a partner to mate. Some unicellular forms or phases of fungi and plants can also move actively, as can some bacteria and other prokaryotes. On land, movements generally take place in two dimensions, since the force of gravity holds the body down onto the ground. Planes of movement, however, are not always horizontal: they are often inclined or even vertical, as on rock walls or trees. Even under water some animals have adapted to bidimensional habitats, like the seabed or the surface of other organisms.

Exhibition Room
Movement
The Strategies of life

Moving in the water. Forms and strategies to swim and float. Organisms that move about in a fluid, whether air or water, are free to progress in the three dimensions but must fit in with the physical characteristics of the element in which they are immersed. The high density of water has the capacity to keep up the weight of the body, which almost finds itself in a state of absence of gravity, especially in salt water, but at the same time it offers resistance to movement.
All swimmers, therefore, have worked out adaptations that enable them to exploit these features, developing hydro-dynamic forms and propulsive structures. The group of organisms most adapted to movement in water is, of course, fish, whose fins, different inshape and position, are specialised organs that provide thrust, regulate direction and allow control. The rear or caudal fin, together with a more or less extensive part of the body, generally provides thrust, while the unpaired dorsal and anal fins have the function of keeping the fish vertical; the paired fins (pectoral and pelvic) act as stabilizers and brakes and are sometimes used for slow, precise manoeuvres.

Exhibition Room
Moving In the water
The Strategies of life

Moving in the air. The conquest of flight. Most animal species are able to fly. However, in order to keep hovering in the air, substantial adaptations in the body structure and considerable expenditure of energy are required. What are the advantages of flying, then? Moving in the air provides access to food resources and, more generally, to ecological niches that are not available to other animals. It makes it easier to escape from predators or pursue prey more effectively, as well as to use the hind limbs as weapons. The conquest of the aerial space also gives the possibility of moving quickly even between places far apart from each other, overcoming obstacles like mountain chains and stretches of water with relative ease.

Exhibition Room
Moving in the air.
The Strategies of life

NUTRITION: the energy cycle and the strategies to get food

Feeding on light. Photosynthesis at the root of life. Unique among all living beings, plants build up the organic matter that forms their body from a small number of inorganic substances by means of a process called photosynthesis. An abundant, easily available source of energy is needed to transform simple substances into other complex substances: this is the sun, or rather the part of solar radiation that makes up visible light. This process can only take place thanks to special pigments, the most common of which are chlorophylls, that are present in very simple organisms like bacteria, as well as in more complex ones such as algae, mosses, ferns and all higher plants. During photosynthesis, glucose is produced from water and carbon dioxide, while oxygen is released as a "waste" from the reaction. Indeed, during the history of life on Earth, the percentage of the latter essential element in the atmosphere has increased thanks to photosynthetic activity, initially carried out in microscopic organisms, such as unicellular algae and cyanobacteria, and later on also by terrestrial plants.

Exhibition Room
Feeding on light
The Strategies of life

Cedro dell'Himalaya
The Strategies of life

Vegetarian diet. Specializations and strategies. The second link in the food chain consists of vegetable-eaters, the phytophagous organisms, a category that includes not only animals that feed on grass (herbivores) but also those that eat wood, seeds, flowers, fruits and other vegetal tissues. They are the only organisms able to exploit cellulose as food, converting it into substances that can be assimilated. To feed efficiently, phytophagous organisms have adapted in various

Exhibition Room
Vegetarian diet
The Strategies of life

ways, among which by evolving particular mouth structures. Mammals, for example, share a common dental structure: well developed incisors, canines that are either incisor-shaped or growing smaller until they disappear and massive molars. An extensive diastema, a toothless space where many mammals accumulate the food to be chewed, is often present between incisors and molars. A similar type of mouth architecture is also found in other plant eaters: a gap is recognizable both in the jaws of some insects and in the mouths of ancient vegetarian reptiles, between the incisor-like and the molar-like sections.

Eating other animals. Adaptation to preying.
Carnivores. The third link in the food chain consists of the predators, organisms that feed by preying on other animals. It may be more laborious for them to procure their food than for plant-eating creatures, but in their favour is the high nutritional value of meat and its easy digestibility. For this reason a carnivore's body structure, and its dentition in particular, is designed for predation. Among them, several have mouths bristled with sharp teeth, very effective at ripping off pieces of meat that are swallowed whole. This basic pattern, with a wide range of variations, is found, for example, in large preying dinosaurs as well as in present-day mammals, which display a reduction in both teeth number and differentiation. An effective example among invertebrates is the tiger beetles, a group of preying coleopterans. Their jaws, equipped with long pointed teeth, are perfect to pierce their prey on first.

Skull of allosaur (cast)
Eating other animals
The Strategies of life

Everything is recycled. Nourishment from organic remains. Decomposers are organisms that feed on dead vegetal tissues and dead animals, breaking down their organic substances. These organisms carry out an essential function, making again available to the vegetal world the simple mineral compounds that were transformed into complex substances along the food chain. A large variety of organisms with different diets and food specialisations belong to the decomposers. They are divided into two groups, which however may merge into each other: while saprophagous organisms feed on animal carcasses and dead plants, coprophagous creatures live on excrements, remains and substances that have already been partly digested. Then, bacteria, acting simultaneously or after such organisms, complete the breakdown of the organic substance into minerals and reintroduce them into the cycle of matter.

Exhibition Room
Microcosm
The Strategies of life

General Information

Venue

Natural History Museum of Venice Giancarlo Ligabue
Santa Croce 1730,
Venezia

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How to get there

Vaporetto
Linea1 or line 5.2
Riva de Biasio stop

—

Scan the **QR Code** and discover our map

Opening Hours and Tickets

For ticket information and opening hours please consult the website:
www.msn.visitmuve.it

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Bookings

- on-line: **www.msn.visitmuve.it**
- calling the call center: **848082000** (from Italy); **+39 041 42730892** (only from abroad)
from Monday to Friday, excluding holidays, from 09:00 to 13:00

The booking office will also reply to customers through the e-mail address prenotazionivenezia@coopculture.it

Reservation is not mandatory and it is not necessary in case of free tickets.

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