



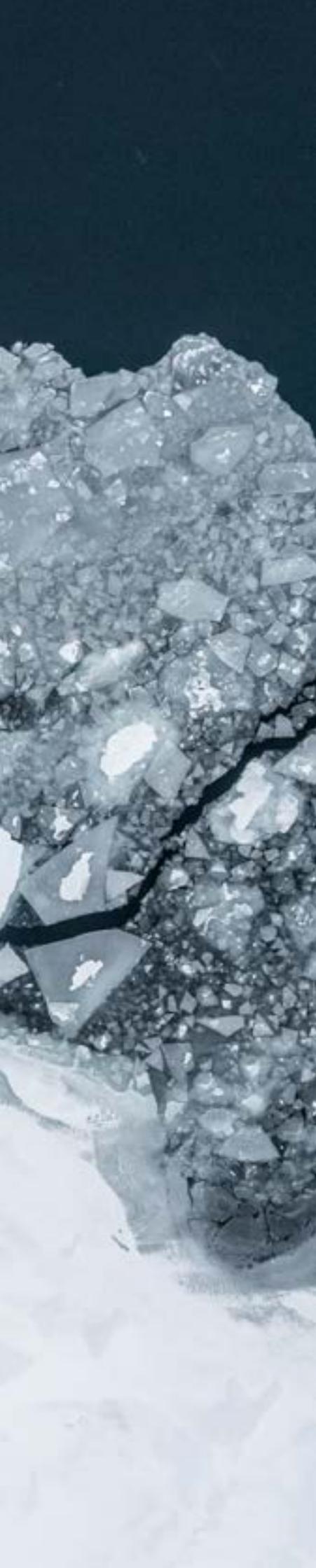
LE COMMANDANT CHARCOT

POLAR ODYSSEYS



2022 - 2023





Beyond exploration

A few years ago, even the idea of building a hybrid electric deep polar exploration ship capable of taking passengers to the edges of the earth in an eco-responsible way seemed impossible. Technical restrictions, the development of in-ship technologies, clean shipping, total comfort in an extreme location, unique itineraries in regions with little mapping: six years after making our initial sketches, many challenges have been resolved and *Le Commandant Charcot* is finally ready to sail.

On 6th September 2021, at 10:30 am, the first French cruise ship reached the geographic North Pole during a test trip to Arctic waters. Three weeks later, the ship, that shares both Jean-Baptiste Charcot's name and values, was inaugurated in Le Havre, France, the port all his expeditions sailed from.

A blend of travel and immersion, knowledge and an openness to the world, adventure and new discoveries, this is what our trips to the Arctic and Antarctic aim to offer. Set off in pursuit of the geographic North Pole or the most isolated spaces on the White Continent, onboard *Le Commandant Charcot*. Because beyond exploration, there is this ultimate quest, immortalised in a total polar experience.

Immersion. Knowledge. Sharing. Sailing in the heart of extreme environments, the presence of an expedition team made up of polar experts, accompanied by guides who are specialists in the activities on offer and scientific ambition all come together to create a true, humbling polar odyssey experience.

Throughout these pages, printed on recycled paper, we give space to those who have contributed to the birth of this unique ship in numerous ways and who are continuing this polar adventure story today. Engineers, architects, commanders, naturalist guides: discover the passion that drives them - a communicative passion imbued with the aura of Jean-Baptiste Charcot, whose family entrusted PONANT with exclusive archives photos. A heritage we are proud to share with you as you read, and later, hopefully, onboard.

1



2



3

**ENTER THE WORLD
OF *LE COMMANDANT CHARCOT***

P. 12 to 25

Learn about the genesis of the project through unique accounts and exclusive photographs from Jean-Baptiste Charcot's family.

THE SHIP

P. 26 to 47

By combining responsible design and technological prowess, *Le Commandant Charcot* mobilises teams of experts, both at sea and on land.

LIFE ON BOARD

P. 48 to 61

Sleek design, fine dining, new spaces, new partners and tailor-made services extend and enhance the polar experience.

**DESTINATIONS THAT ARE
OUT OF THIS WORLD**

P. 62 to 71

Experience essential escapes. Find meaning again. Understand our planet a little better. Feel anchored on it. We offer you authentic polar odysseys to the ends of the world.

ACTIVITIES

P. 72 to 91

On the ice floe, on the water or on board, experience polar environments through immersive activities, in total harmony with these territories.



4



5



6



7



8

THE ARCTIC

P. 92 to 131

Experience the magic of the Arctic with new itineraries during *Le Commandant Charcot's* inaugural season in the Far North.

THE ANTARCTIC

P. 132 to 167

Follow in the footsteps of the great polar explorers on routes through little-known, little-mapped regions. A true adventure beyond the 50th parallel south.

WELCOME ABOARD

P. 168 to 177

View Deck Plans, Staterooms and Suites.

Responsible tourism

It is a case of opposing forces: to experience grandiose and memorable adventures, evidence of our passage in the places we visit must be minimal and transitory. This is why, for 30 years, PONANT has worked every day with the aim of undertaking responsible and sustainable tourism.

RECOGNISED COMMITMENT

Our commitment is regularly praised by various reference organisations.

- All our vessels are **Clean Ship and Clean Ship Super certified**, the highest certifications awarded by Bureau Veritas.
- The German NGO NABU awarded us the title of **the most environmentally friendly cruise company**.
- PONANT is the first European cruise line to obtain the **North American Green Alliance certificate**. It attests to the adoption of environmentally friendly practices and technologies by its members.
- We also received the **Palmes du Tourisme durable prize**, 'Travel' category for the total elimination of heavy fuel oil in favour of low sulphur marine diesel (LSMGO).
- *In 2021, [Le Commandant Charcot](#) was awarded the Expedition Cruise Ship of the Year Prize at the 15th Seatrade Cruise Awards.*





All of the carbon emissions of our cruises are offset by reforestation and renewable energy production projects.



75%

electricity savings thanks to LED bulbs on board.



1st

cruise company in the world to abandon heavy fuel oil.



10,000 kg of single-use plastics avoided in 2019.



200 fewer plastic bottles per day thanks to the glass bottling system on board *Le Commandant Charcot*.



100%

of waste and wastewater sorted and treated on board.



All our ships are fitted with, or are in the process of being fitted with, **electrical connections** for linking to local networks at the quayside, and to avoid any emissions into the atmosphere.



Read about our environmental commitments from A to Z.

The PONANT polar expedition

IN THE HEART OF EXTREME LANDS

Leader in expeditions and expert of the polar zones, PONANT offers you the chance to make your dream of adventure come true, with the dedicated and responsible approach for which we are known. On the White Continent, try to spot the famous emperor penguins of Bellingshausen, sail on the Weddell Sea to the Larsen Ice Shelves and explore beyond the Antarctic Circle to the Ross Sea or islands that have forged the legends of polar explorers such as Jean-Baptiste Charcot. In the Arctic, go in search of the geographic North Pole, reach the wild coasts of Greenland, the lonely shores of Svalbard or follow the greatest dreams of adventure in the Northwest Passage, and meet the peoples of this isolated Great North, with its extreme living conditions.

A TEAM SPECIALISING IN THE POLES

Experienced in polar navigation, our enthusiastic team at the helm of *Le Commandant Charcot* are highly trained in the management of all aspects of the ship. This allows them to navigate safely through the ice. On board as well as on land, guests benefit from the presence of the expedition team composed of 19 to 23 experts, a unique accompaniment for polar cruises. The expedition leader and the naturalist guides ensure the safety of the guests during the outings and disembarkations, the smooth running of numerous activities such as dog sledding in the Arctic, Zodiac boat tours, kayaking, hiking, snowshoeing, swimming in polar waters in a dry suit or polar diving. Specialists in many fields such as ornithology, marine biology, ethnology, geology and glaciology, they will be ready to share their knowledge at any time.

ON BOARD *LE COMMANDANT CHARCOT*, EVERYTHING IS INCLUDED

Once on board, you are free to experience the adventure with complete peace of mind. Everything is included in our services: fast and secure Zodiac outings and landings, activities, conferences, as well as parkas and the rental of boots.



**EXPEDITION
TEAM**



**PARKA
GIFT**



**BOOTS
FREE RENTAL**

Each departure is unique. Itineraries, sailing schedule, landings, activities and wildlife encounters are subject to weather and ice conditions. Our navigation will be determined by the type of ice we come across; as the coastal ice must be preserved, we will take this into account from day to day in our itineraries.





THE PRESERVATION OF THE POLAR REGIONS

For several years, we have actively supported Le Cercle Polaire®, a think tank that works to promote the preservation of the polar environments. Personalities from *L'Appel des Pôles* and members of the NGO *Cercle Polaire* thus regularly participate in our polar cruises.

We are a member of the International Association of Antarctic Tour Operators (IAATO), and the Association of Arctic Expedition Cruise Operators (AECO). As such, we comply with strict rules concerning the number of guests authorised to disembark, the distance from wildlife, the training of our expedition teams, and even emergency and medical evacuation plans.





NATIONAL GEOGRAPHIC and PONANT: unique and immersive expedition cruises

PONANT and NATIONAL GEOGRAPHIC have joined forces to offer the spirited adventure traveller a unique opportunity to embark on a selection of new expedition cruises to some of the most intriguing and remote destinations on the planet. Together we will take you further.

DISCOVER OUR DIFFERENCE

PONANT, leader in polar expeditions for almost 20 years, boasts the world's most modern fleet of expedition ships. Designed to sail distant seas in comfort and safety, their small size and manoeuvrability helps reach the most remote lands. Our cruises go above and beyond environmental regulations, using research and innovation to help us minimise our impact on the remote places we visit.

Exploration has always been part of the NATIONAL GEOGRAPHIC DNA – and it is this deep-rooted drive for discovery that spurred the creation of NATIONAL GEOGRAPHIC EXPEDITIONS. We offer unique travel experiences that aim to inspire people to care about the planet by providing meaningful opportunities to explore it, and we're committed to sustaining the character and integrity of each destination we visit.

Now, you can travel with NATIONAL GEOGRAPHIC and PONANT to the furthest corners of the world, far from the usual tourist bubbles. Enjoy our new, unique and enriching expedition cruises to some of the world's most intriguing, remote and pristine destinations, in the very places where some of the pages of exploration were written.

LET OUR EXPERTS GUIDE YOU

Our expedition cruises give you access to an unparalleled team of experts. You will be enriched by the knowledge of the PONANT expedition team and by NATIONAL GEOGRAPHIC experts and photographers. You'll be surrounded by people who are steeped in knowledge and insights about the places we go and they're passionate about sharing that knowledge with you.

EXPLORATION HAPPENS BECAUSE OF YOU

When you travel with NATIONAL GEOGRAPHIC and PONANT, you help further the work of our scientists, explorers and educators around the world. Every year, we distribute a portion of our proceeds to the National Geographic Society that works to preserve, protect and better understand our planet and its people.

To date, the NATIONAL GEOGRAPHIC SOCIETY has given out almost 14,000 grants to scientists and conservationists, whose work is making a significant difference around the world. It has supported critical projects such as the Pristine Seas project, which has already helped to protect more than five million square kilometres of the ocean's last wild places.



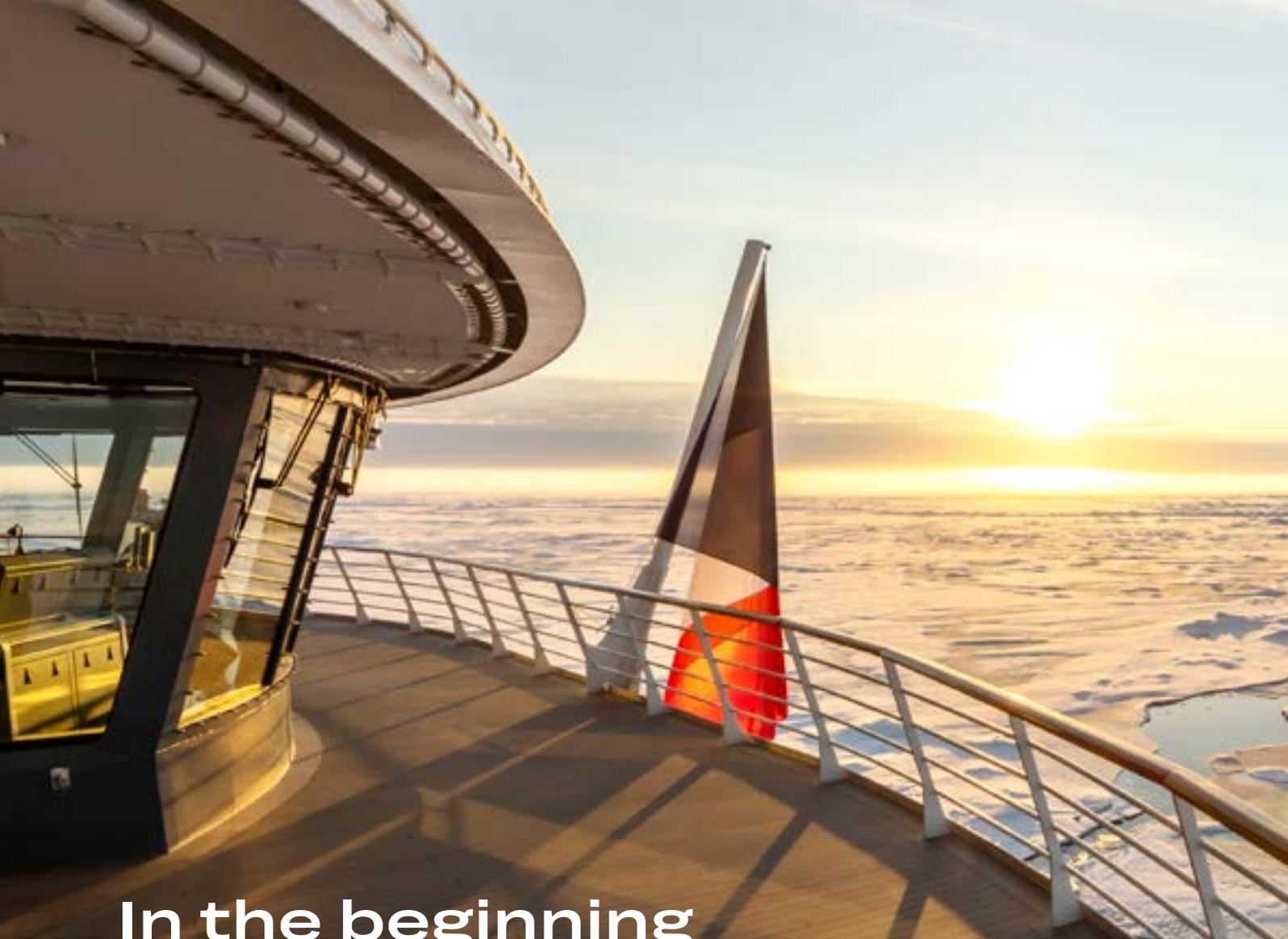
*In summer 2022, embark in Greenland aboard
Le Commandant Charcot with
NATIONAL GEOGRAPHIC EXPEDITIONS.
Find out more on page 109.*



**ENTER THE
WORLD OF**

LE COMMANDANT CHARCOT

The *Le Commandant Charcot* project began with an idea some may have considered slightly eccentric, and a name that encompassed international polar history. It took six years before we could finally admire *Le Commandant Charcot* on the water and pay tribute to Jean-Baptiste Charcot, doctor, scientist, adventurer and humanist like no other.



In the beginning

Behind the construction of *Le Commandant Charcot* was an idea: to follow in the footsteps and philosophy of the pioneers of adventuring on the ice and to explore still largely uncharted polar regions, returning from these extreme territories enriched by the intense experience and with a better knowledge of these environments. But how could this idea be made a reality? Building a ship capable of reaching these regions, securing the support of crew members and shareholders, honouring the legacy of Jean-Baptiste Charcot, after whom the ship is named: PONANT took on a massive challenge. Today, those who brought the project into being give us their views.

A CRAZY IDEA

"I first heard of this project in 2015. I was at the company headquarters and, at first, I had some doubts, as it all sounded very ambitious. What was being discussed was a very exceptional project. I told myself it was a crazy idea, but then, borrowing Jean-Baptiste Charcot's own motto, I thought 'why not?' And in the end, we pulled it off." [José Sarica, Expedition Director](#)

"In September 2015, Jean-Emmanuel Sauvée [Editor's Note: PONANT's former President] sent for me and told me about their latest development projects for new vessels. One was for a ship capable of sailing to the North Pole, bringing the concept of 'expedition' closer to the exploration of unknown lands. But we needed the right tool to do it. And that's when the idea of a polar exploration vessel was conceived. I thought it sounded a little ... wacky, a little crazy! No such ship existed. I wasn't sure the project was even feasible. It raised a number of questions. We'd opened a metaphorical box and found 10 more boxes inside. And each of those 10 boxes contained 10 more! It was an endless Matryoshka doll. I had to approach the matter pragmatically, trying to envision a ship capable



of reaching the North Pole. Following that, I attempted to rapidly figure out how to combine the different requirements: it needed to be a passenger ship, quite technically advanced and environmentally reliable.”

Mathieu Petiteau, Director of New Construction

IN THE COMPANY'S DNA

“Six years ago, when I heard about about this project, I was surprised. It was a big step for PONANT. Things were being taken to a whole new level. But then I realised that this drive for innovation is in the company's very DNA. I took it as a new challenge! We were branching out into something entirely new for us.”

Patrick Marchesseau, Captain of *Le Commandant Charcot*

A DREAM COME TRUE

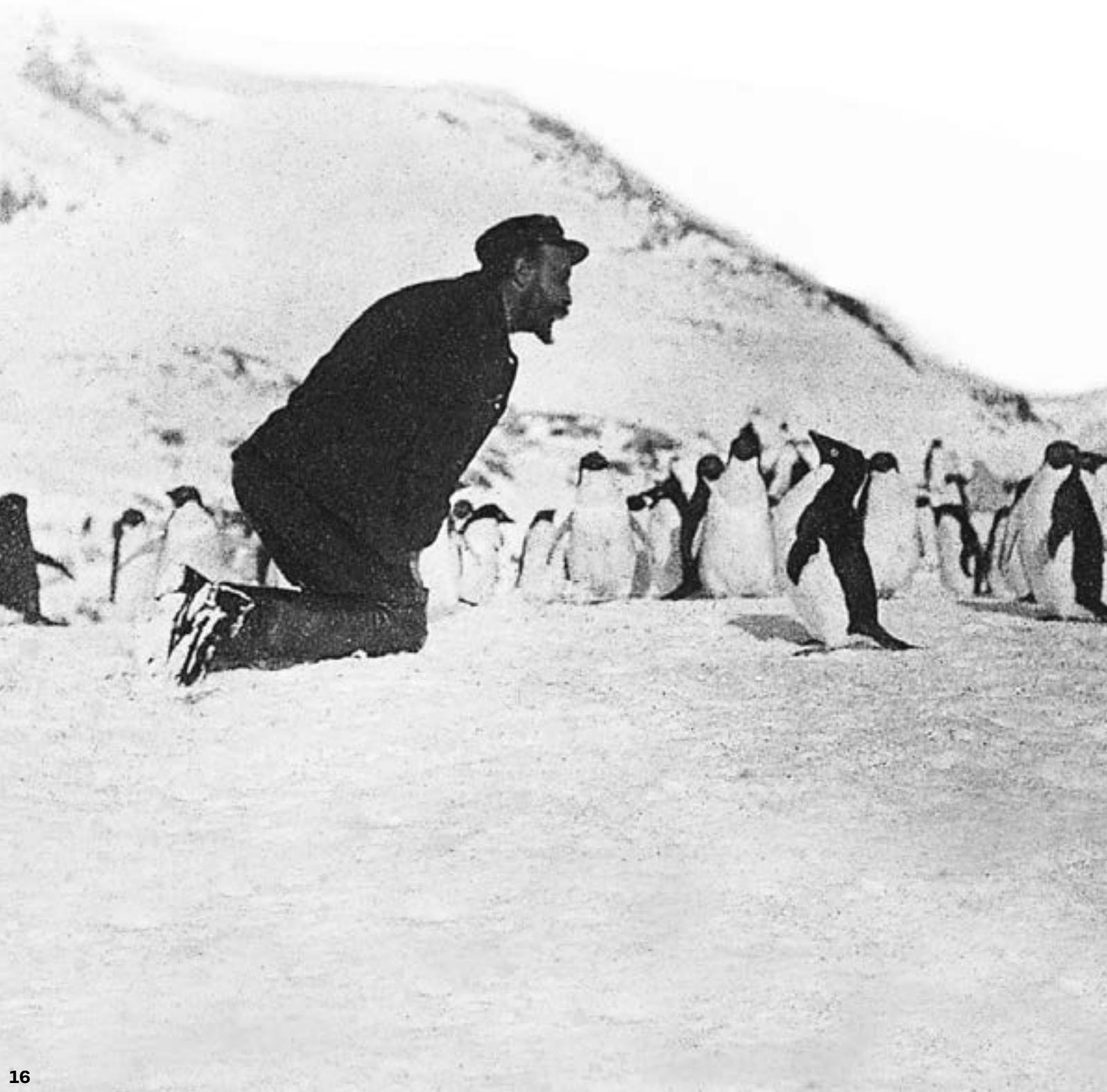
“Building a real cruise ship for polar exploration is every seaman's dream. For me personally, it's somewhat of a consecration, a fitting end to 15 polar years.”

Étienne Garcia, Captain of *Le Commandant Charcot*

*“What I like about *Le Commandant Charcot* is that it furthers Jean-Baptiste Charcot's legacy of science and exploration. We're going to try taking this adventure one stage further, despite the numerous wild cards. Experiencing the unknown is fairly incredible in itself. Where else in the world can it still be found? For us polar enthusiasts, it's a great opportunity, but I think it can also give something to the guests who'll take part in this trip. I think we'll come back instilled with a spirit of exploration, true exploration.”*

Florence Kuyper, Expedition Leader

Jean-Baptiste Charcot, a polar destiny



An outstanding figure among the famous in the pantheon of the maritime and polar world, Jean-Baptiste Charcot, a fabulous explorer in the most authentic sense of the term, was also a true humanist. Nicknamed the 'gentleman of the poles', he expanded our knowledge through his intense desire to understand and to share. More than just a man, Commander Charcot (1867-1936) also embodied a destiny.

There are some family traits that provide real strength of character. And that was certainly the case for Jean-Baptiste Charcot. While he dreamed as a little boy of growing up to be "a sailor, why not?", his father Jean-Martin, a renowned neurologist, insisted he took up medicine. He enjoyed his studies and went on to practice, developing a scientific grounding that would later prove useful. But right from childhood, his destiny was always going to be on the water.

As a toddler, he played with his toy sailing boats in the "the yacht port", otherwise known as the pond in his grandfather's garden. In 1872, at the age of five, he took a soapbox, a stick for a mast and a towel for a sail, and wrote 'Pourquoi Pas?' 'Why Not?' in red paint on the hull. It was a name he went to give to four ships on his expeditions. However, on this occasion, the voyage was a short one and ended with a sinking ship - and a sound hiding. The anecdote illustrates not only a passion, but also an exceptional personality.



DOCTOR BY PROFESSION, SAILOR AT HEART

He learned to sail with the local fishermen at Ouistreham on the Normandy coast, where he was convalescing at the age of 15 after contracting typhoid fever. Five years later, he was a volunteer medical auxiliary with the *Chasseurs Alpains* (French Alpine Troops). The mountains, the cold... it was an environment he liked. A great sportsman (winning sailing medals at the 1900 Olympic Games), he also discovered skiing and mountain climbing. But the sea was always in his sights. And when he had the opportunity to swap the peaks for the oceans, he didn't think twice before happily putting on a Navy uniform ahead of returning to his studies.

*Jean-Baptiste Charcot in Antarctica with the penguins he referred to as pingouins (French for auks).
Inset: Jean-Baptiste Charcot at the age of five.*

*All the photographs illustrating this article come from the Charcot family archives.
They are for use exclusively in this publication and may not be reproduced.*

Le Français *setting out from Le Havre on the first ever
French expedition to Antarctica in 1903.*

He was given his first yacht at the age of 25 by Jean-Martin Charcot, who died suddenly a few months later. The sense of grief was enormous, but he refused to be beaten by it. And above all, he remembered his father's words: *"You always need to believe that an objective is there to be achieved, and an ideal is there to be experienced. For you, the ideal is to earn yourself a wonderful, honourable place in this world, and to excel at something."* The young Charcot finished his studies, determined to become renowned. Knowing that he could never equal his father in his field, the call of the sea proved far stronger than medicine.

The sense of euphoria he experienced aboard a boat became a goal for him, and his attraction to the polar regions soon made its presence felt. *"I had to make sure that the good fortune I'd had, thanks to a crushing workload and my father's values, would now bear fruit - and that it shouldn't just be about personal satisfaction. Science, French science, in one form or another, should also benefit. I see myself simply as a custodian,"* he wrote in his diary. With his iron-hulled schooner, *Rose-Marine*, he crossed the Arctic Circle for the first time in 1902, after the French Navy had asked him to study sea and air temperatures around the ice.





POLAR EXPLORATION FOR THE BENEFIT OF SCIENCE

He then went on to supervise the construction of his polar ship, *Le Français*. As he headed for little-known lands in the southern hemisphere, he not only highlighted the scientific treasures to be found and reported, he also added to France's reputation. His first Antarctic expedition, which included the first wintering-over of a scientific ship, lasted from 1903 to 1905. More than 1,000 kilometres of new coastlines were charted, and 75 chests were filled with scientific observations, notes and measurements. A few years later, from 1908 to 1910, he set out again aboard his new ship, '*Le Pourquoi Pas?*' for a new scientific expedition, which proved to be yet another success.

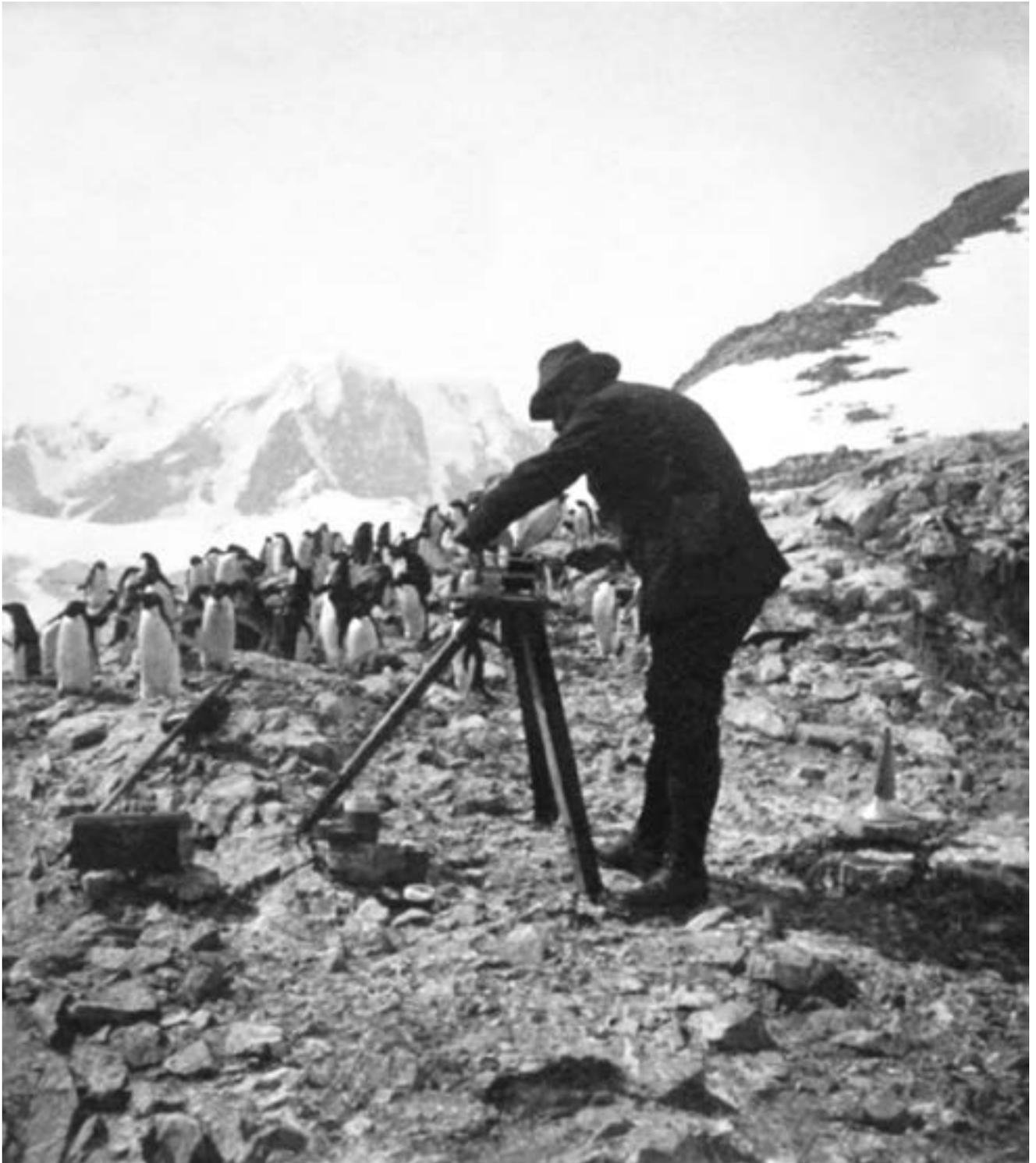
He and his boat both took part in the First World War. At one stage attached to the British Admiralty, he was later appointed a lieutenant by the French government and given a mission to patrol the French coasts in search of German submarines. At the end of the war, he began to reap the benefits of those experiences.

Highly decorated for his actions, this national hero became a member of several academies, including the Academy of Science, taking the chair that his father had previously occupied. That day, one of his most precious dreams came true: thanks to his exploits, the Charcot family name had achieved fame for a second time.

Further Arctic expeditions were to follow. In 1936, at the age of 69, before a new voyage on the '*Le Pourquoi Pas?*', he wrote: "*My boat is getting old, and so am I. Perhaps we are going on our last expedition together. Here's to God! Let's go and meet our destiny!*" On September 16th, off the coast of Iceland, the ship was caught in a terrible storm, and only one of the 40 people aboard survived. A state funeral was organised, and the country mourned the passing of someone who had embodied the grandeur of France.

*Top: Jean-Baptiste Charcot (left) at the helm of one of his first ships.
Bottom left: Member of the crew on Le Pourquoi Pas? conducting surveys in Antarctica.
Bottom right: Monique and Martine, the two daughters of Meg and Jean-Baptiste's aboard Le Pourquoi Pas?*





*Le Pourquoi Pas? wintering in Antarctica, between 1908 and 1910.
Jean-Baptiste Charcot relaying scientific data in Antarctica.*





“The spirit of Jean-Baptiste Charcot is still very much alive”

The son of a sea fisherman, Rémy Marion is the former president of the Friends of Le Commandant Charcot and Le Pourquoi Pas?. Photographer, video producer, author and a member of France’s Société de Géographie, he has spent the past 35 years exploring the polar regions, both northern and southern. Here, he looks at the legacy of Jean-Baptiste Charcot.

You are the former president of the Friends of Le Commandant Charcot. Could you explain your interest in Charcot, as a man and an explorer?

When you are passionate about a subject, as I am about the polar regions, you very quickly become interested in the life and adventures of Jean-Baptiste Charcot. I’ve navigated the seas that he explored and my various journeys around the Antarctic have encouraged me to learn more about him. He discovered hitherto unexplored areas and his vision of the polar world was a mixture of exploration, adventure, science, humanism, respect and goodwill.

In your view, what’s the legacy of Jean-Baptiste Charcot?

His work laid the foundations of polar science and oceanography. It’s not by chance that one of the great ships in France’s ocean-going fleet is called *Le Pourquoi Pas?*. After he passed away in 1936, France paid homage to him with a funeral at Notre-Dame cathedral. Today, his memory lives on, with many colleges, schools and streets in France named after him.

His first two winters in the Antarctic made him a pioneer, as he created the basis for modern scientific research at the start of the 20th century. Do you believe today’s scientists take inspiration from his methods?

During those two winters, he established a set of scientific protocols and completed a series of measurements over long periods that made it possible to create a meteorological and magnetic picture of the region. Being very interested in microbiology, he also took many samples. A century later, this data remains a valuable source of reference for today’s researchers. He also developed techniques for deep-sea dredging and underwater geology. During his voyages, he was accompanied by a lot of young people who later went on to play leading roles in French science, such as Paul-Emile Victor and Robert Gessain, who did a lot of work on the anthropology and ethnology of Greenland’s east coast. A renowned sailor, he was also a scientist by training. Together, these two qualifications enabled him to launch the field of oceanographic and polar research in which France excels today. In terms of both scientific research and polar exploration, Jean-Baptiste Charcot’s spirit is still very much alive.



Charcot also carried out geographical work on the Antarctic, a continent that was not well-known at the time, and made a significant contribution in terms of toponymy. Could you talk about some of his notable discoveries?

Jean-Baptiste Charcot was solidly-built physically, and a great sportsman. At that time, the British had already made several attempts to reach the South Pole. Given his knowledge and physique, he could very easily have tried to place a French flag there. But following the lead of Belgian explorer Adrien de Gerlache de Gomery, he decided instead to map Antarctica, an area that was extremely difficult to navigate, due to the large number of rocks, islands and islets. He produced an enormous amount of work, as you can see from the maps featuring French names that are a long way from the Dumont D'Urville Station in the Antarctic. He named these places after members of his family or people who supported him, such as Marguerite Bay, after his wife, Port Charcot, after his father, and Mount Lacroix, which was named after a former secretary of France's Académie des Sciences. Even though the regions of the Antarctic belong to all humanity, there is a slight sense of being on French territory.

Is sharing a common feature of all Jean-Baptiste Charcot's expeditions?

Aside from all his exploits and adventures, passing on knowledge was one of his core principles. During winter, he insisted that all the scientists on board give lessons to the ship's sailors. In fact, the explorer Robert Scott called him the "Gentleman of the Poles", because he had chosen to map the Antarctic Peninsula rather than try to reach the South Pole. Jean-Baptiste Charcot had a very good relationship with his international colleagues. Humanism, along with a desire to share the science, sense of adventure and beauty of these landscapes, was a constant guide throughout his life.

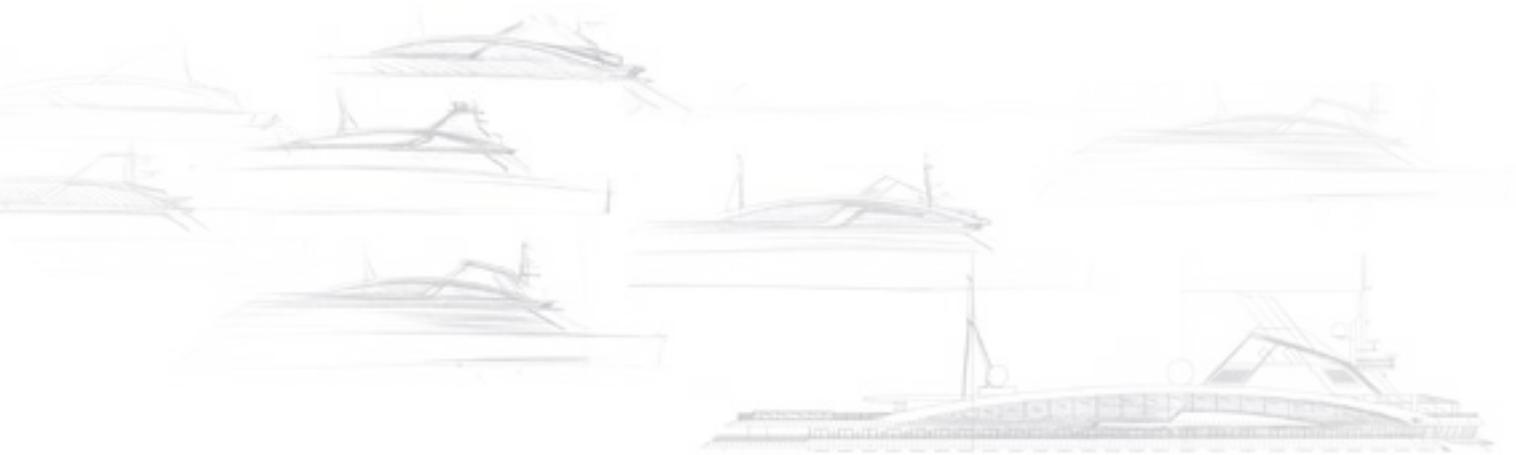
Marguerite Bay, discovered during Charcot's second expedition (1908 – 1910) and named in honour of his wife.



THE SHIP

Onboard technologies, innovations, expertise, scientific opportunity, sustainable and eco-friendly design – *Le Commandant Charcot* is, above all, a ship that generates an incredible synergy between talented people who all have a passion for the sea and a taste for challenge.





“A completely new project”

One of the people who sketched the first drawings of *Le Commandant Charcot*, Thibaut Tincelin, director of the naval architecture company Stirling Design International (SDI), looks back on the birth of a new type of ship.



In 2015, Thibaut Tincelin, director of the naval architecture company Stirling Design International (SDI), met Jean-Emmanuel Sauvée, then director of PONANT, for a company strategy meeting. Among the projects considered was a “deep polar cruising ship”, the architect recalls. They quickly entered into the creative process: *“We worked on the design of the passenger spaces and the ship superstructures, with the design of the hull being entrusted to an ice-breaker specialist: Aker Arctic. To be more accurate, we jointly developed the ship’s concept, its structure in the form of a general plan as well as the design of the exterior, all from scratch.”* Creating a passenger ship with such demanding seafaring specifications was a real challenge. It truly was *“a completely new project for SDI”*, Tincelin reminds us. *“The challenge was even more tricky considering there is, to this day, no ship like it on Earth.”* For the gamble to pay off, the architects had to rethink their normal construction methods: *“The ship superstructures are much further back compared to a traditional ship in order to ensure the passenger cabins are as comfortable as possible in terms of noise and vibrations when the ship moves through ice.”*

BOLDNESS

On top of this were aesthetic and environmental challenges. The first one required *“a relatively uncommon weight distribution for a cruise ship. With it being built like an old sea rover, Le Commandant Charcot needed to fit in with the stylistic heritage of the other ships in the fleet. The overall design of the ship then is a subtle mixture of curves and sharper lines which evoke the shape of the surrounding icebergs,”* Tincelin explains. The second is about boldness, he says: *“Although the idea of a ship powered by liquid natural gas (LNG) seems obvious today, this decision in 2015 was much less certain and strategic. LNG storage technologies for passenger ships were still being developed. Le Commandant Charcot was the first to make use of it thanks to the efforts of all the partners in making this choice of fuel type happen, the most successful incarnation of this solution for a seagoing ship today.”*

2015 – AN AMBITIOUS PROJECT

110 years after the first expedition by Jean-Baptiste Charcot to the Antarctic in 1905, PONANT wanted to push the expedition further by offering responsible explorations of secluded locations, accompanied by experts and scientists. The idea of a hybrid electric cruise ship for deep polar exploration emerged.

2015-2016 – THE FIRST SKETCHES

The Finnish consultant Aker Arctic and naval architects Stirling Design International (SDI) were thinking about the design and environmental impact of a luxury cruise ship capable of navigating through ice.

2017 – ORDER GOES THROUGH

PONANT officially announces the launch of the project, entrusted to the Norwegian shipbuilder VARD, particularly renowned for its expertise on ship prototypes such as ice-breakers and expedition cruise ships.

2018 – DESIGN AND CONSTRUCTION

Architects Jean-Philippe Nuel and Jean-Michel Wilmotte put forth their visions for the ship's interior spaces, to match the external environment. First steel is cut and the keel is mounted marking the two essential steps to begin the construction of a ship.

2020 – AZIPOD PROPULSION MOUNTED

Le Commandant Charcot is fitted in Saint-Nazaire with two pods, which among propulsion systems are some of the most powerful in the world. Capable of 360° rotation, they make the ship highly manoeuvrable through ice, whilst also offering maximum energy efficiency.

2021 – SUCCESSFUL ICE TESTING

Off the coast of Norway, in the ice field to the North-East of Greenland and North of Svalbard, the PONANT team along with the VARD, VIKING, and Aker Arctic teams test the ship's behaviour in real life situations.

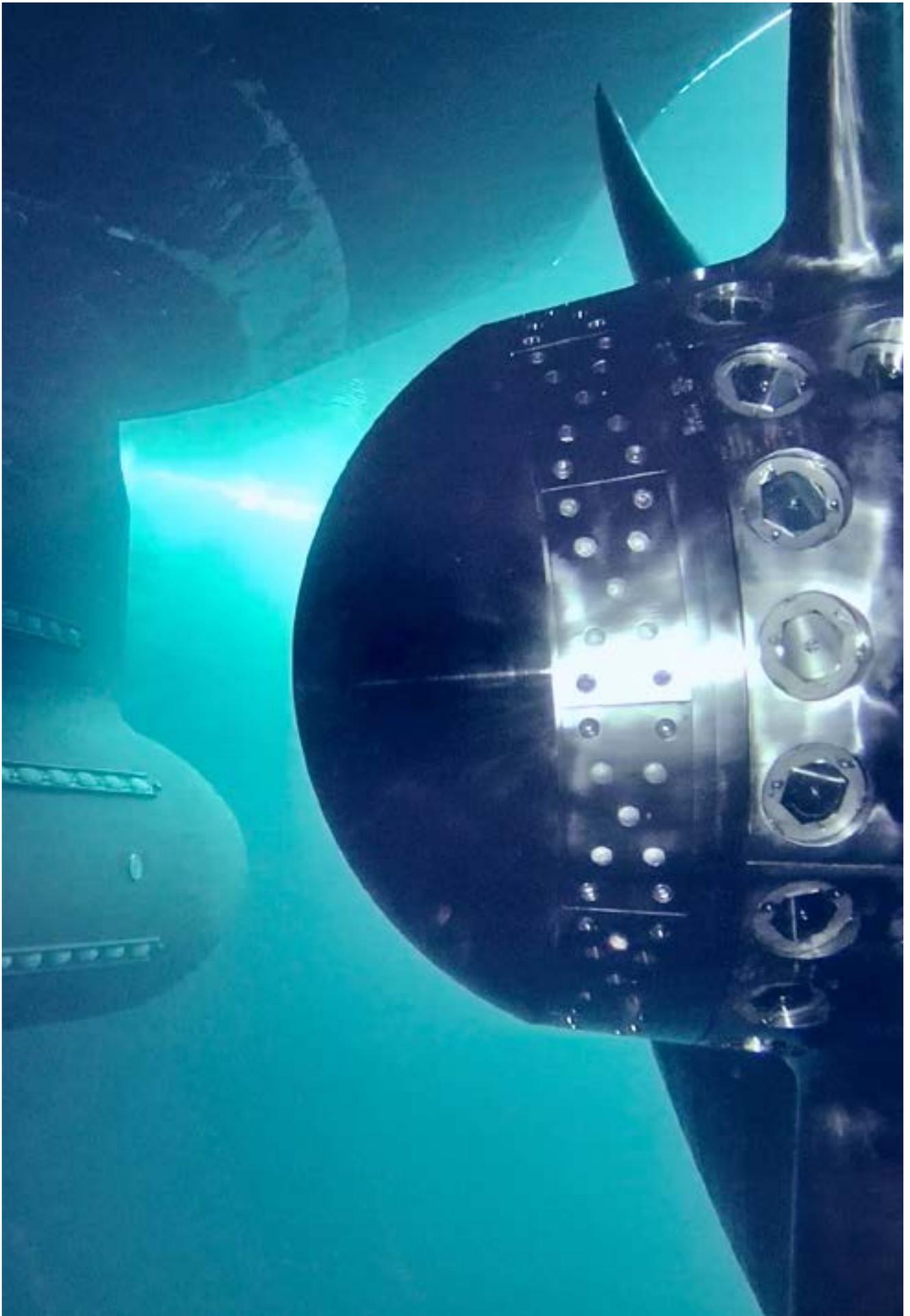
6TH SEPTEMBER 2021 – ARRIVAL AT THE NORTH POLE

At 10:38am, *Le Commandant Charcot* is the first French ship to reach the Geographic North Pole: a historic moment.

1ST OCTOBER 2021 – INAUGURATION

In Le Havre, the departure port for Jean-Baptiste's expeditions, the ship receives the traditional blessing marking the start of its commission.





“Sailing like this, it’s about spectacle, emotions”

Mathieu Petiteau, Director of New Construction at PONANT, is rather like an orchestra conductor. Under his baton, the greatest specialists in all categories worked for six years on the design of a ship that would be like no other: *Le Commandant Charcot*, the first polar exploration passenger ship. Today, he lifts the veil on a remarkable project.

The pods allow the ship to go forwards and backwards.

What did you think the first time Jean-Emmanuel Sauvée, the former president of PONANT, told you about the *Le Commandant Charcot* project?

My first reaction was to wonder if such an undertaking was even feasible. Aiming to go further and further is part of PONANT’s DNA, and we want to be able to take our guests to remote areas. But this was about pushing the concept of an expedition to become a concept of exploration. There was no such ship anywhere in the world.

***Le Commandant Charcot* is a true pioneer. So for its design, you couldn’t copy or even be inspired by anything existing, could you?**

No, we had to imagine, develop and design everything from A to Z. No ship like *Le Commandant Charcot* had ever seen the light of day, so there was no blueprint, whether in terms of naval architecture, maritime safety, gas propulsion system, battery integration or hybrid electric modules.

You gave yourselves quite a challenge!

Yes, at every level. Even bringing in a renowned architect like Jean-Michel Wilmotte, who was dealing with interior design on board a ship for the first time, was a huge challenge in itself.

Some cruise ships can already sail close to the sea ice; will *Le Commandant Charcot* be able to sail between the sheets of sea ice: what is the difference?

First, it’s important to realise that there are regulations that classify polar ships. Russian nuclear-powered icebreakers are rated at the highest Polar class (PC1). On the whole, the other ships sailing in polar waters are in the PC6 category, which is the most accessible. *Le Commandant Charcot* is rated PC2. It is the first passenger ship in the world to achieve this.

How is such a feat possible?

Until now, no one has dared to invest in a ship with such performance; it requires a huge financial outlay. Not to mention the technical issues. We are the only ones who have taken this risk. And we have taken it consciously: by favouring the most up-to-date environmental technologies in existence. This is also what makes *Le Commandant Charcot* unique.

How do you reach such latitudes without leaving any other trace of your passage than your wake?

This is one of the unique characteristics of *Le Commandant Charcot*: the fact that it is a hybrid vessel using electric power and liquefied natural gas. Going into such privileged environments without limiting our impact as much as possible was out of the question. So we immediately turned to the cleanest fuel available. Today, *Le Commandant Charcot* is the first ship of its kind to be powered by LNG, capable of six weeks of autonomous operation.

What about its batteries?

To guarantee that the engines would run on gas at all times, at an optimum charge, it was essential to have batteries on board. These act as buffers on the electrical network.

“We had to imagine, develop and design everything from A to Z. No ship like *Le Commandant Charcot* had ever seen the light of day.”

It must be an incredible experience to approach remote polar locations with a ship that makes no noise!

It's certainly the icing on the cake! The ability to cut our generators for a few hours and switch the ship to totally silent mode in an environment that is already so silent – it's a silence you're not used to at sea. At sea, there is always a sound of water.

But this kind of general resonance is totally muffled in an ice environment. It's extremely quiet. And turning off the generators for a while is an amazing experience, it engenders an emotion like no other.

The other unique sailing experience offered by *Le Commandant Charcot* is the propulsion system, which allows navigation in both directions.

To operate in the ice, we had to choose: stay with a traditional propulsion system or go for something completely innovative, the dual-acting vessels model. We have coupled two specific propulsion systems consisting of what are known as pods – Azipods – motors that allow for much easier manoeuvring. With this system, the ship can go both forwards and backwards.

Is that why you have two control bridges, fore and aft?

Absolutely. With this navigation concept, you can spend days in reverse. So there was no question of hiding this second bridge – on the contrary! Sailing like this, it's about spectacle, emotions, sensations. That's why we placed this bridge as close to the stern as possible, in the guest areas, so that everyone can participate in a unique exploration experience.



THE VESSEL IN DETAIL

Length: 150 m

Width: 28 m

Draft: 10 m

Average cruising speed: 15 knots

Number of staterooms and suites: 123

Crew members: 215

Installed electrical power: 42 MW

Year of delivery: 2021



Technological feats for eco-friendly sailing

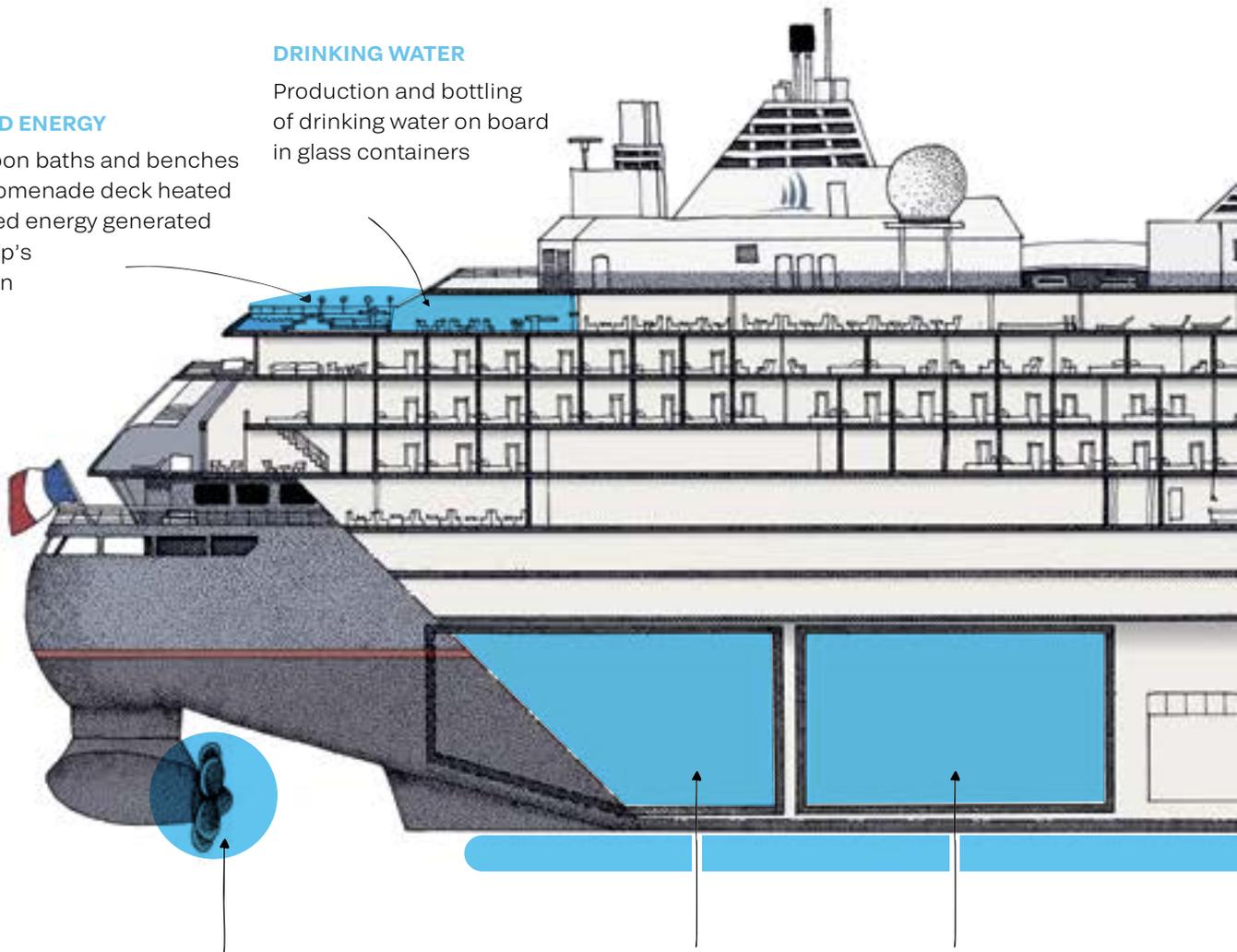
Right from the start of the project, the teams in charge implemented the latest innovations available and developed new technology in order to ensure that *Le Commandant Charcot* is at the very forefront of eco-friendly sailing.

RECYCLED ENERGY

Blue Lagoon baths and benches on the promenade deck heated by recycled energy generated by the ship's propulsion

DRINKING WATER

Production and bottling of drinking water on board in glass containers



MOST POWERFUL AZIPODS IN THE WORLD

- Forward and reverse manoeuvres handled by these 360 ° propulsion units
- Exceptional safety and manoeuvring capabilities in ice

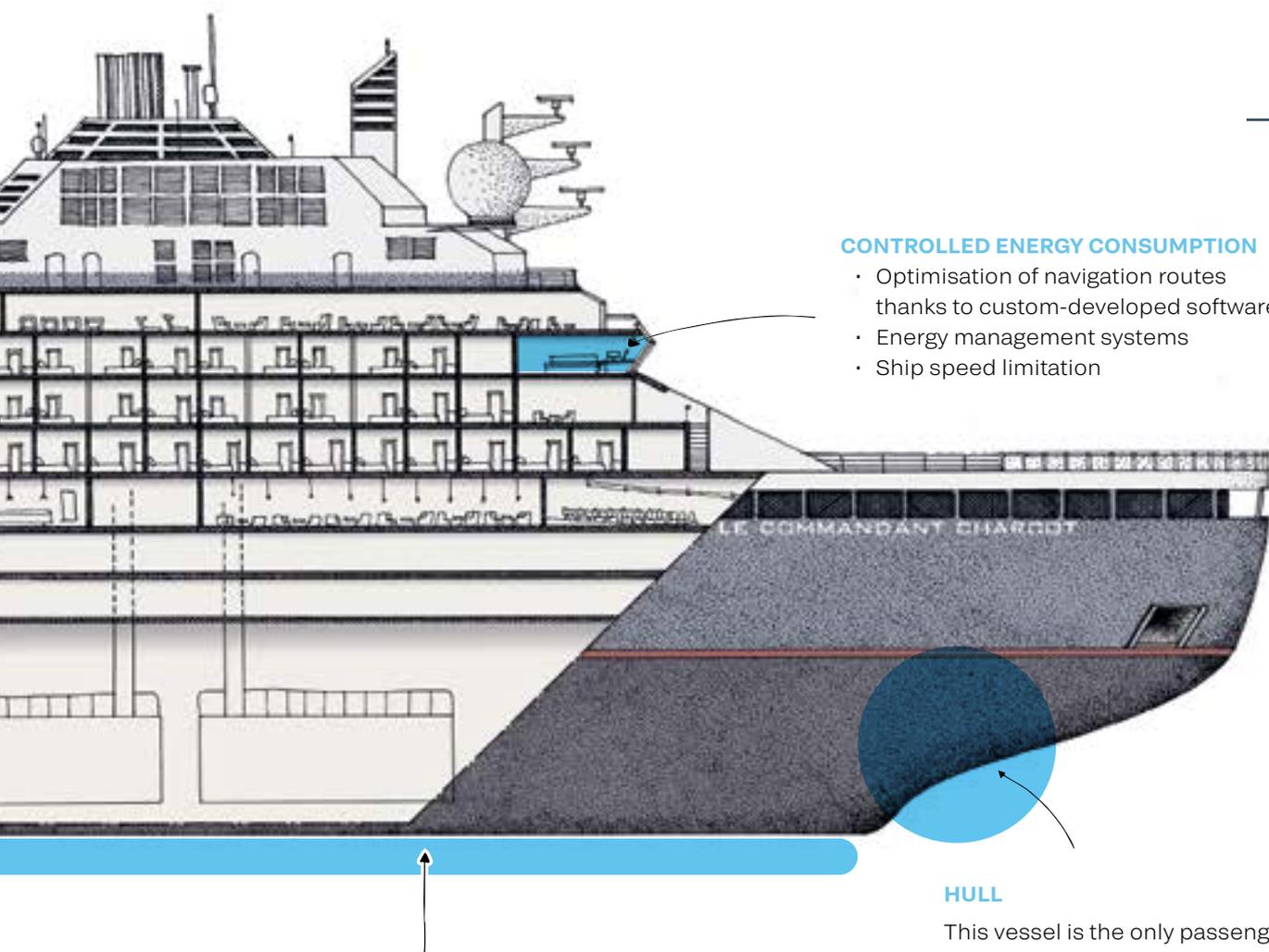
HYBRID PROPULSION

- Use of liquefied natural gas (LNG) and electric batteries: 25% less carbon emissions, 85% less nitrogen oxide emissions and 95% less fine particle emissions
- The largest battery bank ever used on a cruise ship
- The only ship in the world that is genuinely autonomous for a period of one and a half months using LNG thanks to two x 4,500 m³ tanks

Le Commandant Charcot has the Clean Ship label. This is the highest certification awarded by the Bureau Veritas organisation, guaranteeing reduced atmospheric emissions and water and waste processing.

As with the other ships in the PONANT fleet, the following is as standard:

- Recycling and traceability of waste (glass, cardboard, hard plastics, and metal): they are compacted and kept in a cold store, then they are unloaded and processed by specialised companies.
- The treatment and recycling of seawater (ballast water, grey water, etc).
- We use LED bulbs on board for a 75% reduction in energy consumption.
- Electrical quay connection: no atmospheric emissions when the vessel is moored in ports that are equipped.



CONTROLLED ENERGY CONSUMPTION

- Optimisation of navigation routes thanks to custom-developed software
- Energy management systems
- Ship speed limitation

RESPECTFUL TOWARDS MARINE ECOSYSTEMS

- Bottom and sea creature detectors
- Electronic positioning system without the need for anchoring in protected areas
- Ballast water processing
- Reduced noise and vibrations

HULL

This vessel is the only passenger ship in the world with a PC2 polar class hull, ensuring total safety and the ability to travel through channels inaccessible to other expedition ships

This illustration is not a true and exhaustive copy of the ship plan. To see the deck and cabin plans, see pages 172 to 177.

TWO CENTRES OF ATTRACTION

Always a welcome sight, it is a pleasure to meet these two tanned denizens of the ocean. Étienne Garcia and Patrick Marchesseau, the two intrepid PONANT captains, are like our planet's north and south poles: as complementary as they are polar opposites.

“Patrick is calm and serene, whereas Étienne is jovial and lively”, says Vanessa Marchesseau, Patrick's wife of 23 years and long-time friend of Étienne. “They are both, however, exceptionally charismatic, with an incredible ability to command attention,” she adds. When they enter a room, instantly, all eyes are on them, as if captivated by their almost animal magnetism. Their gaze is keen, like lookouts, constantly scanning the horizon, their eyes framed by crow's feet gained from smiling. The easy gait of those who grew up on ships before taking the helm. They belong to a species that only feels truly alive on the deck of a ship.



Magnetic personalities, experienced, well-respected and people-oriented. A portrait of two of PONANT's most seasoned captains, now at the helm of the fleet's flagship, *Le Commandant Charcot*.



PROFESSION-PASSION

Each in their own way, their stories echo French singer Renaud's famous refrain that *"it's not the man that takes the sea, it's the sea that takes the man"*. As for Patrick Marchesseau, the sea took him from birth. Of course, he has no memory of his first experiences. Just pictures of an infant barely three weeks old and already taken aboard by his father around the Isle of Aix, in La Rochelle. *"I've always been on the water, as far back as I can remember. At the age of six, I started at sailing school, on a sailing dinghy"*, he confides. Étienne Garcia was not much older when he felt the call of the open sea: eleven years old, for most children their first year in secondary school, for him, his first sailors' knots. *"I was on a sailing course in Brittany during the holidays. The first day was a revelation for me: I immediately declared that when I grew up, I would travel around the world."* His dream has come true several times over. At 59 years of age, he has made his mark on all the oceans. His passion has never left him; it has supported and even pushed him, even though he was not academically inclined. After starting out as a deck officer, *"I had to go back to school to achieve my goal. I certainly didn't follow what some would call the traditional academic route, but I gained a lot of experience there, in every possible role,"* he says. Each at their own pace, Garcia and Marchesseau spent time at what is still known as the *"Hydro"*, the prestigious French National Merchant Navy School. They earned their stripes. Since then, Garcia has made a habit of speaking in French schools, sharing his career path and a powerful idea with young people: *"It doesn't matter what job you choose as long as you enjoy doing it. Passion is a force that we can mobilise to move forward, a key that can open each and every door."*

"POISED ON THE SEA ICE"

For the two captains, this passion for navigation is combined with a passion for exploration. Their spirit of adventure takes them and their guests where no one else can venture. *"Whether it's a Breton cove or the other side of the world,"* says Marchesseau. The tip of the world is the holy grail of explorers. In 2005, Garcia explored the poles aboard *Le Diamant*, an expedition ship acquired by PONANT three years earlier, and which he captained until 2010, before handing over to Marchesseau. He immediately developed *"an addiction to these extreme regions,"* he says. *"It was a time of firsts: first Greenland, first Antarctica. A rather heroic time and such an exhilarating voyage! Seeing these lands, I was thoroughly bitten by the bug. I'm like Jean-Baptiste Charcot, who said: "Where does this strange attraction of these polar regions come from? It is so powerful, so tenacious, that after returning from them, one forgets the moral and physical fatigue and can think only of returning to them"*. Quoting the great explorers, philosophers and poets is Garcia's signature. When you go to sea with him, you can expect to see him grab the microphone at any moment to declaim a few verses inspired by the incredible regions he is sailing through. And now, he and his lifelong companion are following in the footsteps of Fridtjof Nansen, Roald Amundsen, Jean-Baptiste Charcot and Paul-Émile Victor. However, modesty prevails, and Captains Marchesseau and Garcia are unwilling to add their names to this illustrious lineage.





“

*“We are not steeped in science;
it’s all a question of sharing knowledge.”*

*The two 'old pals'
at the helm in 2010.*

But let's allow their record to speak for itself and let everyone make up their own minds. Garcia can boast the first North-West passage of a passenger ship operating under the French flag, in 2013, with *Le Soléal*, one of the four PONANT Sisterships. This was followed by his first voyages to Chukotka, next to Alaska, and to Kamchatka, deep in the Russian Far East. And Captain Marchesseau made the first-ever trip through the North-East Passage with a French cruise ship, *Le Boréal*. *"And it's far from over! Up to now, we have been skirting the pack ice, slaloming through the polar waters, but now we'll be able to 'immerse' ourselves in the ice!"* he explains. They experienced this immersion for the first time during their ice trials with the ship in June 2021. *"We found ourselves surrounded by 360 degrees of ice. It was as if Le Commandant Charcot was sitting on the ice sheet. It was incredible,"* Garcia tells us.

A SECOND FAMILY

However, when asked about these exploits and experiences, worthy of the greatest polar heroes, they prefer to emphasise the training they have received from the ice pilots and the knowledge passed on by the Inuit: *"We must never forget that we're not omniscient, it's all a question of sharing our knowledge"*, Garcia replies. *"Sharing experience is one of the pillars of our profession. And we, in turn, pass it on,"* adds Marchesseau. Mathieu Tsingilaras, second in command aboard *Le Commandant Charcot*, is one of the recipients of this knowledge. *"Patrick is a mentor to me, a career model,"* he says. *"I've known him since I was 18; I'm 31 now. As things turned out, I probably spent more time with him than with my own father. They say we all have a family on land and a second, adoptive family at sea. Étienne and Patrick are an integral part of this second family I have chosen and shaped for myself"*. The Captain's wife, Vanessa Marchesseau, shares this opinion: *"You embrace a sailor's career as a family; everyone has to accept the sacrifices. In return, we gain new family members. Like Étienne, for example, who is godfather to one of our three children"*. You can feel this family atmosphere on their ships. Garcia and Marchesseau often work in tandem and consider themselves, in their own words, to be colleagues, friends and *"a couple of old mates"*. Jules Verne wrote, echoing the prose of the poet Victor Hugo: *"The sea is an immense desert where man is never alone"*. You can feel life on the surface; you can sense it in the depths of the abyss. It is most evident on the bridges: when the crews stand shoulder to shoulder at the rail. Marchesseau and Garcia have decided to take to the sea elbow to elbow, soul mates at the helm.

At 10:38 a.m. on 6 September 2021, Étienne Garcia and Patrick Marchesseau reached the Geographic North Pole with Le Commandant Charcot, a historic first for a French ship.

“A WONDERFUL OPPORTUNITY”

No doubt, each sees in the other the same humility before the forces of nature, the same duty to protect a fragile ecosystem. These two free spirits cherish every remote landfall, harbour, and sea among the vast aquifers that cover seven-tenths of the globe. *“We have the privilege of discovering places that are so far out of the ordinary it is unthinkable that we should leave the remotest trace of our passage behind. That’s why our exploration has always been, and always will be, designed to limit our impact as much as possible”*, Captain Garcia assures us. With the luxury polar exploration vessel under his protection, he intends to make the most of the open water channels to make the most of each route, to be as unobtrusive as possible. *“Le Commandant Charcot is a ship that offers extraordinary opportunities: we’re going to discover places not frequented, inspire our guests’ imaginations and educate them. During the first ice tests on board, we were sailing in channels to the north-west of Spitsbergen, and there a mother polar bear and her cub approached. We stopped the ship. They stayed with us for an hour. It was unreal,”* he says. *“Here a polar bear came to touch the hull with its paws; further on, we had the impression of having landed the ship on the ice sheet; there, we saw an aurora borealis; there again, a humpback whale breaking the surface to expel a plume of air”*.

“Le Commandant Charcot lets you immerse yourself in the heart of the polar north and gives you access to unforgettable experiences. To be able to get close, to have guests disembark onto a pristine sheet of ice, to put on snowshoes, in short, to do something that seems simple, but that lets us get back to basics and immerse ourselves in the uniqueness of the place, is a wonderful opportunity”, Marchesseau adds. For them, another highlight of these expeditions is the opportunity to switch their ship to zero emissions, to stop everything, zero noise, absolute silence. *“That’s what exploration is all about,”* they agree. *“It’s all about dealing with the elements.”* Letting nature, the ice, the wind and the snow dictate their law. It’s up to the captains to adapt and to share the secrets of this navigation with the guests. On 6 September 2021, at 10:38, *“these two great giants of the sea”*, as Mathieu Tsingiliras describes them, reached the geographic North Pole, making *Le Commandant Charcot* the first French ship to reach the northernmost point on Earth. A feat. A promise, too, the promise of a long line of incredible polar explorations to come.





A pleasure boat with scientific opportunity

Though they are essential research areas to capture the transformations taking place on our planet, the polar regions are often too difficult for scientists to access. With *Le Commandant Charcot*, they'll be able to reach the poles and work onboard. With its many facilities, the ship also offers passengers the chance to take part in top-tier surveys and advance research on a worldwide level.

SCIENTIFIC PARTNERS IN THE CORRIDORS.

Le Commandant Charcot's has been designed to visit the most remote places on earth. The places researchers don't always have the funds or logistical means to reach. In particular, the frequency of the cruises offers researchers the ability to run research protocols on a long-term basis. This means they can collect targeted scientific data, check its consistency, repeat research or not, compare the results etc. A whole host of benefits for their scientific research. Dry and wet labs, sonars, beacons, buoys, a salinograph, core drill, drone etc. To this day, *Le Commandant Charcot* is one of the few French deep polar exploration cruise ships equipped with research infrastructures of this calibre. Enchanted by its infinite opportunities, several organisations and French research institutes are already ready to board.

INTEGRATING SCIENCE AT ALL LEVELS

"The idea of making a place for science on our cruise ships is not new. We have already carried scientists working on research on Humpback whales and underwater sounds in the Antarctic or even to take sediment samples from the Seychelles " says Wassim Daoud, head of sustainable development and CSR at PONANT.

Behaving like a responsible player and citizen is an integral part of our company's DNA: "We have used *Le Commandant Charcot* project as a way to dream about the scientific aspect from the moment of conception and integrated this at all levels. We wanted to take things even further than we already had, and to do that we needed to offer dedicated spaces, laboratories, tools, cabins and also means. This scientific aspect is a true pillar of our project. We thought in advance about direct access to the water, four dedicated cabins, the presence of a scientific coordinator." Specific budgets are allocated to maintaining the equipment on board. "During expeditions, academic scientists will be able to share their knowledge with the passengers if they wish to, but also invite them to participate. The aim is to expand this dimension to include the whole fleet."

CITIZEN SCIENCE

Glaciologist, polar specialist, author of conference guides and of works popularising science for children, Daphné Buiron was the dream choice to take on the role of citizen science mediator on board *Le Commandant Charcot*. An eager champion for participative science, she explained that, *“these forms of production of scientific knowledge, where people who aren't professionals are involved actively and deliberately, are incredible for raising awareness. They truly help the scientists collect their data, it's a way of working that's already well-used on the international scene.”* And to add: *“travellers attracted by the polar regions are particularly keen to help scientists with their tasks”.*

“They usually have a natural scientific curiosity. The only condition to ensure that these activities continue is that their participation is valued, that the data collected is handled, used and as often as possible leads to scientific publications.” The excitable sailor is brimming with ideas for future guests: participating in workshops would be a unique opportunity to discover scientific advances and the day-to-day life of a researcher when they are in the field.

EXPERIENCED SUPPORT

Experts have defined the precise programmes they used to train the scientific coordinators of *Le Commandant Charcot*. The idea is to make conversation between the different players easy, to ensure the transfer of information and data flows smoothly. Guests on board *Le Commandant Charcot* will then be able to help with counting and identifying marine cetaceans with the Happy Whales programme, observe clouds for NASA and even take phytoplankton samples. Specially designed nets to collect the minuscule particles will be installed at the back of the Zodiac inflatables and the samples collected will be analysed onboard. On the programme: studies of vegetable and animal plankton, but also the potential pollutants present in the water, like plastic and microplastics. They may also be invited to take measurements of water turbidity, temperature, salt levels and even conductivity. These experiments will be carried out in line with opportunities linked to weather and ice conditions.

Find out more about participative science on board *Le Commandant Charcot*, in an interview with Alison Thieffry, Head of Citizen Science, pages 90-91.





LIFE ON BOARD

From the first drawings to the latest interior fittings, the design of *Le Commandant Charcot* reflects one guiding principle: to invite the polar environment on board. The result is spaces that are cosy yet open to the outside world, the feeling of a cocoon yet flooded with light, a feeling of wellbeing enhanced by the meticulous detailing and the finesse of the materials that arouse all the senses.



Lines and materials

The two internationally renowned architects Jean-Philippe Nuel and Jean-Michel Wilmotte were responsible for the ship's interior design. They worked on the different areas, using noble materials that resonate with polar environments.

On the occasion of the Palmarès Contract 2021 prize awarded by L'Ameublement Français, *Le Commandant Charcot* was awarded first prize in the "Ambassador" category, which recognises French expertise in interior design, in collaboration with Ligne Roset and Jean-Philippe Nuel.

"We wanted to respect the DNA of the PONANT brand: reflecting a modern sophistication that aims to enhance the extraordinary landscapes in which the ship travels," explains Jean-Michel Wilmotte.



"It's all in the details and in the relaxing atmosphere created to liberate the spirits of our passengers so that they can bask in the outdoor show," says Jean-Michel Wilmotte.



“We started with a powerful idea: expressing the specific environment in which the boat will sail in a timeless way, while staying true to the spirit of the place itself, i.e. the Poles”, says architect Jean-Philippe Nuel.

“This wilderness interacts with the refined interior’s noble and warm textures and materials.”



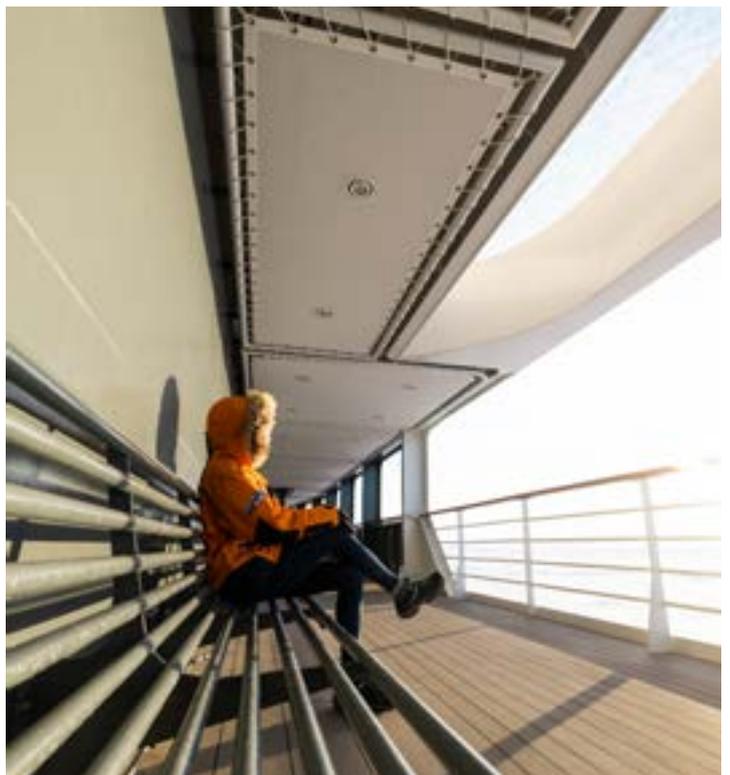
**AN
OUT-OF-THIS-WORLD
POLAR EXPERIENCE**



Le Commandant Charcot is equipped with spaces never before seen within the PONANT fleet. Appreciate the polar environments while enjoying the cosy warmth of the ship.

WELLNESS & RELAXATION

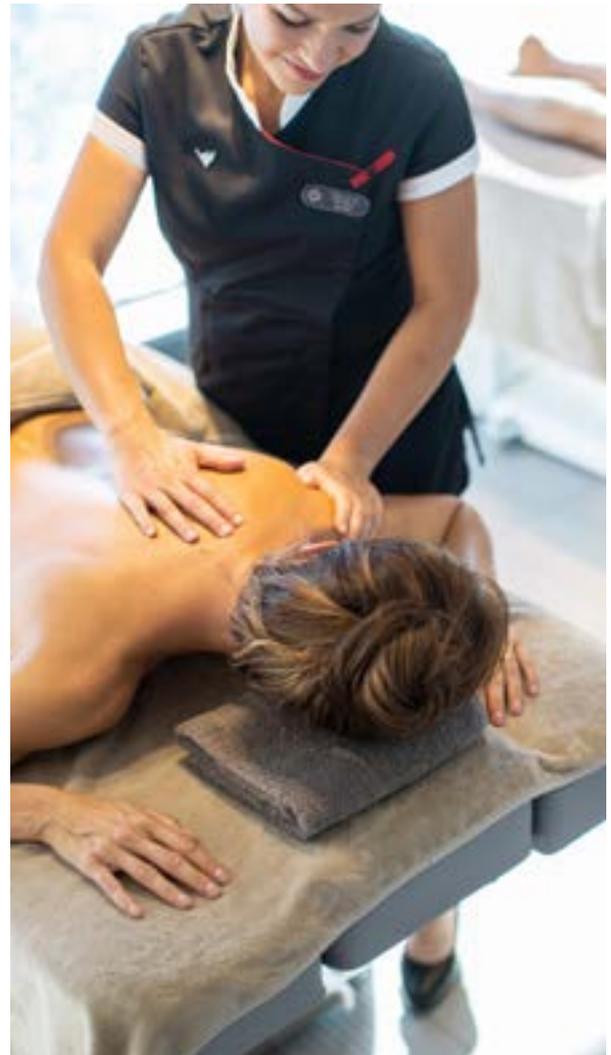
- Enjoy the benefits of the cold in the Snow Cabin (*Siku*, which means snow in the Inuit language) following a treatment at the Spa (*Nuan*, well-being, happiness) or the Sauna (*Ikuma*, burning heat).
- Relax in the Winter Garden by the indoor pool (*Imaq*, sea water) and contemplate the polar landscapes through the panoramic windows, all while enjoying a fruit cocktail from the Detox Bar.
- Access the Cigar Lounge, one of the ship's most exclusive areas, and indulge in a selection of fine cigars and premium spirits.





OUTSIDE

- Laze in the warm waters of the Blue Lagoon outdoor pool (heated to 27-37°C via energy recovery technology) and enjoy the breath-taking view.
- Stroll the end-to-end promenade deck, which allows you to make a complete tour of *Le Commandant Charcot* – a rare feature on a polar passenger ship. Take a break on one of the heated benches and observe the wildlife through two Swarovski Optik spotting scopes.
- From the bow, which can be easily accessed via the heliport, experience the unforgettable sensation of solitude within the vast Arctic and Antarctic landscapes.



On deck 5, you'll find the ILLU (which means house in Inuit) boutique space designed by architect Jean-Michel Wilmotte. The Boutique Manager will provide you with personalised advice on how to make the most of the cosy experience on board and the polar adventure during your explorations.

Check out our partner brands: The North Face, Garmin, Swarovski Optik, Vuarnet, Icebreaker, Black Diamond and Suunto - all offering cutting-edge technical accessories - Eric Bompard, offering socially and environmentally responsible ready-to-wear pieces for comfortably strolling aboard the ship, as well as a collection of Dodo jewellery and Ulysse Nardin watches - two Kering partner brands selected for their suitability for polar sailing.

A range of souvenirs for young and old as well as a selection of reading material on each destination is also available, including guidebooks, beautiful photo books, novels and adventure stories.

Bring back unique memories and share the magic of your experience on board *Le Commandant Charcot*.



Essential wellness

A hair salon facing the boundless horizon, massage cabins with large windows, a sauna with an unobstructed view of the immense white polar expanse...

The wellness areas on board *Le Commandant Charcot* take on a new dimension. These spaces, designed by the architect Jean-Michel Wilmotte, combine design and comfort, and have been created with expert know-how using responsible brands. Find out more with Chloé Dauvert, the ship's Spa Manager.

The wellness area has been designed to blend in with the outside environment, like the rest of the ship. What does it make you feel like?

We wanted to create a sensory journey in connection with the Conservatory, which is home to the heated indoor pool and the Detox Bar with a range of elaborate drinks that go with the treatments. Together, these spaces cover a total area of 430 m². The curves are very soft and understated, and exotic materials have been used, like the raw Carrara marble with pearlescent reflections in the treatment rooms, or the black marble in the relaxation area.

What new wellness partners are there on *Le Commandant Charcot*?

Our two new partners are complementary because they have a 100% tailored approach. Biologique Recherche offers a patented skin diagnosis, with a sensor that measures elasticity, hydration and sebum levels. Each treatment is unique. The idea is to offer a follow-up with several treatments throughout the trip. It is a very technical brand that has developed care products using raw active ingredients, mainly of plant-based or natural origin. For the hair salon, we chose Davines, an Italian eco-friendly brand, committed to the environment, both in terms of packaging and active ingredients, which are natural and plant-based. They offer treatments with specific processes, a genuine hair diagnosis and have a real dialogue with their clients, for a personalised and detailed prescription.

Do you offer treatments to suit the polar environments you visit?

We have created some signature treatments, one for the face and one for the body called the '*Expedition Recovery*' and the '*Exploration Recovery*' to go with the experiences available in the Arctic and Antarctic. For example, the body treatment uses a drainage process to gently reacclimatise you when back on board.

Biologique Recherche offers specific care for skin that has been weakened by extreme temperatures, using products based on kelp or seaweed to rejuvenate, soothe or repair the skin.

Last but not least, the Snow Cabin alongside the Sauna reproduces the experience of Nordic baths and boosts blood and lymphatic circulation. It really fills you with energy.

Gastronomy

An integral component of the PONANT hallmark approach, fine dining takes on an impressive new look on board *Le Commandant Charcot*. Our collaboration with Ducasse Conseil takes a new turn, offering you menus created by the Michelin-starred chef himself and signature dishes served at his restaurants.





Five minutes with Jérôme Lacressonnière, director at Ducasse Conseil

What is the aim of the partnership between PONANT and Ducasse Conseil?

We first entered into a partnership with PONANT in 2016 in order to bring all the ships in the Sisterships series and the PONANT Explorers up to the same culinary level. This time, with *Le Commandant Charcot*, we wanted to go a lot further, as it's a unique and exceptional ship.

What does this move further upmarket mean in real terms?

We have worked in close collaboration with the PONANT teams not only with respect to training and sourcing, but also with respect to tableware, table setting and graphic design: French style luxury is all about combining all these details together in order to take things to a higher level, a haute couture level.

How is the Ducasse philosophy reflected on board *Le Commandant Charcot*?

We've designed the Nuna [Editor's Note: Inuit for Earth] Alain Ducasse restaurant, where we serve à la carte breakfasts, lunches and dinners, in the same spirit of service as found in the luxury hotels on land. We've incorporated signature dishes served in our restaurants by adapting them and paring them down to their essential elements. It's quite a challenge sharing our culinary philosophy: being very strict about the choice of products and the seasoning, dressing and temperature of the dishes, emphasising the use of a particular technique and ensuring everything is attractively presented.

Going ever further to serve you

Before or during your stay, take advantage of exclusive dedicated services and offer yourself the comfort of a tailor-made trip.

KEEP FIT ON THE OPEN SEAS

During your stay, enjoy the personalised services of a sports coach. This service is reserved for the Armateur (Owner's), Duplex, Prestige and Grand Prestige suites*. Group classes will also be available with a wide choice of fitness, yoga, Pilates, active walking, meditation or aqua gym in *Le Commandant Charcot's* indoor pool.

**Limited to one hour every two days. Private lessons are not included. For more information, please contact the ship's Reception or the Travel Concierge Service.*

PERSONALISED BUTLER SERVICE

Butler service is available to our guests travelling in The Owner's Suites, Duplex Suites, Privilege Suites and Grand Prestige Suites. Attentive and discreet, your Butler is your privileged contact. They provide you with personalised service each day, for a tailor-made experience.





OUT-OF-THIS- WORLD



Le Commandant Charcot offers escapes to the very edges of the world, where *nothing* becomes everything. This is not just ice; it is limitless vastness. It is not sterile silence: it is loud noises, startling creaks, strange rumblings. These are not only moments when time stands still; they are also memories engraved forever.



DESTINATIONS

A polar odyssey, from Erik the Red to you

Conquering the poles has held an intense fascination for many passionate and determined explorers. From Erik the Red to Jean-Louis Étienne, not forgetting Jean-Baptiste Charcot, here are the key dates of the polar odyssey.

1728

Dane **Vitus Bering**, in the service of Russian emperor Peter the Great, discovers the straits separating Asia from America.



982

The Norwegian **Erik the Red** becomes the founder of the first European colony in Greenland ('green land' in Danish).

1773

Britain's **James Cook** crosses the Antarctic Circle and goes on to reach latitude 71°10'S.

1897-1899

Aboard *La Belgica*, Belgian **Adrien de Gerlache de Gomery** sails around the Antarctic for 13 months, with his ship becoming the first research vessel to spend winter in the region.



1840

Leading *L'Astrolabe* and *La Zélée*, **Jules Dumont d'Urville** becomes the first to find land in the Antarctic, which he names Adélie Land, after his wife Adèle.

1903-1905

Jean-Baptiste Charcot, aboard *Le Français*, completes the first wintering over of a scientific expedition in the Antarctic. He repeats this feat between 1908 and 1910 with *Le Pourquoi Pas?*.



Captain Roald Amundsen at the South Pole.

1905

Norwegian **Roald Amundsen**, who had been aboard *La Belgica* at the end of the previous century, becomes the first to cross the Northwest Passage that links the Atlantic to the Pacific.

1909

American **Robert Peary** leads the first expedition to reach the North Pole. The achievement was contested by his compatriot **Frederick Cook**, who claimed he had completed the same feat a year earlier. The US Congress decided in Peary's favour.

1911

After reaching the natural harbour of the Bay of Whales, **Roald Amundsen** and his colleagues, equipped with skis and dog teams, became the first to reach the South Pole. Just one month later, the great British explorer **Robert Falcon Scott** reached the South Pole during the Terra Nova expedition.

1911-1914

Australian **Douglas Mawson**, a geologist by training and a leading figure in the heroic age of Antarctic exploration, launches his expedition. In his book *The Home of the Blizzard*, he tells the story of the voyage, which helped to map a large part of the previously unexplored White Continent.

1914-1917

Having set out to cross the South Pole, the schooner *Endurance* captained by **Sir Ernest Shackleton** became trapped in the ice, with the crew having to survive extreme conditions for 18 months. After several unsuccessful attempts, Shackleton and six men reach South Georgia, where they were rescued. A huge achievement!

1956

Paul-Émile Victor, who led the French expeditions to the Arctic and Antarctic between 1947 and 1976, establishes the French scientific base of Dumont d'Urville on Adélie Land.

1986

American **Ann Bancroft** becomes the first woman to reach the North Pole, after 56 days on foot and with a dogsled. In 1993, she reaches the South Pole.

France's **Jean-Louis Étienne** becomes the first man to reach the geographic North Pole alone, on foot and skis, taking 63 days.

2021

Aboard *Le Commandant Charcot*, PONANT takes you on the routes of the great polar explorers in the extreme areas of the northern and southern hemispheres.

THE NORTH POLE, SOUTH POLE



AND YOU



Deciding to head for the poles, the lands at the ends of the earth, is not a trivial affair. People's motives can be various, with its appeal ranging from an adventure in a far-flung destination and the search for tranquillity in a minimalist landscape, to the splendour of preserved areas and sheer curiosity about its emblematic fauna. But whatever the desires and expectations, the sense of surprise and wonder will be enormous for everyone.

A voyage aboard *Le Commandant Charcot* provides some very rare experiences, on and around remote areas where everything seems designed to repel human beings. The word 'exploration' is highly appropriate here. While today's passengers shared none of the discomfort faced by the daring, intrepid travellers of the previous century, they are certainly able to experience the same intense emotions as their predecessors.

Today, being a 'neo-explorer' with PONANT means allowing yourself an initiatory immersion, an opportunity to be part of an adventure that makes a contribution to scientific research. It also means being in a pure, yet fragile environment that requires respect, and experiencing an awareness - and such an awakening of the senses - that an instinct to protect the planet is either created or enhanced.

And then, while gazing at the sky and seeing this unreal landscape as it moves through an infinity of ice, there comes the moment when you want everything to slow down, when you want to experience another concept of space and time. Taken together, a journey to the polar circles means living an unrivalled experience. You will return transformed.



“Come aboard, and join us for an adventure”

José Sarica, PONANT's expedition leader, has been visiting the Antipodes since 2009. For him, travelling to the Arctic and Antarctic aboard Le Commandant Charcot is a privilege, for both the mind and the senses to enjoy.

With *Le Commandant Charcot*, a new idea of travel is emerging. What is that?

I've been to the polar regions many times, and I thought I knew all about the ice pack. But actually, with *Le Commandant Charcot*, I felt that I was discovering it as it really was. The outlines of the landscape and the light vary all day long as the sun gets lower in the sky, and in the summer, it never actually sets. And the ice pack is always changing its shape, colour and structure. It's a living picture, an enchanting experience that's enhanced by the exclusive activities offered aboard by our 23 naturalists.

Why is every itinerary a one-off?

Every cruise is unique, and not just because of the itinerary. As the ice pack is constantly changing, so are the experiences, with the landscape and fauna being different between the start and the end of the season. For example, guests can see bear cubs that are less than six months old at the start of the season in Greenland. That's pretty remarkable, because you wouldn't normally be able to visit that region so early in the year. Before the coastal

ice pack melts, the Inuit come to *Le Commandant Charcot* to take guests away for dogsled rides. And it's an incredible, unreal pleasure to be sitting on the exterior bridge watching a mother bear with her cub. At the same time, it's also a journey inside yourself. There are moments of such intense emotion that when you try describing them to people who have not experienced that, it always falls flat.

What are the new places that guests can discover?

All our itineraries take you to places that are totally exclusive, where no-one has been before. More than an expedition, it's a journey of exploration. In the Arctic, we go to the geographic North Pole, in D'Aunay Bay on the Blosseville coast (Greenland's east coast). We visit the little-known island of Île-de-France and the North East Greenland National Park, where no ship would normally go because the access is blocked by the ice pack. In the Antarctic, we head for Charcot Island, Peter I Island, and the Ross, Amundsen and Bellingshausen seas. Guests can sometimes see emperor penguins as their fledglings enter the water for the first time. All of this can only be experienced aboard *Le Commandant Charcot*.

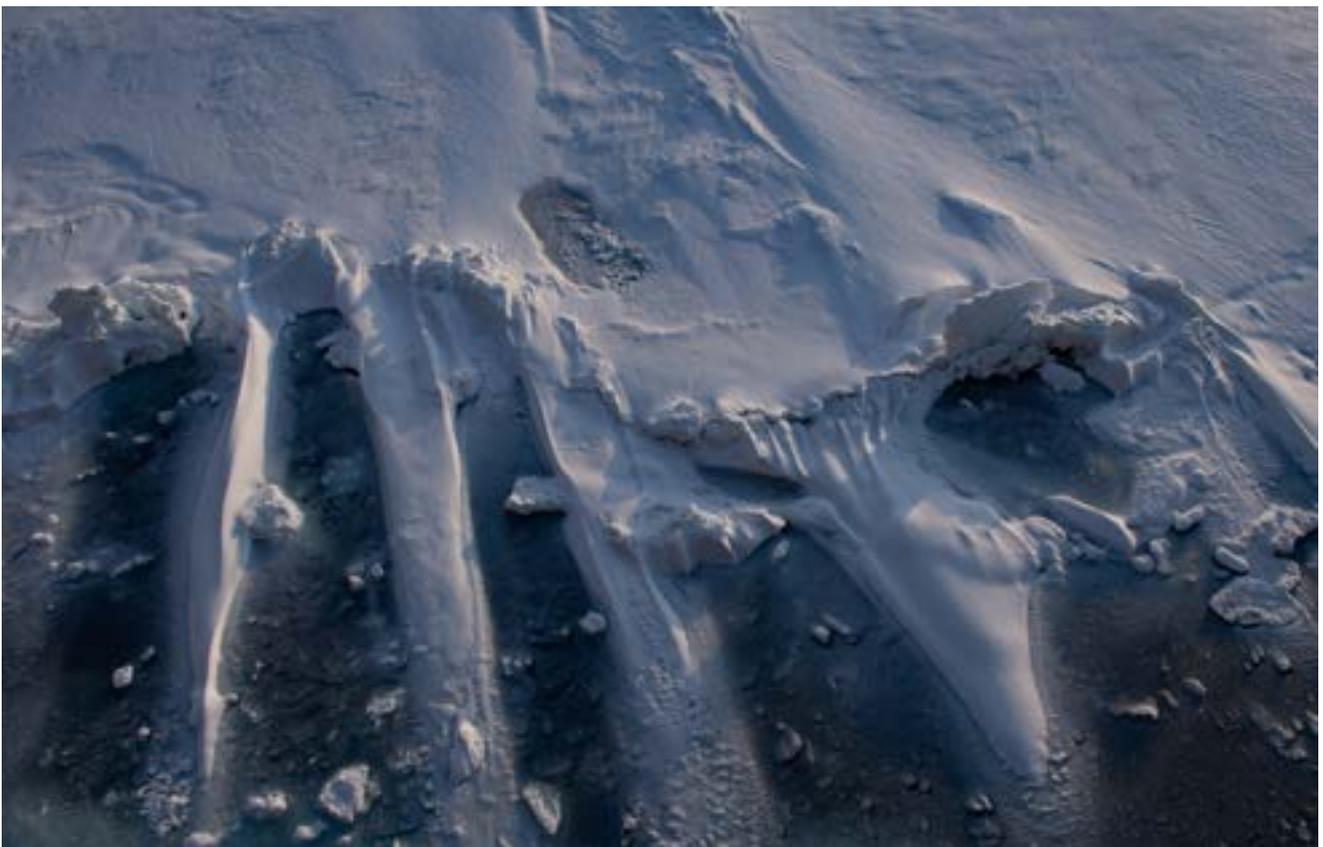


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It's a journey inside yourself. There are moments of such intense emotion that when you try describing them to people who have not experienced that, it always falls flat.



The only marks we leave behind us
are our footprints in the snow and ice.



What about any concerns about the trip's ecological footprint?

We have a responsibility when visiting these places, and our aim is to have a minimal, transitory impact. *Le Commandant Charcot* is powered by Liquefied Natural Gas (LNG), and as a member of the International Association of Antarctica Tour Operators (IAATO) and the Arctic Expedition Cruise Operators (AECO) association, PONANT follows the rules on good behaviour. In the Antarctic, we ensure full biosecurity: clothing is vacuum cleaned, and boots are treated with liquid disinfectant to avoid introducing any seeds or bacteria that might have an effect on these areas. The only marks we leave behind us are our footprints in the snow and ice. For me, when I see how beautiful the ice pack is, I become even more determined to defend it. And when you know something better, you protect it better and you become an ambassador for it.

What advice would you give to future guests on *Le Commandant Charcot*?

Trust the expedition team, come aboard, and join us for an adventure. And if I had to recommend a book to read, it would be *Le Français* by Jean-Baptiste Charcot. This humanist explorer tells the incredible story of his first wintering over in the Antarctic. It will provide great background and context to this fabulous journey.

What are your favourite times in the expeditions?

Ever since childhood, I've been in awe of whales and orcas. I can watch them for hours. So, it takes me back to when I was a child, and I know that I'm in the right place. I'm so happy that I can't help gathering up guests at any time of the day or night to watch these fascinating animals.

How are activities organised aboard?

The expedition leader manages a team of naturalists with a range of specialities – historians, ornithologists, marine biologists, ethnologists, ethnographers, geologists, glaciologists, etc. ... The leader creates the itineraries with the ship's captain on a day-by-day basis, bearing in mind the weather conditions. Depending on the places to be visited, the job also involves planning the activities that will be supported by the naturalist guides. For *Le Commandant Charcot*, certain activities will involve making specific arrangements, such as mountain guides for hiking in snowshoes or nationally qualified guides for kayaking in the polar regions or dogsledding. There's also an activity that gives both meaning and legitimacy to visiting these regions – citizen science. It's a way of making a significant contribution to research. Guided by the naturalists, guests can collect samples and take photos of birds or whales, which are then added to a database, creating a wealth of data for the scientific community. That way, guests can play an active role. Thanks to participative science, projects can be carried out over the long term.



THE ACTIVITIES

In the Arctic and Antarctic, the naturalist guides and experts on board ensure the activities run smoothly. Kayaking, snowshoeing, polar diving or swimming in a wet suit, Zodiac exploration, dog sledding: explore the polar world through total immersion.



A team of committed experts

On board as well as on land, benefit from the presence of *Le Commandant Charcot's* expedition team of 19 to 23 experts, a unique accompaniment for expeditions in the Arctic and Antarctic. Whether they are polar guides, kayak specialists, polar historians, geologists, glaciologists, scientific coordinators or ornithologists, a selection of them have honoured us by sharing their knowledge in these pages, while waiting to meet you on the ship.

EXPEDITION LEADERS

Responsible for the safety of passengers during Zodiac trips and landings, these specialists in the polar regions work with the Captain on a daily basis to offer you the best opportunities to discover the polar wildlife and landscapes.

On board *Le Commandant Charcot*, Florence Kuyper, Jonathan Zaccaria and John Frick take it in turns to lead their teams with the humanity and humility that are essential on an expedition cruise.





EXCURSION MANAGERS

Registration, equipment management, coordination at every moment, information... As the people in charge of your excursions, **Christelle Bonhomme** and **Léa Croize** ensure all your activities and outings on land go smoothly.

ACTIVITY GUIDES

True experts in their fields, with many years of experience under their belt, your guides will accompany you during every activity offered on board *Le Commandant Charcot*. They are the best instructors, ensuring that you are safe as well as helping you enjoy the optimal experience.

Among others, meet **Yann Lemoine** and **Nicolas Volponi** during kayak navigations, **Ludovic Gaboriaux** and **Lucas Humbert**, high altitude mountain guides, for hikes with or without snowshoes, or **Batshéva Bonnet**, biologist, veterinarian and dog sled musher.



Naturalist guides

CLIMATOLOGY, GLACIOLOGY AND GEOLOGY

Climate change in the polar regions, the formation of icebergs, the pack ice and the icy waters in every state... Thanks to the knowledge of **Antoine Viot** (geological engineer specialising in Svalbard) or **Julien Alex** (glaciologist and climatologist), pierce some of the mysteries of the Far North and the White Continent.



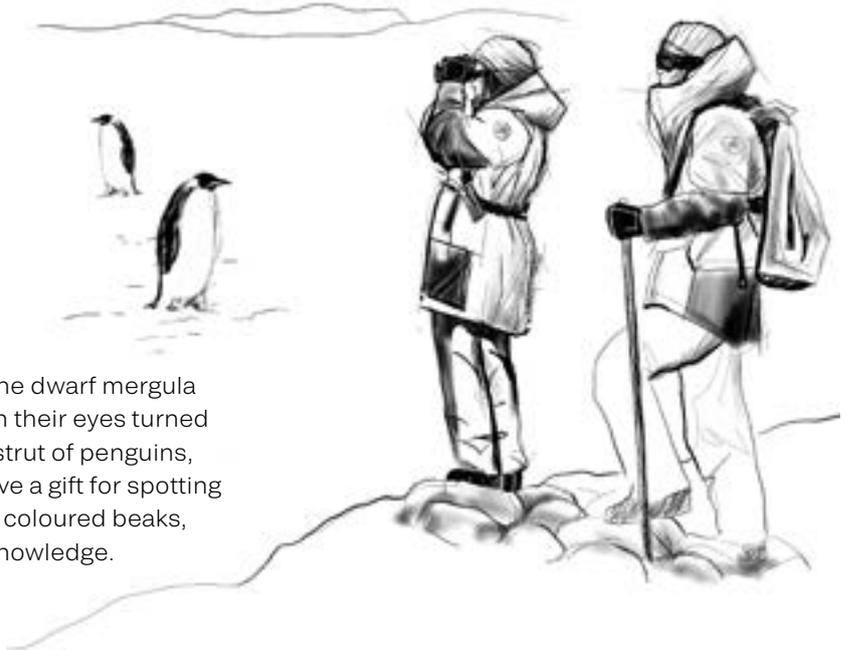
MARINE BIOLOGY AND WILDLIFE

What do our experts find so enthralling? The giants of the seas or the kings of the earth? What could be more exciting than being swept up in their stories and anecdotes about polar bears, whales, dolphins and porpoises and other animals that have adapted to extreme environments? Let **Benjamin Dy** (a specialist in Arctic wildlife and mammals), **Laura Jourdan** and **Elsa Freshet** (specialists in marine biology) tell you all about this remarkable wildlife.



GENERALISTS AND HISTORIANS

The history of the great explorers fascinates these experts, and their research in general is anchored in their curiosity and boundless interest in the polar realms. **Jennifer Roux**, **Dimitri Zver**, **Saskia Travert** and **Christian Genillard** are all adventurers for whom expeditions are inseparable from the history of these extreme zones.



ORNITHOLOGY

The Arctic tern, the emperor penguin or the dwarf mergula hold no secrets for these specialists. With their eyes turned towards the sky or fixed on the waddling strut of penguins, **Vadim Heuacker** and **Rémi Bigonneau** have a gift for spotting the winged, the feathered and those with coloured beaks, and talking about them with captivating knowledge.



SCIENTIFIC COORDINATORS

In charge of participatory science activities, **Daphné Buiron** and **Alison Thieffry** are passionate about discovery. Daphné is a glaciologist and Alison is a geopolitical specialist. They will share their expertise in the laboratory or in the field to help you contribute to the progress of global scientific research.

The expedition team members on board may vary according to the seasons, the regions visited or other compelling reasons.

KAYAK: 4,000 YEARS ON THE SEAS

In fibreglass, Kevlar or even carbon fibre... the kayaks we know today have little in common with those designed 4,000 years ago by the Inuits, who lived in the Arctic Circle and used them for hunting, fishing and transport. Here's a closer look at this ancient boat...



To take your prey by surprise, you need to be discreet in your approach, and to be silent. To feed themselves and their families, the Inuits had to move around the icy waters of the Arctic region quickly and carefully as they hunted for fish, seals, narwhals and beluga whales, or caribou as they crossed rivers and lakes.

Light and manoeuvrable, a 'qajaq' (or 'boat of skins' in Inuktitut or Kalaallisut) made from sealskins sewn together and then stretched across a floating wooden structure gave them just that opportunity. The knowledge required was passed down from one generation to another. The women prepared the skins, covered them in seal fat to make them more watertight and then sewed them together, while the men assembled the kayak, adapting it to the user's height. Traditionally, the craft was held together by a combination of wooden or bone pegs and leather fasteners.

Each boat was unique, with the kayak being a perfect fit for the owner's body - an essential feature that provided hunters with high levels of efficiency and complete safety as they navigated in often extreme conditions. The Inuits became experts in Eskimo rolling techniques - a risky manoeuvre for righting an overturned kayak.

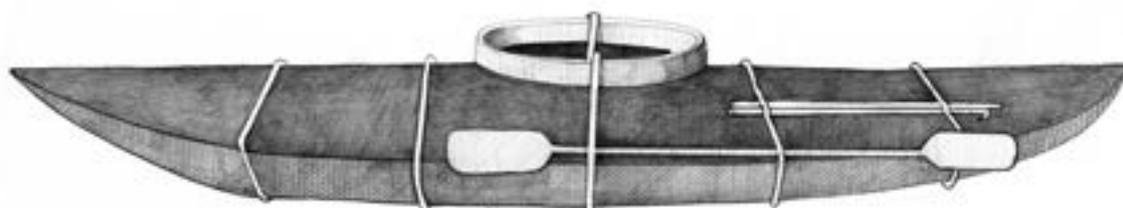
A THOUSAND-YEAR-OLD ACTIVITY BECOMES A POPULAR SPORT

Sitting as close to the water as possible, to have more stability in the coaming (the opening for the cockpit), the kayaker typically used a double-bladed paddle because it provided more speed and better balance. The equipment aboard the kayak consisted of a harpoon, a spear, a knife, a float (in the form of an inflated seal bladder) and sewing materials for dealing with any unexpected incidents.

Just as the rifle replaced the harpoon in some villages, kayaks have virtually disappeared from Inuit life today, being replaced by craft with outboard motors. While the kayak still has its place in Inuit tradition and culture, the essence of the boat - now usually made of plastic or fibreglass - has become popular around the world. Today, kayaking has become a sport accessible to everyone, on lakes and rivers. Of course, another way to travel 4,000 years back in time would be to board *Le Commandant Charcot*...

SEA KAYAKING ONBOARD *LE COMMANDANT CHARCOT*

- Arctic – Antarctica
- 20 guests per outing
- Pre-booking mandatory before embarkation
- Activity free of charge
- Provided equipment: kayak, paddles, gloves, kayak slippers
neoprene dry-suits with marker, lifejacket, waterproof bag



Spearfishing kayak



Kayak from Nunivak Island, Alaska



Cape Krusenstern kayak, Alaska



Modern kayak

The kayak has changed in appearance over the past 4,000 years, as have the purposes – from traditional hunting to leisure – for which it is used.



*“A good musher has endurance, adaptability
and the ability to respond quickly...
The dogs are like emotional sponges.”*



Joining the Inuit for an exciting dogsled ride

Taking part in an activity with the local community is one of the highlights of an Arctic cruise on *Le Commandant Charcot*. Guests can meet the Inuit and climb aboard a dogsled for a ride, known as ‘mushing.’ Batshéva Bonnet, a polar guide and musher with the Northern Lights Dog Team, describes this very special experience.

LIVING THE DREAM

Imagine yourself surrounded by a vast expanse of untouched snow, with the silence broken only by the yapping of dogs and the crunch of a sled’s runners. This dream can come true in eastern Greenland which, thanks to the navigational abilities of *Le Commandant Charcot*, can be reached during springtime, when there is still enough of the coastal ice sheet for the Inuit to travel on their dogsleds.

AN ANCIENT FORM OF TRANSPORT

Dogsleds have existed in the Arctic for more than 9,000 years, being used by people to travel long distances and to both communicate and trade with each other. In the 19th century, the Gold Rush gradually transformed mushing into a sport, and there are now five major races worldwide. The sleds can be pulled by Greenland Dogs (the largest breed, used exclusively in Greenland) and five other breeds (Canadian Eskimo Dogs, Alaskan Malamutes, Samoyeds, Siberian Huskies and Alaskan Huskies).

THE MUSER, A PACK LEADER

The musher’s role *“is not just to ‘drive’ the dogsled,”* highlights Batshéva Bonnet, a polar guide and musher with the Northern Lights Dog Team, which competes in long-distance races. *“They have to take care of the dogs, understand their psychology and build*

a relationship of mutual trust. A good musher has endurance, adaptability and the ability to respond quickly. In an environment where there is no room for error, keeping a cool head and being able to manage stress are essential, because the dogs are like emotional sponges.” The musher also selects the dogs, prepares them, and places them in their team order, depending on their physique and character. The role is clearly a multidisciplinary one.

A SURVIVAL ‘TOOL’

That said, mushing is seen differently in the west and in Greenland. *“For the Inuit, the dogs are a survival tool,”* the expert adds. *“They are very important, people are proud of them, but they are less affectionate towards them and are less sentimental about them than we are. On a long journey, if a dog compromises the safety of the sled, it can be taken out of the team.”* In the far north, dog teams are hitched in a fan shape, which is suited to the extreme weather conditions and the dangers of the terrain (crevasses, thin ice, etc.). *“The shape is better for distributing the weight of the dogs. If you’re passing through an area where the ice is more fragile, there is less risk of all the dogs - along with the sled - falling through. It’s a system that’s suitable in Greenland, where people live on the ice sheet.”* By containing the danger, people can discover the beauty of wild Arctic landscapes and the sensation of sliding over the snow.

ONBOARD LE COMMANDANT CHARCOT

- Arctic eastern Greenland at the start of the season (May)
- 20 to 30 passengers (two per sled, accompanied by an Inuit guide/driver)
- Pre-booking required before boarding
- Activity included in your cruise



Sled dogs, all about survival

Adam Eskildsen and Ole Eliassen come from a village of 30 inhabitants, not far from Kullorsuaq, in the northwest of Greenland. What do they do for a living? They're hunters. It's a subsistence activity which they've been doing since childhood, mainly with dog sleds, which implies a relationship of mutual trust and obligation between human and animal.

EARLY LEARNING

Ole : In our village, it is the elders who teach the class. They taught us in school how to make a sled.

Adam : Usually our fathers give us our first dogs when we are young. As a child, I had three dogs and I taught myself how to train them by watching and copying the elders. We do the same thing with seal hunting.

Ole : In our villages, it is our parents or uncles who pass on this knowledge. I went on my first seal hunt when I was eight years old with my father. I would stand behind him to imitate his movements.

IT'S HARD TO LEARN BUT NECESSARY TO PASS ALL THIS DOWN.

Ole : Young people today do a lot less sledding than we do, because there is not much money in hunting. They prefer to go halibut fishing to make a better living. But maybe if we could offer dog sledding as an activity to tourists, they might be more interested. They are still teenagers. For now, they want to enjoy life. But I am convinced that in a few years they will realise the importance of hunting as all their meals consist of seal, walrus or bear that I hunt. They see that it is our food that I hunt myself.

INDISPENSABLE SLED DOGS

Adam : I have 14 dogs that are old enough to be harnessed, and 12 that are still too young. I love my dogs. I love them all the more because I need them. As soon as you need to get around on the ice, you need a sled. We love them, but we have a different relationship with them, compared to dog owners in Europe for example. In our house, dogs don't sleep inside. It's because they can't stand the heat! And it's also traditional, our dogs have always been outside. Especially since they are huge! For us, they are not only pets, they are essential to our work, and essential to our survival when we go out in the snow for several days. We can't afford to have a dog endanger us. And, believe me, they are much more efficient than a snowmobile. They don't break down! However, you have to know them well to take care of them properly and not tire them.

Ole : As a young adult, I didn't have any dogs. But more than owning a sled, it was the relationship with the dogs that was important to me. Today, I have eleven sled-age dogs and four younger ones who are not yet ready. I am deeply attached to this way of life. Anyway, people who don't like their dogs can't work with them because the dogs will refuse to obey.

MIMICRY

Ole : To train the dogs to pull the sled without endangering us, we harness the most experienced dogs in front and the youngest ones behind. All they have to do is follow the leaders' example.

Adam : And to train them to hunt, we put on a bear skin and blend in with the pack. We thus identify those who are the most afraid and those who appear to be the best at hunting. During the hunt, the ones who are scared will stay on the sled, but the ones who are good at hunting will surround the animal.

Hiking in snowshoes: fulfilment and freedom

Is there an invention for moving about on the snow as simple and effective as snowshoes? Strapped to your feet, neatly distributing your bodyweight, they make it possible to visit areas that are difficult to access, however deep the snow might be. Lucas Humbert, a *Le Commandant Charcot* polar guide, sets the scene.

A PRACTICE STRETCHING BACK THOUSANDS OF YEARS

It's difficult for ethnologists to identify the first people to make and wear snowshoes. *"There are two theories,"* says Lucas Humbert, a polar guide and supervisor of snowshoe activities aboard *Le Commandant Charcot*. *"The first is that several different populations who had to cope with the snow at different periods in their history invented the shoes simultaneously, in different forms. The second theory is that people from central Asia brought them to North America, via the Bering Strait, between 30,000 and 5,000 years BC, when that was possible during the Ice Age."*

For thousands of years, snowshoes were an essential item for civilisations faced with a lasting abundance of snow, enabling them to move around for hunting, trapping and discovering new areas. They made it possible for indigenous people to migrate, and were later adopted by explorers, pioneers and soldiers, among others. Originally made of wood, and the tendons, guts and skins of animals, their design was gradually perfected by North American Indians, who adjusted the size, weave and shape of the shoes. *"Snowshoes were produced according*

to the usage required, the quality of the snow, the size of the hiker – and particularly the length of their legs, their body mass and the weight they would be carrying," explained Lucas Humbert.

While the Indians produced made-to-measure snowshoes, they became available to a much wider audience from the 1970s onwards, and were made from plastic and aluminium, with the addition of crampons. Walking in snowshoes became a leisure sport and, since 2006, has had its own world championships, featuring distances from five kilometres to a marathon.

A BIT OF EFFORT AND A LOT OF PLEASURE

Walking in snowshoes does not require great technique. *"The challenge is more in people's knowledge of snow-covered areas and their specific characteristics,"* the guide explains. *"Snow often makes it more difficult to walk, and the distance to your destination is often greater than for an ordinary walk. So, you need a minimum level of physical fitness, which means being able to walk for three hours with an elevation of 300 metres without getting out of breath."*

Aside from the sporting aspect, hiking in snowshoes in places where virtually no human has ever set foot before is an exceptional experience. *"It gives you access to areas that are unmarked and not visited by other people, where you can find nature in immaculate condition with no prints in the snow – except those of animals,"* says Humbert. *"When you discover a pristine paradise like this, you really can talk about a feeling of freedom."*

Hiking in a pair of snowshoes is definitely worth trying, for the good it does for the body, and for the mind.



**SNOWSHOEING AND
HIKING ONBOARD
*LE COMMANDANT CHARCOT***

- Arctic - Antarctica (except from January to the end of the season*)
- 20 guests per outing
- Activity free of charge
- Equipment provided: boots, hiking sticks and snowshoes



Immersive experiences

Extraordinary experiences that take place in an unrivalled natural setting create memories that last a lifetime. These include the ancient art of ice fishing or, for the more adventurous, a dip in the polar sea in just a bathing costume, or a swim in a wetsuit.



ICE FISHING, AT THE HEART OF INUIT TRADITIONS

A white paradise as far as the eye can see, and a hole in the ice above the sea or a stretch of fresh water. Such is the setting for ice fishing, a task that requires a drill, a weighted line and sufficient bait. After that, a little patience is needed, with the hope of catching an arctic char or a Greenland halibut. At the same time, fishing in such a minimalist landscape with its muffled silence is also a highly meditative experience.

Contrary to popular wisdom, the fish living beneath the ice are not lethargic, and the Inuits are experts at predicting their movements and knowing where they will bite. In fact, they still use this ancient technique today. They cut several holes in different

places on the ice and attach each line to a solid bar across the top, and then check them regularly. Ice fishing is mainly practiced in the spring and provides families with significant food resources. It's an activity with a fun side - and is absolutely one to try!

ONBOARD LE COMMANDANT CHARCOT

Ice fishing

- Arctic, early season only
- 10 guests per outing
- Activity free of charge
- Equipment provided: fishing rod, lures

Polar plunge

- Arctic - Antarctica
- One person at a time
- Activity free of charge
- Equipment provided: harness connected to a lifeline

Ice floating

- Arctic - Antarctica
- 10 guests per outing
- Pre-booking mandatory before embarkation
- Activity free of charge
- Equipment provided: survival waterproof polar suit



ULTRA-SENSORY SWIMMING

Whether it's for a polar dip without a diving suit or a swim for a few minutes in a wetsuit, immersion in the icy waters of the poles is an extraordinary experience. Above all, the biggest impact is the sheer cold. Without specially designed equipment for these extreme temperatures, a human being would not survive the shock for more than a minute.

But a lightning immersion in 0°C water, wearing only a swimming costume – but attached to a safety rope – has an incredible effect. Invigorating and other-worldly, it also has recognised health benefits, such as stimulating blood circulation, reducing inflammation and strengthening both the nervous system and the body's immune responses. Nordic people, who regularly

swim in cold water, know this well. An incredible experience in a setting that stimulates all the senses, every single second is a moment to savour.

For those who feel the cold, swimming in a wetsuit (only the face is left uncovered) offers something different. Surrounded by nature in all its majesty, immersion in water takes on a new dimension. By having the confidence to let go and be enveloped by water that in other circumstances would be feared, the result is a surprising state of relaxation. An experience that inspires both emotion and fascination, the lasting impression is of being alone in the world, at one with the elements, and understanding this force of nature.

Zodiac outings

Aboard *Le Commandant Charcot*, a fleet of 14 Zodiac expedition dinghies will be used for outings and shore visits throughout the cruise. Getting closer to a glacier calving huge icebergs, setting foot on a sheet of ice floe, observing bears, seals, sea lions and penguins up close: so many unforgettable moments that very few people will ever have the chance of experiencing in these regions that are hostile to man and home to unique wildlife.

If the Zodiac cannot go to a specific place, the hovercraft* will act as a shuttle between the ship and a landing place.

ONBOARD LE COMMANDANT CHARCOT

- Arctic - Antarctica
- 10 passengers per Zodiac
- Activity free of charge

*Subject to the regulations in force.







Citizen science: how to become an ambassador of the poles

Being aboard *Le Commandant Charcot* means playing an active role in your trip. Guided by onboard naturalists, guests can be part of a scientific adventure in the polar regions, courtesy of a range of different activities. Welcome to the world of citizen science.

To better understand the world around us, some actions can speak louder than a thousand words. In a spirit of sharing and understanding the relationship between the climate, ecosystems and people, PONANT offers passengers aboard *Le Commandant Charcot* the chance to take part in aptly-called 'citizen science.' *"We want guests to be involved and to make them aware in an interactive and practical way,"* explains Alison Thieffry, a nature guide and manager of citizen science aboard *Le Commandant Charcot*. *"Through numerous workshops and some simple protocols, they will get a better understanding of the polar regions, which are so fascinating. Our aim is for every observation or measurement to have both depth and consistency, and to be part of genuine scientific partnership."*

Guests have been helping with census activities for marine mammals, notably by identifying whales for the Happywhale programme, while photographs of cloud cover are used as a data source by NASA. The sampling of phytoplankton (aquatic plants and animals) and the detection of pollutants such as plastics, either at sea or in the ice, are all helping to improve both the understanding and the protection of polar regions.

KEY DATA ABOUT THE CURRENT STATUS AND CHANGES IN POLAR ENVIRONMENTS

"Some activities are carried out on the external bridge, like observation of the ice, birds or whales," says Thieffry. *"Others are done in small groups, particularly when it requires access to the two research laboratories."* Reading satellite ice maps, using the Sea Ice Measurement System - which measures the thickness of the ice, studying turbidity (the degree of cloudiness in the water) or listening to the sea depths via a hydrophone are also part of the programme*. Tablets with citizen science apps then transmit the data to glaciologists, oceanographers and meteorologists.

"Le Commandant Charcot goes several times a year to the same places. The data collected by guests will provide indicators about the current state and the changes in these environments," explains Thieffry. *"It means that guests have a role to play in adding to current knowledge. Our aim is for them to become stakeholders, to some extent, in the polar regions."* And these regions still have many mysteries to reveal...

**All the citizen science activities mentioned are indicative. They depend on the seasons, and weather conditions permitting.*



THE ARCTIC

In the northern summer of 2022,
Le Commandant Charcot will begin its first
season in the Far North. This is an opportunity
to embark on new, rare, epic journeys:
the quest for the geographic North Pole,
the coast and the national park of north-east
Greenland, regions that are difficult to access
and have spectacular wildlife, or the crossing
of the legendary Northwest Passage
to meet the proud peoples of the Arctic.



LE COMMANDANT CHARCOT

— MAIDEN ARCTIC SEASON —

THE NORTH POLE

In the Arctic, go in search of the most isolated regions:
the geographic North Pole, reach the wild coasts of Greenland,
the lonely shores of Svalbard or follow the greatest dreams of adventure
in the Northwest Passage, and meet the peoples of this isolated
Great North, with its extreme living conditions.

At the genesis of the French polar expeditions	p. 102
Discovering the Northeast Greenland National Park	p. 108
Polar Odyssey between North East Greenland & Spitsbergen	p. 112
Exploring Nordaustlandet	p. 116
Polar immersion in Svalbard	p. 120
The Geographic North Pole	p. 158
The Northwest Passage	p. 164



Arctic: the basics



TO DO.

In Greenland, don't be surprised if you see a seal or whale hunt. This country is one of the few places in the world where indigenous hunting is self-sustaining, with quotas. It has allowed the local population to continue their traditions and to consume protein without having to depend on imports.

AVOID.

To be offered seal at a meal is a real honour. Refusing a dish made with seal would be frowned upon.

UNIQUE

As there is no permanent human presence at the North Pole, there is no official time or time zone officially assigned to this region, but the convention is to use UTC+0.

DO YOU SPEAK GREENLANDIC?

Hello: *Kutaa*

Goodbye: *Inuulluarit*

Please: *Ikinngutinnersumik*

Thank you: *ujan*

Yes / No: *Aap / naamik*

You're welcome, with pleasure: *Illillu*

How are you? *Qanoq ippisi?*

Good thanks, and you?

Ajunngilanga, qujanaq, ippit?

My name is...: *...imik ateqarpunga*

MYTHS AND LEGENDS

In Greenland, *tupilaks* are statuettes carved from animal bones. They represent polymorphous creatures, taking on a human or animal appearance (e.g., walrus, bear, seal etc.).

The models created today by the craftsmen are intended for tourists, but according to legend, these evil statues were made to bring death. The shaman who sculpted them gave them life, breathed into them the name of a victim and threw them into the water to complete their mission.





LET'S TALK ABOUT...

Near Longyearbyen in Spitsbergen, deep in the permafrost, at a depth of more than 120 metres, a **world seed reserve** has been protecting and preserving the seeds of all the world's food crops since 2006. This vault, a veritable plant Noah's Ark, can house more than four million seeds, ready to be used in the event of a natural or man-made disaster.

FIGURES

90°N latitude corresponds to the North Pole, a highly symbolic point for anyone who dreams of reaching the end of the world.



CULTURE

Read.

The many Arctic stories by the Danish writer **Jorn Riel**. He was fascinated by Greenland, including the wild Northeast Greenland National Park, the lives of the Inuits and trappers, and he recounts lifestyles and wild epics. If some of his antiheroes are easy to smile at, his interest in the people of the Arctic reveal a deep humanity.

Listen.

The electronic music composer Romain Delahaye, aka Molécule, travels to extreme environments to record the sounds and create a "**sensory soundtrack**". In 2018, Molécule set up his recording equipment for 36 days in the village of Tiniteqilaaq, in south-east Greenland. The result is a surprising opus, -22.7°C (the lowest temperature he was able to record on site), a poetic symphony of nostalgia, hope and magic.

Watch.

October 1995. French explorer Jean-Louis Etienne and his crew boarded the *Antarctica* and allowed themselves to be trapped in the ice of Spitzbergen. The aim of this expedition was to study the ice, the polar fauna and the great cold marine currents that influence the climate. The documentary *Nuit blanche sur la banquise* by Marc Jampolsky illustrates this unique experience and the difficult conditions of survival in these extreme environments, throughout the polar night.

Meeting the peoples of the Arctic

Despite its extreme environment, the Arctic is home to a variety of indigenous populations. They live in the northern region of the Arctic Circle, where there is no natural border or politics to define its limits. Jonathan Zaccaria, head of expeditions aboard *Le Commandant Charcot*, takes us to meet these fascinating people.

A LITTLE GEOGRAPHY

The different communities in the Arctic, such as the Inuits, the Sami and the Yakuts, are indigenous peoples living in the interior and edges of the Arctic Circle, a region spread across seven countries: Russia (Siberia), the United States (Alaska), Canada (the northwest and Nunavut), Denmark (Greenland) and the northern areas of Finland, Sweden and Norway (including the Svalbard archipelago). *"All these different peoples have their own language, culture and traditions,"* says Jonathan Zaccaria. *"Today, there are about 600,000 people living in the far north."*

A LITTLE HISTORY

Our ancestors, who appeared in Africa about 200,000 to 300,000 years ago, left there in order

to occupy new lands. The widely accepted theory is that they migrated towards Siberia in order to reach Alaska. *"About 12,000 to 40,000 years ago, during a glacial period, the sea levels were lower and the polar ice sheets were gigantic,"* explains the expedition leader. *"They crossed this area on foot, or they sailed along the coast. Then, at the end of the glacial era, about 10,000 years ago, the melting of the ice provided a way of settling in new areas. Some of them headed to the south of the American continent, while others went northwards, probably following the animals they hunted."* Around the year 1000, the people of the Canadian Arctic began to colonise Greenland by passing across the natural bridge formed by the Smith Strait and the Kennedy Passage (which are now frozen during winter).

A LITTLE BIOLOGY

Living beings have three ways of reacting to environmental change: adaptation, migration or extinction. Natural selection means that certain characteristics provide an advantage for living in extremely hostile surroundings. *"The Arctic peoples tend to have a more stocky shape, which reduces the area exposed to the cold and therefore minimises the loss of energy,"* Zaccaria adds. *"The stomachs of Inuit, for example, have adapted to digesting fermented meat, such as kiviak (made from auks that are packed inside a sealskin), which can be toxic for other people."*



“All these different peoples have their own language, culture and traditions. Today, there are about 600,000 people living in the far north.”





Portrait of a man in the Canadian Far North.

A LITTLE CULTURE

The Arctic peoples were originally nomadic, as the fauna that provided them with meat, fuel and skins for clothing were dispersed in different areas. *“In Canada and Greenland, the Inuit moved around as they hunted sea mammals,”* explains Zaccaria. *“In Europe and Siberia, nomads followed the herds of reindeer, which they used to hunt, before later domesticating them. Today, their owners still move their livestock from winter to summer pastures, often travelling up to 1,000 kilometres.”*

Westernisation and a sedentary lifestyle were forced on these historically nomadic people by governments in their respective areas. *“The modernisation of our world has not yet erased all trace of Inuit culture. While these people still subsist essentially on hunting and fishing, albeit using modern techniques, some of them maintain their ancient traditions: hunting narwhals from a sealskin kayak, wearing clothes made from bear fur, etc. But what will they have become 500 years from now?”* wonders Zaccaria.

A LITTLE ECOLOGY

Climate change, along with marine and atmospheric pollution, have also made an impact on Arctic populations, as the region is warming two or three times faster than the rest of the planet. *“With just one degree more, the water cycle and changing of the seasons is affected. The melting of the permafrost (ground that is normally frozen) is making their homes unstable, and the distribution of wild animals has been seriously disrupted. The disappearance of sea ice, which is occurring increasingly early and is accelerating during*

the summer, is opening up new areas to navigation and making new resources available. These are all issues that bring together governments’ interests, tensions and the future of indigenous people in the Arctic.”

A LITTLE PHILOSOPHY

Today, that future can only be discussed in the conditional sense. However, there is still plenty to learn from their way of life. For Zaccaria: *“The peoples of the Arctic teach us:*

- *to live independently: nature provides them with food, warmth and clothing;*
- *to make connections within a tightly-knit community: every hunter shares their bounty with the rest of their community;*
- *to live with the times and reconnect with nature: their activities are in tune with the cycle of the seasons, animals and the sun;*
- *to live in peace and harmony: the extended family and the community play just as important a role in children’s education as their parents.”*



At the genesis of the French polar expeditions

NEW



Le Commandant Charcot offers new possibilities: the exceptional history of French polar expeditions is unveiled during an adventure into the heart of the territories on the East coast of Greenland. In this season, where a thick layer of ice protects access to the shores and the day stretches into infinity, set off to discover a wild land in the footsteps of the illustrious Jules de Bloesville, Jean-Baptiste Charcot or Paul-Émile Victor. In the Ammassalik region, the light of the midnight sun dresses the huge glaciers, winding fjords, gigantic icebergs and plates of sea ice. Here, the rays that skim the horizon offer a magical palette of blue, magenta, purple and pink.

In this magnificent setting, time seems to stretch on as a magical spell is cast. Further north lies Bloesville Coast, discovered by the eponymous lieutenant in 1833, during a journey that led to his disappearance. This resulted, two years later, in the setting up of one of the largest French exploration missions. In D'Aunay Bay and the Ittoqqortoormiit region, even further north, you will journey deep into a hostile but peaceful world of ice, which is silent yet home to incredibly rich wildlife.



HIGHLIGHTS

- Set off on the trail of the great explorers who attempted to navigate the eastern coast of Greenland, a region that long remained isolated due to being hard to reach.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- An encounter with the Inuit people to share their springtime traditions including dog sledding, an activity thought up with our hosts.
- The Blossville Coast and its ice cap that comes straight from the North Pole.
- The landscapes: alpine landscapes, polar ice cap, fjords, icebergs, glaciers, patches of ice floe drifting from the North Pole.
- The wildlife: polar bears, seals, Arctic foxes and hares, sea birds.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar diving, cold-water swimming, dog sledding, participative science.

Reykjavík · Reykjavík
30th April 2022 - 11 days / 10 nights
For current pricing and inclusions,
please visit au.ponant.com

*For more comfort, complete your trip with
a pre- and/or post-cruise programme.
See pages 168-169*

**Subject to the regulations in force.*

“Paul-Émile Victor was a visionary”

Polar explorer, scientist, ethnologist, writer, designer and photographer... Paul-Émile Victor (1907-1995) was the figurehead of French polar expeditions in the second half of the 20th century. Jennifer Roux, an archaeologist and qualified tour guide, looks back at his fascinating career, which later created many new professional fields.

What are Paul-Émile Victor’s major feats?

Paul-Émile Victor restarted French polar exploration after World War II. Aware that technical advances could be used to help people working in hostile environments, he ‘mechanised’ polar expeditions – deploying large-scale technical resources in order to meet scientific needs. He was a visionary. He soon realised that the poles were the last regions of the world to be explored, and that a range of possibilities lay ahead. For each of his expeditions, he put together a multi-disciplinary scientific team and was quick to encourage international collaboration. Operating in areas where every day is a challenge, and almost a question of survival, you need collaboration rather than rivalry. He always knew how to put a team together and he used his fame to increase France’s reputation for science and polar exploration, while at the same time making science accessible to the general public. He was also one of the first to make people aware of the importance of preserving the environment.

What are the most interesting aspects of his personality in your view?

His humanity and his sensitivity were very obvious, and together they created a real need in him to share his knowledge. He had a genuine desire to understand things, so that he could be even better at passing on his knowledge. And he had a gift for languages, which was invaluable for making connections. A great communicator, he was also quick to realise the power of pictures and the possibilities offered by the rise of television. He used TV cleverly to capture a vast audience, thanks partly to his own charisma, but mainly due to his talents as a storyteller and as someone who could make complex subjects easy to understand. His powers of persuasion even convinced politicians.



The little town of Tasiilaq on the island of Ammassalik, off Greenland's east coast, and the Eqa Glacier, not far from which Paul-Émile Victor in 1948 established one of the base camps used by French polar expeditions.



In 1947, he founded the *Expéditions Polaires Françaises* (French Polar Expeditions), which he led for nearly 30 years. What was this institution?

Under his management, 150 expeditions were carried out, and he took part in 17 of them, including to Adélie Land and 14 times to Greenland. In 1948, this national body organised simultaneous research missions to both poles. In Adélie Land, the Dumont D'Urville base was built in 1949 at Port Martin, and in 1957, a base dedicated to glacial studies (now closed) was established towards the continent's interior and named Charcot. In 1992, French Polar Expeditions merged with the research missions of *Terres Australes et Antarctiques Françaises* (French Southern Hemisphere and Antarctic Lands) to become the *Institut Polaire Français Paul-Émile Victor* (Paul-Émile Victor French Polar Institute). Five years later, the Franco-Italian base Concordia became operational. Paul-Émile Victor's legacy is still present at the heart of French scientific research and helping France to play its part in the international challenge of polar research.

At 27 years old, he was taken by Commander Charcot to Greenland. What do we know about their initial meeting?

In 1934, along with his studies in ethnology, Paul-Émile Victor was working as a volunteer at the *Musée d'Ethnographie du Trocadéro* (Trocadero Museum of Ethnography), which later became the *Musée de l'Homme* in Paris. His aim was to lead an ethnographic mission to the east coast of Greenland and to bring back Inuit cultural objects for a new collection. So, he needed to find a ship that could drop him off in Greenland. He wrote several letters to Jean-Baptiste Charcot, setting out his plans. They met a few months later and Paul-Émile Victor asked if he would take him to Ammassalik (today Tasiilaq), which is about 500 kilometres away from where Jean-Baptiste Charcot usually went. The commander's immediate response

was "What a cheek!" However, impressed by Victor's daring and enthusiasm, he replied after a brief silence: "It's a deal, young man! I'll take you there!" Two schools of exploration were running in parallel, and there was undoubtedly a mirror effect between them – something between admiration and envy. In 1936, Paul-Émile Victor duly set off with Jean-Baptiste Charcot, having given himself two objectives: to cross the Greenland ice sheet from east to west on dogsleds (a first!) with two companions, and to winter alone with an Eskimo family in Kangerlussuaq for a year. However, Commander Charcot never returned to collect him, as he and all but one of his crew were lost when their ship sank off the west coast of Iceland on September 16, 1936.

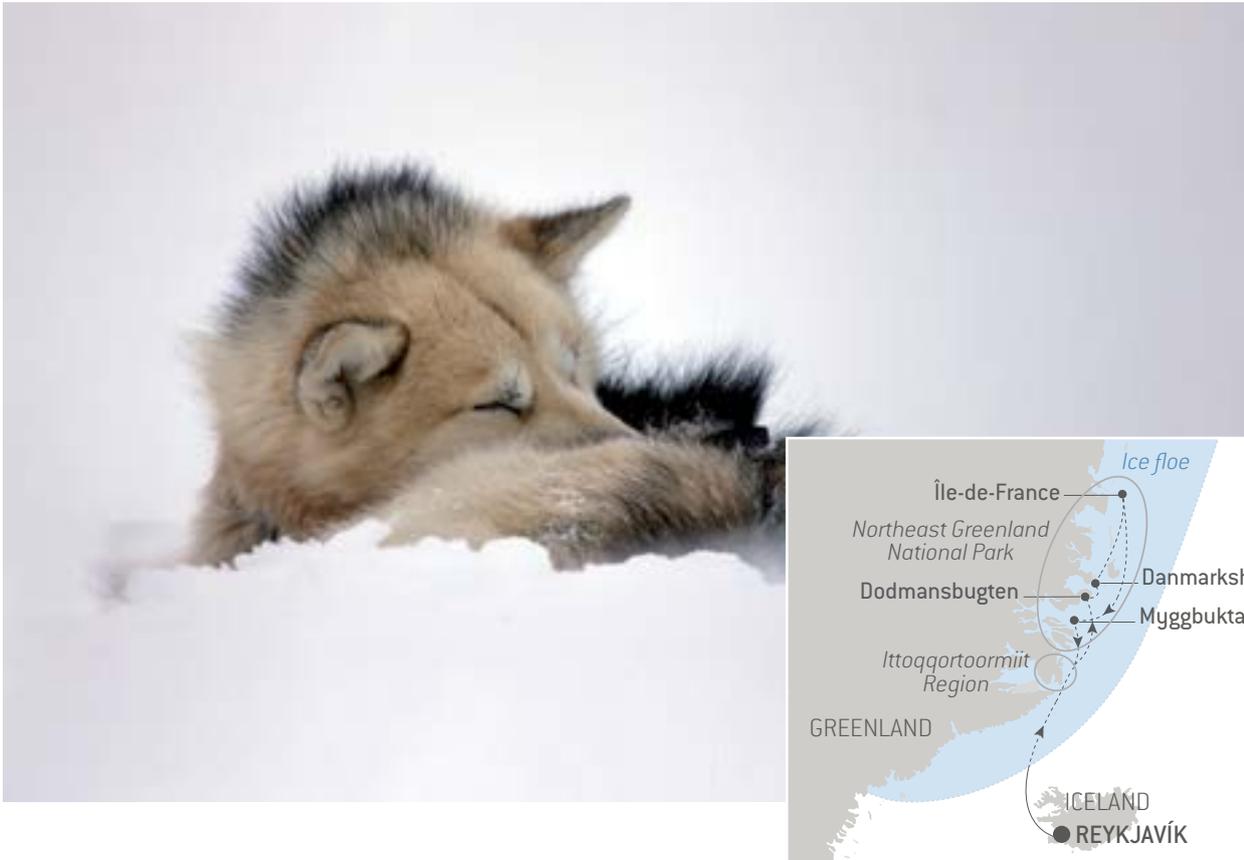
You often read that Paul-Émile Victor was a pioneer in his fight to safeguard the environment. What has his legacy been?

Paul-Émile Victor understood very early on that human activity was making an impact on the planet. Comforted by the fact that people he knew who worked in other environments – such as Jacques-Yves Cousteau, Haroun Tazieff and Maurice Herzog – were also noticing the various effects on nature, he became convinced that to preserve human life, we also had to preserve the environment. His thinking matured over the course of the 1960s, when he campaigned to protect the Antarctic, and to make it a place of peace and science. He worked for a range of international committees and his commitment led him to create the *Groupe Paul-Émile Victor pour la défense de l'homme et de son environnement* (the Paul-Émile Group for the defence of mankind and the environment) in 1974, which brought together many leading figures. This 'people-focused' visibility, which also attracted media attention, helped them to get their messages across to a much wider audience. And it's thanks to their work that ideas of ecology and sustainability have taken shape.



Discovering the Northeast Greenland National Park

NEW



Welcome to the world's largest National Park, in the heart of the splendid north-east coast of Greenland. *Le Commandant Charcot* will enable you to explore one of the most difficult regions to access in the Far North, in the spring, when the snow and the ice still envelop the landscapes of these northern lands. On your route, you will discover the region of Ittoqqortoormiit whose inhabitants, the Inuit, will be your hosts for a brief sharing around their ancestral traditions. You will then set sail towards the Northeast Greenland National Park, a UNESCO Biosphere Reserve and a dreamlike world where magically coloured alpine landscapes mingle with

immense glaciers. The season is perfect for observing the local inhabitants: charismatic polar bears, colonies of musk oxen, Arctic foxes and hares, sumptuous orcas and the many sea birds. Before returning to the Icelandic coastlines, *Le Commandant Charcot* will attempt to reach, with humility, the north of the National Park and the remote shores of Île-de-France. Discovered in 1905 by the Duke of Orléans, it is characterised by the thick ice pack that covers it, coming from the North Pole, a result of the Transpolar Drift. This is a voyage in search of meaning, at the boundaries of the known world.



HIGHLIGHTS

- Discover the largest National Park in the world – a UNESCO Biosphere Reserve – at the magical moment when nature wakes up.
- The outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- An encounter with the Inuit people to share their springtime traditions while ice cover is still extensive.
- Visit the old Norwegian trapper cabins.
- The landscapes: mountains, fjords, glaciers, icebergs, ice floes, hummocks, tundra, cliffs, polar ice cap.
- The wildlife: polar bears, narwhals, seals, musk oxen, Arctic foxes and hares, orcas, sea birds.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar plunge, ice floating, dog sledding, participative science.

Reykjavík · Reykjavík

10th and 22th May 2022 – 13 days / 12 nights

For current pricing and inclusions,
please visit au.ponant.com



10th May 2022 departure: cruise
in collaboration with National Geographic
Expeditions with a Photographer and
an Expert onboard.

*For more comfort, complete your trip with
a pre- and/or post-cruise programme.*

See pages 168-169

**Subject to the regulations in force.*



In Greenland, a patrol like no other

Daneborg, in northeast Greenland, is home to an elite unit of the Danish navy: the *Slædepatruljen Sirius* or the Sirius Sledge Patrol. Its 12 male-only members are responsible for safeguarding the Northeast Greenland National Park. The setting is unusual, and the patrol is not quite like any other.

AN UNUSUAL HISTORY

The existence of the once-secret Sirius Sledge Patrol dates back to World War II. The aim at the time was not only to prevent the Germans from creating a base from which they could attack the United States, but also to access the 'oracle' of European weather: from Greenland, the weather

conditions in Western Europe can be accurately predicted 24 hours in advance. Several weather stations were set up by the Germans, but all were subsequently destroyed by the Allies. The Sirius patrol became an official institution in 1950. During the Cold War, its objectives were to dissuade the Soviet Union from establishing a presence there, and to defend Danish sovereignty. The patrol has been operating in the region ever since.

A PHYSICAL AND MENTAL CHALLENGE

Becoming a member of the *Slædepatruljen Sirius* isn't easy. After a series of interviews, the candidates - all Danish sergeants aged 20 to 30 - are put through a demanding seven-month training programme. The aim is to test their adaptability, along with their physical and mental endurance, and to train them to be fully independent, including for their medical needs. After this period, six men are



chosen to replace half of the dozen patrol members in service at the time. On arrival, the new recruits will monitor an uninhabited coastline from Liverpool Land in the east, to the Nares strait on the north coast. While the two locations are 2,100 kilometres apart as the crow flies, the indented coastline to be patrolled actually totals 16,000 kilometres, and the soldiers will not leave it for two years.

In addition to their military role, the patrolmen also supervise and monitor the various expeditions being carried out, either for scientific or tourism purposes, to ensure that people comply with the park's conservation rules. They move around in two-man teams, by boat in the fjords from June to October, and then on dogsleds from November to the end of May, spending up to five months patrolling the region with a dozen dogs. They will go weeks without washing and without eating any fresh fruit or vegetables, and their only contact will be with seals, walrus, Arctic wolves, polar bears and muskox.

A UNIQUE 'PLAYGROUND'

The servicemen are responsible for patrolling the world's largest national park (972,000 square kilometres), a surface area one and a half times the size of France. A vast territory of great beauty, it has a year-round population of about 50 people: a few hunters from the village of Ittoqqortoormiit, a number of soldiers and scientists, and the dozen members of the patrol. Listed as a UNESCO Biosphere Reserve, the park is a sanctuary for Arctic flora and fauna. During winter, there are three months of continuous polar night, when there is no direct sunlight, the temperatures can fall to -50°C and the winds are both extremely strong and virtually incessant. It's a wild environment of ice, rock and tundra, noted for its exceptional isolation (with no internet or cellular network). It's a breathtaking setting, for a mission like no other.



Polar Odyssey between North East Greenland & Spitsbergen

NEW



The exceptional is now within reach: explore the east coast of Greenland by following the ice to the majestic lands of Spitsbergen. Experience the intense emotions of a journey to the edges of the Earth, in the wake of the great explorers and Norwegian trappers. Greenland and the Scoresby Sund region will open the doors to a white and immaculate world – that of Jean-Baptiste Charcot – where poetry seeps from the snow-capped peaks, the gigantic fjords and the ice floe glints from the rays of the sun. In the Northeast Greenland National Park, you will plunge into the vastness of the polar territories, like

in one of Jørn Riel's series of Arctic tales, between the ochre of the bare and jagged cliffs and the deep blue of the northern waters. Polar bears and musk oxen observe you from afar. Much further north, the former haunt of whalers, the Nordvest-Spitsbergen National Park, will welcome you. Today, the different species of cetacean have recolonised their territories and walrus bask on their blocks of ice. Between the Kongsfjorden glaciers devouring the landscapes of Spitsbergen and the international research base in Ny-Alesund, Spitsbergen reserves its finest treasures for you.



HIGHLIGHTS

- An all-new cruise between Greenland and the island of Spitsbergen, to discover the history of the great explorers and Norwegian trappers, in unexplored landscapes.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- An encounter with the Inuit people to share their springtime traditions while the ice cover is still extensive.
- Sail in Spitsbergen's fjords and towards the ice floe.
- Landscapes: fjords, mountains, ice floes, glaciers, icebergs, tundra, cliffs, polar ice cap.
- Wildlife: polar bears, narwhals, seals, musk oxen, Arctic foxes and hares, walruses, orcas, Svalbard reindeer, sea birds.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar plunge, ice floating, participative science.

Reykjavík · Longyearbyen

3rd June 2022 - 13 days / 12 nights

Included in your cruise: transfer to the airport and Longyearbyen - Paris flight.

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

Majestic Greenland

Greenland, the mythical territory of the Great North where the greatest explorers have set foot, stands in majesty with its extraordinary sea landscapes scattered with glittering icebergs and shores indented by magnificent fjords.

*At the top: Inside the Scoresby Sund (The Red Fjord).
Below: King Oscar fjord on the East Coast of Greenland.*







Exploring Nordaustlandet

NEW



Head for the edge of the world and the remote territories from the North of Spitsbergen to the legendary Nordaustlandet. Aboard *Le Commandant Charcot*, you will be the privileged guests of this region, inaccessible to traditional cruise ships at this time of year. Surrounded by a setting of ice cut into by fjords and punctuated by icebergs, in search of the mythical ice floe, let yourself give in to the sensations that this polar world inspires. The adventure will take you to Europe's largest ice cap, the kingdom of polar bears and to the easternmost island of the Svalbard

archipelago - Kvitoya, the white island - home to walrus. Your cruise around the Nordaustlandet will end on a high in the Hinlopen Strait, a sound separating the two main islands of Svalbard. Here, the basalt islets hide an incredibly rich marine ecosystem including myriad sea birds nesting on the gigantic cliffs. Finally, your odyssey, which will reach 80 degrees north latitude, will take you into the heart of one of the most impressive fjords in Svalbard, Isfjorden, where many species of cetaceans have chosen to live.



HIGHLIGHTS

- Discover the riches of Svalbard, an isolated and preserved territory.
- Outings and shore visits in Zodiac inflatables or hovercraft* with a team of experienced naturalist guides.
- Immersion in the ice floes.
- Circumnavigation around Nordaustlandet, land of ice and the largest ice cap in Europe.
- Discover Kvitoya, the white island, covered by the ice cap.
- Sail in the Hinlopen Strait between Spitsbergen and Nordaustlandet.
- The landscapes: ice floes, jagged mountains, icebergs, ice caps, steep-sided valleys, sheer cliffs, huge glaciers.
- The wildlife: polar bears, walruses, Arctic foxes, Svalbard reindeer, cetaceans, sea birds.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar plunge, ice floating, participative science.

Longyearbyen • Longyearbyen

15th June 2022 - 9 days / 8 nights

Included in your cruise: transfer to the airport and Paris - Longyearbyen return flights.

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

LORD OF THE FAR NORTH

A symbol of the Arctic region, the polar bear is one of the largest of its species on the planet. However, what really sets it apart is the ability to adapt to its environment and the seas. About 600,000 years ago, it was a brown bear! Benjamin Dy, a biologist, polar guide, nature writer and photographer of wild fauna, paints a picture of the lord of the far north.

A PICTURE OF *URSUS MARITIMUS*

Polar bears love the cold. Equipped to cope with extreme temperatures, beneath their black skin – which absorbs the sun’s energy through the fur – lies a layer of fat that can be more than 10 centimetres thick. The fur is formed of two layers: the first, nearest the skin, is a particularly dense undercoat of fine wool hairs, while the second is made up of longer, cream-coloured guard hairs. Together, the fat and fur provide an excellent level of buoyancy, enabling them to stay on the surface of the water without effort.

“A solitary figure, the polar bear is the sovereign of the ice sheet, covering thousands of kilometres a year in search of food, whatever the season. Gifted with an extremely sensitive sense of smell, it can detect seals on the ice or other food sources from several dozen kilometres away,” says Benjamin Dy, a biologist, polar guide and nature guide aboard *Le Commandant Charcot*. The bear’s fur provides ideal camouflage, enabling it to approach its prey with discretion. The female cares for its young for about two years, during which time she teaches them numerous techniques for finding food and hunting the seals that make up 90 per cent of their diet.

POWERFUL... BUT SERIOUSLY THREATENED

Seeing polar bears in their natural habitat is *“a rare event, truly beautiful, set in uniquely preserved environments”*, says Mr Dy. However, this force of nature is not treated the same way everywhere. Protected in Svalbard and Russia, they are hunted in the Canadian Arctic, Greenland and Alaska, most often as a subsistence food for native populations. However, hunting them for sport is also widespread, mainly in Canada and Alaska.

At the same time, *“the melting of Arctic Ocean ice, due to global warming, could lead to a sharp decline in the bear population by 2070”*, the polar guide adds. *“Their final strongholds will be the Canadian Arctic and northeast Greenland.”* Meanwhile, a further threat to polar bear numbers comes from *“chemical pollutants, which come from our latitudes and persist for a long time – both in the environment and the organisms that absorb them”*.

Observing nature is one way of making the general public aware of the situation. *“Raising awareness and providing knowledge are two key factors in conserving our natural heritage,”* notes the biologist. *“Setting off in a ship like Le Commandant Charcot, which uses energy sources that are cleaner, more innovative and more sustainable, represents a major advance.”*

A DIFFERENT KIND OF MEETING

With its ability to travel at low speed and in silence, thanks to its hybrid form of propulsion, *Le Commandant Charcot* provides ideal conditions for watching fauna in a respectful way. The ship is also able to navigate icy seas, a polar bear’s favourite habitat. In Svalbard at the end of June, being able to watch them depends upon the state of the ice. But overall, the more sea ice is present in the north and northeast, for example, the greater the population of polar bears will be. *“Before getting to see the polar bears, you travel through Arctic landscapes of infinite beauty, on a route through some of the most pristine ecosystems on the planet,”* sums up Benjamin Dy. *“The polar bear perfectly embodies these wild areas. It’s a feeling of constant wonder.”*



In the stars

The word 'Arctic' comes from the Greek word *arktos* meaning 'bear', a reference to the Little Bear and Great Bear constellations that are only visible from the northern hemisphere and that, in ancient times, enabled sailors to work out their location.





Polar immersion in Svalbard

NEW



More than a cruise, experience a real odyssey during a captivating circumnavigation in the heart of the legendary and preserved territory of Svalbard. Thanks to *Le Commandant Charcot*, you will sail right into a territory that is impassable for traditional cruise ships during a season when ice is still omnipresent. After crossing the sublime landscapes of Kongsfjorden, you will enter the waters of the Nordvest-Spitsbergen National Park. The polar desert is only just beginning. The Nordaustlandet, the Nordaust-Svalbard Nature

Reserve, the white island of Kvitøya, the Hinlopen Strait... These distant regions feature countless riches and treasures begging to be explored. Your circumnavigation of the archipelago, Norway's northernmost, will take you to visit the Sørøst-Svalbard Nature Reserve, the second-largest protected area in the country. Covered in ice, its arid appearance hides rich biodiversity. An Important Bird Area, it is also home to cetaceans, Svalbard reindeer and Arctic foxes.



HIGHLIGHTS

- Circumnavigation of Svalbard, an isolated and preserved territory.
- Outings and shore visits in Zodiac inflatables or hovercraft*.
- Discovery of Nordaustlandet (North East Land), land of ice and Europe's largest ice cap.
- Discover Kvitoya, the white island, covered by the ice cap.
- Exploring the South East Svalbard Nature Reserve, Norway's second largest protected area.
- Sail in the Hinlopen Strait between Spitsbergen and Nordaustlandet.
- Landscapes: ice floes, mountains, icebergs, ice caps, steep-sided valleys, glaciers.
- Wildlife: polar bears, walruses, Arctic foxes, Svalbard reindeer, cetaceans, sea birds.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar plunge, ice floating, participative science.

Longyearbyen • Longyearbyen

28th June 2022 - 11 days / 10 nights

Included in your cruise: transfer to the airport and Paris - Longyearbyen return flights.

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

A close encounter with the fauna of Svalbard

Svalbard is teeming with animal species that have acclimatised to an environment with strong winds and temperatures that rarely rise above 10 °C.

Apart from the iconic polar bear, the region's animal population also includes walruses, Arctic foxes, minke whales and the Svalbard reindeer. Do you know them?



THE WALRUS, SUPPORTIVE

With ivory tusks that can be a metre long for males, a body length of nearly three metres and a weight that often exceeds one tonne, a walrus is hard to miss. Its tusks are a sign of its social position (their length dictates the animal's place in the hierarchy), along with being weapons in combat and tools for breaking the ice or levering themselves onto it. At signs of danger, it roars, growls or whistles, and then takes refuge in the sea, where it can stay underwater for about 30 minutes. If one is attacked, other walruses will immediately come to its aid. A gregarious mammal, walruses gather in their thousands on gently sloping beaches and migrate as they follow the ice floes through relatively shallow waters, making the Svalbard archipelago an ideal environment for them.



THE ARCTIC FOX, FLEXIBLE

Also known as the white fox, this carnivore is the size of a large cat, measuring 50 to 100 centimetres in length and weighing between 2.5 and 9 kilograms. One of its peculiarities is having a coat that is as dense as a polar bear's and that changes colour depending on the season: white or pale grey-blue in winter to make them invisible on the snow, and brown in the summer to blend into the tundra background. The soles of their paws are fur-covered, making it easier to move around on snow and ice, and to cope with Svalbard's extreme temperatures, which can fall to -50 °C. The fox cubs are born around late May/early June and, unusually among canines, it's the male that supports the family by supplying the female with food.



THE MINKE WHALE, SOLITARY

Slim and delicate, the minke whale varies between 8 and 9 metres in length and weighs between 6 and 8 tonnes. Its 'mittens' - the white bands on its pectoral flippers - make it easy to recognise. They are particularly on show when the minke makes impressive jumps that take the animal completely out of the water - a rare feat among whales. Minke whales are usually solitary, and stay faithful to their feeding areas - the fjords and edges of the ice sheet - where they return every year after spending the winter in warmer latitudes. However, little is known about these animals, and researchers are particularly eager to find out more about their behaviour and breeding.



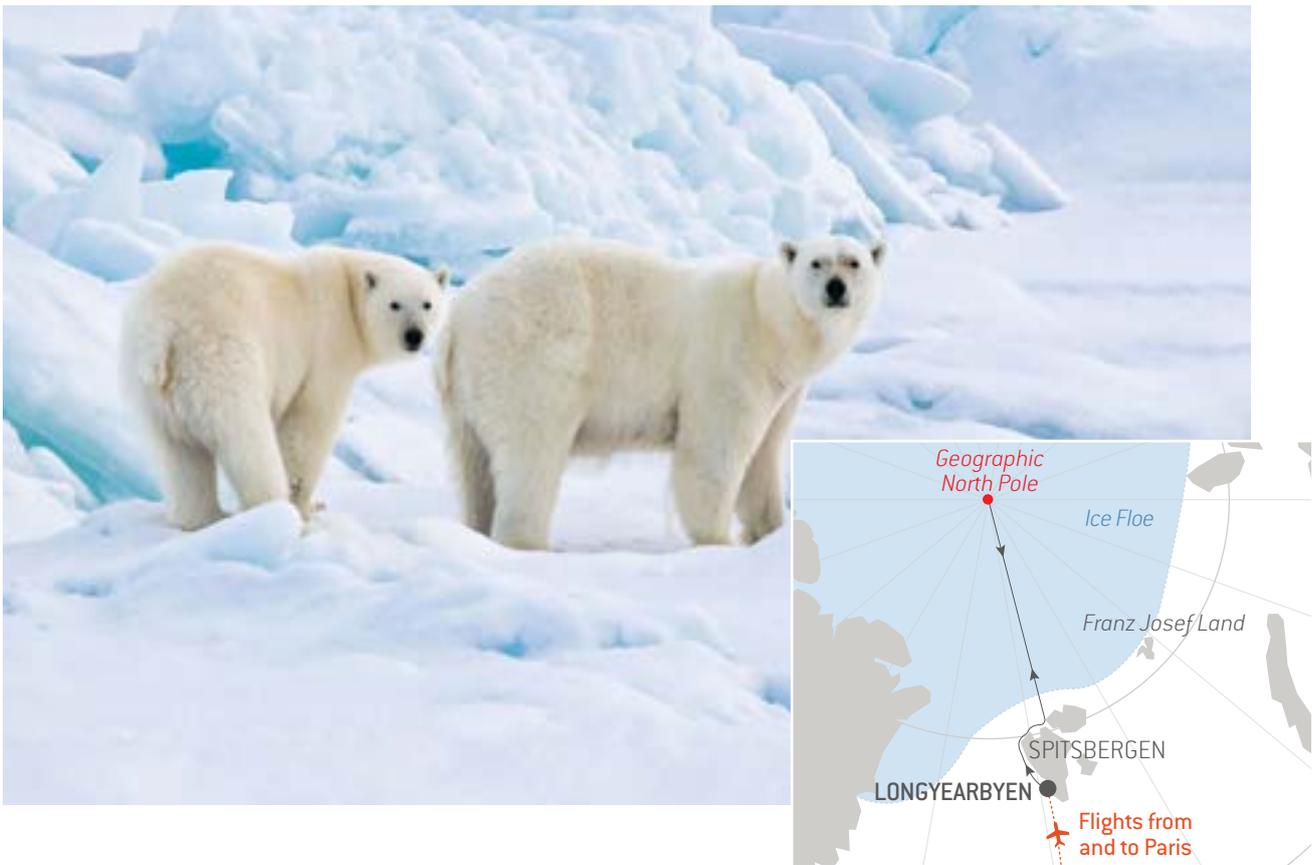
THE SVALBARD REINDEER, SEDENTARY

With its double-thickness fur coat, its small, short body and its wide hooves, the Svalbard reindeer has been in the region for thousands of years and is perfectly adapted to its environment. Like the arctic fox, its white fur in winter turns to light brown in summer. The antlers of the male reindeer grow in the summer and disappear in November, once the fighting during the rutting season is over. By contrast, the females keep their antlers all year round. Unlike other continental species, this member of the deer family does not live in large herds, and hardly migrates, as it can find its staple food - lichen - everywhere in the surrounding environment.



The Geographic North Pole

NEW



Heading for 90 degrees North! The North Pole has been a source of inspiration, fascination, and attraction since the dawn of time. This impossible and mythical 'elsewhere' lets itself be coveted. What if *Le Commandant Charcot* achieved this absolute pinnacle adventure, by enabling you - perhaps - to tread on this virtually unattainable point? Following in the footsteps of the explorers who once tried to approach these elusive parts, where the infinite ice floes unfold and 700 kilometres from any land, you are part of the chosen few to attempt the odyssey. From Spitsbergen, you will sail the northern

waters, at the edges of the Earth, where the landscapes change constantly according to the ice and the plays of light. Nature reigns supreme here, sheltering abundant wildlife: polar bears, Arctic foxes, seals or even whales will be your hosts. Your discovery of this silent world, frozen by the cold, will continue as you attempt to reach the Grail of all polar explorers: the North Pole! Swept by the winds and the currents, the ice floe is constantly drifting and the master of your ship will have to manoeuvre carefully and with great humility in an attempt to reach the northernmost point of our planet.



HIGHLIGHTS

- Be among the few people in the world to go in search of the Geographic North Pole!
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- Landscapes: ice floes. In Spitsbergen, jagged mountains, steep-sided valleys, sheer cliffs.
- Wildlife: polar bears, Northern fulmar, ivory gull, seals, whales.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar plunge, ice floating, participative science.

Longyearbyen • Longyearbyen
 8th & 23rd July; 7th August 2022 – 16 days / 15 nights
 Longyearbyen • Reykjavík
 22nd August 2022 – 16 days / 15 nights
Included in your cruise: transfer to the airport and Paris – Longyearbyen return flights.
 For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme. See pages 168-169

**Subject to the regulations in force.*



Geographic North Pole: “fleeting moments in an extraordinary place”



To take a journey to the centre of an ice pack in perpetual motion, and then to reach the legendary geographic North Pole, the northernmost point of the planet, is a very rare and emotional moment. Saskia Travert, a naturalist guide aboard *Le Commandant Charcot*, has been there no fewer than 25 times. Here, she talks about this exceptional experience, a pleasure that never pales.

“I went to the North Pole for the first time in 2009, aboard a Russian ice-breaker, where I was looking after the passengers. I didn’t have any real idea of what I’d feel like when I got there. When it’s the first time, I don’t think you should have any particular expectations, that way you can appreciate the moment itself all the more. But before coming aboard, it is definitely worth finding out about the lives of certain explorers. Wally Herbert, Umberto Nobile, Roald Amundsen and Fridtjof Nansen – to name but a few – had to battle their way to the pole. It makes you appreciate the comfort we can enjoy today when visiting places that were once so hard to access.

“To reach the geographic North Pole, the ship makes its way through ice packs, some of which have pressure ridges that are several metres in height. These are created by the collisions and friction of different ice floes, which are being driven together by the currents and winds. Between them, the ship passes through

channels that are free of ice and nilas, which are thin sheets of smooth, level ice. I always trust the captain aboard because, without GPS, it’s impossible to know where you are in this vast ice pack. Arriving at the pole can sometimes come suddenly as a surprise, and by definition it’s an ephemeral spot because the ice pack is constantly on the move. If you could stand on the geographic North Pole, you would not still be in the right place a few seconds later!

AN INCOMPARABLE LANDSCAPE, A RARE OPPORTUNITY

“Every time I go back there, the landscape is different. There are no mountains, there’s no solid ground, it’s just the ice pack as far as the eye can see. And an ice pack in very different states. The panorama is so unlike anything else, and it changes, depending on the weather conditions. It’s mysterious in the fog, and sparkling white in the sunshine. You can see ivory gulls, black-legged kittiwakes and dovebies fishing between the ice floes, ringed seals, and sometimes even a polar bear. During one of my visits, I saw small crystals just a few centimetres high which, because of the wind, had formed into of tiny Christmas tree shapes. I never get tired of new discoveries like that.

“The reflex action I always have before leaving the North Pole is to be alone, and to close my eyes so I can make the most of that time. These are fleeting moments, in an extraordinary place. Few people on this Earth will be fortunate enough to have such an experience. And I am very much aware of that.”



The Northwest Passage

NEW



Explore the expanse of the Arctic world during an extraordinary polar odyssey that will take you from Iceland to Alaska, via the mythical Northwest Passage. *Le Commandant Charcot*, will take you to a literal labyrinth of icy channels, inaccessible to traditional ships. The Hudson Strait, Fury and Hecla Strait, and Bellot Strait, all legendary names, follow one another and will plunge you, like modern-day explorers, into one of the most mythical sagas of polar exploration. In untamed and wild nature, you will have the privilege of sailing along Greenland. On your route, you will visit an

Inuit village and be able to contemplate Banks Island, famous for the wreck of *HMS Investigator* lying offshore and also for its National Park with its abundant fauna, home to the world's largest concentration of musk oxen. Beyond the Arctic Circle, your senses will truly come alive as you become captivated by the sight of the glistening ice floes, blue-tinged glaciers, rugged mountain chains and rolling tundra. Long fantasised about before being discovered at the beginning of the 20th century, the Northwest Passage promises you a trip that is synonymous with going back to basics.



HIGHLIGHTS

- Crossing the Northwest Passage to discover the most remote places and most iconic waterways of this legendary maritime zone, accessible only onboard *Le Commandant Charcot*.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- Visit a traditional Inuit village at the entrance to the Fury and Hecla Strait.
- Exploration of the Aulavik National Park, renowned for the largest concentration of musk oxen in the world.
- Landscapes: vast expanses of ice floe, myriads of jagged islands, blue-toned glaciers, mountain chains, expanses of tundra, vertiginous walls.
- Fauna: Arctic foxes, sea birds, narwhals, belugas, walruses and the possibility of seeing polar bears.
- Many brand-new activities: kayaking, hiking or snowshoeing, ice fishing, polar plunge, ice floating, participative science.

Reykjavík · Nome

7th September 2022 – 25 days / 24 nights

Included in your cruise: transfer to the airport and Nome – Seattle flight.

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*





The Legendary North-West Passage

A much sought-after location throughout history, the Northwest Passage is a veritable maze of land, water and ice. This maritime area beyond the Arctic Circle will take you on an exploration of the most remote places and the most iconic waterways.

*At the top: The vast immensity of a far northern sea-ice landscape.
Below: Beluga whale, also known as the white whale, in the Arctic
Ocean and Le Commandant Charcot in Greenland.*



THE ANTARCTIC

It is the continent that transcends superlatives. Immense, grandiose, mysterious, the White Continent fascinates as much as it prompts caution. How many have failed to conquer this landscape? How many others, like Jean-Baptiste Charcot, Ernest Shackleton and Roald Amundsen, have accomplished exploits there? Now dedicated to science, this sanctuary urges us to profound humility. Our itineraries follow in the footsteps of the great explorers, discover the varied wildlife, and touch the naked beauty of the world.



On the White Continent, try to spot the famous emperor penguins of Bellingshausen, sail on the Weddell Sea to the Larsen Ice Shelves and explore beyond the Antarctic Circle to the Ross Sea or islands that have forged the legends of polar explorers.

The Emperor Penguins of Bellingshausen Sea	p. 142
The Weddell Sea & Larsen Ice Shelf	p. 146
Expedition to Charcot & Peter I Islands	p. 150
Unexplored Antarctica between two Continents	p. 154
From Dumont d'Urville to Mawson: retracing Heroic Age expeditions	p. 158
The Weddell Sea & the South Sandwich Islands	p. 164

THE SOUTH POLE



Antarctica: the basics

DO.

Follow the instructions of the naturalist guides. Before disembarking, carefully clean your clothing and accessories to avoid any contamination on site and so that you don't introduce any non-native species. Move slowly and quietly, when close to the animals, let them remain in control without feeding, chasing or touching them.

DON'T.

Anybody who is hungry must wait until later as you must not eat on site. All food products must be left on board.

It is forbidden to walk on the vegetation, to take any plants, fossils, feathers, bones, eggs, or to leave any trace of your passage.



UNUSUAL

The “song” of the ice floe. On the Ross Ice Shelf, scientists recorded the ‘sound of the Antarctic’. It is a dull and almost permanent buzzing sound caused by the whipping wind across the surface of the ice floe. The frequency of this sound is too low for the human ear.

However, mathematician Julien Chaput made it audible by speeding up a recording so that it was 1,200 times as fast.

Listen:



MYTHS AND LEGENDS

A Nazi or alien base hidden in Antarctica?

This is an **urban legend** that has been circulating for a long time, fuelled by satellite images revealing a crater, which has been interpreted lots of different ways. However, for the American geophysicist Ralph von Frese interviewed by francetvinfo, this anomaly is “characteristic of the repletions that we have observed on Mars and on the Moon”, and could be explained by the impact of a giant meteorite.

GLOSSARY

The Roaring 40s and the Furious 50s: names for the latitudes between the 40th and 60th parallels in the Southern hemisphere, where the winds are particularly violent.

Beyond the 60th parallel, it is customary to refer to them as the **Shrieking 60s**.

Ice shelf: segment of pack ice attached to the coast and formed by the advancing sea of a glacier. It rests on the ocean. These shelves can reach several hundred metres thick and several hundred kilometres wide. Chunks that detach from them are icebergs.

Ice sheet or polar cap: glacier that covers the ground and that may get up to several kilometres thick. It can extend over the sea by forming ice shelves. There is the Antarctic Ice Sheet and the Greenland Ice Sheet.

Tabular: huge iceberg of rectangular or square shape.



LET'S KEEP ON TALKING ABOUT IT

The Antarctic Treaty. Signed in 1959 by 12 countries (South Africa, Argentina, Australia, Belgium, Chile, United States, France, Japan, Norway, New Zealand, the United Kingdom, the USSR/Russia) and entering into force in 1961, it applies to the territories located south of the 60° south parallel and calls a halt to all territorial claims. Since then, 53 more countries have ratified it. They have committed to preserving the South Pole, exchanging scientific information, banning all nuclear tests, any depositing of radioactive waste and any exploitation of mineral wealth and the conducting of military activities. Today, the challenge is to ensure that the treaty extends after 2048, when it must be renegotiated.

THE NUMBER

66° 33' south latitude. This is the Antarctic Polar Circle's parallel, first traversed in 1773 by British explorer James Cook.

CULTURE

Read.

L'Amant de Patagonie, Isabelle Autissier, Grasset, 2012. In 1880, Emily, a 16-year-old orphaned Scottish woman, was sent to Patagonia as a governess for the reverend's children. As somebody who knew nothing about life, she discovered a "New World", full of wild beauty with its harsh climate and its amazing local people.

Listen.

French composer Julien Gauthier spent five months on the Kerguelen Islands between 2015 and 2016 to create *Inaudita Symphonia*, a harmony inspired by her residency in the middle of the penguins.

Watch.

After the success of *March of the Penguins*, Luc Jacquet returns to Antarctica with *Ice and the Sky* (2015). It follows the adventures of Claude Lorius since his first wintering at Port Charcot in 1957, where he started taking ice core samples to travel back over 400,000 years and unravel the world's climate secrets.

Antarctica, the land of mysteries

It's the most remote continent on planet Earth. To reach it, through Drake Passage or the sub-Antarctic islands of New Zealand, and then to navigate its waters - either the Weddell Sea or the Ross Sea - means entering a different dimension, drawn by an irresistible force. Florence Kuyper, expedition leader aboard *Le Commandant Charcot*, has a gift for sharing her admiration of the Antarctic, a world that has yet to reveal all its secrets. Her passion knows no limits, like the region itself.

With a surface area twice the size of Australia, the Antarctic is a continent of water, ice and rock, whose majesty and vast scale leave a lasting impression. Pictures and words can portray it, but more than anywhere else, there is no substitute for the experience of actually being there. *"When you're in this polar region, you feel that you're in a universe that is simply too big for us, as humans,"* says Florence Kuyper. *"It's quite humbling to be faced with the scale and power of nature in this way. And when you look at a map and realise that you are only visiting a tiny part of this immense space, it doesn't take a lot of imagination to see our place on this Earth in its true perspective. The vast emptiness of the Antarctic is stunning."*

A POPULATION WHERE NO ONE IS LOCAL

Long claimed by Norway and Australia, along with six other nations, Antarctica is a land without an indigenous population. An international treaty - signed in 1959 and renewed in 2048 - makes it the only continent reserved for peaceful activities and science. The land belongs to all humanity. *"There's a sort of magic there. A land with no people, that belongs to no one, I just find that fascinating. And yet, geopolitically, there is a lot at stake here,"* explains the expedition leader.

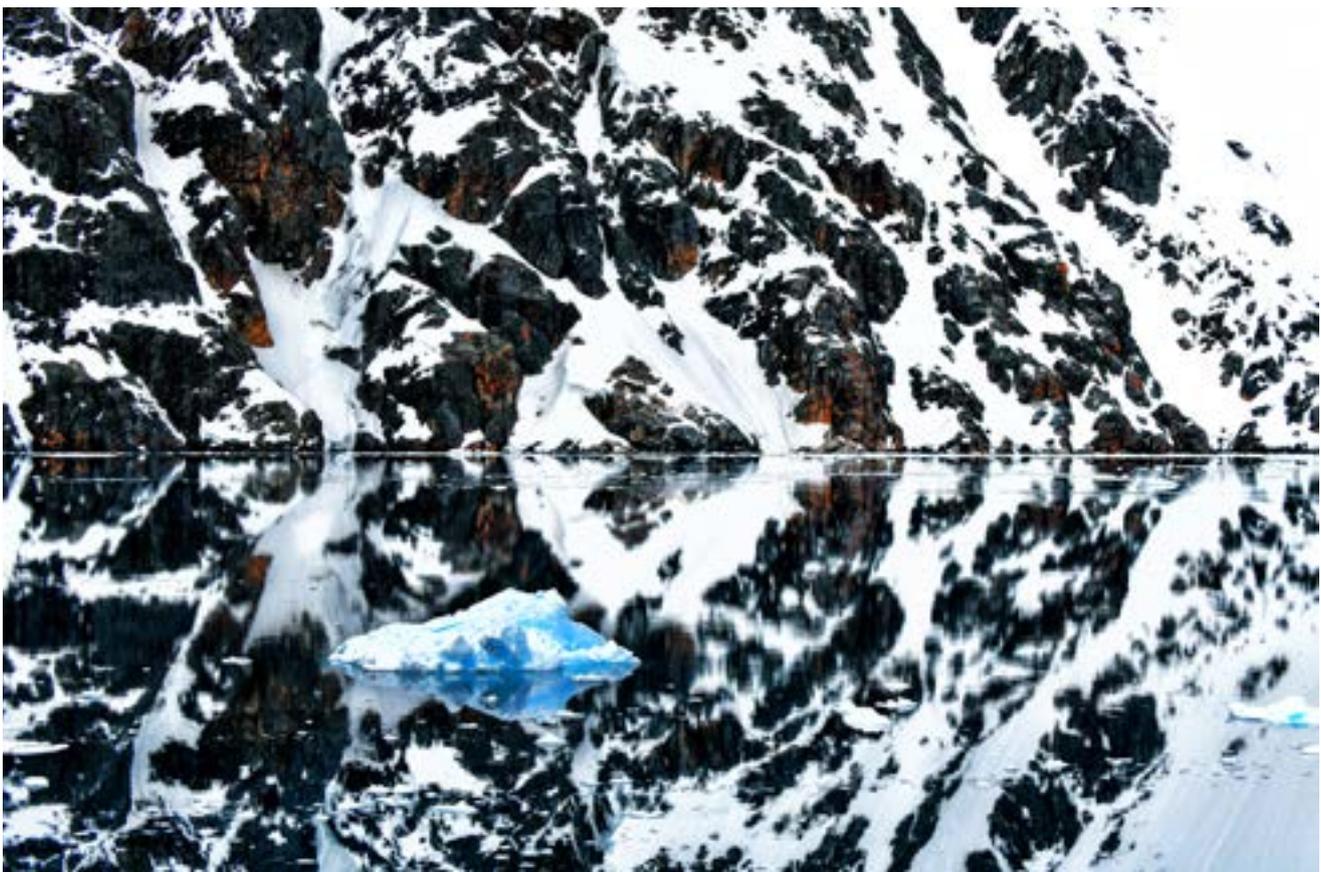
Since the continent is uninhabited, the landscape remains unchanged from the day it was first discovered. *"Nothing has been transformed. If there's been no human life here, it's because we're not really welcome. You always have the impression that you're the first person to ever set foot there,"* Ms Kuyper adds. Some 4,000 scientists live in the coastal areas during the summer months, when the temperatures range between 0 and 5 °C, but their number falls to around 1,000 during winter, when the average temperature is -30 °C. Their work involves studying changes in biodiversity and the ways in which species adapt to the extreme conditions, and collecting sediment samples from the seabed. Their analyses of the melting ice sheets and the warming of the Southern Ocean also provide precious indicators for forecasting future changes in the climate.

LAND OF LIFE, LAND OF DESIRE

In the Antarctic, the sheets of ice can sometimes be 4,000 metres thick and ravaged by extremely high winds - with the coastal katabatic variety reaching more than 200 km/h. In a climate that is drier than the Sahara Desert, with less than 200 mm of rain a year, the land is inhospitable to trees and bushes, and land-based mammals. And yet, the Antarctic is full of life. The continent is home to a wide variety of sea fauna, among the richest in the world. Aside from millions of penguins - the iconic creatures of the Antarctic - there are a dozen species of whales, orcas and birds, while the waters are teeming with krill, the seals' favourite food. Together, they make up an entire animal kingdom in a natural habitat, one that can be watched in wonder and that still maintains many of its secrets, particularly about how certain species can survive such extreme conditions. *"With Le Commandant Charcot, we remain true to the spirit of science and exploration, but we want to go even further in this adventure, and to reach places that could not be visited before because there was too much ice. We are in unknown territory. Today, can we still live in the unknown?"* asks Kuyper.



“Nothing has been transformed. If there’s been no human life here, it’s because we’re not really welcome. You always have the impression that you’re the first person to ever set foot there.”



THE ANTARCTIC AND ITS MYSTERIES

Composed of 98 per cent ice, the Antarctic remained 'Terra Incognita' until 1820. Since then, its ice sheet has yielded a few explanations about climate change over more than 800,000 years, particularly in terms of the effects of greenhouse gases – like carbon dioxide and methane – in accelerating the phenomenon.

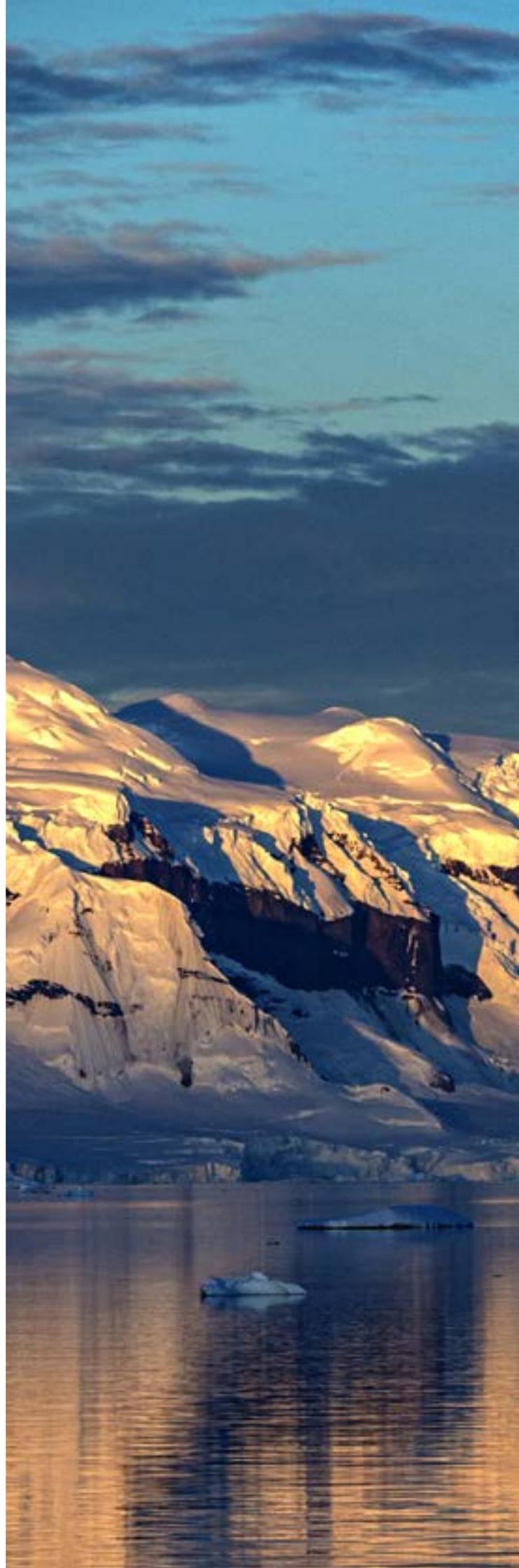
"The more we learn about this continent, the more we realise that we don't know enough," says Kuyper. *"Antarctica is still a vast area of interest for scientists, and some of them will use Le Commandant Charcot for their research missions. Citizen science activities, led by an expedition team, are open to guests who would like to play their part. And when you get involved, you understand more, and you invest more of yourself. It makes you realise how beautiful and how powerful our planet is, and it's a way of making guests aware of the need to protect it. And that's one of my personal ambitions."*

The expedition leader also notes that, at a human level, visiting the Antarctic often leads people to having an unexpected experience.

"To find yourself so far away from everywhere else, as if you have just landed on Earth, gives you the chance to have a remarkable inner exploration. Many people have told me that travelling to the Antarctic changed them, that the meaning they had hitherto given their lives was turned completely upside down."

In other words, the Antarctic is an unforgettable life experience, and a chance to discover another land and sometimes another you.

The Moon over Gerlache Strait.







The Emperor Penguins of Bellingshausen Sea

NEW



Beyond Peter I Island and Charcot Island, this exceptional polar odyssey will take you into the heart of the Bellingshausen Sea. Named in honour of the eponymous Russian admiral who discovered Antarctica in 1820, this sea in the Southern Ocean is covered in ice for much of the year, making it difficult to reach and practically unexplored. The reward matches the sailing challenge: the possibility of seeing magnificent emperor penguins, a species endemic to Antarctica and unique

in the world particularly because of their size and weight that make them the largest penguins of all. An encounter with these elegant and majestic birds will guarantee intense emotions in the heart of an environment where you will discover ice in all its forms. Glaciers, icebergs, ice floes and ice shelves surround you, offering up a magical sight of endless white. The southern continent, a land full of extremes, will let you feel its force and its fragility during an unforgettable trip.



HIGHLIGHTS

- A unique opportunity to contemplate emperor penguins at the end of the austral winter.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- Lectures and information sessions hosted by our naturalist guides.
- Approach two islands beyond the Antarctic Polar Circle.
- The landscapes: glaciers, icebergs, thick ice floes, ice shelves.
- The wildlife: emperor penguins, humpback whales, Adélie penguins, Weddell seals.
- Many brand-new activities: kayaking, hiking, snowshoeing, polar plunge without suit, polar swim with drysuit, participative science.

Punta Arenas · Ushuaia

30th October 2022 – 15 days / 14 nights

Ushuaia · Ushuaia

13th November 2022 – 15 days / 14 nights

Included in your cruise: overnight in Santiago in a 5 hotel, transfer before embarkation and flights from/to Santiago.*

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*



The emperor penguin, symbol of the south

Of the 17 penguin species on the planet, and the five that live in the Antarctic, the emperor penguin is the most symbolic of them all. Rémi Bigonneau, an ecologist specialising in wild fauna, tells us about this curious bird that cannot fly.

Normally present in the Ross and Weddell seas, emperor penguins, whose way of life would be totally aquatic were it not for the need to lay eggs and look after their young, is not the easiest creature to see in the wild. To do so, the only option is to visit the Antarctic. *“Studying aquatic fauna is very complex, and the polar environment doesn’t help,”* says Rémi Bigonneau. *“The extreme climate conditions and the difficulty in getting to their colonies makes studying these penguins a complicated task.”*

A taller (one metre) and heavier (up to 45 kilos) member of the family, the emperor penguin also dives the deepest (500 metres) and can stay underwater for the longest period (15 minutes). Its ‘fins’, along with powerful pectoral muscles, give it remarkable speed and dexterity in the water. Its thousands of feathers form a kind of coat, enabling it to survive the cold. *“In addition, they have a layer of fat beneath the skin and a vascular system that warms the blood on its way back to the heart from its extremities,”* the ecologist added.

A SINGLE EGG, AND A STAY-AT-HOME FATHER

In April, the penguins head back to their colony sites, which are always located near the coast. By doing so, they can be sure that their chosen ice sheet remains firmly attached to the rest of the continent until the chicks are fully developed, just as summer arrives. The next step is a series of voluptuous nuptial parades that bond a pair of penguins together for the season. During the Antarctic winter, the female lays a single egg, which she then leaves the male to look after. She spends the next two months feeding at sea, while the male goes without food and incubates the egg with its feet.

“At the end of winter, the female returns to her partner, usually less than a week after the egg hatches,” the expert adds. *“Then it’s her turn to feed their offspring.”*

The parents do this in relays every three or four weeks until the chick is independent, in early summer. So, the young are raised exclusively on the ice sheet, until it melts, and they leave for the sea as summer approaches.



The Weddell Sea & Larsen Ice Shelf



Insurmountable, extreme and captivating: this is the best way to describe the Weddell Sea, mostly frozen by a thick and compressed ice floe. It is a challenge and a privilege to sail on it, with its promise of exceptional landscapes and original encounters. During your odyssey, you will journey deep into the vast polar expanse, the icy and infinite desert, where the silence will leave you with an intense feeling of calm and serenity. To the northwest of the Weddell Sea, stretching along the eastern coast of the Antarctic

Peninsula, stands an imposing ice shelf known as the Larsen Ice Shelf. An extension of the ice sheet onto the sea, this white giant is equally disturbing and fascinating with its colossal dimensions and the impressive table top icebergs resulting from its calving - amongst the largest ever seen. Here, you will be escorted by seals (Weddell, crabeater and leopard), humpback whales, Adélie penguins and sea birds. This real wildlife sanctuary will welcome you with grandeur.



HIGHLIGHTS

- Sail into the heart of the ice of the Weddell Sea, discovering the impressive Larsen Ice Shelf and its immense table top icebergs.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- Lectures and information sessions hosted by our naturalist guides.
- The landscapes: alpine landscapes, table top icebergs, glaciers, ice floes.
- The wildlife: Weddell seals, crabeater seals and leopard seals, Adélie penguins, humpback whales, sea birds.
- Many brand-new activities: kayaking, hiking, snowshoeing, polar plunge without suit, polar swim with drysuit, participative science.

Ushuaia • Ushuaia

27th November and 8th December 2022

12 days / 11 nights

Included in your cruise: overnight in Santiago in a 5 hotel, transfer before embarkation and return flights Santiago - Ushuaia.*

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*



The Larsen ice shelf, a precious barrier



Along the northeast coast of the Antarctic peninsula, at the heart of the Weddell Sea, lies a vast ice barrier, the Larsen ice shelf. Its beauty is captivating. But aside from the aesthetics, its conservation is of vital importance to maintaining the balance of the planet. Antoine Viot, a geologist, glaciologist, and exploration guide, explains the situation.

FROM FORMATION...

The Antarctic is covered by an immense ice sheet, created by thousands of metres of snow that has gradually accumulated and compacted into ice over the course of some three million years. By force of gravity, the ice flows down the surrounding glaciers like huge frozen rivers. And when they reach the sea, they start to float, creating what are known as ice shelves, immense slabs of ice that are attached to the coastline. About 11% of the Antarctic's surface is made up of these shelves, with the Larsen being the peninsula's largest.

"Initially, it had three parts – known as A, B and C," says Antoine Viot. "The first two of these disintegrated in 1995 and 2002, leaving just the C part. So today, the Larsen ice shelf covers 48,600 square kilometres, compared to 86,000 just 25 years ago."

...TO DISINTEGRATION

The drifting away of section B of the Larsen shelf, followed by its break-up, was monitored and studied using satellite pictures. *"This ice shelf of around 3,500 square kilometres destroyed itself completely in less than a month," the glaciologist noted. "It's a natural geological process, but global warming is exacerbating and accelerating it. One of the reasons for the disappearance of ice shelves is that the Southern Ocean, which insulates the Antarctic from other ocean currents, is also warming up and is causing ice shelves to melt from underneath, which reduces their thickness and resistance."*

A ROLE, AND ITS CONSEQUENCES

It is important to understand the role of ice shelves. *"The disintegration of an ice shelf, in itself, has no impact on sea levels, because it's already floating in the sea," the specialist says. "However, it forms a barrier against the glaciers higher up, so when it disintegrates, the glaciers melt three to eight times more quickly."* So far, the C part of the Larsen shelf has resisted the various warmer periods of the last 10,000 years and appears fairly solid. But its future currently cannot be predicted.

What lies ahead for these remarkable landscapes – formed of centuries-old, tabular-shaped icebergs, colossal structures sculpted by water, sunlight and the wind – remains to be seen. However, everyone can help to ensure that the vertigo-inducing spectacle and sheer majesty of these magnificent settings can be maintained for a long time to come.



Expedition to Charcot & Peter I Islands

NEW



You will feel a strong impression of having reached the edge of the world when you see the ice-covered landscapes of Peter I Island. Lying 450 km from the Antarctic coastline. This volcanic strip of land lost in the Bellingshausen Sea could be compared to the Moon, so few people to have set foot on it! Discovered in February 1821, Peter I Island could only be approached for the first time in 1929, as the ice front made approach and disembarkation difficult. Its summit remains untouched to this day. The

conditions are increasingly extreme... Violent winds, glacial temperatures and abundant snow: you will really feel like you are in the shoes of a polar explorer. This unusual itinerary will also provide an opportunity to approach Charcot Island, thus named by Captain Charcot in memory of his father during its discovery in 1910. Entirely enveloped in ice, the cliffs rise on its coastline like ramparts, watched over by petrels, Arctic terns and skuas. On land, Gentoo penguins make their patrols to observe you.



HIGHLIGHTS

- Be among the few people on Earth who have approached two islands beyond the Antarctic Polar Circle.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- Lectures and information sessions hosted by our naturalist guides.
- The landscapes: glaciers, icebergs, thick pack ice, steep cliffs and snowy peaks.
- The wildlife: humpback whales, Gentoo penguins, Weddell seals.
- Many brand-new activities: kayaking, hiking, snowshoeing, polar plunge without suit, polar swim with drysuit, participative science.

Ushuaia • Ushuaia

2nd January 2023 - 15 days / 14 nights

Included in your cruise: overnight in Santiago in a 5 hotel before the embarkation and return flights Santiago - Ushuaia.*

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

Jean-Baptiste Charcot and *Le Pourquoi Pas?*, heading for the unknown together

Jean-Baptiste Charcot was among the first to launch major scientific expeditions to the polar regions. However, far less is known about his attachment to his ships. As a child, he said that he would become a sailor – “*pourquoi pas?*” (‘why not?’). He went on to name four of his ships *Pourquoi Pas?*, with the last of them, and the most emblematic, taking him to the unexplored regions of the Antarctic. However, many years later, he would lose his life aboard that same ship. A man and his boat, forever together in history.

A little more than 60 years after the discovery of Adélie Land by Jules Dumont d’Urville, Commander Charcot carried out the first of two Antarctic expeditions from 1903 to 1905, a voyage treated with complete indifference by the French government of the time. Made possible by a public fund-raising – prompting Jean-Baptiste Charcot to name the ship *Le Français* in recognition of his compatriots’ support – it enabled him to chart 1,000 kilometres of coastline and collect a rich harvest of notes, samples and scientific observations. Sailing along the western part of the peninsula around the South Shetland islands, he discovered Port Lockroy, among others, and his winter anchorage, which he named after his father, Port Charcot.

On his return – without *Le Français*, which was no longer in a fit state to sail – his findings were greeted with such enthusiasm that Jean-Baptiste Charcot was able to win the support of politicians and gather sufficient public and private funding to launch a new expedition. This time, it would be with a new and more powerful three-masted polar exploration ship: *Le Pourquoi Pas?* – the fourth vessel to bear the name.

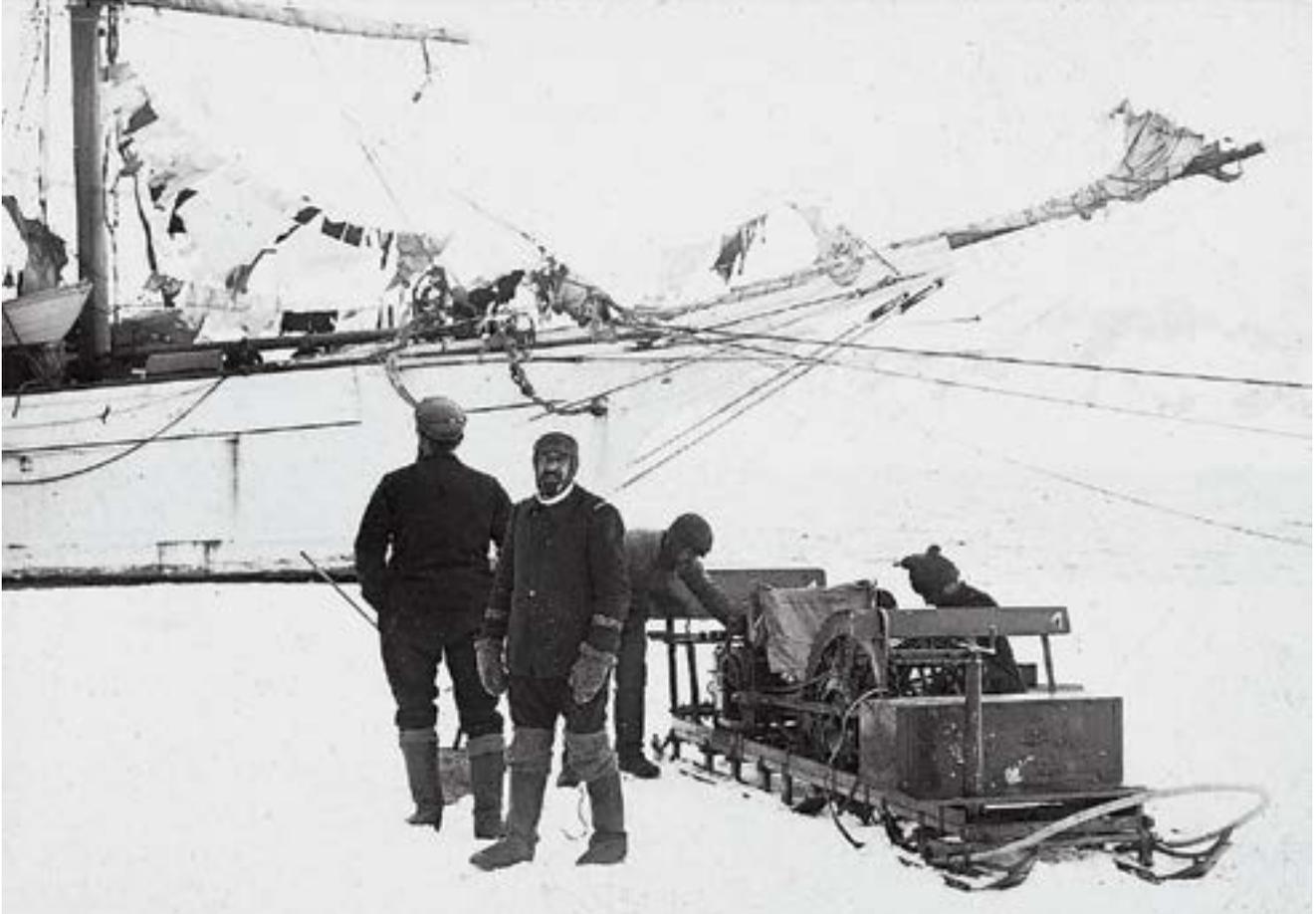
HEAD SOUTH AGAIN? WHY NOT?

With a mandate from France’s National Natural History Museum, the Oceanographic Institute of Paris and the Academy of Sciences, Jean-Baptiste Charcot left Le Havre in August 1908 on a two-year voyage. His first summer campaign was carried out in Marguerite Bay (named after his wife), followed by a winter at Petermann Island, and a second summer campaign during which *Le Pourquoi Pas?* sailed along the coast of Alexander Island. Some 4,000 kilometres of coastline were identified, maritime charts were drawn up, and a wealth of zoological, botanical, oceanographical, meteorological, geological and seismic information was recorded. These reports are still used as reference points today.

However, like several of his crew members, Jean-Baptiste Charcot fell victim to scurvy, and returned in a considerably weakened state from an expedition that had been carried out in Dantean conditions. The commander never returned to the Antarctic, a continent where he left an everlasting mark and where his presence is still remembered in the form of monuments and cairns created in his name. His attention and his ship – which remained faithful until his tragic final voyage – were henceforth turned towards the Arctic.

All the photographs illustrating this article come from the Charcot family archives. They are for use exclusively in this publication and may not be reproduced.

*Jean-Baptiste Charcot in front of Le Pourquoi Pas? when overwintering in the Antarctic between 1908 and 1910.
Bottom left: One of the three laboratories on board the Le Pourquoi Pas?
Right: The crew of Le Pourquoi Pas? with the captain.*





Unexplored Antarctica between two Continents

NEW



With PONANT, it is now possible to explore the most southern latitudes, beyond the Antarctic Circle. In the heart of the ice, this exceptional trip lets you sail from the far south of the American continent to New Zealand, during a half-circumnavigation of the White Continent. In the wake of the illustrious explorers of Antarctica, you will cross the southern seas - Bellingshausen, Amundsen and Ross - and attempt to approach remote and little-known lands, Charcot Island, Peter I Island and those of Marie Byrd Land. The world's largest marine protected area, the Ross Sea, will welcome you as a privileged guest. The

expanse is inhabited by Antarctic petrels, humpback whales, orcas, Weddell seals, crabeater seals, leopard seals and Adélie penguins. The magic of the polar world will conquer you and leave you with unforgettable memories of the impressive Drygalski glacier scattered with blue, the endless and constant Ross Ice Shelf, the majestic Witkins and Getz ice shelves, the ice floe taking over the Amundsen Sea. At the foot of Mount Erebus, the highest volcano in Antarctica, the memory of the past exploits of Shackleton and Scott becomes tangible: the former base camp has remained intact.



HIGHLIGHTS

- The all-new half-circumnavigation of the Antarctic, a dive into the history of the conquest of the South Pole, from the Bay of Whales to the scientific station in McMurdo.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with an additional team of naturalist guides.
- The crossing of three southern seas (Bellingshausen, Amundsen and Ross) and the exploratory approach to some of the least known islands in the world (Charcot Island, Peter I Island and the Marie Byrd Land Islands).
- The landscapes: ice shelves, including that of Ross, glaciers, icebergs, immersion in the heart of the ice floe.
- The wildlife: crabeater seals, leopard seals, Weddell seals, humpback whales, orcas, king penguins and Adélie penguins.
- Many brand-new activities: kayaking, hiking, snowshoeing, polar plunge without suit, polar swim with drysuit, participative science.

Ushuaia • Dunedin

16th January 2023 - 29 days / 28 nights

Included in your cruise: overnight in Santiago in a 5 hotel, transfers and Santiago - Ushuaia and Dunedin - Auckland flights.*

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

*Top: Tabular Iceberg in the Ross Sea
Bottom left: Camp on Ross Island
Bottom right: Minke whales*



The sea at the end of the world

One of the most extreme and best-preserved areas of the Antarctic is a legendary place, coloured by thousands of different shades of blue. Located several hundred kilometres from the South Pole and partly occupied by an immense floating glacier, the Ross Sea has been the starting point for many extraordinary expeditions, notably to conquer the pole itself.

In January 1841, James Ross and his ship's crew entered a gigantic bay surrounded by a mountain chain with snow-covered peaks. Fascinated by what they were seeing, they could never have known that they had discovered one of the best access routes to the Antarctic. Between Marie Byrd Land and Victoria Land, the pack-ice is largely absent during the summer, particularly in the McMurdo Strait. Today, it remains the ideal starting point for expeditions to the interior of the continent. A particularly popular spot is the Bay of Whales, a gash within the floating glacier of the Ross Sea, which was named by Sir Ernest Shackleton in January 1908 after the many whales observed there at the time.

In 1911, two years after the discovery of the magnetic South Pole by Australian geologist Douglas Mawson and his team, Norwegian captain Roald Amundsen anchored his ship in the same Bay of Whales, with its natural port of ice. His aim was to realise a feat that remains in the memory today: the conquest of the geographical South Pole. The same achievement was also sought by a British team led by Captain Robert Falcon Scott, whose departure point was about 100 kilometres further from the pole than that chosen by the Norwegians.

Having set up base camp and made their final preparations, Amundsen and his followers waited in the Bay of Whales for good weather. On October 19, 1911, five men and 52 dogs duly set off with four sledges, and a Norwegian flag. Nearly two months later, triumphant and emotional, they planted it in the ice, on December 14, 1911. The British group, comprising 16 men, 10 ponies, 34 dogs and 13 sledges, did not leave their camp until November 1. One after another, the ponies died, and following a series of abandonments, only five men made it to the pole, as runners-up, one month after the Norwegians. Two different expeditions to the southernmost point of the Earth – both of them heroic.

THE PLANET'S LARGEST PROTECTED MARINE SANCTUARY

In December 2017, after an agreement reached a year earlier, a protected area covering 1.55 million square kilometres was created in the Ross Sea, with 1.12 million square kilometres of it being off-limits to fishing. Valid for 35 years, the agreement represents a real commitment to 'the last ocean', as this sea and its ice are known. The area has one of the world's richest collections of maritime fauna (Minke whales, small whales, killer whales, krill, plankton, micro-organisms, etc.)

MARIE BYRD, A LAND BELONGING TO NO ONE

Marie Byrd Land, a 1.6 million square kilometre ice sheet in western Antarctic, is one of the planet's rare Terra Nullius ('land belonging to no one' in Latin). Comprised of glaciers and rock formations, Marie Byrd Land, named by American admiral Richard E. Byrd after his wife in 1929, is uninhabited, partly due to its inhospitable climate. Although it belongs to no-one, this ice desert is home to penguins, seals, whales and killer whales.



From Dumont d'Urville to Mawson: retracing Heroic Age expeditions

NEW



Your senses will come alive during this exceptional odyssey where the ice boasts all possible shades. The vastness of the White Continent will unveil itself during a trip from the shores of New Zealand to the legendary Tierra del Fuego. This half-circumnavigation of Antarctica will plunge you into the very heart of the Far South's mythical territories. On Adélie Land and Victoria Land, you will go back to the origins of the great French and Australian polar expeditions. Here, Paul-Émile Victor created the Dumont d'Urville scientific station, in honour of the eponymous explorer, and Douglas Mawson built his legend by defying the extreme winds of Commonwealth Bay. On Marie Byrd

Land, you will enter one of the planet's rare *Terra nullius* - a territory claimed by no State - whose remoteness and climate have certainly kept it well away from human conquests. Bordered by the Ross Sea to the west and the Amundsen Sea to the east, it will plunge you into a world where nature has raised its own cathedrals of ice. *Le Commandant Charcot* will guide you beyond the Antarctic Polar Circle to the Bellingshausen Sea where Peter I Island and Charcot Island are dressed in their white armour. The ship will attempt to approach their shores, deemed impassable, escorted by penguins and seals.



HIGHLIGHTS

- The all-new half-circumnavigation of the Antarctic, a dive into the history of the French and Australian conquest of the South Pole, between Adélie Land, Marie Byrd Land and Victoria Land.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with an additional team of naturalist guides.
- The crossing of five southern seas (Dumont d'Urville, Somov, Ross, Amundsen and Bellingshausen) and the exploratory approach to some of the least known islands in the world (Charcot Island, Peter I Island and the Marie Byrd Land Islands)
- The landscapes: ice shelves, glaciers, icebergs, immersion in the heart of the ice floe.
- The wildlife: crabeater seals, leopard seals, Weddell seals, humpback whales, orcas, king penguins and Adélie penguins.
- Many brand-new activities: kayaking, hiking, snowshoeing, polar plunge without suit, polar swim with drysuit, participative science.

Dunedin · Ushuaia

14th February 2023 - 27 days / 26 nights

Included in your cruise: overnight in Auckland in a 5 hotel, transfers and Auckland - Dunedin and Ushuaia - Santiago flights.*

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

A winter in Adélie Land

As an enthusiast about science and the polar regions, Daphné Buiron did her thesis on the science of ice cores. In 2011, she embarked on *L'Astrolabe* to fulfil one of her greatest dreams: to spend a year in the Antarctic, on the French base of Dumont d'Urville, in Adélie Land. The excerpts from her diary tell of the solitary yet mutually supportive life of the researchers at the end of the world.

December 2011. The adventure begins. I started my winter season at the Dumont d'Urville base, on Petrels Island, where I got a job as a glaciological chemist at the Paul-Emile Victor Institute, as part of a civic service volunteer scheme. During the Antarctic summer, between November and February, the base welcomes up to 100 people, so I decided to winter on site. For several months, there will be about 30 of us, including four women. For a long time, only men were allowed to overwinter in Adélie Land. Today, more and more women are being admitted, although they are still in the minority.

THE LAST APPLE

We are getting ready to spend a fully autonomous winter here. During the summer, the supply ship makes five rotations. When it leaves in February, after dropping off the necessities and the last of the food that we store in various refrigerators, we know it will not be back for another eight months. While the food is very varied and the meals delicious, we know that the supply of fresh produce is diminishing quite rapidly. At the end of August, enjoying the last apple is a bit scary – but we'll end up eating canned desserts by the end of winter!





Located between the 132° and 140° meridians, and between the South Pole and the approximate latitude of 67°S, Adélie Land was discovered by the French explorer Jules Dumont d'Urville on 21 January 1840. Sailing with his crew aboard *L'Astrolabe* and *La Zélée*, he landed on the islet of the Rocher du Débarquement, in the Dumoulin Islands archipelago, about 4 km from the ice cap. He decided to name Adélie Land after his wife Adèle. The current French station is located not far away, on Petrels Island.

Wintering in isolation at the base camp for eight months, with no access to extra supplies.

A STRATEGIC PRESENCE

This base was built in 1956 by the French Polar Expeditions, led by Paul-Émile Victor, in order to establish a strategic territorial position for France on the Antarctic continent and to begin the first scientific research programmes in the southern region.

The signing of the Antarctic Treaty in 1959 meant the continent was protected, prohibiting all territorial claims and mining, dedicating this deserted territory to peace and science. While Antarctic science is of real interest to France, keeping the base active also means it has a say in the Antarctic Treaty.

Frosty portrait taken after three hours of walking at -20° C.



IN GOOD COMPANY

After the last of our colleagues depart at the end of summer, even the vast majority of the wildlife starts leaving us. Birds, seals and all living creatures leave the area, migrating towards the open seas. This is just the period when the emperor penguins gather their colony together and settle at the bottom of the island. It is difficult to describe the wisdom you feel emanating from these animals, and the importance of standing with each other to brave the harsh winter weather. They've left an indelible mark on my mind.

We must remain watchful over and respectful of the wildlife that makes its home here. The living quarters are connected to each other by metal grilles. This stops you getting lost during blizzards and more especially stops you from walking into the nests of the Adélie penguins, whose gigantic colony occupies the whole island in summer.

A STEADY PACE

This small region, which seems overpopulated in summer, is doubly charming in winter. As the ice pack forms, the playground extends to the entire archipelago of Pointe Geologie and lends itself to walking and exploring this fabulous land of ice. However, leisure time is rare. The pace of work is fast, divided between science and household tasks. Helping each other is therefore essential, as is being skilled in multiple areas. The balance of this community life is based on understanding each other well, goodwill and being attentive. You also have to be curious, flexible ... and motivated to go out whatever the weather and create some unexpected memories! During this period of the year when we are on our own, safety is also a priority and we do a lot of first aid and medical training.



The Dumont d'Urville base with the sun low in the sky.

As for me, my work in atmospheric chemistry is very demanding and requires a great deal of meticulousness. Three times a day I go to three different points on the island to collect air samples. I then analyse them in the laboratory. I also maintain lots of instruments and collect data from weather stations. And when I have some free time, I assist my colleagues in marine biology and ornithology with their wildlife research.

Once a month, we go to the nearby glacier to measure the height of a glacier marker field. It's a round trip on foot of over three hours in temperatures of -20°C , in low light conditions. We come back with our eyelashes and hair covered with thick frost.

CELEBRATIONS

After several months of a spartan routine, Midwinter's Day, 21 June, comes around and this is one of my best memories from Adélie Land. It is a public holiday, as is the tradition. The Midwinter festival marks the middle of winter and has been celebrated in the Antarctic since the 19th century by all the Antarctic bases. The festivities last all week and are prepared several months in advance. On the morning of 21 June, we gathered to watch the sunrise around 11am. At about 3pm, it went back to bed. At 5pm, we set out on the ice floes by the light of our headlamps. We walked to a large iceberg with one sheer vertical side. Using an old camera, we projected a silent film by Georges Méliès onto the ice. Then, we lit torches and returned to the base under the Southern Lights. It was an unforgettably romantic moment.



The Weddell Sea & the South Sandwich Islands



Patagonia, the Antarctic Peninsula, South Georgia and the South Sandwich Islands... This cruise will take you into the heart of what is known as the 'Scotia Arc'. At the junction of the Andean cordillera and the Antarctic, set off to discover this volcanic archipelago and its countless riches and wonders. Among them, the fauna includes all the emblematic inhabitants of the Far South: king penguins, Gentoo penguins and macaroni penguins, elephant seals, orcas, humpback whales and other cetaceans will accompany you during your

adventure. On the beaches of black sand or as you sail through these frozen southern waters, keep a watchful eye to spot the unique biodiversity. The landscapes of singular ecosystems follow one another yet do not look alike. Admire the wooded heights of the Tierra del Fuego, the table top icebergs drifting in the Weddell Sea, the mountains devoured by glaciers on the South Sandwich Islands and the snow-capped summits of South Georgia. Welcome to a world whose territory has been conquered by beauty and poetry!



HIGHLIGHTS

- Discover an all-new itinerary along the Scotia Arc, between the Atlantic and Southern Oceans.
- Outings and shore visits in a Zodiac inflatable or hovercraft* with a team of experienced naturalist guides.
- Lectures and information sessions hosted by our naturalist guides.
- The landscapes: Patagonia's wooded areas, volcanic mountains on the South Sandwich Islands, table top icebergs in the Weddell Sea, glaciers, ice floes.
- The wildlife: king penguins, Adélie penguins, Gentoo and macaroni penguins, fur seals, elephant seals, whales, sea birds.
- Many brand-new activities: kayaking, hiking, snowshoeing, polar plunge without suit, polar swim with drysuit, participative science.

Ushuaia • Montevideo

14th March 2022 - 18 days / 17 nights

Included in your cruise: overnight in Santiago in a 5* hotel, transfers and Santiago - Ushuaia flight.

For current pricing and inclusions, please visit au.ponant.com

For more comfort, complete your trip with a pre- and/or post-cruise programme.

See pages 168-169

**Subject to the regulations in force.*

Endurance's odyssey, an iconic adventure

On December 5, 1914, the *Endurance*, with British explorer Sir Ernest Shackleton, a crew of 27 and about 50 sled dogs, left South Georgia with the aim of “crossing the South Pole from sea to sea”. Although their attempt ended in failure, it remains one of the truly amazing sagas of polar exploration. The story of the expedition was recounted by the explorer himself in his book ‘South,’ extracts of which are published here.

After a few months spent in the Weddell Sea, the *Endurance* became trapped in the pack ice. Shackleton made several attempts to free the vessel, all of them in vain. The ship and its crew had no choice but to spend the winter surrounded by ice.

“Late on the night of August 31st, the ice began to work ahead of the ship and along the port side. [...] No ship ever built by man could live if taken fairly in the grip of the floes and prevented from rising to the surface of the grinding ice. These were anxious days. [...] Then came a fateful day—Wednesday, October 27... the end of the Endurance has come. But though we have been compelled to abandon the ship, which is crushed beyond all hope of ever being righted, we are alive and well, and we have stores and equipment for the task that lies before us.”

Left on the pack ice, the captain and crew established a series of three camps. They stayed there for six months, floating on the seas, though not without attempting to make progress.

“After a year’s incessant battle with the ice, we had returned, by many strange turns of fortune’s wheel, to almost identically the same latitude that we had left with such high hopes and aspirations twelve months previously; but under what different conditions now! Our ship crushed and lost, and we ourselves drifting on a piece of ice at the mercy of the winds. [...] Our rations are just sufficient to keep us alive... and owing to this shortage of food and the fact that we needed all that we could get for ourselves, I had to order all the dogs except two teams to be shot. It was the worst job that we had had throughout the Expedition, and we felt their loss keenly.”

Inspired by the indefatigable courage of “the boss”, the crew left their ice prison in three small boats on April 9, 1915, to reach Elephant Island on the South Shetland archipelago.

“The sprays broke over the boats and froze in masses of ice, especially at the stern and bows. This ice had to be broken away in order to prevent the boats growing too heavy. The temperature was below. [...] I doubted if all the men would survive that night. One of our troubles was lack of water. [...] The condition of most of the men was pitiable.”



The Endurance caught in the ice in Antarctica.

Knowing that no-one would come and find them on Elephant Island, Shackleton left on April 24 with a crew of five in an attempt to reach South Georgia before the passage was sealed off by winter ice.

"The sub-Antarctic ocean lived up to its evil winter reputation. [...] I hoped that there would be no delay, for our supply of water was running very low. [...] Thirst took possession of us. The salt spray that lashed our faces made our thirst grow quickly to a burning pain."

Eventually, despite everything, they made it to South Georgia, but only to the opposite side of the island to the calm bay of Stromness - which they had to reach at all costs. Shackleton decided to try and cross the island with two companions, a journey that would be as demanding as it was risky.

"Over on Elephant Island, twenty-two men were waiting for the relief that we alone could secure for them. Their plight was worse than ours. We must push on somehow. We had now been on the march for over twenty hours, only halting for our occasional meals. [...] Our high hopes were soon shattered. Crevasses warned us that we were on another glacier. The disappointment was severe... We were very tired."

BUT FINALLY, ON MAY 21, 1916...

"At 6.30 a.m. I thought I heard the sound of a steam-whistle. In intense excitement, we watched the chronometer for seven o'clock, when the whalers would be summoned to work. Right to the minute, the steam-whistle came to us. Never had any one of us heard sweeter music. It was the first sound created by outside human agency that had come to our ears since we left Stromness Bay in December 1914. Pain and ache, boat journeys, marches, hunger and fatigue seemed to belong to the limbo of forgotten things, and there remained only the perfect contentment that comes of work accomplished."

The ice prevented anyone from reaching Elephant Island, and Shackleton needed four separate attempts, aboard four different ships, before he could save the 22 crew members who had been left behind. On August 30, 1916, when Shackleton arrived there, they had only four days' rations left... and the incredible saga of *Endurance* and its crew had come to an end.

Pre- & Post- Cruise Programmes

We invite you to enhance your cruise and extend your trip with carefully designed, high-quality programmes organised to tie in with the flights selected by PONANT. These are group excursions, and are available either immediately before or after your cruise; they must be booked before departure. Full tour programme and prices are available at au.ponant.com 12 months prior to your cruise departure, or call your travel agent.

ARCTIC ITINERARIES

From Reykjavík, Iceland

RELAX AT THE BLUE LAGOON

(2 days/1 night - contact us for price)

Relax on a two-day programme at the beautiful Blue Lagoon Hotel. The spa, which is carved into the volcanic rock, guarantees a timeless memory of relaxation. A free afternoon and morning will also allow you to explore the Icelandic capital. As an option, you will have the opportunity to discover Iceland from the air on a helicopter flight. Fly over Glymur, Iceland's highest waterfall, the sumptuous Thingvellir National Park, and enjoy two exceptional landings, on the Thorisjökull Glacier and in the Hengill geothermal area.



Your pre-cruise programme:

For all cruises departing from Reykjavík

Your post-cruise programme:

For all cruises arriving at Reykjavík

From Longyearbyen (Spitsbergen), Norway

COMFORT PACKAGE:

TRANSFER AND NIGHT IN PARIS CDG AIRPORT

(1 night - contact us for price)

Enjoy a period of serenity before or after your Arctic odyssey with a night at Paris-Charles de Gaulle Airport. PONANT will organise your transfer and organise a night in a high-quality hotel.

Your pre-cruise programme:

For all cruises departing from Longyearbyen

Your post-cruise programme:

For all cruises arriving at Longyearbyen

From Nome, Alaska, United States

OVERNIGHT IN SEATTLE

(1 night - contact us for price)

At your own pace, discover Seattle, the largest city in the state of Washington, in the Pacific Northwest region of the United States. It is known for its unspoiled natural environments and its unique cultural heritage, resulting from a mix of Native American, Asian, Scandinavian and African-American influences. Part of the UNESCO Creative Cities Network, the city is proud of its rich literary scene and its many performance venues. You will have the opportunity to discover this multi-faceted city during an afternoon and evening of free time.

Your post-cruise programme:

The Northwest Passage

Reykjavík · Nome - 7th September 2022

ANTARCTIC ITINERARIES

From Ushuaia, Argentina

OVERNIGHT IN SANTIAGO

(1 night - contact us for price)

After your Antarctic odyssey, enjoy a night in a 5* hotel in Santiago, and conclude your journey in a refined setting. Let yourself be enveloped in a bubble of tranquillity before your return flight the next day.

Your post-cruise programme:

For all cruises arriving at Ushuaia



From Auckland, New Zealand

OVERNIGHT IN AUCKLAND

(1 night - contact us for price)

Complete your Antarctic cruise aboard *Le Commandant Charcot* with an overnight stay in Auckland, New Zealand's capital. In a luxury hotel, your journey ends in style before your transfer to the airport the following morning.

Your post-cruise programme:

Unexplored Antarctica between two Continents

Ushuaia • Dunedin - 16th January 2023





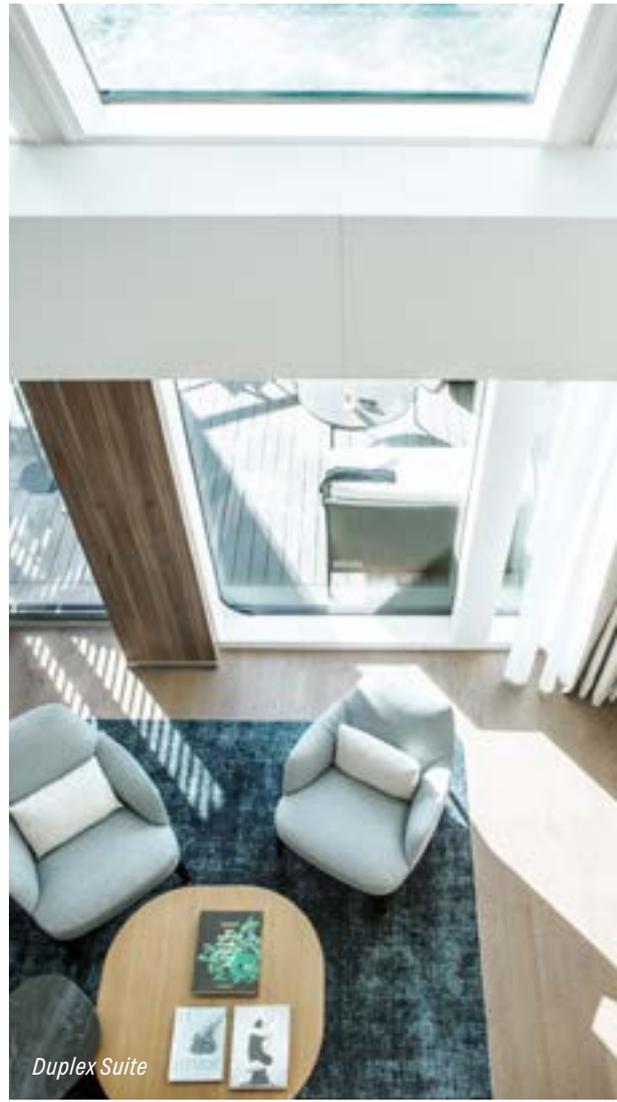
**WELCOME
ABOARD**

Because when you return from exploration,
the comfort of the Suites and Staterooms,
the cosy atmosphere of the ship's various spaces
and access to comforting meals and snacks
extend the polar experience:
discover your ship in detail.





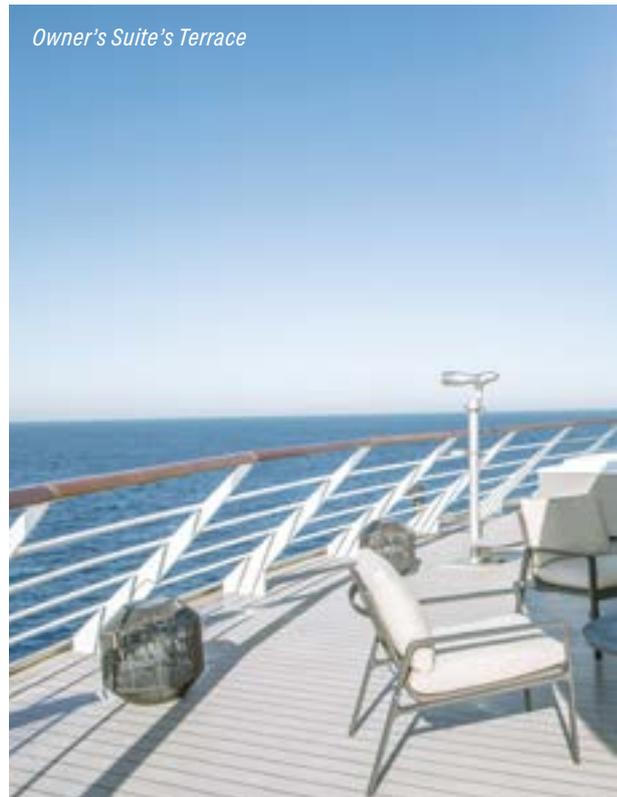
Duplex Suite



Duplex Suite



Prestige Stateroom



Owner's Suite's Terrace



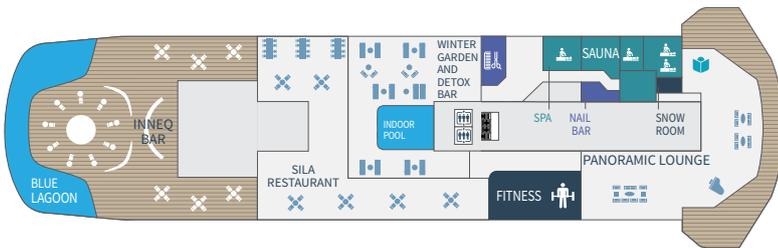
Owner's Suite



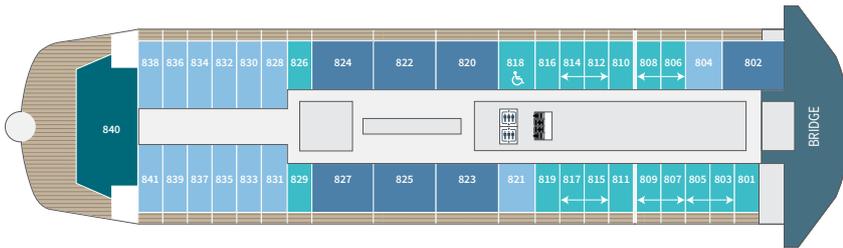
Deck Plans

From the common areas to the Suites and Staterooms, each deck of the ship is dedicated to comfort. Find detailed *Le Commandant Charcot* deck plans below.

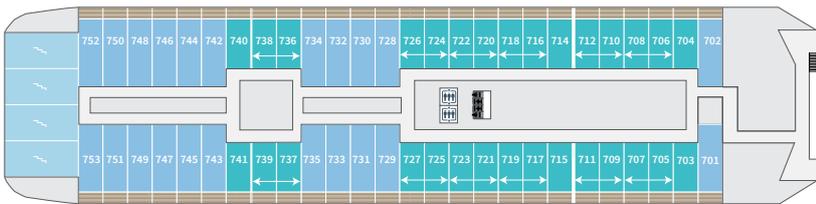
DECK 9



DECK 8



DECK 7



- Owner's Suite
- Duplex Suite
- Privilege Suites Deck 8
- Grand Prestige Suites Deck 6
- Prestige Suites Decks 7 - 8
- Deluxe Suites Decks 6 - 7 - 8
- Prestige Stateroom Decks 6 - 7 - 8

DECK 9

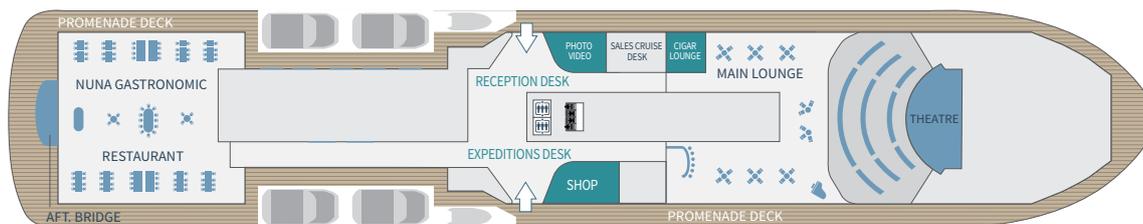
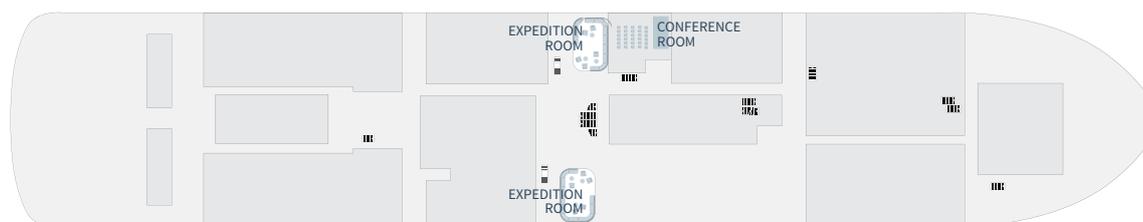
Sila Restaurant - Panoramic Bar and Lounge - Fitness - Biologique Recherche SPA (Snow-Room - Massage Rooms - Sauna - Nail Shop - Hairdresser) - Winter Garden - Detox bar - Pools (Inside and Outside) - Inneq Open-air Bar - Library

DECK 8

Owner's Suite - Deluxe Suites - Privilege Suites - Prestige Staterooms (including 1 for person of reduced mobility and Prestige Staterooms convertible into 5 Prestige Suites) - Bridge

DECK 7

Deluxe Suites - Prestige Staterooms (including Prestige Staterooms convertible into Prestige Suites)

DECK 6**DECK 5****DECK 3****DECK 6**

Duplex Suites - Grand Prestige Suites - Deluxe Suites - Prestige Staterooms (including 2 Prestige Staterooms for person of reduced mobility)

DECK 5

Nuna Gastronomic Restaurant - Theatre - Main Lounge - Cigar Lounge - Shop - Reception Desk - Expedition Desk - Image & Photo Desk - Cruise sales desk - Promenade deck - AFT. bridge

DECK 4

Medical centre

DECK 3

2 dedicated expedition boarding and disembarking rooms to port and starboard - Conference room

Discover your Stateroom

In your future cabin, every detail is designed for your comfort and pleasure.



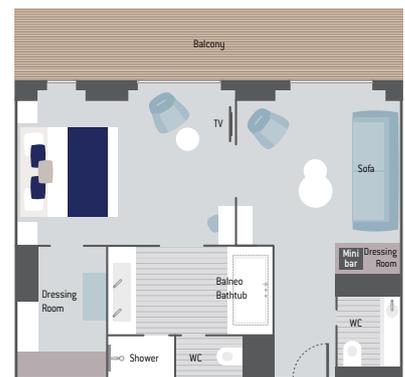
● Owner's Suite

115 sq.m. +186 sq.m.
private terrace with hot tub – Balneo bathtub / 1 237 sq.ft.
+ 2 002 sq.ft. private terrace with hot tub – Balneo bathtub



● Duplex Suites

94 sq.m. + 26 sq.m
private terrace with hot tub – Balneo bathtub / 1 011 sq.ft. + 279 sq.ft.
private terrace with hot tub – Balneo bathtub



● Privilege Suites

48 sq.m. + 12.5 sq.m.
private balcony – Balneo bathtub / 516 sq.ft. + 134.5 sq.ft.
private balcony – Balneo bathtub

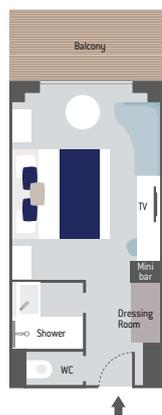
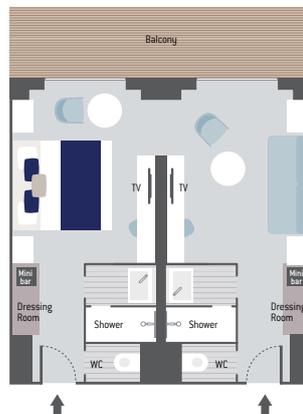
Grand Prestige Suites ●

42 sq.m. + 5 sq.m. private balcony /
452 sq.ft. + 54 sq.ft. private balcony



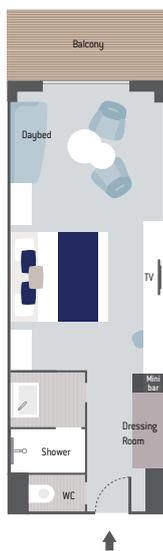
↔ Prestige Suites

40 sq.m. + 10 sq.m. private balcony /
430 sq.ft. + 107 sq.ft. private balcony



Prestige Stateroom ●

20 sq.m. + 5 sq.m. private balcony /
215 sq.ft. + 53 sq.ft. private balcony



● Deluxe Suites

28 sq.m. + 5 sq.m. private balcony /
301 sq.ft. + 53 sq.ft. private balcony

AMENITIES

- Private balcony for all our Cabins and Suites
- Terrace for the Duplex Suites and the Owner's Suite
- Butler service and priority boarding :
Owner's Suite, Duplex Suites, Privilege Suites
and Grand Prestige Suites
- Individually-controlled airconditioning
- Stateroom layout: king-size bed, or twin beds,
communicating staterooms available,
children welcome
- Minibar - 24hr room service
- Bose™ Bluetooth speaker
- Satellite TV channels (availability dependent
on navigation); selection of videos on demand
- Safe
- Selection of Dyptique Paris top-of-the-line
bath products
- Dressing table, bath robes, Hairdryer
- Direct line telephone
- 110V American (two flat pins)/220V European
(round sockets with two round pins)
- Internet access Wifi

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