A Passage To Antarctica won the second prize in the non-fiction category of the Competition for Writers of Children's Books held in 1985 by CBT.

The author, Dilip M. Salwi, has written Our Scientists and Story of Zero published by CBT.

The book is a science fiction. The characters in it are imaginary. Even so, the background against which the voyage is set is factual except for two aspects. There is no island with whaling stations in the latitude mentioned, and a colony at the Indian station is merely a possibility.
An invitation!

As the buildings of the port came into view, a strange feeling came over me. I do not know whether it was because of the fear of the unknown or because I was about to leave my parents and my country or because of the excitement that the sea voyage promised. Suddenly, tears came to my eyes. But as Uncle Sahai and his son Ajai in the taxi, were looking out of the windows, my tears went unnoticed. Quickly, I wiped them with the back of my hand.

The taxi took a turn about a park, went straight and then stopped in front of a wide door of a building. It seemed to be the entrance to the port.

"We have to go through the customs," said Uncle, opening the door of the taxi, "be prepared for a thorough check-up."

Ajai and I got out of the taxi. The driver opened the boot, while Uncle managed to get a coolie (labourer).

The building was nothing but a godown. Boxes and crates exuding a variety of smells lay scattered along the corridor. At the end of it was a gate marked 'Restricted Entry'. Adjacent to the gate was a long table, with a board marked 'Customs' hung over it. A group of men and women, some in uniform, sat behind the table. The coolie placed our bags on the
table in a row. One of the men examined them carefully.

A man in a white navy uniform approached Uncle. "So off to Antarctica again, Dr. Sahai?" remarked the man loudly. "All the best, my dear." He shook Uncle's hand and then hugged him. "What are you going to bring us this time?" he asked, smiling. "Rocks, lichens — or a whale?" Both laughed uproariously.

It seemed to be a standard joke because Antarctica, the continent at the south pole, had nothing to offer except adventure.

"You have two little companions, too. My, my! What is up, my dear?" exclaimed the man when he saw Ajai and me.

"Oh, I forgot," said Uncle, and introduced us to the man, Capt. Nair, the First Officer of our ship, DAKSHIN SAMRAT. "They are my companions for my trip to the continent," he said. "A special permission has been taken for them. They are tourists. In fact, you know..." Here he paused, purposely, and closed one eye. I did not understand what it meant but the two men laughed again. Seeing our blank faces, Uncle turned to Ajai and asked, "So, Ajai, my boy, are you prepared for the trip? You can still go back home, if you like. The choice is yours. And, what about you, Neha?"

I stood confused, toying with my handkerchief. My eyes fell on a bearded man standing near the table. He was smoking a cigarette. He was watching Ajai and me keenly. When I looked at him, he looked away hastily, as if I had caught him doing wrong. Taking a long puff, he walked away. The next moment I forgot him. My mind wandered back to the events which had led to the journey. How many times had I gone over them, asking myself whether it was sheer chance that I was going to Antarctica or whether I deserved the distinction.
I had gone to spend my Christmas vacation with the family of Uncle Sahai, my father's closest friend. Besides, I had also wanted to enjoy the natural scenic beauty of Goa, renowned for its beaches and cathedrals. But I had never expected to be offered a voyage to Antarctica, literally on a silver platter. Hardly had a day passed since my arrival, when Uncle asked me whether I would be interested in accompanying him and Ajai to Antarctica. I thought he was joking and, therefore, tried to laugh it off. But he was serious and told me that a girl of my age and background was most suited for a voyage to Antarctica.

Having lived in Srinagar, with experience in climbing snow-capped mountains, and being a girl scout, I was certainly not afraid of going to the continent. Nor was I afraid of sea travel because I had travelled in ships, although on short trips. Going to Antarctica was next best to going to the moon! To have been to that continent was a distinction in itself. I was however, totally unprepared for Uncle's offer. Besides, I knew next to nothing about Antarctica except what I had heard about it from Uncle, who had been there once before. When Uncle pressed for a definite answer, I gave an affirmative reply. Even though Uncle had then assured me that he would try his best to get a seat for me, I was not so sure. Never had I even dreamt that I would visit Antarctica!

The next day Uncle brought the news that his proposal had been accepted. Ajai and I were asked to make preparations immediately. Accordingly, I wrote a letter to my parents in Srinagar. My principal was also informed about my proposed absence from school. I was afraid either my parents or my principal would prevent me from proceeding on the voyage. Instead, I received letters of congratulations from them. In fact, the principal added that the school was proud that one of its students would have the
distinction of being the first Indian girl to set foot on the continent. Till then this had not occurred to me. I began to make preparations for the voyage with more zeal and enthusiasm.

Apart from the clothes and woollens that were bought for the voyage, Ajai and I underwent a thorough medical check-up. No time-consuming formalities were required for making a passport, because Antarctica belongs to no country! Within a few days, therefore, our preparations for the trip were complete. Excited, we began to count the days.

"Are you scared?" asked Capt. Nair, breaking my reverie, perhaps on seeing my sad face. "Don't you worry when your Uncle Sahai is here with you. Moreover, I am on the bridge of the ship. Come any time. 'Bye!" Before I could utter a word, he had left us.

The smells of the godown had become overpowering. Therefore all of us were relieved when our bags were cleared, and our papers rubber-stamped and signed.

As I came out of the gate on to the quay, a dirty, yellow hull of a huge ship came into sight. I had to crane my neck to see the windows of its crew quarters and antennae of various types. An orange crane atop the deck of the ship was bringing down a huge load of boxes to the quay, where a group of coolies was standing and shouting. On either side of the ship were other ships, of different kinds and colours. Loading of cargo was in progress; on some ships, no such activity was seen. Alongside the platform of the quay, I observed a railway track the purpose of which I came to know when I saw a huge crane moving on it.

Dodging coolies, loaded carriages and navy men, Ajai and I somehow followed Uncle, who went ahead with the coolie. Every time he paused before a ship, waiting for us to catch up with him, I would think it was ours. I was very keen to see it. But, no, he would move on to the next ship when he made sure that we
were following him. When he moved ahead of the last but one ship, I guessed that the last one was DAKSHIN SAMRAT, chosen for our voyage to the icy continent.

"Oh! That is a brand new ship!" exclaimed Ajai happily. My joy also knew no bounds when I found that, though small in comparison, it was a beauty. In the afternoon sun, its blood-red hull and cream-coloured quarters shone brightly. We were lost in admiration of it when I heard Uncle shout. He had climbed up the ramp leading to the ship. I waved at Uncle. Ajai followed suit. Uncle smiled and waved back. Laughing and shouting, we ran towards the ramp. Everywhere, men stopped their work and looked at us. Some smiled. A bearded man who stood near the ramp, appeared familiar. He looked glum and puffed out rings of smoke. "Oh God!" I said to myself, "he is the same person I saw near the customs office!" He watched intently as Ajai and I reached Uncle, who was then talking to somebody.

"No more laughing and shouting, Ajai," said Uncle sternly, turning around. He looked at me, too, which meant that he was addressing me. "Mind, this is not an ordinary passenger ship. This is a special ship. You are on a special voyage. Understand? Don't make any noise. Come on, now." He took leave of the person he had been talking to and led us.

Written above the entrance of the ship was "Welcome to DAKSHIN SAMRAT". Happily, I entered the ship into a small enclosure with a flight of stairs at one side. Uncle took us up the stairs. We followed, looking around, thrilled at the novelty of the voyage. There were fire extinguishers, buckets and huge rubber rings at every landing. Some instructions were also inscribed on the walls. The symbol of the ship—an iceberg with the name DAKSHIN SAMRAT embossed in golden letters—also appeared at various corners.
The entire place smelt of fresh paint indicating that the ship was just out of the dockyard.

Eventually, Uncle opened a door on the fourth landing and said, "So, here we are. Our room number is 406. It must be the sixth on the right. Come on, children!" The coolie, Ajai and I followed him.

A blast of air blew across my face; the place was air-conditioned. I found myself in a brightly lit, narrow corridor which was white above my shoulder and steel grey right down to the floor. Uncle opened room 406 and entered. I followed him, curious and excited to see our living quarters during the voyage.

It was a small rectangular room. Opposite the door was a porthole. On both the right and the left wall were a pair of box-like structures which were beds. At one side of the porthole was an immovable table. A small stool stood in front of it. The room was carpeted from wall to wall. Two tubelights lit the sky-blue coloured walls. In elegance, the room was no less than one in a posh hotel. It smelt again of fresh paint.

While Uncle placed our bags in drawers below the lower beds, Ajai and I rushed to the porthole. It gave a panoramic view of the surroundings because our porthole was at a considerable height from sea level. Outside, the sea was calm, although I could feel a perceptible swaying of the ship because of the small, foamy waves that entered the port from the open sea. Some sea birds, probably gulls, could occasionally be seen flying over the blue sea. In the distance was a mountain range, like a fat snake slumbering on the sea surface. Ferries and fishing boats could be seen here and there, enlivening the dullness of the afternoon. The open sea stretched out at the bottom of the mountain. Two huge ships stood there, perhaps awaiting permission to enter the port.

"You have all the time till 5.30 p.m. to view that
part of the sea," said Uncle, coming to stand between Ajai and me, as we looked out of the porthole. "Let us go out and have a look around." With much reluctance Ajai and I left the porthole and accompanied Uncle.

A 'sea change'

In a few minutes, Uncle, Ajai and I were on the huge deck. It was above our living quarters. A mild, salty breeze welcomed our arrival.

The first thing that attracted my attention on the deck was a stool-like structure, the signal mast, towering above us. It consisted of three tiers of platforms. I had to bend my neck backwards to have a look at them. On the uppermost platform was a sphere-like white dome which contained, Uncle told me, the disc-like antenna of the SATCOM (satellite communication). Through the SATCOM the ship could get in touch with any place on earth via a satellite hovering in space. Amidst a clutter of antennae adjacent to the dome were the rod-like antennae of the SATNAV (satellite navigation). With the SATNAV the ship received information about its position on earth, also through a satellite.

On the middle platform were a number of gadgets for conducting various studies of the atmosphere. A powerful telescope also stood on the platform for observing the sky and the surroundings. The lowest platform carried a small cabin, the crow's nest. A metallic ladder ran up to the lowest and the middle platform.

In due course, I realised that the deck was in the first half of the ship. Up ahead, but at a level much below our deck, was a triangular fore-deck. At one end of our deck was a black, rectangular structure,
on top of which was a huge funnel spewing out puffs of smoke. Uncle told me that it was the chimney of the ship's engine. Beyond it was again a deck, though smaller than ours. On both sides of that deck hung four small, white boats, two on each side. After this came another deck, as big as ours but at a much lower level. Uncle told me that it was the landing pad for the two helicopters that the ship possessed. Huge net-like sheets were spread out on the deck meant to hold down the helicopters firmly because there was always a danger of their sliding off the deck. Towards the rear of the ship was a small crane, then actively engaged in bringing up load from the quay. A huge boom meant for scientific experiments stood at the tail-end of the ship.

Leaning on the railing of the deck, I had a bird's eye-view of the port. I felt a bit giddy and confused for a moment because of the height of the deck. The quay looked a cluttered place with boxes of every variety and shape and barrels of various colours lying scattered all over. Besides, coolies, navy men and other people moving among them added to the confusion. However, beyond the dirty, yellow godown buildings were beautiful, undulating brown hills with patches of green. A huge, white dome, a cluster of antennae and various searchlights atop a tall tower-like building at one corner of the quay indicated the port's control tower.

"It will be a beautiful sight in the evening when our ship will depart," said Uncle. With one hand on my shoulder and the other on Ajai's, he continued, "From now on, you will see some rare, beautiful sights."

"That will be marvellous, Uncle," I said, thrilled. "But tell me, why has this particular ship been selected for the voyage? It does look different in appearance from other ships—doesn't it, Ajai?"

"WeU, it has to look different, Neha," said Ajai. "It is an ice-breaker, after all."
"But, how is an ice-breaker different from an ordinary ship?" I asked.
"That is a good question! Come on, Ajai, tell us," said Uncle cheerfully.
"Well... well... I think it must be having a sharp, knife-like keel to break ice ... I..." Ajai stopped, seeing Uncle's amused look.
"Well, I admit ignorance," Ajai smiled and shrugged. He always admitted his mistakes without giving excuses.
"I will tell you, Ajai," said Uncle, still keeping his hands on our shoulders. "First of all, the keel of this ship is not at all knife-like. In fact, it is blunt—like the base of a box!" Uncle was about to reel off details about an ice-breaker when something on the deck attracted our attention. Ajai and I saw, to our amazement, a large number of crates of soft drinks being brought to the deck by a crane on the quay. A few sailors offloaded the crates and pushed them to one side of the deck. In a short while, the crane brought another load of crates, then another, and another, so much so that the entire load of crates occupied about one-fourth of the deck! I could see, at one glance, at least several thousand bottles of drinks, which staggered my imagination. Never had I seen drinks in such a large number.
"Why are they being taken to the continent?" asked Ajai, pointing at the crates.
"Why don't you guess?" returned Uncle, smiling.
"For drinking, of course," said Ajai.
"But why?" asked Uncle.
"Because drinks are not available on the continent," I said, smiling.
"It is not a joke, my dear Neha," said Uncle becoming serious. "There is no pure water to drink on the icy continent. During an emergency, when one cannot go out of a camp and collect ice for melting,
one can melt the soft drinks and drink them as they are hot!" That was amusing.

As the evening wore on, I saw the loading of food and other miscellaneous items in the hold of the ship on the left side of the bow, right in front of our deck. I was especially thrilled when two small helicopters, orange in colour, landed on the deck at the rear. In the sunlight the helicopters glowed, which, Uncle told us, was meant for spotting them easily when one is at sea or over the icy, white continent. In due course, their blades were folded and the two helicopters were lowered into the hold right below that deck. The helicopters are not allowed to stay out in the open for fear of strong winds blowing them off the deck and of corrosion by sea air. In the hold, there was a complete maintenance and repair unit.

By evening, a large crowd had gathered on the deck, mostly scientists and technicians going to the continent. They were chatting, laughing and joking with one another. There were three lady scientists. Uncle introduced Ajai and me to many of them, but I forgot everybody's name. Unlike the image I had conceived of scientists, in that they were serious in looks and reserved in manner, these on the ship were quite normal. Some were tall and hefty like wrestlers. Some were even fit to be in a circus, so funny in appearance. Of course, there were a few who fitted in with my image of scientists. They stood aloof on the deck, leaning on the railing and watching the scenic beauty.

I got the first shock of the voyage when I noticed the presence of the bearded man whom I had seen earlier. He was standing on one side of the deck. He must have been watching me because when I looked at him he looked the other way and started to light a cigarette. I thought of asking Uncle about this strange man, but gave up thinking that it might be just nothing.

Before the sun set, all the lights of the port lit up and
presented a dazzling sight. The sea was beautiful to look at in the gathering dusk. Apart from the lights of the ships, fishing launches and ferries, there were dots of red lights stretching away for some distance from the port into the sea. These were guiding lights for the ships entering or leaving the port, for at various points near the port, water was too shallow or ridden with rock outcrops.

A huge searchlight atop the control tower lit up, sending shafts of light into the sea and the surroundings. A red light lit up atop the mouth of the snake-like hill range. Besides, the lights of the buildings, houses and shanties on the hill and along the shores lit up. A marvellous sight!

Meanwhile, the loading was over and the ramp withdrawn. A small rope-ladder, which hung on one side of the ship, had also been withdrawn. The ship was ready for the voyage. For some unknown reasons I felt nervous and uneasy. Ajai, too, looked upset and ill at ease. Uncle observed our uneasiness and simply smiled.

Worrumm!! Worrumm!! Worrumm!!

The loud hooting siren of the ship caught us unawares. I covered my ears tightly. So did Ajai, Uncle and the rest of the people on the deck.

The anchor had been lifted. With a sudden lurch, the ship moved forward. The quay began to move in the opposite direction. In a curving arc, the ship left the quay and entered deep waters.

Some people on the quay, even coolies, raised their hands to wave to us. I waved back. Many persons on the deck too, were waving their hands. Some of them were waving their handkerchiefs.

Soon, the ship was heading towards the open sea. It began to sway slowly like a cradle. The port became only a dazzle of lights. The ships standing there were simply huge shadows. The bright searchlight of the control tower blinked every now and then.
The red dots of light, which had appeared like a red carpet of welcome to open seas a few minutes ago, began to pass by the ship, one after the other. In a short while, all of them were left behind. The port appeared to be a blur of varied lights blocked by the dark ships.

Suddenly, the ship came to a halt.

"Is there any trouble, Uncle?" I asked in apprehension.

"No trouble at all, my dear," said Uncle.

"It is just that the pilot is leaving the ship," added Ajai.

"What do you mean?" I was amazed. "Is he not well or what?"

"No, no," Uncle began to laugh. "It means that every port has a number of pilots. When any ship has to enter or leave the port, one of them steers it because he knows the port's danger zones such as shallow waters or rock outcrops. So, our pilot is now leaving by his boat. Look there." He pointed to a boat which had followed our ship. Soon it came alongside the ship. One person got into it by means of the rope-ladder.

"Neha, would you like to go back home?" asked Uncle smiling. "Here is your last chance."

"Yes, I would," I said, affecting a smile. "Would you care to join me?"

"Oh no, it is too late now," said Uncle, as the small boat moved away from the ship, the noise of its motor breaking the silence of the calm sea.

Uncle was smiling as he watched the boat move away. It was soon lost in the dark. Only the faint sound of its motor could be heard.

"Nothing to worry about, my dear Neha," said Uncle, patting my back. "Cheer up! We are now set on a voyage undertaken by a few privileged mortals. Come on, say goodbye to everything you have loved till now!"
His last words touched me to the core. I felt I was about to cry.

Worrumm!!!

The hooting siren of the ship again caught me unawares. I managed to smile and say "Goodbye, India."

The ship had begun to move again. In a short while, it picked up speed. My voyage to Antarctica had begun.

Aboard Dakshin Samrat

It was not long before night came and plunged everything into darkness. Nothing could be seen except the white foam of the waves. Their regular beating against the hull of the ship, the constant hiss of the swirling waters, and the continuous hum of the ship's engine could be heard all the time. Occasionally, I saw a red light somewhere in the sea indicating spots of danger. There was no other light to be seen anywhere because the ship was far away from any coast. Once or twice, a cluster of lights of a passing ship could be seen moving steadily in the distance for some time before vanishing. The initial excitement of the voyage was slowly wearing away as there was nothing much to be seen from the deck. After a while, Uncle, Ajai and I trooped down to our living quarters.

Back in our room; each one opened his or her bag, took out the essential things that would be required daily, and changed into more comfortable clothes; we began to settle down for the long voyage. Later, Ajai and I continued to look outside through the port-hole using the binoculars which we had brought with us. In the meantime, Uncle left for his mess duties. Every scientist had to take up some duty in the mess because bearers and servants were not available aboard the ship. This is for the simple reason that not every
Tom, Dick and Harry would be able to brave the cold of the Southern Seas and the continent. It would be too expensive to take men on board for doing simple, menial chores when, instead of men, more fuel, food, etc. could be loaded on the ship.

All scientists had therefore been assigned some duty or the other in the mess. Besides, everybody had to clean his own room, clothes and utensils. But Ajai and I had not been assigned any specific task or duty. In the beginning, I felt awkward seeing a scientist peeling and cutting onions under the trying conditions of the ship. I soon realised that these scientists had to do all such chores during their stay on the continent.

On the first night I could not take dinner. Nor could Ajai. It seemed we were suffering from seasickness. I felt as if something was churning inside my stomach, a feeling that spoils the charms of a sea voyage. The food also appeared to have a strange, pungent taste.

"Don't worry, Neha. Just don't think about it," said Uncle Malhotra, a scientist-colleague of Uncle Sahai, who had joined us for dinner in the mess, two storeys below our room. The mess was like a restaurant, its walls adorned with maps of the world. "Avoid taking any liquid diet. Try only solid food," continued Uncle Malhotra. "It will give you some relief. Take avomine tablets also in case you feel very uneasy. Don't make a fuss about it."

"It is natural, Neha," added Uncle Sahai, eating a mouth-watering plate of pudding. "It takes time for a land-dweller to get used to the conditions on sea. just as a man has to get used to the low-gravity conditions of the moon. It would take you at least two to three days to get over the seasickness."

"Oh! So many days, Uncle?" I exclaimed, feeling unhappy.

"Yes, so many, many, many days!" said Uncle
smiling. "My dear, this is just the beginning of the hardships—the price you have to pay for being the first Indian girl on Antarctica! It is nothing, my dear, nothing!" Then on seeing me dejected, he added, "It is merely for a few days. All will soon be okay. This voyage has many interesting things to show you. Just be patient, Neha. Learn."

During the night, Ajai and I had a terrible time. Every half an hour or so, we had to rush to the basin to throw up. The effects of avomine tablets were felt only early next morning and I could sleep well for a few hours.

When I woke up around ten o'clock, Ajai was standing near the porthole watching the foamy sea through the binoculars. I joined him in his watch. We took turns at watching the sea through the binoculars. Later, we went to the deck to watch the sea. Occasionally, we spotted a silvery fish surfacing on the sea. Called the flying fish, it would jump into the air, fly for about 30 to 40 metres and then go down into the sea with a splash. Each such jump excited and delighted both of us, as if we were making a big discovery. We also observed the birds that were seen in the sky, over the sea, and on the ship. Some birds flew alone, hovering if something attracted their attention. Others flew in huge flocks. Those were the migratory birds, renowned for their long journeys across seas, oceans and continents.

But the most interesting of all were the birds that followed the ship silently for hours on end and even days together and those that came down to the ship for rest or for food. Some birds however made the ship their home, sleeping and resting in nooks and crannies, always waiting for someone to throw a crumb to them. On occasions, they tried to snatch food from a person standing on the deck. Nevertheless, in any case, all the sea birds were new to me, a bird-lover.
I therefore watched them carefully and also gave them food to eat. It was a real treat for me. I identified sea-gulls, terns, petrels, fulmars, shearwaters, and many more.

During my first day aboard the ship, Ajai and I were on the deck most of the time. In a few days, we began to feel bored. All around there was nothing to see but the sea, the light blue sky and the sun. Occasionally, rain fell breaking the monotony of the voyage.

During those days, even small incidents, because of their novelty, excited us. For instance, as the ship continued its voyage south-west in the Arabian Sea, announcements were made every 12 hours regarding the adjustments in time needed. With every announcement we had to put our watches back in time! In due course, the novelty wore off.

We were thrilled when a navy exercise for the crew was held aboard the ship. In fact, on the third day we were given training on how to wear a life-jacket which resembled two huge lumps of air-filled bags, to be worn around the shoulders during an emergency. It was said that if a life-jacket was not worn as per instructions, it could endanger life.

Although mornings and evenings were invigorating on the deck because of pleasant sea breezes, the long drawn-out afternoons were dull and tiring. One preferred to be in one's room because of the sun's increasing heat as the ship approached the equator. Moreover, apart from Ajai, I had no company. Uncle used to come to the room as and when he had some spare time. On occasions, he used to be so involved in his work that I avoided disturbing him. With nothing much to do, I was feeling bored.

"Uncle, you had said that the voyage would be interesting and exciting," I said on the afternoon of the fourth day, when we were at lunch in the mess. "But this is..."
"Neha, that is not what I had said..." said Uncle. "He had said," intervened Ajai, "that the voyage would offer us some rare sights. Not that the voyage itself will be interesting. You have seen some birds for the first time, haven't you?"

"But, Ajai, that is stretching things..." I was annoyed.

"Oh, Neha! Be patient," said Uncle. "This voyage will certainly prove to be extraordinary for you. Learn to be patient. What is the matter? Are you bored?"

"Yes, Uncle, I am," I said, eating the pudding which then tasted wonderful.

"I was just waiting for you to say so," said Uncle. "Come on. Let us finish our lunch and have a look at the ship and the scientific activities in progress here. Had I asked you earlier, I was quite sure you would have said that you want to watch the sea."

After lunch, Uncle showed Ajai and me some interesting portions of the ship. What I saw amazed me. Having confined myself to our room, the deck and the mess, I had never thought that the 16,000-ton ship was a colony in itself. In fact, a ship on a long voyage has to be! It contained a swimming pool, library, movie-theatre, recreation room, indoor games hall, and small shops selling various goods. For obvious reasons, scientists themselves were managing these facilities! Self-service was the motto everywhere.

Thereafter, I was never bored. For hours together, Ajai and I would play chess, carom, cards, and the like in the recreation room. We also played badminton, table tennis, and would swim sometimes. I made a lot of friends, too. Besides, there were also books to be read. Best sellers, adventure stories and comics were available in the library in addition to huge tomes on Antarctica and the Southern Seas.

Uncle also took us to the bridge of the ship and to the scientific laboratories aboard the ship. To my
surprise, the bridge—not literally a bridge but a control cabin built at a height—was at the front side of our deck, looking upon the fore-deck and the sea.

With huge windows on three sides, the bridge provided a panoramic view of the sea. It was like sitting in the front seat of the upper deck of a double-decker bus. If one stood looking out at the sea, ignoring the prow of the ship under one's nose, one felt giddy, feeling as if one were floating on the sea. Uncle Nair, who was then present in the bridge, showed Ajai and me the various gadgets lying in the otherwise almost empty, brightly lit and clean cabin.

The gadgets were arranged on long, white-topped tables in two rows. There were panels of buttons, blinking dots of lights, TV-like screens, levers, meters, and knobs. In one corner of the bridge was the Radar to detect any object on the surface of the sea, such as a ship, island, rock outcrop or even an iceberg. It used radio waves to detect the object. In appearance, it was a graduated circular disk in which one could see a ray of light, like the second hand of a clock, moving about its centre. I had to look at the disk through a bellow-like arrangement to avoid the glare of light. The disk could tell both the direction and the distance of objects, when they appeared in the vicinity.

Similar in purpose was another gadget called Sonar which, using sound waves, detected any object below the surface of the sea, like a submarine. It was like a meter in appearance. One interesting gadget was the Facsimile recorder, a box-like gadget which rolled out a paper strip with markings made by a pen moving over it. The marking indicated the local pressure zones and thus gave information on the local cloud cover, storms and even cyclones. Another gadget gave the position of the ship on the earth through a satellite. The most interesting thing that Uncle Nair showed us was the control mechanism
of the ship. I was rather surprised to know that a small knob near an instrument panel, which generally nobody would notice, controlled the direction of motion of the ship. Uncle Nair told us that the control was small so that the ship could be steered easily even in the most trying circumstances. Besides, there were a pair of binoculars, a powerful telescope, a telephone and a wireless transmitter in the bridge.

Through the transmitter, a crew member could talk to another anywhere on the ship and also to a crew member of another ship passing by. "All these modern gadgets," said Uncle, on our way back from the bridge, "have been available to the ship's crew in the last few decades only. They have made a voyage to Antarctica easy. Just imagine how hazardous a sea voyage would have been without the knowledge of the position of rocks, ships, icebergs and of storms and cyclones. You children are privileged to have been born in this space age." I had never thought about this.

There were three main laboratories aboard the ship. One was beneath the fore-deck. It tested and, analysed chemicals found in samples of atmosphere taken by the scientists on the ship.

The second laboratory, at the rear of the ship, tested and analysed the contents of fish or any marine organism found in the sea. These two laboratories were, in appearance, like any school laboratory for chemistry, although they were far smaller in size and looked much more sophisticated. All the instruments flasks, test-tubes, etc. were properly clamped to their respective places. I only wondered how experiments were conducted when the sea was rough and the ship pitched violently. I was told that under such circumstances no experiment was conducted because scientists themselves were too sick to do any experiment!
The third laboratory preserved the specimens of different species of fish and other marine creatures. It was a storey below the second laboratory. It was well maintained, with all the specimens properly labelled, and kept in specially made containers to remain undisturbed by the pitching of the ship. When Uncle, Ajai and I visited the laboratory, a freshly-caught octopus was being cleaned for preservation in a water-like, smelly chemical called formalin.

Apart from the laboratories, there were a number of instruments and gadgets installed at various points on the ship for conducting scientific studies. For instance, there were pollution-monitoring gadgets, radio equipment for studying the upper atmosphere, some meteorological instruments, installed on the middle and the topmost platform of the signal-mast on our deck. On the boom, at the rear of the ship, were hung a number of sensors which measured the temperature of the sea on the surface and at various depths. For taking samples of the sea water at different depths were hung a number of bottles, which could shut themselves down automatically when they were filled. There were also huge refrigerators for storing any sample of ice or marine creature found in the Southern Seas and on the continent for study at leisure. Besides, make-shift arrangements were made for any experiment to be conducted aboard the ship. For instance, when every day, at a particular hour, a huge pink balloon was filled with hydrogen gas and released into the air for conducting various meteorological studies, our deck would be full of all kinds of gadgets and instruments.

As the voyage proceeded, I came to know about various experiments conducted on the ship. Occasionally, I would lend a helping hand to the scientists in their experiments and studies. I also helped Uncle in his mess duties—I peeled onions, cut vegetables
and cleared the dining tables. Thus continued the voyage, our working, playing, reading, chatting, watching movies, eating and sleeping. The voyage was no more dull, for I had begun to take an active interest in the working and maintenance of the ship.

In those early days of the voyage, I read a book called *I am Antarctica*, which I had picked up during one of my trips to the library. I am sure you will enjoy reading it as much as I did. Therefore, I reproduce it here.
Have you ever seen a globe? If you have not, take a look at one. It represents the sphere-like earth. It shows you the arrangement of continents and oceans, the positions of various countries and cities, and many other things. You must be familiar with the positions of most Asian, American, European and African countries, which can be easily seen on the globe. Have you ever tried to see what is at the bottom of the globe where I live? I mean at the lowermost portion of the globe, which is often hidden from view and is not easily noticed. You may not have bothered to look for me because your teacher has not taught you about me and no questions about me appear in your examinations.

Never mind, mankind itself came to know about me only in the last hundred and fifty years or so. But, in recent years, mankind has become very curious about me. The day is not far when all of you will have to know about me. Who knows, you may even get a chance to visit me! I hope you have guessed who I am. Some call me 'the home of the blizzard', others 'the white desert', still others 'the pulsating continent'. Some old people call me 'Terra Australis'. I am Antarctica—the only treeless, riverless, almost lifeless, the driest, the windiest, and the highest continent.
You may wonder why I have taken the courage to hold a pen and write something about myself. It is a sense of urgency that has forced me to write immediately, although it is so cold here that your fingers soon become numb. It is not that I fear my icy existence threatened with the arrival of men from my brother-continents, but I am genuinely worried about the whole world. If I am not taken proper care of, I fear the occurrence of a global catastrophe as devastating as a nuclear war, if not more. I am therefore writing to you so that when the time comes you should be able to stand guard over me and resist any move to destroy my existence—and your existence as well! I start from the very beginning, when mother earth gave birth to me.

The queen and seven princes

You must have heard a folk-tale in which a queen had seven sons, all tall and handsome, who were always seen together, whether they were sleeping, playing or hunting. But when the old king passed away, the seven princes quarrelled amongst themselves to become the king. Sad and unhappy, the queen divided the kingdom into seven parts. Each prince was given his share according to his age. Each therefore separated and became a king and ruled his own kingdom—to the utter unhappiness of the people.

Like the queen, our mother earth had seven of us—Asia, Europe, North America, South America, Australia, Africa and me. A ball of hot gases she began to cool and a crust formed all over her surface. In those early days, a lot of stones called ‘meteoroids’, fell on her crust, leaving big and small scars and breaking the crust. Although the crust cooled, her interior remains hot to this day. This heat is released
from time to time into the surrounding space through volcanos in the form of gas, water vapour and dust. Owing to the gravitational pull of the earth, all gases, vapour and dust stay around her and form our atmosphere. The water vapour forms clouds, cools and falls on earth as rain. In the past, so much rain fell that the scars on earth were filled and they formed oceans and seas. Around this period, we seven brother-continents were born. In those days, about three hundred million years ago, we were all a part of one super-continent called Pangaea. In Greek, Pangaea means 'All-land'. It was about 200,000 sq.km. in area, about forty per cent of the total surface of earth. Only one ocean, Panthalissa, surrounded us.

In course of time, Pangaea broke into two huge continents, Eurasia and Gondwanaland. A sea named Tethys separated the two. It did not take long for the two huge continents to split further into smaller ones. Eurasia broke into North America, Asia, and Europe. Gondwanaland broke into the Indian mass, South America, Australia, Africa, and me.

Do not ask me why we all broke apart, like the seven princes. We were helpless. An external force, the 'continental drift' was the villain, and continues to be so. When the huge stones from space fell on earth, they broke the cooling crust into several pieces, called 'plates'. These plates began to drift on the hot fluid below them. As the fluid moves as some force inside the earth directs it to, the plates drift likewise. So, my brother-continents and I, who had been sitting on the plates, like men on rafts, were forced to break apart and drift away, each a master of his own destiny.

When I was a part of the Gondwanaland, the lower tips of South America, Africa and India touched me. The Australian continent, whom I loved the most, was almost shoulder to shoulder with me. One by one, all except Australia drifted away from me. South
America went up the globe and joined North America, forming the Atlantic Ocean in the process. India went up at a tangent, in the north-eastern direction, collided with the lower part of Eurasia that is Tibet and formed the Himalayas, the highest mountain range on earth.

For some millions of years, I kept the company of Australia, drifting along with him. Then, one day, Australia was forced to part my company. In course of time, he drifted away from me to assume his present position. Meanwhile, I drifted towards the south pole of the earth. Now, it is almost at my centre. If nothing else, surrounded by the icy ocean waters which flow around me like a merry-go-round, I feel a sense of quiet and tranquility hardly available to any of my brother-continents.

Like each of the seven princes, we have our own kingdoms to govern. Mine is a land about 14 million sq. km. in area, which is one-tenth of the total land on earth, greater than the areas of India and China combined. That is, I must say, a lot of territory.

I almost forgot to tell you about the inhabitants of my kingdom!

*My own kingdom*

Life was evolved in the oceans of mother earth in course of time. From chemicals appeared minute living cells; the cells formed microorganisms, the microorganisms evolved to give birth to organisms, big and small. From the oceans, some beings moved out to live in coastal regions. Some went further inland to live exclusively on land. In those days, all of us, brother-continents, were together and we happily watched the variety of plants and animals
that began to evolve and spread. But, then, came the continental drift and we all parted. One good thing certainly came out of this parting. With a number of different lands, each having its own weather, mountains, lakes, many new varieties of plants and animals evolved all over the land.

Oh! what a pretty sight it was! Amidst the smoking volcanos and lush green vegetation, creatures ranging from small kangaroo-like beings to huge dinosaurs roamed over the land. It was the youth of my life, when everything on the land was fascinating and lively. Sometimes, dark clouds used to rain in torrents, swamping the valleys with sticky mud. Rivers and lakes used to be flooded. Sea waters used to invade the coastal regions and, on occasions, move into interior regions creating salty marshes.

The sleeping volcanos also used to wake up frequently, roaring, tumbling on the earth and spouting flames, lava and dust. On occasions, the sky was not seen for months on end with the dust in the atmosphere. I used to enjoy that life!

Alas! it was short-lived. The Pleistocene Ice Age that then came, about one and a half million years ago and lasted until 10,000 years ago, spoiled my life. Not that this was the first time I had seen an Ice Age. Earlier, a far extensive Ice Age had come and had lasted for about 50 million years. But, in those days, I was too small to understand. Moreover, I was then living along with my brother-continents. This time I was young and alone. As a result, today, I am what the Pleistocene Ice Age made me.

*The Ice Age*

I do not know how it all started. Some claim that mother earth was then passing through a dust cloud
in space. The dust did not allow the heat of the sun to reach the earth's surface and therefore a cooling set in. Others claim that the cooling set in because of a tilt in the axis of the rotation of earth. Some others attribute different reasons. Whatever the factor, a cooling did set in all over the world. It came in such a subtle manner that nobody noticed it until some visible signs were seen. Glaciers came down from the mountains and began to invade the plains, engulfing everything that came in their path. Within a few million years ice and glaciers were all over the land and even the seas.

I noticed the arrival of the Ice Age when, one day, I found to my dismay, the trees and plants and animals of my kingdom to be dying. Those animals, which could run or hop, had already fled to my brother Australia till then quite close to me. It was then that I noticed a sudden coldness in the air which sent a chill down my spine. Some cold winds had also begun to roar past me cheekily. What convinced me of the tragedy about to befall me was snow falling heavily upon me. In the beginning, it would snow now and then, but soon a time came when it snowed for long periods. Another blow struck me when my brother-continent Australia drifted away from me.

Grief-stricken and alone, I could not bear the loss. On top of it, I found myself drifting towards the south pole of the earth, which was already a cold region. I tried my best to avoid that region, but my position was similar to a man drifting on a raft towards a vortex. I was helpless. Icy winds began to howl past me more loudly, as if taunting me. 'I am doomed! I am doomed!' I went on shouting for several centuries. Nobody heard me. How could anyone? Man had not evolved then! Exhausted and tired, I fell unconscious.
The 'pulsating continent'

When I regained consciousness, I felt something very cold and heavy lying on top of me. It then dawned on me that I was completely covered with a very thick ice sheet. I was no more what I used to be—a huge flat plateau on the east side, which is now called East Antarctica, and a group of mountain peaks, now called West Antarctica, on the other side, the two regions being divided by the present Horlick and Pensacola mountains. I was simply a huge pack of frozen ice which had shortened my height by as much as 600 metres. Nevertheless, I continue to be the highest continent.

Whichever direction I looked, I found things had undergone a sea change. The nearest land was Cape Horn, about 990 km. away! All around me was ice to a distance as much as 1,000 km. inland from my coast. It formed a shelf of fine ice above the cold sea. At places, the shelf had assumed giant proportions. It is therefore known by different names at different places, namely, Ross ice shelf, Filchner ice shelf, Ronne ice shelf. The sea water nevertheless kept in touch with me from beneath the shelf. To any outsider, the ice shelf appears to be a part of me. It increases my kingdom by as much as 21,00,000 sq. km. During winter the shelf almost doubles in size, increasing my size, and during summer it melts away, decreasing my size. To anyone observing me from space, I appear to be like a beating heart. I look alive and kicking. I have, therefore, earned the singular title of the 'pulsating continent' because I keep changing in size, throughout the year.

When I began to survey my kingdom, I found to my utter dismay that sheets of ice and glaciers had completely destroyed plants and trees. Only some hardy types of lichens, algae and mosses dotted my
icy landscape. There was no animal life. Only some species of penguins, seals and sea birds took courage to live over my land. Most of them are however seasonal visitors, who come to me during summers, when the weather is a bit pleasant, the temperature tolerable, when the ice melts forming lakes and streams. There are, of course, a few species of hardy insects and microbes which are permanent residents, but they are no company. I also came to harbour fierce winds which sometimes move at speeds exceeding 300 km. per hour, causing blizzards and other dangerous phenomena.

The thing that disturbed me the most was the absence of the 24-hour cycle of day and night. I found that for six months from March to September—there is little or no sun over me and for the rest of the months the sun is more or less present all the time. On occasions temperatures over me fall as much as—88°C. My only companions during the dark, cold and windy winter months are the emperor penguins, Weddell seals and aurora australis.

I began to watch the growth of ice shelves during the winters and their melting during the summers. I watched them in the hope of seeing the formation of icebergs. It is fun to watch icebergs as they drift away from me and wander, sometimes for years together, taking a complete round of me on sea currents. I watch the rookeries of penguins, and the antics of seals in deep sea waters. What a sense of pride and achievement I feel when I see eggs hatch and baby penguins grow into adults before my eyes! The beautiful, multi-coloured aurora australis also flickers and dances in the sky during the cold winter days. Oh! How I love them all!

That is how I have passed my days all these hundreds of centuries until man came to visit me.
Man arrives!

While I lay unconscious several wonderful things had happened on my brother continents, which I came to know of but recently. The Pleistocene Ice Age came and went, causing deaths and destruction in its wake. Old types of animals, trees and birds were replaced by new types. Man, the most intelligent creature on earth, emerged during this period, about eight million years ago. In due course, he began to do agriculture. He created civilizations not seen before. I missed seeing all of this! Man made several attempts to reach me, for he had heard somewhere that a continent rich in gold and silver and other riches existed.

I felt flattered that more than twenty centuries ago, the Greek philosophers had discussed and debated my existence. They argued that there had to be a huge continent in the south to 'balance' the rest of my brethren in the northern hemisphere. A marvellous argument! They gave me a funny name—"Thule" Nobody ever thought of setting his foot on me.

The first man ever to reach as near me as was practically possible was Ui-te-Rangiora and his party, who came in a canoe, saw me and left soon after. They were tall, dark men who wore their traditional multi-coloured furcoats and head-dresses made of coloured feathers. They actually belonged to the almost extinct Maori tribe which once lived and prospered on New Zealand before the white people invaded that country. Today, this adventure of Ui-te-Rangiora lives in Maori legendary tales, which hardly anyone believes.

Duly, several European explorers, including Ferdinand Magellan (1480-1521) and Francis Drake (1540-1596) came to the south in their ships. Some wanted to discover new trade routes. Some were
impelled by their curiosity. Some wanted to discover new lands, to make their names immortal. Some longed to plunder rich lands and their civilizations. Some came to hunt whales and seals. The discovery of New Zealand and Australia in 1769 and 1770 respectively, stimulated their interest in the southern hemisphere. One after the other, islands, big and small, in my neighbourhood were discovered and named after their explorers.

That famous scientific explorer, Captain James Cook, who rose from a small job in a shipping firm to become the Captain of a ship and who had several major discoveries of lands to his credit, could not reach me because of heavy pack ice. But such a strong-willed, brave and tenacious person was he that during 1772-75 he took a complete round of me in his ship. He sighted but the icebergs that frequently drift away from me, and not me! Finding the region cold, sunless, bleak, full of ice and treeless, he wrote in his diary; "I shall not envy him the fame of his discovery (and) I make bold to declare that the world will derive no benefit from it."

In spite of this, a strong belief persisted in Europe that there lay waiting yet another continent in the south which was as rich as the Americas in gold and natural resources. Rumours apart, more surprising is the fact that some reputed scientists and naturalists fanned this belief among the lay public. The result was obvious. Despite Cook’s remark, a new spirit rose among the European explorers to discover me, once and for all. Besides, the reported presence of whales and seals in abundance in the Southern Seas increased the traffic of whaling ships in the neighbouring waters.

The year 1819 was the most eventful, because in that year man, after fighting icy winds, icebergs and ice floes, discovered my presence! There was not just one party of men but three which discovered me within a
few weeks of each other. Each party, however, came from a different part of the world, unaware of the others, and approached me from a different direction.

The first man to discover me was the intrepid explorer Fabian Gottlieb Bellingshausen. Tsar Alexander I, who had acquired a taste for exploration after Russia's successful exploration of the Siberian waters, had sent Bellingshausen to the Southern Seas with two ships VOSTOK and MIRNY in search of me. Bellingshausen discovered two small islands which are today very much a part of my territory. He called them Peter I and Alexander I after his patrons.

The expeditions of Bellingshausen and the other two, the British Commander Edward Bransfield and the U.S. sealer Nathaniel Brown Palmer, were merely touch-and-go. There followed a number of expeditions in the wake of their success.

Though one explorer after another came, discovered a new part of my ice-laden land or a huge ice shelf and gave it his name or the name of his patron, none knew what he had discovered. Bellingshausen named the sea waters through which he approached me in his ships after himself; the French explorer Jules Dumont d'Urville called a piece of my shore 'Adelie land' after his wife; the English navigator John Briscoe named a piece of land 'Enderby Land' after the owners of his ship, and so on. Some explorers named some species of birds and animals living on me after their own names or after those whom they loved or respected!

Whoever then came to me made himself immortal. However, nobody saw anything beyond his ken. Each one was like one of those blind men, touching a different part of an elephant and believing it to be a different thing. Nobody took a holistic view of me. At one time, the question was seriously debated among the explorers and scientists whether there was one continent in the Southern Seas or two!
In 1840, when the American explorer Charles Wilkes arrived here with six ships and followed my coastline between Enderby Land and Adelie land, he suddenly realised my existence. He collected information of all discoveries about me made till then and fitted them together to proclaim to the world the existence of the much speculated seventh continent down in the south! I was eventually recognised and given a due place in the maps of the world. Wilkes gave me the name 'Antarctica'!

The Greeks called the Bear constellation in the northern sky 'Arkot'. The Arctic Ocean, which was seen below the constellation, thus got its name. Wilkes called me 'Anti-Arctic' because I was found in a position exactly opposite to the Arctic Ocean. The logic was simple. I did not like it. Finally, I have become Antarctica!

The Heroic Age

Scientists and explorers from different countries, carrying different flags and various equipment, began to seek me in their small, specially designed wooden ships. Thus began what is now known as the Heroic Age. Countries and rich men began to finance expeditions to reach me, making it a matter of prestige. The enthusiasm to reach me was high even among the public, who contributed money for undertaking the explorations.

The first man who took courage to land a party of men on me came late, more than 50 years after my presence was confirmed. On January 23, 1895, the Norwegian whaler Leonard Kristensen and his party disembarked at Victoria Land on the western rim of what is now known as the Ross Sea.

During the same year, another momentous event
for me occurred in England, several thousands of kilometres away. The Sixth International Geographical Congress was held in London in which I became the principal subject of interest, thanks to the efforts of James Clark Ross, nephew of the Arctic explorer, John Ross. Not only did an adventurous spirit run through the blood of Ross but a fine scientific sense too. The man, who had earlier located the north magnetic pole, literally kept the magnetic compass in his hand throughout his voyage around me to locate the south magnetic pole! It was he who said: "By finding food for the mind one may grow attached to the most wretched spot on the globe."

During the Congress I was declared the most important geographical problem of the age! I intrigued everyone. My name hit the headlines of all newspapers! Several countries decided to take up fresh challenges to explore me. In 1898-99, the Belgian ship Belgica, under the command of Captain Adrien de Gerlache became the first vessel to stay with me during the winter, when it got trapped in an ice pack in Bellingshausen Sea. It showed man that he could survive on my land during the harsh winter, when not only the temperature falls down considerably but icy strong winds and blizzards too go on a rampage.

The first expedition with the sole intention of staying with me during winter came later in 1899. Carsten E. Borchgrevink, an Australian schoolteacher, who headed a privately financed expedition, established a camp on Cape Adare, the north-east point of Victoria Land to conduct scientific observations during the winter. His expedition members studied the aurora and the weather, observed the habits of penguins and seals, and explored volcanos and an ice shelf.

During this Heroic Age, when one expedition after another was launched by countries, a tragedy of immense magnitude was being perpetuated in the
neighbouring ocean waters. I was indirectly responsible for it. During Cook's unsuccessful visit, when he went around me in his ship without seeing me, he saw that the seas around me were rich in sperm whales and fur seals, among several other things. He reported these to the world back on my brother-continents, inspiring several greedy seafarers and whalers to take a trip down south. Sperm oil from the snouts of whales and the furs of seals fetch good money in any market of the world. Thus began a massacre of whales and seals unprecedented in history. Within a short period of 50 years, these creatures were almost on the brink of extinction. In recent years, however, a ban has been imposed on killing whales and seals, thanks to some spirited and devoted environmentalists. I felt guilty about the massacres for it was because of me that their presence was detected. Moreover, during their voyages, the expedition members killed several sea creatures as specimens for selling in markets and museums and for scientific research.

Race to the pole

In those days, men would come to visit and explore me, and would return. Not all returned safely. Of all the men who have been here, I cannot forget two, the British Commander Robert Falcon Scott and the Norwegian Roald Amundsen, who ran a race to the south pole. It was a deadly race fraught with dangers—and it proved fatal for Scott.

The idea of crossing my entire kingdom had been haunting explorers for a long time. But the idea of reaching the south pole first occurred to Scott perhaps on his first visit to me in 1902. A fine scientist, who had joined the Royal Navy for sheer adventure, he had made some studies of ice shelves and their formation
during his maiden visit. The aim of his second expedition was to reach the south pole and, possibly, to collect specimens of animals, plants, and rocks during the journey. The British Government, the prestigious Royal Society, and the public had provided money for the expedition, and a lot of publicity was given to it in England. Naturally, expectations ran high.

After a long and careful preparation, Scott had selected 16 men, 10 ponies, 23 dogs and 13 sledges for the expedition. The sixteen men included naturalists, meteorologists, navigators, and an ornithologist. His programme was to take all the men up to a certain point near the south pole and then make the last dash to the pole with four select men. The luggage was to be carried on man-hauled sledges and ponies. The dogs had to pull part of the luggage along with men, who took turns to haul. Caches of food and other supplies were to be dropped along the way to avoid carrying them to the pole and back.

My cold, bleary environment has certain characteristics found nowhere else in the world. For instance, when the temperature falls down to—40°C, men have to exert themselves three times harder to do a work like pulling a sledge, than when the temperature is 0°C. Enormous stamina was, therefore, required of men to travel along, hauling a luggage-laden sledge. The total absence of any fauna and flora in my interior regions further removed the possibility of having fresh food on the spot, which added an extra load to the luggage. There are icy winds blowing at tremendous speeds which, on occasions, can reduce the visibility to less than 30 metres. Besides, the snowstorms can not only stop journeys but even prove fatal.

Just after Scott had finalised his plan of reaching the south pole, he received a terse telegram from Roald Amundsen saying that he, too, planned to reach the south pole. Scott was then in Melbourne, Australia,
making preparations for the expedition. It was certainly an unexpected development, for which Scott was not prepared. He then realised that he had to race against time to be the first man on the south pole. He immediately left Australia and reached me.

Amundsen, too, had decided to reach me and become the first man on the south pole. This sudden decision followed the news that Robert Peary had reached the north pole. In fact, Amundsen had been planning to do the same. So, he could do nothing but opt for the opposite pole, the south pole. It was easy for him, a person who had explored the Arctic, to make preparations immediately for the expedition. Once, 13 years earlier, in 1898, he had also spent the winter on me as a part of the Belgian team under the command of Adrien de Gerlache. Besides, his home being Norway, a country where snow is ever present, it did not take him much time to select a fine team of experienced men who knew snow well. Once a student of medicine, who had left his studies to join the Norwegian Navy, he planned his trip to the south pole in a practical manner. Instead of using ponies and men for hauling luggage, he depended totally on Greenland dogs called huskies, which haul sledges on snow and are well adapted to ice. On October 20, 1911, he and his party started the race to the south pole with a huge pack of 52 huskies. To start with, he had also the added advantage of having his base camp nearer to the south pole than Scott.

Instead of taking food for the huskies, which meant more space for luggage, Amundsen used to kill the more exhausted or weak huskies and feed their flesh to the stronger ones. They ate the meat and gnawed at the bones, unaware that they had eaten their own brethren! Those uneaten bones still he buried in thick snow here. Amundsen was cruel, but a fine strategist.
When Amundsen and his party reached within striking distance of the pole, he abandoned the dog-sledges and picked a select party of four men for the final dash. On December 14, 1911, at 3 p.m. GMT (Greenwich Mean Time), he and his men reached the south pole. Without wasting any time there, they returned to the base camp without a single casualty, 12 huskies and plenty of food. In honour of King Haakon VII of Norway, who funded the expedition, Amundsen named the highland around the south pole as King Haakon VII plateau. A flag of Norway was also hoisted at the pole. He returned to Norway a national hero and was decorated!

In the meanwhile, Scott and his men were facing many hardships. At the very beginning of their journey, the motor sledges went out of order. His men tired quickly from hauling sledges. At one time dog food became so scarce that a party of four men and some dogs had to return. The ponies turned out to be a big disappointment. They would rest during the day, basking in the warmth of the sun, and travel during the 'night'. Highly stubborn animals, it was difficult to make them move once they stopped for some reason. So, Scott and his men had to eat their meals as they walked alongside the loaded ponies. Besides, some ponies and men began to suffer from skin parasites. On New Year's Day of 1912, when Scott made his last camp for the final push, about 290 km. from the pole, his men were already exhausted and tired. He selected four of them to reach the pole. But fifteen days later, he found the tracks of skis and dog-sledges of Amundsen's party and realised that he had lost the race.

Nevertheless, Scott continued the journey with a sinking heart to attain the goal he had aimed at—and this is where I admire him. A less tenacious person would have given up. At last, on January 7, 1912, he reached the south pole only to find Amundsen's marker,
the flag of Norway tied to a sledge, and a letter from him to King Haakon inside the tent. 'Great God!' Scott had then said, 'this is an awful place and terrible enough for us to have laboured to it without the award of priority.' One could imagine Scott's frustration but he did not show it. He completed all the formalities and returned.

On the way back, one of his men fell into a coma and died following a fall while descending the Beardmore glacier. Soo i, a blizzard overtook the rest of the party. Scott had then no alternative but to pitch his tent and wait for the blizzard to pass. Besides, the entire party was dead tired. One of them was hopelessly frost-bitten and had to be carried by the others. He told them to leave him to his fate in the icy waste but Scott did not heed him. What comradeship! But knowing that his disability would stand in way of a quick return to the base camp, one day he simply went out of the tent into the blizzard, never to return. For nine days the blizzard continued. With no oil to warm their cold bodies and no food to eat, the remaining three also passed away. Only 18 km. ahead was a cache of food and oil. What a misfortune! Eight months later, Scott's tent was discovered. A few personal letters of Scott and his men, several rolls of films, some geological specimens, and Amundsen's letter were found in it. In the letter which was to serve as a record in case he did not return alive, Amundsen had announced his triumphant victory to his patron. How ironical!

Search for knowledge

The race between Amundsen and Scott has become a part of man's adventure tales. The other explorers no doubt, did things, for the first time. However, they are only worth a place in a book of records. There were a few exceptions.
One colourful character was Earnest Henry Shackleton who came as a member of Scott's first expedition. But he had some differences with him, and even tried to reach the south pole before Scott. In 1908, he and his three companions had made an attempt to reach the pole but succeeded only in discovering the biggest glacier, the Beardmore glacier, on me. He was the first person to bring a petrol-driven motor to me. Shackleton is much admired and remembered for being the first man to return home safely after his ship *ENDURANCE* was trapped and crushed in pack ice over me. He and his expedition members managed to reach a nearby island in a small boat and were picked up by a passing ship. His entire two-year odyssey fighting hunger, cold and deadly storms, has also become an adventure tale today. Another exceptional genius was the American Richard E. Byrd, who at the tender age of 12 took a trip around the world alone. After becoming the first man to fly over the north pole, I drew his attention. In 1928, he came to me and established his famous camp 'Little America' near McMurdo Sound. He flew over the south pole, conducted expeditions single-handedly to map me and also spent five months alone on me in 1934.

"We travelled for science... in order that the world may have a little more knowledge, that it may build on what it knows instead of what it thinks," said Cherry Garrard, one of Scott's team members. These words summed up the motives of those early pioneers who came to me and stayed on me for some time to conduct scientific studies. Indeed, I used to pity their living conditions. For example, the first British permanent station on me was merely a group of small wooden huts lit by pressure lamps. Up to a dozen persons lived, ate and slept in bunks around the walls. To get up in the 'morning' and light a candle was then a big adventure in itself.
The real turn in my life came—or so I felt then—when I was declared one of the primary goals of scientific experiments of the International Geophysical Year 1957-58. I was even called "A region of almost unparalleled interest". During this year, scientific studies of various mysterious phenomena such as the polar lights, ionosphere, jet streams, were conducted the world over and two man-made satellites were launched for their study. For conducting various experiments on me, 12 countries sent their scientists in huge, specially equipped ships. More than 40 camps were established in and about me; vehicles, men and their equipment came to me in large numbers; huge weather balloons were launched; and all kinds of instruments and gadgets were installed on me for conducting various types of studies.

Although several types of experiments were conducted during the International Geophysical Year, the one that thrilled me the most was the transcontinental crossing over me. This idea had been recurring in the minds of explorers since the south pole had been reached. But lack of facilities had deterred several explorers from taking it up. During the International Geophysical Year there was no such problem because men, vehicles and supplies were available in plenty. This responsibility was laid on the shoulders of Edmund Hillary, the first man to climb Mount Everest, who conducted it successfully. Taking a team of vehicles, he crossed me via the south pole. Earlier, a group of Russian scientists had also reached the south magnetic pole, the most remote point on me. Man thus began to have some idea of my kingdom.

At the end of the International Geophysical Year scientists from all over the world declared jointly that
I was a place worth preserving at any cost. I was declared to be an international laboratory for scientific research. A number of scientific committees and organisations were also set up not only to study me and my neighbouring seas systematically but to take every care to see that my pure air and ice and the life upon me and in the seas were not spoiled by anyone in any manner. I was also declared as a zone of peace, meant for conducting peaceful activities. I was free from that most horrendous creation of man—the nuclear bomb. The declarations, announced one after another, gave me confidence and hope.

Alas! my happiness was short-lived!

The Antarctic Treaty

The 12 countries, which had initially established base camps on me, reached an agreement as to how various affairs would be conducted on me. The rules and regulations of the affairs have become a historic document, called the 1958 Antarctic Treaty. The most disgusting thing those countries wanted to do was to divide me into several parts but when they were unable to arrive at any unanimous decision, the matter was postponed to the year 1990!

Those countries demarcated their boundaries on me, dividing me into several pieces, such as 'The Trinity Land', 'Tierra O'Higgins', and 'Tierra San Martin'. I am likely to suffer the same fate as that of my brother-continents. In fact, in 1948 and 1978, small-scale wars were fought over me, because of some disputes regarding 'territorial' claims.

At present, all kinds of activities are in progress to strengthen these claims. For instance, one country has made its camp on me its provisional capital; another is establishing schools and colleges over me, and so on.
The most fascinating thing that has begun to occur here regularly now is the birth of human babies. I wish when they grow up, people will stop on seeing them and say: 'There goes a citizen of Antarctica!'

If I am declared a 'world preserve or park', all the infighting among the countries would be over. In fact, as far back as in 1956 India had proposed that I should be declared as a heritage of mankind and that an international body, such as the United Nations, should decide how the affairs should be conducted on me. It is at least better than my division into several pieces or, perchance, my being the cause of the third world war. I wish men should live happily on me.
The first batch of men and women came to me as tourists in 1958. Today, almost 1,000 people visit me every year. They come to see the penguin rookeries, seals, whales and whaling stations, and also some man-made monuments. The experience of having reached me and stayed over me, where once only a handful of explorers and scientists could do so, thrills them. Mountaineering parties, daring yachtsmen, among others, visit me and indulge in some dare-devilry. Aeroplanes have crashed over me, killing several persons. In short, at this age, cold and old as I am, I feel that I am a part of the world civilization, and not an isolated entity any more. But, again, I am anxious that this same process should not be my destruction and the destruction of all the civilizations in the world. Why?

Save me—or else!

Scientists and technologists ascertain that a large amount of oil, minerals and metals lie buried beneath my icy cover. They are making plans to extract them and take them back home in their big ships. Let man avail of the oil and mineral resources lying over me, provided he takes proper care not to destroy me. I fear that he will do to me what he has already done to my brother-continents. He will bring his smoke-spewing machines to me for extracting oil and minerals and thus pollute me. Any slight change in my environment can cause several weather and climatic changes the world over because the massive ice sheet above me plays a crucial role in the world's weather machine. If the ice over me melts, for instance, it would raise the sea level by several hundred metres, drowning most of the cities and towns of the world! On the other hand, if an amount of ice slightly more than the normal
freezes on me, it can cause a global ice age! Thus, any slight change in my icy existence would not only destroy me but also the entire civilized world!

Man has to take every precaution to see that the oil and minerals that he takes home do not fall in my neighbouring seas. The presence of oil in sea waters would destroy not only the minute organisms found in abundance there but other creatures such as whales, penguins, seals, which feed on them. The minute organisms found in abundance in my neighbouring
seas are a source of food, through hidden under-currents, for the marine creatures. Any harm done to the seas here would adversely affect fishing industry all over the world. Man would eventually suffer.

Already pollution created on my brother-continents has begun to reach me. That dangerous pesticide DDT has been found in the eggs and flesh of penguins, seals, fish and in snow! I do not say man is not taking proper care of me or that he does not know how to take care of me. For instance, no waste that man creates on me is allowed to stay here. It is sent back home. Pet dogs and cats are not allowed to accompany their masters to live on me as they were allowed to in the beginning, because they kill my birds and animals. Low-flying planes and helicopters over penguin rookeries are also banned because they scare these birds and affect their population in the long run.

Man has all the intelligence, knowledge and resources in the world to preserve me and my inhabitants. Yet, I am scared of those greedy men who will cause misery to the rest of the mankind, as they have done on my brother-continents. That would, no doubt, take many more years. By the time, you children would have grown into fine young men and women. It is then you who have to come to my aid and to the aid of mankind.

I have written this long story about myself in spite of my numb fingers and adverse weather. Do remember me and my message. Do come and see me some time. Till then ... Goodbye!
Port Louis

I saw the warning contained in the book's message. We should, for our good, protect and preserve Antarctica. Our relationship with the continent should be 'symbiotic'—mutually beneficial—like that of the hermit crab and sea anemone—not 'parasitic'. I told Ajai to read the book, but he did not!

In the meanwhile came the Neptune ceremony, held during the crossing of the earth's equator. A few hours before the crossing was to take place, an announcement asked everyone to gather on the deck.

"Ajai, what is it?" I asked, when I heard the announcement over the speaker in our room. We were playing cards.

"Why worry, it is still a few hours away?" he said. "Come on, play your card."

"You know about it, Ajai, don't you? Tell me. I can't wait until Uncle arrives. Come on, Ajai," I pleaded out of curiosity.

"Just wait and watch the fun."

"That means it is going to be fun."

"Yes, it is, of course."

"Then, tell me what is it?"

"Since you are pestering me, I give up." He laughed.

"You know, Neptune is the god of the sea. From the olden days, whenever sailors cross the equator, they seek the blessings of Neptune, an angry and touchy god, by this ceremony. You may get a beautiful certificate, too. Daddy has one. Now, play your card."

"It would be fun then." I was excited. Although we resumed playing cards, my eye was on the clock.

A few minutes before the ceremony, Uncle entered the room. "Come on, children," he called, as he came in, "let us go for the ceremony. Aren't you prepared, Neha?"

We stood up, throwing away our game.
"Come on, let us go and watch the fun," said Uncle, smiling. We followed him to the deck.

On the deck, a huge crowd had gathered in spite of the hot sun overhead. Everybody was talking and laughing. There was excitement in the air.

In a short while, a group of men carrying sticks and chains, and wearing long overcoats came to the deck.

"Those are the guards of Neptune," said Uncle, "and that is Neptune." He pointed to a person, whose face was painted white and who was wearing white clothes. He followed the guards as he came upon the deck. Soon, he was leading the guards to a makeshift dais on one side of the deck.

"Who all are crossing the equator for the first time?" shouted one of the guards. "Raise your hands."

A few persons in the crowd raised their hands. The guards went up to them, chained them and took them to the court of Neptune, one after the other. The god asked them questions and, according to his mood, announced punishments for them. The punishments had always something to do with water. One person was hauled up and dipped in a tankful of sea water, another was exposed to a spray of sea water, and so on. The basic idea was fun.

When my turn came, I was handed a pair of binoculars and asked to spot a star in the sky. Amidst laughter and shouts, when I protested that there were no stars in the sky then, I was asked to assume that it was night and scan the sky. One guard threatened me with a stick when I argued. I therefore picked up the binoculars and looked at the sky, where I was directed to look, when salty, smelly sea water fell into my eyes and on my face and drenched me completely. For a few seconds, I could not make out what had happened because nobody had thrown water at me. Then, I realised that the water had come out of the binoculars.
It was not a pair of binoculars but a container of similar shape.

Ajai went through a very bad time. When he protested against taking a bath in the open, he was physically lifted and dipped a number of times in the water tank. How dreadful he smelt when he entered our room! We had to take a bath again, and change our clothes.

When the ceremony was over, the Captain of the ship called Ajai and me to the bridge and gave both of us a beautiful certificate each. It certified that we had crossed the equator, specifying the longitude, the day, hour, and the name of the ship. The certificate today is a part of my personal treasure.

Three days later, on the twelfth day of our voyage, Uncle Malhotra announced the sighting of Mauritius. I was playing carom with Ajai in the common-room. He came all the way down from the deck to break this news to us. The effect was electrifying. I jumped up, giving up the game, although I was about to win it. We rushed up to the deck. Other scientists in the common-room also followed us. I thought Uncle Malhotra had been the first to see that island country but I was surprised when I saw a huge crowd gathered on the deck. Everybody was watching a hazy line on the horizon to my right—and the line was gradually growing in size. To see land, a piece of earth, was then perhaps the utmost desire of everyone on board.

Through the binoculars I could only see the jagged and irregular peaks of the green, volcanic, mountainous island. Soon I could see small huts, buildings and a portion of an old castle amidst green palms and mangroves. It was about an hour before I could see this view with naked eyes. It was Port Louis, the main port and capital of Mauritius, the only major harbour in the western Indian Ocean, which had been the topic of conversation for the past two days.
"In quiet waters, especially when one is flying," said Uncle Malhotra, pointing down, "one can see beautiful white structures of the coral reef below." Ajai and I tried to look down into the waters through our binoculars in the hot, afternoon sun. We could spot nothing white. The swirling, foamy water hid everything under the sea.

Meanwhile, the ship had stopped moving. It had to wait for the pilot before it could be steered into the harbour. We all stayed impatiently.

The heat of the equatorial sun was overpowering. Some fishermen passed by our ship, laughing and shouting, and waving at us. I was amazed to see Indian faces among them. Then I realised that those fishermen looked Indian because their ancestors were Indians who had come to that island in large numbers as labourers to work in the local sugar plantations and had since settled down to become its citizens.

By evening, the ship had laid anchor in Port Louis harbour, which was as big as the Indian port where we had begun our voyage. It was modern in appearance. There was a long, concrete building with huge glass doors and a neat and clean quay. At one end, some cranes were quietly offloading a cargo ship. There was, of course, the usual shouting of coolies, goods being moved about and a variety of smells. Uncle, Ajai and I gladly disembarked to visit the port. There was a queue at the exit for almost all the passengers of the ship wanted to set their feet on firm ground after having lived for so long on the constantly swaying ship. Uncle, Ajai and I were also keen to rush to a nearby restaurant for we had become satiated with the food on the ship.

We had been informed that the ship would stay in the port for two days. The basic purpose of reaching the port was to load the ship with food, water, fuel and other essentials for the final trip to Antarctica.

Port Louis was hardly larger than a big colony of
New Delhi, with a semicircular ring of dead volcanic peaks on one side. The entire port had the look of a modern, western city with beautiful buildings, well preserved green parks and roads, and dotted with palm trees and cathedrals. The people were highly disciplined. Apart from people of Indian origin, there were many people of Chinese, Sri Lankan and African origin. We were informed that a regular ferry service to the neighbouring islands of Mauritius was also available, but Uncle did not want to take us there on such a short stay. However, we visited one of its beautiful beaches where I saw surf-riding for the first time. It is a popular sport there. As a memento, I bought some pink coral from a local shop for a small sum. A marvellous piece of art carved out by tiny marine organisms, it however stank. I regretted having bought it and even thought of throwing it into the sea, where it originally belonged. Uncle assured me that the smell would abate, and I kept it. Today, that coral lies in my drawing room, a thing of curiosity for any visitor.

After completing exactly 48 hours in the port, our ship picked up anchor in the evening. A large crowd of scientists gathered on the deck to say goodbye to Port Louis, although there was hardly anyone on the quay to respond to our gesture. Only a few officials of the port waved their hands, when the ship, after hooting thrice, began to move away from the port. A few fishermen, who were returning from the high seas after a day of work, also cheered and clapped as our ship passed by their small boats.

In a short while, the ship was in the open seas. The harbour began to recede until its long, grey building was a mere strip amidst a cluster of huts and palm trees. In the gathering dusk, the island in the background assumed the shape of a dark mountain with jagged peaks. Soon it became a hazy line over the horizon and then suddenly vanished from sight. The
scene shifted back to normal: foamy waters and a light blue evening sky. Only the flocks of birds, chirping and twittering overhead, were the noisy reminders of the beautiful island left behind.

The sun set, and night came on. A cool breeze blew and I brushed a strand of hair away from my face. No one in the crowd on the deck spoke. Had the breeze lulled them into a dreamy wakefulness? I wondered. I realised my mistake when Uncle Malhotra said to me almost in a whisper, "Neha, the last bastion of civilization has gone. Now, our next stop will be Antarctica—the frozen and lifeless continent." I was suddenly reminded of my parents, my home and friends—everything that I loved. I wondered how adventurous men in the past had got over such feelings when they went in search of new lands. I had admired the exploits of Captain Cook and others while reading *I am Antarctica*, and something inside me appreciated their daring spirit sincerely for the first time.

The gibbous moon soon showed above the horizon. The crowd on the deck suddenly dispersed for mess duties. Uncle and Ajai also went down. I stayed on, wanting to be alone to remember my parents and home, undisturbed.

The moon sent shafts of silvery light onto the white, foamy ocean. I felt as if I were standing alone on a shifting sand dune. Right overhead the stars had begun to appear, twinkling. It seemed to me that there was a face on the moon. It seemed to look at me and ask, "Why Antarctica? Just to see a wasteland, a cold desert? Leaving your home, parents and civilization?" Tears welled up in my eyes. I would have cried loudly had not a hand touched my shoulder.

"Come, Neha, dinner is ready. Didn't you hear the bell?" It was Ajai. "Come on, now." He turned and climbed down the narrow stairs. I wiped off the traces of my tears and followed him.
The Roaring Forties

From the time our ship left Port Louis, the sea had become rough. It became rougher as the voyage continued southwards. It reached a climax a few days later. I was preparing my bed for the night when the ship suddenly lurched so violently to one side that I was thrown face down on the adjoining wall. My hands clutched at the wall as my face hit the back of my palms. My palms absorbed the shock as I fell along the wall down to the bed. But before I could recover my balance, the ship swayed violently to the other side. I lost my balance again. I tumbled over, skidded and hit the opposite wall with a resounding thump. Fortunately, it was my back that hit the wall—my head was safe. Meanwhile, Ajai, who was sitting on a chair and reading a comic, clutched at the table with all his might when the ship swung violently the first time. Before he could come to my aid, the ship had swung the other way, bringing down everything on the table with a loud clatter. Glasses fell down, breaking into pieces and spilling water everywhere.

I felt as if the world had split apart, and that at any moment the ship would sink. I stayed put, clutching at a handle near the bed, and prayed. Perhaps, I had muttered my prayers aloud for there came a reply. "Don't worry, Neha! Nothing has happened to the ship! It happens that the ship is in the Roaring Forties!" It was Ajai. His voice was trembling, his breath unsteady.

I could not follow anything Ajai had said except that the ship was not sinking. Nor could I ask him again because the ship continued to sway violently, and my throat had become dry. Nonetheless, his words stuck to my mind. 'What are the Roaring Forties?' I asked myself. The words seemed familiar, yet I was not sure. I remembered having read about it two years earlier in
my geography book. "The Roaring Forties is the belt of sea water between 40 and 50 degree South latitude, where there is no land. Fierce winds go unchecked creating tremendous upheavals both in sea and air. Stormy weather is therefore a recurring feature in these latitudes." The ship was swaying strongly owing to the storm, I realised.

Although there was no fear of drowning in the Southern Seas, the seasickness, till then under check, returned. Helpless, I looked at Ajai but I found him in the same condition. When Uncle entered the room after a while, he was also tense and uneasy. He arranged our beds, laid us down on them and strapped the emergency belts. I felt sorry for him, but I could not help him. Meanwhile, the ship continued to sway.

"These violent swayings are likely to continue for another day or two," he said on seeing the questioning look on our faces. "Yes, a day or two. Maybe even more. Don't get upset."

I tried to smile but could not. He continued, "I too am not feeling well. I will go and fetch the doctor." He went out, closing the door. It was then no easy matter for him to cross the floor, reach for the door, open it and go out closing the door behind him, since the ship was swaying hard, and he was unwell too.

"Oh! my God, for two days, and maybe more!" I said, and sighed. Five minutes passed and Uncle did not return. The swaying of the ship and the inexpressible unease in my stomach became unbearable. Another five minutes, and Uncle had not returned. I shut my eyes forcibly and tried to calm down. But all kinds of thoughts came to my mind. I remembered my parents and home. I could hear the fury of the sea lying in the box-like bed. I cursed myself for having undertaken this adventure. Had anybody given me a chance to fly back home then, I would have taken it on all fours. Nevertheless, I kept an impassive face.
Uncle returned after an hour. To me, it appeared as if ages had passed. He brought along the ship's doctor. I was rather surprised to find that he, too, was unwell. "Don't take any liquid diet," said the doctor, as he prepared an injection, "but don't keep your stomach empty either. And always keep your mind otherwise engaged in something or the other."

The doctor gave a shot each to both of us. Though scared of injections, I was ready to take it just to be free of the agony I was undergoing. It took time for the injection to take effect and even when it did, the effect was not complete. The feeling of unease in the stomach continued, though to a lesser degree than it was earlier. I could at least sleep for some time during the night. Moreover, as a side-effect of the injection my body felt numbed. I could not move around much. I had to lie strapped to the bed the next few days. Later, I came to know that most of the people aboard the ship, except the crew, had taken to their beds! Some persons also received minor injuries.

Had somebody visited the ship then, he would have thought it was abandoned.

During those days, once or twice, I made an attempt to go to the porthole and watch how the sea looked then. Oh! my God! It was terrible. I felt as if I was among mountains of waves, foaming, roaring and rolling. On occasions, I felt that an incoming mountain of wave would drown the ship, but the next moment the ship was right on top of it, receiving only a spray of water. I saw then the deep valley in the sea caused by the wave in its wake. It was a dizzy sight. The valley was followed by a dark mountain of sea wave, followed by another, yet another, reaching the horizon. The ship swayed, turned and dipped in the onslaught of the waves. I could almost feel as if the bow of the ship was making a figure of eight. The howling of the winds, the creaking of something aboard the ship, the overcast
sky, and the occasional shrieking of a bird in the distance imparted further gloom to the tumult.

It took another two days for the violent swaying of the ship to subside. And it took yet another day for the occupants to recover and resume their normal life. The life aboard the ship returned to its old routine with a fresh wave of enthusiasm, nevertheless. We greeted each other as if we were meeting after several years!

**The humpback whale**

Recovering from seasickness, I began to move up and down the ship. By now, the sky became a clear blue. The air became comparatively cold. The speed of the winds increased. And the nights became shorter.

All these were signs of the entry of our ship into the Southern Seas.

One day I woke up with a start. As I opened my eyes, I found the porthole lit up, as if it were around ten o'clock. When I got up and looked around, Ajai and Uncle were snoring away, in deep sleep. I thought I would awaken Uncle because he had to reach the mess at seven o'clock, but on an afterthought I looked at my watch. It showed 4.35 a.m.! I rubbed my eyes and looked at the watch again. I was amazed. Suddenly, I realised why, and slapped my forehead in disgust. Although I knew that nights had become shorter, I had forgotten that the appearance of sun was no more the indication of the beginning of a day. All of us had to follow strictly our watches and clocks. Wiser, I went back to bed and lay down. However hard I tried, I could not sleep, thanks partly to the snoring relays between Uncle and Ajai.

I got up. My eyes fell on the binoculars hanging on the wall. I immediately took it down and scanned the scene outside through the porthole. You cannot
imagine my amazement when a black hump on the surface of the sea, just about 20 metres away from the ship, caught my attention. The black hump was furrowed and had some uneven protuberances which were clearly seen in the sunlight amongst silvery crests of the waves. Suddenly, I had a marvellous sight. A fountain of water shot up from the black hump. No sooner had the fountain disappeared than the hump also vanished from sight, I stood gasping. There was no doubt it was a whale!

"Wake up, Ajai! Wake up! There is a whale out there!" I shouted.

Ajai jumped out of the bed, startled. It took him some time to understand what I was saying. He snatched the binoculars and began to scan the sea.

"Are you sure it was a whale?" he asked, on seeing nothing.

"Yes, it was. It sent a big fountain into the sky!" I exclaimed, indicating the height of the fountain with my hands.

"What are we doing here? Let us go up!" said Uncle, who had in the meanwhile clambered down from his bed hearing our excited talk.

In a short while, I was rushing up the narrow stairs. Ajai was ahead of me. Uncle followed me. Breathing heavily, I reached the deck. To my surprise, there were already more than a dozen people standing there, waiting for the whale to come up again. About fifteen minutes later, a whale came up shooting a fountain into the sky.

"It is a humpback whale!" exclaimed Uncle.

This time I watched it carefully and quickly. The whale had a dark, shining yet furrowed hump. The forked tail renowned for whipping ships also wiggled. Occasionally, the pink-white fins flapped. On a whim, perhaps—some people said to show off—it opened its huge mouth. Through the binoculars I could see its
pink flesh inside the cavernous mouth, lined with huge serrated 'teeth'. As it opened its mouth, a lot of fish and something reddish drifted in. Later, I came to know that the reddish things were krili, small shrimp-like creatures found in abundance in that part of the Southern Seas. After a few minutes, the whale closed its mouth and released the water in a spray. I was told that the whale's mouth is lined with baleen-teeth. When it closes its mouth, these act as a filter to retain the fish and krill and release the water. Shortly the whale slowly began to submerge in the water. At last, only its upturned tail remained above water, wiggling and splashing water. It had perhaps found a shoal of fish or krill and was having a feast. After some time, the tail too vanished.

No sooner was the whale out of sight than everyone, including me, began to feel the cold, howling winds on our faces and ears. Since a feeling lingered that the whale might show up again, for the next 20 minutes or so everybody waited, tense and alert, scanning the sea surface. Through the binoculars, I saw some swarms of krill with black, shining eyes on the surface of the sea. Then, suddenly, as if to give all of us a big surprise, a huge whale jumped up, with a loud splash, hardly five metres away from the ship. It jumped up almost above the heads of all observers. So terrifying did it look then that for a second I thought it would take one of us in its big mouth on its way. No, it was quite far away. Nonetheless, a huge spray of sea water fell on us—and all of us ducked for cover. And before anyone of us could stand up and look over the railings, there came another huge whale and, spraying salty water at us, vanished into the depths of the sea. In the sunlight, I could easily see its breast flukes and dots of dark green on its crimson-white underside. It must have been about 15 metres in length. Within a minute, the sea was calm, as if nothing had happened.
All attempted to talk at once. Some said there was only one whale which came twice. Others said there were two whales, chasing one another. Some said the whales were showy creatures. Still others thought it was a sheer chance that we could see them at such close quarters. A few were wiping away the salty water that had fallen on their shirts, caps and trousers. I wondered how in the past whalers using small boats and harpoons chased and killed these giant creatures. I abhor whalers, yet I began to admire their courage and bravery. Even today, when I visualise the sight of that black hump just above the deck, terror grips me. No, Captain Ahab, thank you, I would have never joined you on your crazy mission to kill the white whale *Moby Dick*, whatever amount of gold or silver you had offered me!

A whaling station

Our ship had developed a minor trouble and some repairs were in progress. The Captain had announced that they would take at least half a day. Fortunately, the ship was in the vicinity of a small island, whose towering mountain peaks could be seen in the distance. To pass time, some scientists decided to pay a visit to the island. When Uncle came to know that there were some whaling stations on the island, he decided to show one to Ajai and me. Ajai was so on ready but I was scared. A day earlier, some persons had spotted two killer whales which had pursued our ship for about an hour. Reluctantly, I joined them.

"Whales are very gentle creatures," said Uncle Malhotra, as he patted my back reassuringly. "They don't harm anyone unless somebody is up to some mischief." I was not convinced. That dark, furrowed hump came to my mind repeatedly. Nevertheless, I got into the engine-driven, small rubber boat named Zodiac.
and as a measure of safety took the seat between Uncle Sahai and Uncle Malhotra. Ajai and two scientists sat in front of us. Behind us sat six other scientists in two rows. Two sailors sat next to the engine to steer the Zodiac. It was the third to leave the ship.

Our Zodiac had soon left the ship far behind and was racing towards the mountain peaks. It followed the other two red spots of Zodias ahead. The water was calm and deep blue. Those rugged peaks, once smoking lava and gases, shone yellow and black in the afternoon sun. There were patches of greenery here and there, along their bases. Sea birds, especially giant petrels, cape pigeons, prions, albatrosses and terns, were flying hither and thither along the coast, chirping and twittering. The island seemed to be a paradise for birds. Obviously, it had no human habitation. Once upon a time, there must have been a regular traffic of human beings to the island because of the whaling stations, when ships brought hunted whales to the island.

The Zodiac was puttering away at a good speed, when Uncle signalled me to look at the waters ahead. I saw a swarm of small reddish creatures with shining black eyes floating on the water. When the Zodiac slid past them, Uncle dipped his hand into water and managed to catch one of them.

"Take it, Neha," he said, with a mischievous gleam in his eye, "it is a krill!"

When I saw what he had handed me, I was surprised to find just a reddish, translucent covering of the krill. The creature itself was absent!

Seeing my baffled look, everybody laughed, while I kept asking, "what is it, Uncle?, where is the krill?"

"It is not I who have fooled you, my dear Neha," he said, smiling, "it is the krill. Whenever these little things sense danger, they simply get out of their covers and sink. The hunter gets but such shells."

In due course, the Zodiac was running parallel to the
coastline of the island following the two in the lead. It was a marshy place with bushes, brambles and tufts of wild grass. Lichens and mosses grew on rocks jutting into the sea water. There was a continuous chirping of birds as they moved from bush to bush. Some sea birds were hovering above the water, for a krill or fish. At one point along the coast, I saw a huge jagged rock, taller than a three-storey building, standing like a wall to the sea. On the rock face were a large number of holes with nests. A number of stormy petrels, dark, toffee-coloured birds with white bellies and backs, flew about the rock, making long, drawn-out purring sounds, rising and falling in intensity, interspersed with short, sharp whistles 'tchwee! tchwee!' while landing and flying off. On hearing the 'putt-putt' of our Zodiac, the entire flock took off. It was a sight worth the visit to the island.

Eventually, after a turning at a rock outcrop at the base of a mountain peak, I suddenly sighted a cluster of huts behind some bushes. It was the whaling station, on the bank of a creek. Behind the station was the steel grey backdrop of craggy and rugged volcanic peaks. The men from the first two Zodiacs had already reached the huts. They were waving their hands at us lest we should miss the mouth of the creek. In a short while, our Zodiac hit the old, rickety wharf alongside the other two Zodiacs. Uncle Sahai and Uncle Malhotra literally lifted me up and placed me on the creaking planks of the wharf.

I had conjured up a fantastic image of a whaling station, perhaps from the tales I had read about whalers and whales. In reality it was similar to a big laundry house, with huge hearths and cauldrons. Here, in the past, the blubber from the skin and flesh of the whales was stripped and boiled to extract oil and other chemicals for use in various industries back home. In and around the huts were also a number
of huge, rusty cauldrons lying unused, perhaps, for more than half a century. The huts were also in a state of decay. The roofs and walls of some had fallen in owing to the frequent fierce gales and storms. The whole place that looked like a junk shop was stinking. All kinds of things from a worn out, dirty cap of a sailor to a rusty harpoon of a whaler—lay scattered all over the place.

Since there was some more time to go before the ship's repairs would be complete, we were keen to explore the island. So, the party divided itself into groups and went in different directions from the whaling station. There were five people in our group—Uncle Sahai, Uncle Malhotra, a lady scientist Dr. Anjali Mukherjee, Ajai, and myself. We went along the creek towards the sea coast to watch the variety of birds found on the island. It was while we were looking for the nest of a skua, the eagle of Antarctica, on a rock ledge, that the beach around the corner came into my view. Some shining, monstrous things lying on the beach drew my attention. For a moment I thought I was seeing some sea creature basking in the afternoon sun. I let out a gasp.

Everybody looked at me. I pointed my finger in the direction of the beach. Everybody looked in the direction I had pointed.

"What is it?" everybody asked one another.

"Let us climb the rock," said Uncle, "we may get a better view." Slowly, everybody clambered up the rock to watch those things through binoculars.

"I think they are whale bones," said Dr. Mukherjee, a thin and highly energetic lady.

"My God, how big they are!" I exclaimed. As far as I could see, there were heaps and heaps of whale bones lying on the beach.

"Not a surprising thing when there is a whaling station in the vicinity," said Uncle Malhotra. "Let
us go and tell the others. We must go and see the bones. It is a rare sight."

We went back the way we had come and reached the whaling station. Everyone was keen to join us to see that graveyard of whales.

Soon, the path between the station and the beach, which must have been regularly used in the past, was discovered. Ajai and I ran ahead excitedly.

The bones were several times my size and at least as thick as my arm. White in colour with dirt-brown encrustations, they were smooth to touch yet hard to bend. Ajai and I identified bones of the rib cage, spine and tail of the whales in various heaps.

"We are seeing the butchery committed by man for about fifty years," said Uncle sadly, looking around.

"During these years," added Dr. Mukherjee, "whales here were the ones most hunted. More oil was extracted from this region than from the rest of the world combined! Just imagine how many whales were killed every year. Thanks to the ban on whaling, those giant creatures of the sea now have the freedom to live!"

Our return journey to the ship was uneventful.

Although I was on the island for hardly a few hours, it left a deep impression on my mind. I now feel embarrassed by my photograph that one of the scientists took while I was sitting on the fork of one of the huge whale bones. Blown full-size, it adorns the wall of our drawing room. Visitors to our house like the photograph and are amazed to see a whale bone. I would like to remove that photograph but my mother insists that it is the best of the many taken during the expedition. Moreover, everyone says that the photograph gives one at least an idea of the butchery of whales perpetrated by man.
The Antarctic convergence

Whale bones were the topic of conversation on the ship for a couple of days.

The topic then changed to what is known as the Antarctic convergence. It is a vast region of sea encircling the Antarctic continent between 47 degree and 63 degree South latitude. Here the cold waters moving northwards from the continent meet the warm waters coming southwards. It was only a couple of days after our ship had entered this region that I became aware of it and that too only when I came to know that the atmospheric temperature had suddenly fallen by seven to eight degrees within a day's voyage!

Scientists interested in various aspects of sea water, like its temperature, currents, salt content, nutrients and marine life, became extremely active. Samples of sea water were taken at regular intervals. A large number of new sensors were lowered. Nets were thrown overboard to catch krill and fish. On occasions, the ship had to stop at a particular spot for hours together while some experiment was conducted. To me the Antarctic convergence proved to be interesting because of the birds. For the first time, I saw a great variety of birds in large numbers, in that otherwise cold region.

Why had scientists suddenly become so keen about the convergence? I talked to a number of scientists and tried to satisfy my curiosity. I conversed with them as they took their lunch or dinner, or sat patiently near their recording equipment or conducted some manual operations like lowering sensors or casting nets.

I am giving a brief idea of what I heard about the convergence.

The Antarctic convergence is not simply a region where two waters, differing widely in their temperatures, mix. The waters thoroughly mix their contents,
like minute organisms, chemicals, and salts, too. Besides, the cold waters coming from the continent contain a large amount of nutrients from the excreta of birds found there in large numbers. The nutrients become food for minute organisms, which proliferate. In turn, krill and other small marine creatures which feed on microorganisms, thrive. These become food for bigger marine creatures such as fishes, seals, squids and whales, and for several types of sea birds such as penguins, terns and albatrosses. Marine beings and sea birds thus abound in the region. In other words, thanks to the favourable conditions present at the convergence, the food chain—nutrients—microorganisms—krill—marine creatures and sea birds—is sustained that leads to the production of an abundant animal and plant life. The convergence is considered to be biologically the most productive region in the world, even surpassing the agricultural lands of the Indo-Gangetic plains. It is four times as productive as any other sea region.

Moreover, the convergence feeds nutrients, through ocean currents, to various neighbouring sea regions and thus increases their biological productivity. For instance, fishes such as the hake, herring and tuna found in the neighbouring waters of Argentina, Australia and Brazil respectively, feed on these nutrient-rich waters and proliferate, providing fish food in abundance. Naturally, scientists are keen to know what conditions make the Antarctic convergence a highly productive region. They fear that if we catch krill and fish on a large scale, whales, seals and other creatures of the region would then go hungry. That is to say, we may disturb the food chain and affect the productivity of the region. We must therefore know the favourable conditions present in the region before we disturb it in any manner. And by knowing we could reproduce fish food right in our laboratories.
One incident that occurred during those days of hectic scientific activities is worth narrating.

During the discussion on the Antarctic convergence with Dr. Anjali Mukherjee, an expert on krill, I came to know that huge swarms of krill could be seen during the night because of the light they emit. I was keen to see the swarms. She invited me to the deck one night when her duty there would begin. About one o'clock in the night, Ajai and I made for the deck armed with the binoculars.

In the silence of the night, I could hear the most inconspicuous sounds unheard during the day—the hum of the ship's engine and of air-conditioners, and the hiss of the foaming sea. The voices of people who were working outside could be heard occasionally. Climbing up the dimly-lit stairs, we reached the deck, where some scientists were busy with their work. Dr. Mukherjee was among them.

A chilly blast of wind blew past my face as I clambered on to the deck and walked over to the railing. To stand there for even five minutes was a punishment. But the night sky was novel and new to me. I could see Sirius, the brightest star, and the Orion constellation near the northern horizon.

"We should have come up here earlier to have a look at the night sky," I said, looking up at the sky, and forgetting the cold winds. There was so much to see—the famous Orion Nebula, the Magellanic clouds, the Centauri stars, the Southern Cross.

"I know, I know," said Ajai sarcastically, "but my dear astronomer, nothing is lost yet."

"Generally, skies are very clear over the continent but, unfortunately, at this time of the year no stars will be seen because it is daylight all through the 24 hours there," added Dr. Mukherjee, joining us near the railing. "Come on, let us look for krill. Please give me your binoculars."

Dr. Mukherjee scanned the sea. When she failed to see anything, Ajai took the binoculars from her. When he also failed, I tried. As the binoculars passed from one person to another, without success, I felt at one stage that I saw a small patch of blue-green in the sea. However, Dr. Mukherjee and Ajai did not confirm its presence. Maybe I was seeing things because I was tired.

"In the days to come," said Dr. Mukherjee, as Ajai continued to look, "krill is likely to assume much importance as a food resource because it contains a large amount of proteins and is available in plenty in these regions. Some countries such as the U.S.S.R. and Japan have already begun to fish it on a commercial scale..."

Although I was listening to Dr. Mukherjee, my mind was registering nothing. My hands and face were numb with cold. I was feeling drowsy.

"Auntie," I said, interrupting her. But she continued, lost in thought. "There are a lot of problems to be solved before it becomes as popular a food item as soyabean..."

"Auntie," said Ajai, looking over the binoculars, feeling as numb and cold as I did.

Dr. Mukherjee continued unheeded. "For instance, the most fundamental question—why do krill swarm?—still goes unresolved. It is essential to have an answer to this because we could then predict where the swarming of krill would take place. Without having a huge swarm, it is highly expensive to fish krill. And..."

"Auntie! We are feeling very cold," said Ajai, loudly. "I don't think we are likely to see krill anymore. Let us go down, Auntie!"

"Oh, I forgot..." said Dr. Mukherjee, looking at us. "I am extremely sorry...This is how we scientists get involved in our research...I have to stay on and conduct an experiment...Any way, come on, let us go down."
Drowsy and cold, I was going down the stairs, when in the dim lights of the deck, I saw the same bearded person who had watched me earlier. He was leaning on the railing on the other side of the deck, his arms folded and a lighted cigarette in his mouth. How he had come to the deck without attracting our notice I did not know. No sooner did he see me looking at him than he turned his face away and looked at the dark sea.

"Who was that person on the other side of the deck?" I asked when we reached the corridor leading to our room.

"Who?" asked Dr. Mukherjee.
"The one on the other side of the deck."
"Where? I didn't see him. What's the matter?"
"Did you see that bearded person?" I asked Ajai.
"No, I didn't."
"Oh, no, it is nothing, Auntie," I said, not knowing what to say.

"Okay, then, 'bye," said Dr. Mukherjee as we reached the door to our room and then went back up the stairs.

Although I lay down in the bed, I could not sleep, whereas a few moments ago I was yearning to sleep. Ajai, in the meanwhile, had begun to snore, too. I went on thinking about the bearded man and his purpose in watching me. It was only after a long time that sleep overcame me.

The iceberg!

Within the next few days, it became so cold that Uncle instructed Ajai and me to wear our sweaters, monkey-caps and gloves. There was haze on the horizon both in the mornings and evenings. Fierce,
chilly winds blew, howling into one's ears, making them numb. I began to spend most of my time either in our room or in the common-room. A few scientists including Uncle Malhotra, who were conducting studies atop the signal mast, nevertheless used to go up regularly to the deck to take their readings but would come down as soon as possible. The deck, where once someone or the other always used to be present during the day, began to wear a deserted look most of the time. But Ajai and I never heeded the cold. We would visit the deck as regularly as we did earlier, although we stayed there for only five minutes at a time. We would watch the sea in turns in the hope of seeing something exciting. Our watch paid off when one day Ajai came running down to the room, excited. He shouted right from the door, "Hey, Neha! Come on, there's an iceberg out there!"

Leaving the book I was reading, I followed him. There was no point in watching the iceberg from the porthole which, because of its thick glass, made everything a little hazy.

"There, see!" said Ajai, when we reached the deck, pointing his finger towards the south, the direction in which the ship was heading.

There was a small, silvery white object on the horizon. Dissatisfied, I snatched the binoculars from his hands and watched it. What I saw thrilled me. A massive, irregular and jagged slab of white ice was floating on the sea waves, bobbing up and down. Sea birds were sitting on top of it, resting. I spotted a variety of albatrosses, petrels and other birds. Some birds were fighting amongst themselves over a freshly-caught fish.

"How marvellous!" I exclaimed. But that was only the tip, the proverbial tip of the iceberg! "I don't know how big it must be beneath the water."

"About eight to nine times the size of what you are
now seeing," replied Ajai. "Can you see anything below it in the sea water?"

"No! Nothing!" I said, still admiring the iceberg which glistened and gleamed like silver in the sunlight.

"Can you tell me the size of the biggest iceberg discovered in the Southern Seas?" asked a familiar voice. I turned around. It was none other than Uncle Malhotra. There were other scientists, too, behind him, with binoculars, all excited and smiling. The news of the sighting of the iceberg had spread.

"Uncle, I can tell you," replied Ajai. "It was as big as the European country Luxembourg. It was found in the vicinity of the continental shelf. Am I right, Uncle?"

"You are perfectly right, Ajai," said Uncle Malhotra. "These icebergs are very big, some as big as 250 sq. km. in area, when they detach themselves from the ice shelves because of fierce winds and high temperatures. They reduce in size as they travel northwards with the sea currents. Moreover, such comparatively fiat-topped icebergs are found only in the Southern Seas."

"What a waste of precious ice and water," I muttered almost to myself as I watched, "when there are millions back home who don't have a drop of water to drink!"

"You have indeed hit the nail on the head, Neha!" said Uncle Malhotra, patting my back. "It is estimated that every year about $14 \times 10^{11}$ tons of ice—just imagine $11$ zeros after $14$—is wasted in this manner. Scientists therefore want to tow such icebergs to countries such as Peru, Saudi Arabia, and other countries where water is scarce. But there are problems..."

"You mean it is difficult to tow the iceberg," I said.

"No, it is not that," said Uncle Malhotra. "The iceberg would melt on the way back. It has to be
covered with a plastic sheet to deflect heat. But this is just the tip of the problems!"

"You mean, it is also dangerous to take icebergs in large numbers from Antarctica" I remarked, conscious as I was then of preserving the continent, "because scientists may not be sure what changes it would bring in weather and climate both over the continent and the countries wanting them badly."

"Yes, you are perfectly right. That is also one of the problems," said Uncle Malhotra. "We need to understand not only icebergs thoroughly but their effects on sea water and climate...Let us watch."

The mighty iceberg was then very close to the ship, only as much as 100 metres away. An icy draught of air suddenly blew on to my face as the winds, after brushing the iceberg's cold surface, swept past me. I also felt a light spray of water on my face, like the one near a fountain. At closer quarters I found the iceberg to be about seven metres tall, reaching some metres below our deck. Though not impressed by its height, its rugged and rough sides certainly scared me. Perhaps, everyone on the deck—and quite a crowd had gathered by then—was admiring its size in complete silence. Everybody keenly watched the iceberg and the birds sitting on it. They had become aware of us, and alert, waiting to fly off at the slightest alarm. I envied those birds. How wonderful to have a free ride on an iceberg!

Before I had enough of watching the iceberg, it drifted away from the ship. Exclamations, gasps and words of admiration followed.

"This is just the introduction," said Uncle Malhotra. "We are heading towards that part of the world where icebergs are bora. We are going to see lots and lots of them from now on." I cannot forget that first iceberg, although I saw a number of them, much bigger in size, later in the voyage.
Slowly, the iceberg became a silvery streak behind the ship and vanished. The crowd dispersed. Ajai and I returned to our room. It was indeed a relief to be back in our cosy, warm, air-conditioned room after standing in the cold.

Through the ice wall

Two days later, I woke up late and had a strange sight through the porthole.

The deep blue sea was dotted with small ice pieces, called 'ice floes'. I could hear the hum of the crackling and screeching ice as the ship moved through them. Stretching to the horizon, there were nothing but ice floes all around. Some small icebergs could be seen in the distance. Seen through the binoculars at close range, the ice floes, which were of various shapes and sizes, bobbed up and down, just as ordinary ice pieces do. Some terns and petrels hovered above them. Some cautiously landed on the bigger ice floes and pecked underneath them for krill or fish. Occasionally, the shrill cries of some sea birds were heard in the calm, quiet sea.

With the nights having completely disappeared, there was daylight round the clock. The only remnant of night time was a dusky, pale twilight. It unsettled us. The cold had further gripped us. The scientific activities had come to a stop. Nobody came out of their rooms unless it was absolutely necessary. We stayed cooped up in our air-conditioned roofris—playing cards, gossiping or reading. Uncle, too, remained glued to the room, busy with a huge tome on the continent. However, Ajai and I, though confined to the room, continued to watch the sea through our porthole. Our visits to the deck had become very rare, for the chilly, screaming winds were hard to face. Besides, there was not much to be seen.
As the ship continued to move southwards, the density of the ice floes rose. The frequency of the sightings of icebergs also increased. Icebergs of all possible shapes and sizes were seen, drifting northwards. The most fascinating iceberg I saw was like a miniature mountain range. However, it was also the carrier of the most dangerous creature on Antarctica—the leopard seal, a brownish-black, three-metre long animal with a large head. Like a leopard, its coat was spotted. It was sitting on its belly, with flap-like arms on its sides, like a king sitting on his throne. The body of a half-eaten penguin lay on one side. Pools of red, congealed blood surrounded the body. I felt very unhappy because I am a big fan of this flightless bird and had not expected the first I would see to be a dead one.

The opportunity to see a live penguin was however not slow in coming. I saw not one but about ten at a glance on an almost flat-topped iceberg. With their black coats shining like polished black boots and white breasts like soft snow, most of them were basking in the sun. While one was eating a freshly-caught fish, another was cleaning itself with its yellow beak. The most marvellous sight for a penguin fan like me was when I saw a penguin shoot out of the water, hop on to the edge of the iceberg, and shake its coat before walking over to where the other penguins were sitting. It carried a fish in its beak, which it promptly began to eat. No other penguin even bothered to look at the newcomer. Those small-sized penguins were Adelie penguins, named after the wife of an explorer. Finally, the iceberg drifted away from sight.

The speed of the ship had reduced considerably because of the ice floes. The haze had also increased. It was present even during the day. I thought the haze was the sign of the arrival of the continent. It was this very haze that had defeated the ambitions of that pioneer
among all explorers, Captain James Cook, when he took a complete round of Antarctica without being able to have even a glimpse of it. Surprisingly, within a day or two, the haze lifted completely.

"Haze is the sign of our ship having reached the Antarctic Circle, or so claim the sailors," said Uncle. "I don't know the actual connection."

"What is the significance of the Antarctic Circle itself?" I asked.

"It is an imaginary circle drawn around the continent at 67 degree South latitude," said Uncle. "It has an astronomical significance. I don't know the details, only this that in a year, on one day during summer the sun does not go below the horizon at the Circle. Conversely, on one day during winter the sun does not show up at all at the Circle."

Later, in the night, Christmas was celebrated aboard the ship. It was a simple ceremony. Every person on the ship gathered in the mess, exchanged greetings and gifts, and ate special dishes and cakes. Some persons drank wine. I tasted it but found it extremely bitter.

The next day, a violent lurch woke me up from sleep. In fact, it woke up everybody in the room. I sat up in my bed and waited, the fear of the Roaring Forties returning. Ajai and Uncle also got up and waited. But when nothing happened for a long time, Uncle said, smiling, "I think we are close to the continent. The lurch felt a few moments ago was of ice breaking. The other day I could not tell you much about an ice-breaker. Should I do so now?"

"Yes, Uncle, why not?" I said cheerfully.

"Okay, then," said Uncle and began. "So I was telling you that the very shape of an ice-breaker is different from any passenger ship or a merchant ship or even an oil-tanker. Well, what is the difference? The hull of an ice-breaker is of the shape of a bowl. All the other ships have sharply inclined bow and aft. This
apart, the hull of an ice-breaker is double-walled and covered with armour plates. For, sometimes ice can even cut steel. Besides, there is a ring of holes below the water line at the bow of the ice-breaker. Huge ballast tanks are available at both the bow and aft. Any questions, Ajai?"

"No, Papa, go ahead. I am listening," said Ajai.

"In normal circumstances," continued Uncle, "an ice-breaker can move through one metre of ice by sheer brute force. The screeching and crackling noise you can now hear is because of such a movement through ice. But if it encounters a very thick sheet or wall of ice, efforts are first made to melt the ice by pumping very hot water over it through the ring of holes. If this strategy does not work, water is then pumped from the ballast tank at the bow of the ice-breaker to the tank at the rear. The ship would then naturally tilt backwards, and its bow would rise. The bowl-shaped hull will then enable the ship to climb up the ice sheet or wall, when a powerful motor will push it forward. Once the ship climbs up the sheet or wall, water is pumped back to the bow of the ship. The bow will naturally sink, breaking the ice, creating a path to move ahead. The same procedure will be adopted in the reverse if an ice sheet blocks the ice-breaker from the rear."

"How very clever! That is why the ship is moving slowly. It is negotiating through the ice_____

I got out of the bed and approached the porthole. I was surprised to see huge irregularly shaped white ice sheets with pockets of deep blue sea here and there. Up to the horizon, there was nothing but whiteness. The ship was moving through it slowly making the eerie screeching and crackling noise.

"Quite right, we are near the continent," said Uncle, who had meanwhile got out of bed and approached the porthole. "I had better make a move now. I have to participate in some drills and exercises."
"What for, Uncle?" I asked amused.

"Think, my dear Neha, think," said Uncle. "If our station on the continent catches fire, are we going to call fire tenders from your Srinagar? Or, if somebody drowns, will some doctor come immediately to revive him? Do you know if a person falls into this cold water he will die if he is not rescued within five minutes? Or if...."

"Okay, I understand, Uncle," I said. "We will be on our own on the continent. That is what you are telling me, isn't that so? We must therefore be fully prepared to handle any emergency. I understand. But how can fire be a hazard in that icy place?"

"Isn't it ironic?" asked Uncle. "But take it from me. Fire is the biggest enemy of man on the continent. Living on Antarctica is not a joke, my dear Neha. Everything—every move of yours—has to be carefully planned and executed. Nothing can be left to chance on the continent." I appreciated the significance of his words but later.

In a short while, Uncle left the room for his exercises and drills. But before he left, he instructed Ajai and me to go down and collect our clothes and gear. When we collected the bundles, I was amazed at the number of clothes in each. Some written instructions were attached to the bundles, giving the sequence in which the clothes were to be worn. For a trial, Ajai and I decided to wear them.

First of all, I had to wear a nylon, net-like undergarment, next to my skin. Then a woollen undergarment, and fur-padded trousers and jacket. On top of all these garments, I had to wear a nylon, net-like 'windbreaker' type of garment, and then field pants and jacket. For the feet, too, I had first to wear net-like nylon socks, then two pairs of woollen socks, two pairs of padded socks and finally flexible nylon shoes. The same sequence for gloves. For protection of the head
against the cold was a fur-lined hood. A plastic visor for covering the face could also be attached to the hood. Nose and ears could be capped and the mouth covered. A special type of goggles was provided for the protection of the eyes against the glaring sunlight reflected by the ice.

The uppermost clothes were designed in such a manner that they could be converted into a sleeping bag in case of an emergency, say, if one got trapped in a snowstorm. Except the shoes which were black, all the uppermost clothes were often red, which were easy to spot in the whiteness that prevailed on the continent. The reason why the net-like garments were worn was to create pockets of air in the clothes, so that air, being an insulator of heat, did not allow the heat of the body to go out or the cold to enter.

When I wore the entire dress, I felt loaded like a mule. For some time, I could not even move my hands and feet properly. I also felt an uneasy warmth on my neck and back. Beads of perspiration appeared on my temple. With care I wiped them off immediately using another cloth. I was careful because it had been specifically mentioned in the instructions that all the clothes for wear on the continent should be free of even a drop of water, including perspiration. This is because water would otherwise freeze and cause frost-bite, the freezing of tissues.

After wearing the clothes and the headgear, I looked at myself in the mirror. It was difficult to recognise myself. I looked very fat and bulky. Ajai too.

For a trial, we both went out of the room and climbed the stairs to reach the deck. Although we walked and climbed clumsily, it was otherwise comfortable. I enjoyed standing on the deck, secure in the warmth of the clothes and hood, as chilly winds screamed past my face. For the first time I felt confident of facing the cold on the continent. There was, however, one problem
with the dress. It took exactly half an hour to wear and another half to take it off.

Later, in the night, when Ajai, Uncle and I were having dinner in the mess—No! I should not have said 'night' because terms such as morning, evening, day and night had lost meaning. In fact, time was also going back as our watches were adjusted every 12 hours. So back to our dinner, it was about 8.30 p.m. I heard a noise which shook the chairs and tables of the mess. A hum accompanied the noise.

"What is it, Captain?" asked Uncle of the bearded person sitting at the table next to ours. By then every man on board had a beard! It helped to protect the face against the cold.

"It is just a reconnaissance mission," replied the Captain, chewing at a leg of mutton.

"You mean, a helicopter has just set out?" asked Ajai, his voice betraying excitement.

"Which means we have reached Antarctica?" I asked unable to suppress my joy.

The Captain smiled and laying down the leg of mutton on his plate, said, "No, my dear, that is not so. The helicopter has gone to make a survey of the ice sheets in the surrounding areas to see whether or not a path can be cut through the ice to reach the Indian Bay and to see which would be the most suitable path through the ice all around us. Or whether we should wait for some time so that some ice drifts away and provides us a path"

"For instance," intervened Uncle, "if the ship follows a particular path and does not find it suitable afterwards, it should be able to return. Otherwise, our ship may get trapped in the ice. Can you tell me which ship got trapped in ice, was crushed, but whose occupants miraculously escaped? Whose party?"

"Yes, that is correct. Our Neha knows everything about the continent," said Uncle.

"I have... er... read *I am Antarctica*," I tried to say, but Uncle continued, "I am sure she would like living there, too."

"Yes, yes, I am sure she would," said the Captain. He seemed amused. He winked at Uncle and both had a hearty laugh.

"Why are you laughing, Uncle?" I asked, unable to understand the joke. When both of them continued to laugh, I simply shrugged my shoulders and gave up. Ajai also looked at them, puzzled. Then he, too, shrugged and resumed eating his dinner.

Later, when all of us were in bed, preparing to sleep, a shattering sound and the accompanying vibrations announced the return of the helicopter. However, nobody had then either the enthusiasm or the energy to leave the warmth of the bed, wear all the woollen garments and go out in the cold. It was only the next day when I got up and had a look outside through the porthole that I found the ship still surrounded by pack ice, the accompanying eerie noise notwithstanding. Later, Uncle informed me that the reconnaissance mission had shown that the ship had to take a different route to reach the Indian Bay. So, while we slept, it had gone back on its course and was at that moment following another course through the pack ice to reach the continent. I felt disappointed, having got up with the hope that I would see the continent. The ship continued its slow pace, through the white sheets of ice.

Around 1 p.m. an announcement was made over the speaker: "Good Afternoon! We are glad to inform you that the ship has successfully broken through the pack ice. We are now near the continent. Thank you."

"What does it mean, Uncle?" I asked. "Have we not reached Antarctica yet?"

Uncle smiled. "No, not yet, Neha," he said. "Even
so, the most difficult part of our sea voyage is over. The pack ice is behind us. No more screeching and crackling. Now on, we have smooth sailing up to the continent. We have entered a polynia now.

"A what?" asked Ajai.

"A polynia—a huge pool of quiet water which contains icebergs and which surrounds the continent. It is now hardly half a day's voyage—and a marvellous one, too."

"How come, Uncle?" I asked.

"You will see soon," said Uncle.

Indeed, within half an hour, there occurred a dramatic change in the surroundings. It was a sight beyond description! It compensated for the tiring and dull voyage through the pack ice that we had suffered.

Our ship was in quiet, waveless and deep blue waters, as if we were sailing in a lake. Huge flat-topped, blue-tinted icebergs of various shapes and sizes, some like a mountain range and some having cliff-like projections, stood quietly in the water, like sentinels guarding the continent that lay ahead. In the rays of the afternoon sun, the icebergs sparkled and shone. Only the humming of the ship's engine and the occasional chirping of some sea birds broke the quietude of the place. The entire scene had a dream-like air. Even today, I dream at times of visiting that polynia; when I wake up I miss it.

In the next several hours, our ship traversed through the polynia negotiating the icebergs that came in its path one by one. Around 10 p.m., when the sun was still up, our ship came to a halt and an announcement was made over the speaker: "We are glad to inform you that the ship has reached Antarctica. The time is now 10.15 p.m. Back in India, the time is 2.45 a.m. Our latitude is about 70.3 degree South and longitude 41.7 degree East. The preparations for landing will begin tomorrow at 8 a.m. Good Night!"
We jumped with joy and congratulated each other on having reached the continent safely. Through the porthole, there was not much to see—quiet, deep blue water with icebergs in the distance. It seemed our porthole was facing the sea along the continental shelf. Thereafter, I could not sleep for long, what with the excitement! Two or three scientists living in the rooms next to ours came over and gossiped with Uncle late into the night. I listened to their plans and ideas as I lay in my bed until sleep drowned me in a series of beautiful, unrelated dream sequences.

**Antarctica at last!**

Ah! At last, we had reached Antarctica!

Standing on the deck in full dress, Ajai and I looked around in wonder and in fascination. On one side of the horizon was the deep blue sea and on the other was complete creamy whiteness. The ship stood amidst sheets of fast ice, a metre thick. Only a streak of blue behind indicated the path it had cut.

Much farther away, were huge chunks of ice bobbing in sea water. They were perhaps the potential icebergs, detached from the continental shelf some time ago. Depending upon the sea currents and prevailing winds, they would drift away from the shelf. A few penguins stood on the edge of the icy whiteness, occasionally looking in the direction of the ship.

Suddenly, a sadness gripped me.

'Oh, Antarctica, I have come to you all the way from India,' a thought entered my mind, 'but you are so bleak. Not a soul in sight. Nobody to welcome us!' I became aware of a strange silence, broken only by the sounds inside the ship and gusts of screaming winds that tear around the continent. It appeared to be a ghost land.
"Can you guess what that silvery band on the horizon is?" asked Ajai, suddenly breaking in on my reverie, his face shining with a mischievous grin.

"Oh, that! That must be some hill range on the continent," I replied.

"Oh no, it is the continent—Antarctica, Neha!" he said, laughing.

I was puzzled for a second. "Oh, yes!" I said as it suddenly dawned on me, "it must be the continent. And all this ice around is of the continental shelf—am I right?"

"Yes, this is the continental ice shelf—a bookshelf-like structure projecting out of the continent. You know, down below the shelf is sea water."

"Yes, I know, Ajai," I said. "But, how far is the continent?"

"Must be about eight to ten kilometres away," said Ajai.

"No, my dear sir," cut in someone, who was also standing on the deck and admiring the scenery, "the continent is at least 80 to 100 km. away."

"How, Uncle? It seems so near," said Ajai in a challenging tone.

"This is not India. We are on Antarctica where the air is pure and free of pollution. As a result visibility is very high here. You see distant objects very near to you. This part of the continent is called the Queen Maud land. For your reference, it is somewhat opposite the southern-most tip of Africa. Can you see that dark band?"

"I can," I said, picking up the binoculars hanging around my neck. "What is it, Uncle?"

"That is the Wohlthat mountain range. At one end of the mountains is the main Russian station—Novolazarevskaya."

"No-vo-la-za-rev-ska-ya? What a peculiar name! Where is our station, Uncle?" asked Ajai.
"Can’t see it at present," said the man after looking carefully for some time in one direction. "It is claimed that our station can be seen from the ship on occasions when the weather is very clear and fine. But I am sure you know that our station is somewhere in that direction." He raised his hand and pointed his finger at one point on the dark strip. "It is just before a small hill range we call the Dakshin Gangotri hills. Its original name was Schumacher hills. This hill range is just before the massive Wohlthat mountain range that we can see from here.

"...And you must be aware that this narrow V-shaped part of the continental shelf," he continued after a pause as he looked around the place, "is the Indian Bay. Just behind this ice shelf, on my left, is another, bigger V-shaped bay called the Russian Bay. Beyond the ice shelf, hidden from our view, is the Russian summer camp."

Meanwhile, the crane on the rear deck of the ship had lifted up the small orange-coloured Chetak helicopter from the hold below and placed it on the deck. Soon, some men climbed into it and its blades began to whirl, sending gusts of cold blasts. As we ducked to avoid them, the helicopter rose from the ship. Those on the deck cheered and waved at the helicopter as it flew away in the direction of the Indian station. In the prevailing silent environment, the humming of the helicopter appeared loud and harsh. The departure of the helicopter led to a flurry of activity on that deck and even on the small fore-deck at the bow of the ship. Packets, big and small, were lifted up out of the hold and placed on the deck. The packets contained food supplies, and equipment. All the packets were collected and tied up into a bundle. One end of a long cable was tied to the bundle and the other end with a hook was attached to the base of another Chetak helicopter.

In a short while, the helicopter rose, slowly, lifting
the bundle. The men on the deck cheered. Ajai and I also joined them. In no time, the helicopter was flying over the ice, the bundle dangling from it. It flew in the direction of the Indian station. In the meantime, some scientists went down to the hold and began to bring up, individually and in groups, packets big and small. For the first time, perhaps, they were having a taste of sheer hard labour, in a place where one feels exhausted within 16 minutes of work. The first helicopter returned after ten minutes and lifting another bundle of packets flew away. Then came the second helicopter to pick up another bundle.

While this work of loading was in progress, other activities began. A group of scientists released pink-coloured instrument-borne balloons for the study of the atmosphere above the continent. Another group of scientists climbed down from the ship on to the shelf using a rope-ladder and pitched a small red tent about 200 metres away from the ship. Samples of ice were taken in small test tubes and passed on to the scientists inside the tent where they were examined or stored for study later.

Without any loading work or experiments to perform, Ajai and I stood quietly on the deck watching all these activities in progress and the scenery around us. Occasionally, we used the binoculars to see something at close quarters which drew our curiosity.

Naturally, the first objects that attracted our attention were the emperor penguins, the biggest in size among the various species of penguins found on the continent. When the scientists put up the tent, the penguins approached it and, keeping a safe distance, watched the activities in progress. Often, one of them went too close to a scientist, perhaps out of curiosity to see what was happening. Even when the scientist would wave his hands to frighten it away, it would not move. Only when the scientist would leave whatever he was
doing and run after it, would it walk away, flapping its wings and shrieking 'krohk! krohk!' Their voices sounded similar to a peacock's.

Using the binoculars, I had a look at the ice shelf lining the V-shaped Indian Bay, which sparkled and shone like a white ice-cream in the sunlight. Huge chunks of ice lay here and there along the inclined portions of the shelf. At some places, however, the shelf rose up like a cliff as much as 50 metres in height. Its sides appeared smooth like velvet. Two things, especially, came to my notice whose existence I could not understand for some time. Firstly, there were some rope-like white structures hanging from the cliffs. I came to know that these were nothing but small rivulets of water frozen in their tracks. Secondly, all along the base of the shelf that lined the bay was a dent just above the water level. This was the effect of sea waves on the ice shelf.

We saw a number of birds too, namely, skuas, fulmars, stormy petrels, terns, and also heard the snorts of a group of yellowish crabeater seals sitting on pack ice some distance away from us. But the most heartrending sight was the chase of a penguin by a leopard seal. We had noticed a leopard seal basking in the sun on an ice floe when all of a sudden we heard a 'krohk! krohk!' and a beating of wings. We looked in that direction. To our surprise, we found the seal thrashing water in a wild frenzy as a group of penguins shot out of water, one after another, close to it. But no sooner were they on the ice than the seal managed to catch one of them. The penguin fluttered and kicked but to no avail. Soon the penguin was a mere carcass. The seal dragged it to a safe spot at the base of the ice shelf and began to gulp it down, feather and all.

The entire episode, though for only a few seconds, shook me to the core. I felt sad and unhappy, realizing what life was like in the wild. My sadness lessened
when a little later Uncle came to the deck to tell us to pack our bags and get ready for the flight to the Dakshin Gangotri station.

The Dakshin Gangotri station

I sat next to the window of the helicopter, just behind the pilot. The blades of the helicopter began to whirl and a man on the deck outside gave an 'all clear' signal. My spirits rose with the helicopter. I was excited and happy as I was about to land on the icy continent! Accompanying Ajai, Uncle and me in the helicopter were Dr. H.K. Mankad, leader of the expedition, and another scientist. As the helicopter gained height, we waved at the cheering crowd on the deck.

The fine weather afforded a beautiful and panoramic view of the surroundings. The pieces of ice in the deep blue sea made it sparkle like silver. The ice shelf, too, looked like a velvet carpet, folded and wrinkled at various places. At one place I saw a large crowd of penguins through the binoculars. They were looking for fish and krill among the ice floes. In the distance I also saw some yellowish-green dots on top of a cliff of the ice shelf. On closer examination, I found them to be seals, called Ross seal after the famous explorer, James Ross. They were basking in the sun, perhaps fast asleep.

In a short while, the helicopter had left the coast far behind and was flying over the vast ice plains which sloped gently upwards towards the continent. Occasionally, one saw a crevasse, a huge gap in the ice which could swallow huge boulders of ice. In the sunlight the plains of snow shone, some spots reflecting a diffused light. After a few minutes, my eyes began to tire of watching the silvery whiteness below. I suddenly realised my mistake. I took out my goggles and wore them. It was a relief, but everything acquired a blue
The first signs I noticed of human beings having been on the barren continent were the long meandering tracks of vehicles in the ice, like those of tanks. Some old, disused gumboots also hung on stakes along the tracks for identification from a distance, during a storm or in case somebody got lost in the area.

"Can you see that brown spot, Neha?" asked Uncle, pointing towards the horizon.

"Yes, I can. What is it, Uncle?" I asked.

"It is a typical hut installed on the continental shelf by the First Indian Expedition. It is as per the convention."

"What is that convention?" asked Ajai, looking at the spot that was growing in size.

"According to the convention, if a country decides to establish a station or camp on the continent, it must install a hut filled with provisions, fuel and medicines. It is for anyone who may lose his way! It is a convention, a custom perpetuated through decades, from the time the explorers have begun to stay on the continent."

"In fact," added Dr. Mankad, "the Second Indian Expedition found the hut damaged and buried in snow. It has since been repaired and reinforced. It is now just a symbol of our first expedition to the continent. It is a monument."

In a short while, the hut was right below, a rectangular, brown spot on the white plain. It looked like the huts one sees in greeting cards and paintings. Made up of broad wooden planks, it had a sloping roof and a door. Around it lay a lot of disused material and junk, the remnants of a camp. In front of the hut, along a path lay disused barrels, kept at every 100 metres or so as guide-posts for anyone lost. I could imagine the fear that lurked in the mind of every man on the continent, of getting lost in the icy waste without any sign or building to guide him. I could realise the courage of men like Richard E. Byrd who lived alone on the
continent without anyone to talk to or to guide in case he lost his way.

As the helicopter continued to fly over the meandering path, another box-like building built of red and white metal plates came into sight. Covered with snow on the top, there was something written close to its door, which was difficult to read. Uncle told me that the Second Indian Expedition had installed the building. It was used for some time as a temporary laboratory and shelter for men and equipment. It was now a historical monument. Thereafter came the runway for the aircraft to land. It was simply a track of hard ice. Long metal sheets were fixed on both sides of the track to indicate its boundary. When two men dressed in red came rushing out of a small metallic building near the runway and waved their hands at us, I realised that the runway was not a mere monument. It was used as and when any aircraft came in to land.

No sooner had the helicopter flown over the runway than my eyes met a sight which exhilarated me. It was the Indian camp, called the Dakshin Gangotri station. In appearance it was like a small colony. Radio masts, fuel tanks, power lines, white domes, grey hanger-like structures called 'conduits', shone dully in the sunlight. On several conduits were painted the saffron, white and green stripes of the Indian national flag. A few men in red and orange clothes were seen moving about the conduits. Some stopped to look at us and wave. There were also zigzag, irregular markings of vehicles' wheels on the ice around the camp. The colony certainly appeared to be an oasis in the desert. As far as the eye could travel, there was nothing but whiteness with a band of blue sea in one direction and the snow-covered peaks, 'nunataks', of the Wohlthat mountains in the other direction. To the right of the mountains was a cluster of greyish-brown, craggy hills partially covered with snow. They were the famous Dakshin Gangotri hills.
The helicopter soon veered to one side of the colony, descended, and hovered for some time over a large, circular, black plastic sheet before making a perfect landing. When the engine of the helicopter was turned off, a round of cheers was heard.

"Welcome to Dakshin Gangotri! Welcome! Welcome!" was shouted repeatedly.

The pilot opened the door of the helicopter. He climbed down a small ladder, and all of us followed him. There were around twenty people near the landing pad shouting welcome. All of them were dressed in red or orange and hooded. All of them sported beards, appearing like a group of hermits lost in the cause of science. Then followed a ritual which is typically India. Everyone hugged Uncle, the expedition leader and the other scientist.

Although I felt it all to be much too emotional, I realised that some scientists were indeed moved to see us. Maybe because ours were the first new faces they were seeing after more than a year! On seeing Ajai and me, they were both surprised and happy. They shook hands with us, muttered welcomes and patted our backs. Although I heard the names 'Dr. Singh, Dr. Deshmukh, Dr. Kutti, Dr. Roychoudhari...', I could not make out later who was who. The beards made them all look alike.

Soon after, Ajai, Uncle and I were rushed to a conduit named Albatross, through a number of streets, if one can so call the snow-filled paths among the cluster of conduits. The snow was hard and slippery. We all had to walk carefully.

The Albatross conduit was at the boundary of the station. It was perhaps newly installed. Nobody was living in it. The relief I felt when I entered the air-conditioned conduit is difficult to express. Suffice it to mention that my face had become numb with cold, which I realised only when I entered the warm conduit.
As soon as we entered, we put away our bags and went into the small lounge just next to the entrance. The scientists, who had accompanied Uncle, immediately went out and returned with a flask full of coffee, and mugs. Coffee had never tasted so good to me ever before.

After coffee I took a look at the interior of the conduit. I found that I was as good as in a two-tier, air-conditioned railway compartment, with minor differences. On one wall of the lounge was a chart titled 'Do's and Don'ts'. I reproduce a portion of it here:

You are on Antarctica. Watch out!

Never leave the camp alone. Always have at least one person for company.

While going out, check whether you are properly dressed, equipped, and have sufficient food to last three to ten days. Check that you carry small mirrors and smoke bombs.

Keep your clothes absolutely dry. Even your perspiration can cause frost-bite.

Always wear goggles to protect your eyes.

Flex your fingers, toes and muscles frequently to keep your body active and warm.

Take regular exercises but do not overdo them.

Drink one to two quarts of water every day, even if you do not feel thirsty.

There were also two fire-extinguishers and two buckets of sand in the lounge.

Beyond the small lounge was a long, rectangular hall. On both sides of the hall were two-tiered beds. There were a few small windows with black curtains. The hall had a false ceiling. There was a small kitchen near the lounge, where an oven and an electric heater were available. Besides, a bath and toilet were situated at the rear of the hall. In the bath there was a boiler for heating ice into water, amongst the usual paraphernalia.
"Neha and Ajai, you are extremely lucky," said Uncle, who was watching Ajai and me as we looked around the place.

"Why, Uncle?" I asked.

"You are lucky because you are in such comfortable living quarters on the continent," said Uncle. "You get all that modern technology can provide you. You have a warm room, a warm bed, and warm food to eat. But you cannot imagine how the early explorers used to live here."

"How did they live, Papa?" asked Ajai, smiling.

"It may look like a joke to you now," said Uncle, annoyed, "but those early explorers really suffered hell to live on the continent. It was a real challenge."

Uncle stood up, approached a window, drew away the curtains and looking outside at the icy waste, continued, "Do you know that on several occasions, they did not have enough oil to warm the tent. In fact, that was the least that they desired to have. There was not enough oil to remove sweat from their clothes before they got into bed. Even to get into a sleeping bag used to take an hour..."

"How come?" asked Ajai.

"Listen, Ajai, listen. Don't interrupt," said Uncle in annoyance. "The bags used to be very cold. The explorers could not heat a complete bag all at once. If they heated one part and then another, the first used to go cold by the time the second was heated. So they used to heat a bag or bed from one end and occupy it at the same time. It was a slow and painful process. Even to light a matchstick in the morning was a heroic business. Moisture from the breath used to dampen the matchsticks. At least four to five matchboxes were wasted before a matchstick caught fire."

"I must say, it was a hellish business," said Ajai, still smiling.

Uncle ignored him and continued, "In those
days, explorers used to develop what is known as 'cabin fever' due to staying in closed spaces. They also used to lose weight and appetite. This was especially true during the winter days when there was night on the continent most of the time. The explorers used to become frustrated, spend nights without sleep, and go on staring without saying a single word."

"How courageous were those men who used to live on the continent in those days!" I said. "Even to think of their conditions, sends a chill down my spine."

"Imagine the amenities you have now," said Uncle emphatically.

"Er, even our own scientists have had to face a lot of problems during the first few expeditions," added a scientist, who had listened to our conversation. "They had, for example, to eat their food in the open. Naturally, food always became cold. Even today, in some distant camps, they have to undergo a lot of hardships. Here, at the station, we have, of course, a number of facilities. We are lucky."

"We are lucky, indeed," I said.

The entire hall being unoccupied, and perhaps kept ready for the scientists who were to arrive at the station, Ajai and I were free to choose our 'berths'. My obvious choice was a lower berth adjacent to a window. Ajai selected the one opposite mine. Uncle selected a berth above mine to be near us.

While we were arranging our bags, some scientists entered the hall to meet Uncle. During the course of their conversation, Uncle called us to introduce ourselves. The tall, lean person was Dr. Yoga Narasimha, a botanist, and the other was short and bespectacled, Dr. Dinesh Sinha, a zoologist.

"Are you interested in visiting the Dakshin Gangotri hills?" asked Uncle after the introduction.

"Yes, why not?" Ajai and I chorused.

"I hope you are not tired?" asked Dr. Yoga.
"No, Uncle, but when do we go?" I asked.
"Rightaway!" said Dr. Sinha.
"Rightaway?" we asked.
"Why?" asked Uncle, "don't you feel like going?"
"No! No! We are ready!"
"Don't worry, we will return by lunch," said Dr. Yoga. "Come on, then. Our helicopter is waiting. Come on, children."

We followed them out of the conduit. From the outside, our living quarters indeed looked like a pipe—a conduit. A door at its circular mouth, some windows, a chimney, small stairs and some wire connections made the otherwise grey cylindrical structure look like a living place.

Uncle, who seemed tired because of the loading work on the ship in the morning, came only up to the entrance to see us off.

To the hills!

As I sat glued to the window of the helicopter, Uncle Yoga asked me about my background and interests. He had been to the icy continent several times and was engaged in studying the lichens found on the Dakshin Gangotri hills with his colleagues. Our talk naturally centred on the life over the continent.

"In so far as the life on the continent is concerned," Uncle Yoga said, "it is as good as a cold desert. You see snow here instead of sand—that is the only difference. I hope you know what is meant by a desert."

"Yes. It is a place where there is hardly any rain," I replied hesitantly, because I had never thought about why a desert was so called.

"You are perfectly right," he said, looking out of the window of the helicopter all the while. There were
nothing but ice plains for kilometres together. "Here, too, there is hardly any rain. I mean, precipitation in any form of water is very low. Only five centimetres per year. When any blizzard or a snowstorm occurs, snow is simply shifted from one place to another."

A brief pause, and Uncle Yoga asked suddenly, "Can you guess what is the most conspicuous thing which you find back home but which is missing here?"

I was unprepared for the question. When nothing occurred to me, I gazed at the landscape below for an answer.

"A tree?" I asked hesitantly.

"You are perfectly right!" he said, happily. "You have good power of observation. You will become a scientist one day...Yes, what was I saying...there is not a single tree on the continent. It is only on the peninsular part of the continent—the triangular, arm-like portion—that some flowering plants and grasses have been found to grow. The continent is otherwise totally free of any higher plant life or grass. However, there are some low forms of life—fungi, algae, lichens and mosses—which are comparatively abundant," he paused and eyed his colleague Dr. Sinha, and continued, "and which Sinha and I are studying." He smiled.

"Tell me, Uncle. What is that yellow tint on ice?" I asked, having noticed just then a yellow spot on the landscape below. "Has it anything to do with what you have been studying?"

"You are right. There are other coloured tints also. Green, pink, so on," he replied. "They are algae."

"But how do they appear in the midst of ice?"

"That is a good question," said Uncle Yoga smiling. "Well, the answer is birds. Wherever birds excrete, their faeces, known as 'guano', provide the necessary organic nutrients for the lower beings to grow. In fact,
all these beings on the continent survive on guano. The continent has some 188 million birds which produce 100 tons of guano every year."

"So, that is all the life on this dreary continent?"

Kéd Ajai suddenly.

Yes, my dear, that is all. But why...why say dreary so soon? Hardly a few hours have passed...Have you got fed up of the continent so soon?"

"No! No! It is not that," said Ajai, embarrassed. "I am sorry. I mean...well, I mean..."

"It is all right, my dear," cut in Uncle Sinha, amused, listening to our conversation. "It doesn't matter. We all call it dreary because it is dreary." He looked down at the barren white landscape below and continued, "But the continent has also some interesting species of minute plants and organisms. For instance, microorganisms have been found buried, frozen at great depths in ice. When these microorganisms were brought and kept in favourable conditions in a laboratory, they revived and showed that they were alive! Even a species of green plant life has been discovered which lives inside rocks like sandstone and marble!"

"How do these green plants survive inside a rock?" asked Ajai, excited.

"There are minute pores in the rock," replied Uncle Sinha, "where favourable conditions of water vapour and temperature exist. Light also penetrates through these somewhat transparent rocks to allow certain biological processes such as photosynthesis to take place, which requires sunlight. In fact, the most interesting implications of these findings can be used in our search for life on other planets. Although the Viking spacecraft have shown that life in any form does not exist on Mars, which has cold conditions such as we have here, these findings show that we cannot be so sure of the Viking results. We have to
redesign our equipment so that it can detect life even inside Martian rocks."

"What about your own research work?" I asked.  
"Here life is so sparse that ecosystems are simple—unlike those found on the continents back home. We are studying the ecosystems here so that we can understand the complex ones. Let me stop now. We are going to land near that lake."

When I looked out, I was surprised to see a chain of rugged, greyish ice-clad hills enclosing a patch of deep blue water. Here and there on the ice-free sides of the hills I could see, as the helicopter flew past them, patches of bright green, which were, Uncle Yoga told me, algae, the most abundant plant life on the continent. Very soon the helicopter began to lose height, and hovered for a while before landing on a barren, grey patch of land near the lake. When the blades of the helicopter stopped moving, a strange silence prevailed. Only the whistling of the wind as it swept past the hills could be heard.

"Such a site on Antarctica is called an 'oasis', just as a patch of greenery and water is called in a desert," said Uncle Yoga, who led the party carrying net and some equipment. "This is a freshwater lake," he continued, pointing at the deep blue-tinted calm pool of water. On one side of the lake, away from us, was a patch of snow. "That snow is the source of the lake. During summer, the current season, the snow melts and swells the lake."

We had, in the meanwhile, reached the boundary of the lake. To stand in front of that deep blue pool of water set amidst the craggy, brownish-grey rocks on one side, a pool of melting snow on another, and small patches of bright orange and blue-green lowly plant life on yet another was an experience in itself. A scene worth painting! When I looked into the pool of water, I could see a rich mat of turquoise blue algae.
"Tell me, Uncle," asked Ajai suddenly, "how is this lake in the form of water, whereas otherwise the continent is full of snow?"

"That's a brilliant question, indeed," said Uncle Yoga, "but I think you can as well answer it yourself. What about you, Neha? Can you answer it?"

When Uncle Yoga got no reply, he said, "This is because the lake contains salts, chemicals, that lower the freezing point of water. The sources of chemicals are the snow itself and also the excreta of birds that visit the lake. That answers your question, Ajai. Are you satisfied? Okay, then, I must tell you that such lakes containing salts are found in various parts of the continent."

He kept the net and equipment on the ground and called out to the pilot and said, "Alex, you show these people around. We will take half an hour to complete our work. You can return by then. Okay?"

Then turning to us, he said, "This place is safe. There is nothing to worry. Go ahead, children. Enjoy yourself!"

We followed Uncle Alex as he led us away from the lake towards the hills. Dodging stones, lichens and snow, we followed him through a narrow path between two hills. Taking various twists and turns over much used and worn out paths, we reached a point which looked down upon the landscape below. The undulating icy plains stretched away into the distance meeting the band of sea at the horizon. Somewhere in between was the Indian station. Behind us was the cliff-like wall of an ice-clad peak, nunatak.

Suddenly, I heard some strange, regular sound in that world of total silence. I made signs to Ajai and Uncle Alex to keep quiet. I was rather surprised to find that it was the sound of drops of water trickling down one by one from the top of the cliff-face to a pool of water at its base. In the perfect silence, the
sound was so exhilarating that I felt as if I were listening to some ethereal music. I do not know how many minutes or seconds passed before I became aware of where I was. When I came out of my trance, if one could call it so, Uncle Alex and Ajai were looking at me from the corners of their eyes, with signs of amusement on their faces. In those few minutes, I felt so close to God and nature, like I have never felt before. Later when I analysed why I felt so, I realised that it was because of the utmost purity of the place, of its air and the sound of pure water, which only Antarctica could provide. If I am offered a chance to visit the continent again, I would take it on all fours just to experience those moments of tranquillity, even with the hazards that can visit a person in that dreary continent.

Soon, Uncle Alex led us to another part of the Dakshin Gangotri hills, which looked on the other side. It was completely icy white, with nunataks appearing like crests of waves vanishing into the distance. Above the nunataks were fine bands of arc-like beautiful clouds. From where we were standing I could see stalactite-like structures of ice hanging over the brown, craggy base of low hills. Obviously, the structures were water, frozen in its path. Below the base of the hills was a debris of rocks, stones and pools of water. There were also irregular scratches on the rock just below the stalactite-like structures. These scratches were the marks of the receding glaciers, with the debris being left in their wake.

When I asked Uncle Alex whether birds lived on the Dakshin Gangotri hills, he replied that thieves certainly did. By thieves he meant skuas, the enemies of all birds, including the penguin. On several occasions, skuas had stolen eggs from the camps pitched there, he added. We did not have to go too far before we had a firsthand experience of the bird. Ajai had climbed
up a small outcrop of rock to view the surroundings from a vantage point. He had climbed only half-way when two dark brown skuas dived at him like bombers. Ajai got the fright of his life. It was only when Uncle Alex threw stones at them that they flew away, parrying the stones. Perhaps, the birds were guarding their nest somewhere atop the rock outcrop. A short distance away we came across the gory, blood-strewn remains of a snow petrel—the leftovers of the meal of a skua. We also saw a number of skuas bathing in the lake.

During one of our forays 'into the neighbouring, comparatively flat, open area, we came across the broken-down structure of the first unmanned weather station. Uncle Alex informed us that the First Indian Expedition had installed it. It had also been subsequently repaired. But as no structure could weather the storms on the continent for more than two seasons, it was found damaged beyond repair by the Third Indian Expedition. Since then it had been lying as it was. In the vicinity of the weather station were two plaques installed on the rocks. They gave the name's of the persons who had come to the continent in the first and second expeditions. Unfortunately, I had not taken along a camera but I would have loved to have had myself photographed with those two milestones in the Indian history of Antarctic exploration.

On our return journey Uncle Yoga told me a very interesting thing about the Dakshin Gangotri hills. The geologists have found that the hills are similar to the Singhbhum region of Bihar!

**Our colony**

Our party returned about 1.00 p.m. It was time for lunch. We were led directly to the mess from the
helipad. The mess was in the form of a cross—four conduits joined at a box-like structure which had chimney. It was situated somewhere in the centre of the colony.

On entering the mess, I found myself in a long, well-lit and neatly kept hall. In three rows along the hall, tables and chairs were arranged. Simple, the emphasis was on their durability. Written on one wall in bold letters, perhaps a reminder to all scientists was: 'We travelled for science...in order that the world may have a little more knowledge, that it may build on what it knows instead of what it thinks—Cherry Garrard'.

'Self-service' was the motto in the mess. Food was put out on a table at the end of the hall. A person had to walk along the table in a queue, pick up plates and spoons and whatever food he wanted. I was amazed to see all Indian dishes—chapatis, puris and rice, a number of vegetables, dal, meat, pickles, and halwa—displayed!

Uncle was on duty in the kitchen. Wearing a long, white gown, he brought hot chapatis in a big tray from an oven. After lunch Ajai and I joined Uncle in the kitchen, the box-like central structure, and watched food being prepared there. Again I was surprised that none of the dishes had been cooked on the continent! Everything, including the chapatis and vegetable dishes, arrived pre-cooked, in plastic bags and containers. It had to be unwrapped, heated in an oven or in boiling water, and served. All scientists had to take up kitchen duties in turns. The kitchen was modern, equipped with gas, grill and ovens. Stoves were available for use during an emergency. A big storeroom, the larder, where food packets and containers were kept, was an essential part of the kitchen.

Later, Ajai and I saw a cartoon film on video in the common-room, a conduit near the mess. It was a
hall where one could watch video or play various indoor games. In one corner were a radio and a gramophone. There was also a table for playing table tennis. Some magazines and newspapers lay scattered all over the place. Before returning to the Albatross we visited another conduit marked 'Canteen', and had a hot cup of espresso coffee. There were many scientists there, sipping coffee.

When we returned to the Albatross, it was no more empty. It was humming with activity. I felt as if we had entered a noisy railway compartment. Most of the berths had been occupied as scientists and their luggage had arrived. Many faces were familiar. Uncle Malhotra, Dr. Mukherjee and several other acquaintances were around. While a few scientists sat quietly huddled on their berths, a few were fast asleep, but the majority sat or stood in circles, chatting, smoking, sipping coffee or playing cards or chess. Some were deeply engrossed in novels. A few sat near windows looking out. Ajai and I went straight to our berths, saying 'Hello!' to a few scientists.

Uncle, who had accompanied us back to the Albatross, told us to relax. He told us that we would visit the headquarters of the station in the evening. So, I changed and got into my sleeping bag. I then peeped out through the window. There was no change in the scene. Whiteness all around glowing in the sunlight. In the distance the peaks of the Wohlthat mountain range stood gleaming defiantly. There was no bird to be seen or any sound to be heard. There was nothing to stimulate one's mind. It was all the more so during winters when there was darkness most of the time. Sleep overwhelmed me in spite of the noise. I was, in fact, surprised at myself because never before had I slept during the day.

About 4.30 p.m. we all got up and put on our field dresses. After drinking a cup of hot coffee prepared in
the Albatross itself, we left. There was no change in the scene outside except that the sun had shifted its position. Uncle led our party away from the colony and around it. Except for the sound of the crunch of our snow shoes, there was complete silence. From afar the colony looked deserted. After some distance we came across a man, digging ice and shoveling it into a basket.

"That is for water to be used for various purposes in the conduit," said Uncle before I could ask him about it. "We have boilers in all the conduits to melt ice. Each one of us has to bring in ice in turns for his or her conduit. Don't you worry, you won't be asked to do this because you are guests here." The bearded man who was digging simply said 'Hello!', smiled and continued with his work. We proceeded in silence. Some time later I saw two conduits, deserted and abandoned, some distance away. Snow lay piled up high on top of them. I asked Uncle what they were.

"You had better guess this time," he said. I thought for a while and asked, "Are they godowns of some kind? Or...."

"You are not exactly right but you are close to the mark," said Uncle. "Ajai, what about you?"

"I don't know," replied Ajai, who did not seem interested.

"Well, let me tell you then," said Uncle. "These conduits are godowns but not in the conventional sense. Here the entire stock of food, fuel and other essentials are kept for an emergency. They form a part of every station or camp on the continent."

In a short while, we reached the first manned, permanent Indian camp on the continent. The Indian national flag fluttered atop the building which was then the headquarters of the station. It comprised two double-storied chocolate brown hut-like blocks linked by a passage. The upper roof of the passage had a hemispherical white dome with the antenna of the
SATCOM  The stripes of the Indian national flag were also seen clearly on one side of the weather-beaten and snow-covered wooden building. The curtains of some of the windows were drawn aside revealing the office-like rooms inside. As we went around the building, we saw a huge door open at one side of the building. A man riding a Ski-doo, a scooter-like orange vehicle, drove out in full throttle. Its sound reverberated among the conduits opposite the building. The open door revealed a huge garage containing a number of big and small vehicles and a workshop.

At the entrance of the building was a plaque marking the landing of the Third Indian Expedition which had installed the building. There was a lounge where we sat for some time to get acclimatized to the warmer temperature inside the building. We removed our hoods and field dresses and kept them in a rack meant for the purpose and went further into the building. We walked through a long corridor with rooms on both sides. Beautiful paintings of Antarctica adorned the walls. The rooms contained the secretariat of the station, a conference hall, a library, and other rooms. At the end of the corridor we turned right and entered the connecting passage between the buildings.

The passage was empty. At the far end was a flight of stairs which led to the second floor of the other block. Here again there was a corridor with rooms marked 'Post Office', 'Operation Theatre', 'Teleprinter', and so on. My eyes lit up when Uncle opened the door marked 'Telephone'. Inside was a telephone board at which sat a man. Opposite the board were a few sofas where a few scientists sat. Asking us to sit, Uncle approached the operator of the board. He signed a register and joined us.

"Neha, would you like to talk to your Auntie and Mummy?" he asked, as he sat down between Ajai and me.
"What!" I said in excitement. "The sooner, the better."

"My dear, you have to have some patience," he said, smiling. Indicating the waiting scientists with a jerk of his head, he said, "There is a queue, my dear."

One after another, the telephone operator called the scientists, dialed, waited for some time, and handed the phone to the scientist, who then talked. Each telephone call was connected to a telephone in India via the geostationary communications satellite INTELSAT hovering over the Indian Ocean. Owing to the high expenses involved, Uncle told us, each person was allotted a quota of one telephone call every fifteen days. When the operator called Uncle, Ajai and I also followed him.

In a short while, I was talking to my mother! I was thrilled to hear her voice. She was curious about our voyage, how we were and about our stay on the continent. I could imagine the tears in her eyes when she made these enquiries. I was also moved but before tears could come to my eyes I handed over the phone to Uncle, who then talked to her. He told her that we would be returning home soon provided the weather continued to be fine and air flight possible. Subsequently, I also talked to Ajai's mother. The same enquiries were made. I felt relieved after talking to my mother who, I knew, would otherwise worry about me. I marvelled at the technology, which enabled me to talk to my mother several thousand kilometres away across the vast Indian Ocean.

Before we left the headquarters, Uncle introduced us to a scientist, Dr. Chaturvedi, who had spent a winter on the continent. He told us how the continent was like during the 1,600 hours of night when the sun is not seen at all. Some of the things he said were interesting but some sounded crazy. We enjoyed chatting with him over a cup of hot coffee. From the headquarters we
went straight to the mess, had our dinner, saw a short movie on video, and returned to the Albatross. The sun stood high in the sky, blazing in all its glory. I was told that throughout the 'night' it would not go down behind the horizon. At the most, there would be a twilight. I began to wonder how I would sleep in such bright light. Many persons faced this problem on the continent.

When we entered the Albatross, a few scientists were still in the lounge. Some were already fast asleep. All the main lights had been switched off, the curtains had been drawn, and blue lights glowed dimly. It was a perfect setting for falling asleep. Without further talk, we zipped open our sleeping bags and got in. Surprisingly, I fell asleep immediately and began to dream.

I dreamt I was out in the open, standing in the freezing cold, beneath a star-studded night sky. I could see the group of four bright stars, the Southern Cross, right overhead. Sirius, the brightest star, was also shining brightly on the northern horizon. Apart from these, the entire night sky was novel to me. As I searched for the star guide in my pockets to identify the stars and their constellations, the aurora australis began its usual dance again. Every minute it changed its structure, colours and size.

I was thus watching the night sky when something diverted my attention. I looked away from the aurora to the star-studded sky around it. For some time I could not make out, and then suddenly realised what it was. It was a streak of silvery light moving among the stars. It was moving down to the earth. "Oh, it is a spaceship!" I exclaimed. I looked around to see if any of my companions was outside. No, nobody was.

In the distance, an iceberg loomed large. In the dull, greyish-white background I saw a huge shadow of a vehicle standing next to our conduit. I could only hear
the whistling of the winds as they swept past me and occasionally, a crackling or grinding of the ice shelf. 'I must tell the others what I have seen,' I thought. I hurried back to the conduit.

Everybody was in the hall as I had left them an hour earlier. Raj, the most talkative amongst us, was simply standing near a window and staring out without a word. Deepak was, as usual, fast asleep on his berth. Vasudha was reading a novel. The other four were playing a game of Ludo, having got sick of everything else.

"An alien ship has landed!" I shouted as I entered the hall. Nobody paid any attention to me. I shouted and screamed but nobody even cared to look at me. The game of Ludo progressed with gusto and amid cheers. Suddenly, I heard footsteps outside. I rushed to a window and looked out. In the background of coloured and silvery light of the aurora, the colony presented a bleak picture. Only a few red lights blinking atop the building of the headquarters showed the presence of the station. Although I could not see anyone outside, I could distinctly hear footsteps approaching the conduit. But except me, everybody was unconcerned. I was visibly shaking as I shook Raj into action. The footsteps were almost near the conduit. The door opened and…

I woke up with a start. I could hear some footsteps in the hall. I unzipped the bag and peeped out. In the bluish light, I could see Ajai fast asleep. He was snoring. Snores came from other parts of the hall, too. The hum of the air-conditioners in the background was the only other sound. I got down from the berth in apprehension as I heard voices. They were some scientists returning from their shift duties. I looked at my watch. It was about 12.30 a.m. I drew aside the curtain a little and looked out. It was as bright as day. The sun was still above the horizon. I felt reassured that I was not living
during the 1,600 hours of night on the continent.

When I analysed my dream, I realised it was all the effect of Dr. Chaturvedi's account about the life in a camp during the Antarctic winter. He had told us that even the sturdiest man begins to fear the dark during his stay on the continent. The most talkative man becomes reserved and the most lively man despondent. Of course, he had not told us about the alien ship! But he had certainly told us about the meteorites frequently seen falling on the continent. The alien ship was the remnant of a science fiction classic I had read a long time ago.

Antarctica is the finest receptacle of any meteorite that falls on the earth because the ice preserves them. In fact, within a few decades, scientists had discovered half as many meteorites on Antarctica as found to date on all other continents. Besides, some novel varieties of meteorites have been found here. Some have been found to have amino acids, the basic building blocks of life, and some minute diamonds. Even pieces of the moon and Mars have been discovered in the icy wilderness of the continent. Antarctica is, in fact, a treasure trove for meteorite hunters. So it is for fossil hunters too. Fossil bones of dinosaurs and kangaroo-like animals and several marine creatures have been found in several parts of the continent indicating that it was not like what it is now—a white desert!

**The remote camps**

I woke up around 7.00 a.m. To my surprise, everybody was fast asleep in the hall. Perhaps, after the unsettling sea voyage everybody was sleeping peacefully for the first time. I tried to sleep again but could not. I got out of the sleeping bag, drew the curtain slightly and looked out through the window. The sun
was well above the horizon and the snow plains
glistened. The sky was a light blue indicating fine
weather but, as somebody had told me, one could never
be sure on the continent. It was highly unpredictable—
as I was soon to witness. I took out a book to read
since there was nothing worth seeing outside except
whiteness. But I did not have the courage to take
a morning walk alone, although my heart was set
on it. The chance, however, came in an unexpected
manner.

I heard the sweet, musical alarm of a wristwatch.
Then followed some movements and a yawn. I decided
to see who had got up. It was a bearded man in the
adjacent berth.

"Good morning, Uncle!" I said, as I approached
him. He was folding his sleeping bag. I had earlier seen
him on the ship but had never been introduced to him.

"Hello! Good morning! How do you do?" he said,
smiling. "I am Imran Habib. I hope you are finding
this place interesting."

"Yes, Uncle, very much so. Very intriguing, too," I
replied. "Are you going somewhere?"

"Yes, yes, I have to," said Uncle Habib, getting up.
"I have to relieve my colleague in the Geomagnetic
Observatory. Would you like to join me? It is hardly
a few kilometres away. You can return with my
colleague."

"What about Uncle? He is fast asleep."

"You mean, Dr. Sahai? Don't you worry. We will
leave a note for him. Come on, then. Get ready!
Immediately! My colleague must be cursing me."

I wrote a small note and kept it near Uncle's head so
that it would be the first thing he would see on waking
up. I then washed and dressed. I also put on my
goggles. Meanwhile, Uncle Habib also dressed up and
prepared steaming hot coffee in the kitchen.

"I want a cup, too," I said.
After the coffee, I opened the door of the hall to have a last look at the berths. Nobody was awake. We sat in the lounge for some time to acclimatize ourselves to the cold outside. Even though we sat in the lounge for a while, I shivered when I felt a blast of cold air hit my face when Uncle Habib opened the door of the Albatross and walked out. The difference in temperature was bound to be felt because while the conduit was maintained at a temperature range of 11 to 18°C, the temperature outside was —2°C. I immediately wrapped my face with a scarf, not having carried the cumbersome plastic visor. Uncle Habib covered the lower part of his face with a scarf, too. He led me through a number of streets and then asked me to wait outside a conduit with 'Garage' written on its door.

Uncle Habib opened the door, went inside and came out riding a Ski-doo. It was a bulkier form of an ordinary scooter, with sledge-like curvature at its front. It had a series of small tractor-like wheels and a big headlight. I climbed on to the saddle, behind Uncle Habib, and held on to the handle behind his seat. Within no time, we had crossed a few streets and were in the open ice fields. A cold, howling wind blew past us as the Ski-doo picked up speed. All about me was a creamy whiteness. A sense of exhilaration filled me. I felt as if I were floating on an ice-cream! But this feeling remained for hardly a minute or so because soon my face, hands and toes became numb with cold.

"Are you okay?" asked Uncle Habib, puffing out a cloud of vapour, as he slowed down the Ski-doo to a stop. He cut the engine and began to wipe the windshield. "It is hardly a few minutes' run now. Be sure to hold on tightly to the handle. Your hands must have become numb and you may fall."

"Don't worry, Uncle," I said. In spite of the gloves my hands had become numb but I managed to grip the handle.
In a short while, the colony behind me had vanished. Left behind were only the tracks of the Ski-doo. The cold kept us quiet until a red spot appeared on the horizon.

"That is the Geomagnetic Observatory," said Uncle Habib, pointing at the fast approaching red spot. "It has been purposely installed at a distance away from the station because any huge metallic object, a vehicle or helicopter can disturb magnetic measurements."

The red spot was a big tent, with a cylindrical base and a conical top. A few minutes later, Uncle Habib stopped the Ski-doo at its entrance. I got off carefully on to the hard and slippery ice. When Uncle Habib cut the engine of the Ski-doo, only the whistling of the wind could be heard. Nothing else stirred or moved. The tent appeared deserted and quiet, as if there was no one inside. But when Uncle Habib shouted "Denzil!" as he parted the heavy curtain at the entrance of the tent, a voice answered him, "Come in."

We entered the tent, dimly lit by a small bulb hanging at its centre. The tent was crammed with electronic gadgets, instruments, round TV-like screens and some panels of multi-coloured lights. Huge, thick ring-like objects hung from stands over two box-like instruments with indicators on their dials. Some empty mugs, a jug containing some coffee standing on an electric heater, and an unwrapped packet of biscuits on a plate stood on a table in a corner. On one side were a bed and sleeping bags. It was certainly warm and cosy inside the tent. A peculiar burning smell hung in the air.

"Why late, my friend?" asked the bearded occupant of the tent, without looking at us as he turned the knobs of an instrument. When eventually he turned to look at us, I was stunned. It was the same bearded man who had been watching me all along the voyage. My face flushed and my heart began to beat faster. The bearded man was also surprised.
"Who is this young lady?" he asked as he got up. We were introduced. His name was Dr. Denzil Dias. He talked to me as if he had seen me for the first time! I could not make out what to tell him and what not.

Uncle Habib noticed my uneasiness. He, therefore, began to show me the instruments and tell me about their uses. The Geomagnetic Observatory was meant for mapping the magnetic field at the location and for detecting any variations observed in the local magnetic field. The information gathered was sent to an international centre which received data from such observatories of different countries situated on the continent and all over the world. The collected information was then analysed.

The sun occasionally releases a burst of energy and electrically charged particles which literally shake the magnetic field of earth causing what are known as 'magnetic storms'. These storms occur with a higher intensity over the Antarctic continent. Therefore, the study of these storms, which the observatory would indirectly conduct, would throw light not only on the terrestrial magnetic field but also on the events occurring on the sun!

In the meanwhile, Dr. Dias had prepared coffee and offered us a cup each. I gladly took the cup because of the warmth it offered after the trip. Dr. Dias began to get ready for the return trip to the colony. Apprehensive of accompanying Dr. Dias back, I was in a fix. How could I tell Uncle Habib about all those past experiences which, strictly speaking, made no sense!

Uncle Habib saw something was troubling me. "Are you feeling cold, Neha?" he asked, once or twice. But on seeing my confused expression, he gave up, shrugging.

"Would you be interested in seeing a laboratory where studies are being conducted on seals?" asked Uncle Habib suddenly when our conversation faltered.
"Seals? Why not? Where is the laboratory?" I exclaimed, excited at the prospect of seeing a seal at close quarters.

"It is not far from here. Just a ten minutes' run. Denzil, you won't mind, eh?"

"Welcome!" said Dr. Dias, enthusiastically, taking the gloves from Uncle Habib. Somehow, it had not occurred to me that Uncle Habib would tell Dr. Dias to show me the laboratory. I became nervous. But the die was cast. I had no choice.

"Go ahead, Neha. Best of luck," said Uncle Habib, taking off his field jacket. "I am now on duty for the next 12 hours. All alone___ Anyway, Neha, I am sure you will see the seal. Good luck!"

When we came out of the tent, the sun was no more to be seen. It had become somewhat foggy. Dr. Dias looked at the sky, shrugged his shoulders and pressed the starter. I jumped on to the seat behind him. Soon, the Ski-doo was moving fast on ice. It did not take me long to realise that Dr. Dias, though a serious-looking person, was a rash driver. Sitting behind him and clutching the handle tightly, I could feel he was driving very fast. Many a time, bits of ice shot up at my face and clothes as the wheels of the Ski-doo cut through the ice. A few minutes later, I could feel that we were approaching the sea as it became very windy and salty. In fact, for some time a strange fear had been gnawing at my mind for no rhyme or reason. I had begun to wonder whether Dr. Dias was taking me in the right direction. Only when I saw a red tent ahead did I feel relieved. Soon, Dr. Dias brought the Ski-doo to a halt within a few metres of the tent. I got off and drew the heavy curtain at the entrance without bothering to see whether Dr. Dias was following me or not.

I felt very happy when a lady scientist, Dr. Mohini Kotnis, welcomed me to the laboratory. It was in the first half of the tent. A partition with a curtained door
divided the tent into two. The dimly lit room was neat and well-kept. On one side was a bed, on another a table with electronic gadgets and instruments, and on still another a chair and a small table. On the table were some mugs, food packets and a jug. A small shelf containing chemicals was hung on a wall adjacent to the instruments. A few greenish TV-like screens of some gadgets showed some wavy patterns. Mohini Auntie opened the curtain and took me to the other half of the tent. I was surprised to find that half of the circular tent had no floor. It was exposed to the ice below. There was a metre-wide hole at the centre of the ice floor. But for a bulb glowing dimly and some packets of food, there was little in that part of the tent.

"Where is the seal?" I asked.

"It has not arrived," said Mohini Auntie. "But it should come at any moment now through that hole." She pointed at the hole. "The seal is our pet, so you need not fear it."

"You mean the seal is inside the hole?" I enquired.

"That means you are not aware of the continental shelf," cut in Dr. Dias who had joined us.

"I am certainly aware of it," I said, annoyed.

"It is like this, Neha," said Mohini Auntie, sensing my anger.

"The seal lives in the sea just below where we are standing, about 200 metres below this continental shelf. It is free—totally. It can come up or go down as it likes. We are studying it in its natural environment. We have strapped various sensors to its body which tell us about the changes occurring in its body. For instance, the sensors measure its body temperature, pressure, blood flow, and the like. And____"

"This is just to study the seal or...?" I interrupted.

"I am just coming to that," said Mohini Auntie. "Such studies of seals will also give insight into the human body and provide for new drugs____"
"How?" I asked, surprised.

"Perhaps, you are aware," she said, "that this species of seal—the Weddell seal, named after an early explorer—is nature's most expert driver. It can go down to great depths, resisting tremendous water pressure and still do all sorts of wonderful acrobatics. Denzil, you must be feeling bored, I am sure."

"Go ahead, Madam. Don't worry about me," he said, puffing at a cigarette.

"So, Neha," continued Mohini Auntie, "we are trying to study what kind of natural chemicals the seal's body produces which enable it to withstand high water pressure. If we are successful in identifying those chemicals and isolating them, we can administer them to men who dive to great depths. The risks to their life can thus be eliminated. Also, the knowledge of those chemicals can help medical scientists to discover cures for human seizures. The study of blood and physiology of seals at great depths can also provide clues to deal with medical emergencies such as asphyxiation. Besides, it is also interesting to study how a seal locates its prey using sound waves like a bat."

"Wonderful! Marvellous!" I exclaimed.

Mohini Auntie took us back to the other half of the tent, where she prepared coffee for Dr. Dias. I ate biscuits but declined coffee. When the seal did not turn up even after I had finished the biscuits and Dr. Dias his coffee, I began to feel bored. But the chance of seeing a Weddell seal at close quarters could not be missed, for where else would I see one again. The seal was the inhabitant of cold climates. So, I waited patiently for the seal. Mohini Auntie did her best to keep my mind occupied by asking me about my parents, my interests and hobbies—anything that would kill time. But the seal was still not seen. Instead, because of our loud talk, the lady scientist, whom I had not noticed sleeping, unzipped her sleeping bag,
looked at me through sleepy eyes, then withdrew herself into the bag and zipped herself in.

"I am sure you will excuse her," said Mohini Auntie, "she was on night duty. She has gone to sleep only an hour ago."

"It is all right," I said, "I understand. How hard were their lives, I thought. It was no joke to do scientific research in the cold of the continent. It suddenly reminded me of Dr. Dias, who had also been relieved of his night duties. He must also be tired, I realised. I looked at him. He was indeed tired. I was about to tell him that we should return when there was a beeping sound. Dr. Dias rushed to a gadget before Mohini Auntie could get up. He picked up a receiver and some words were exchanged.

"That is our wireless set. We are always in touch with the headquarters," she said. On seeing Dr. Dias replace the receiver, she asked, "What is it, Denzil?"

"Nothing much. Just a routine check," said Dr. Dias, looking away.

I felt there was something wrong. Mohini Auntie also seemed concerned from the way she looked at him. She, however, kept quiet.

"Come on, Neha. Let us go," said Dr. Dias. "Okay, Mohini, see you. There is no need for you to come out. Why face the cold? Come on, Neha." To come out of the tent Mohini Auntie would have had to put on her field jacket and pants. I walked out of the tent into the open. I had missed the opportunity of seeing the seal but I was to witness something else—totally out of the blue!

The whiteout

When I came out of the tent, I could not believe my eyes. The weather had totally changed within the hour
that we were inside the tent. The sky was white. Snow was falling. It was foggy all around. The band of sea which I had seen while coming had become invisible. Fierce winds were blowing, flapping the curtain of the tent and shaking it all over.

"By Jove!" swore Dr. Dias, puffing out a dense cloud of vapour, as he started the Ski-doo. "These are the signs of a whiteout! It is caused when daylight penetrates an overcast sky and reflects back and forth between the sky and the snow resulting in total whiteness. But there is nothing to worry! It is hardly a 15 minutes' run!"

I could not even see the drums lying in the distance, which I had seen on our way to the laboratory. It was difficult to determine the way to the colony in the white wilderness. The name was appropriate. For a moment, I thought of telling Dr. Dias that I wished to stay back but then thought otherwise. For one thing, Uncle would be worried and, for another, it was hardly a 15 minutes' run. If Dr. Dias was taking me back, he knew best what he was doing.

A few minutes later, Dr. Dias switched on the Ski-doo's powerful headlight which threw a yellowish light over the surrounding whiteness. Vague shapes of the nearest drums could then be seen, to guide us. But I realised to my dismay that even the nearest drum soon became invisible until it came very near, within a few metres. Besides, the track which the Ski-doo had made earlier, was becoming difficult to discern owing to the falling snow. Winds screamed past me and snow fell hard as if somebody was throwing stones at me. For the first time I felt the fear that haunts everyone on Antarctica. The fear of being lost in the icy whiteness.

Occasionally, I heard Dr. Dias wheezing as if he was breathing hard. Otherwise, I found him as confident as ever. There were no signs of anxiety or nervousness in him, which assured me that I was in safe hands. Was he
not confused? I began to wonder because for some time I had not seen any drum. After a few minutes, I could not resist making a discreet inquiry.

"Yes, we should have been at the station by now," said Dr. Dias, his voice betraying no fear. "I think we have taken a wrong turn somewhere. We had better go back the way we came." Saying so he immediately took a U-turn and we were back on our trail. But there was no way of knowing whether we were going back on our track, for visibility was very poor. Fear gripped me. Till then I had thought that Dr. Dias knew where he was going, but the fear of being buried alive in the snow came uppermost in my mind. I could feel my legs trembling and my throat drying. All the while snow continued to fall and the wind howl even more. I clutched at the handle all the more tightly and remembered my parents and home. In the meantime Dr. Dias's wheezing had reached a frenzied pitch. He was turning his head this way and that, straining his eyes to seek any drum or artifact, a guide-post. There was none to be seen!

A few more minutes must have passed when I saw, for a moment, something looming large on my left. "Stop! What is that?" I shouted.

"Where?" asked Dr. Dias. He turned the headlight of the Ski-doo in the direction I pointed and the greyish curving arch of a conduit could be seen behind a screen of haze. It was hardly three metres away! What a relief!

"Thank God, we have made it at last!" exclaimed Dr. Dias, his voice a bit shaky. He did not thank me, however!

Soon, the Ski-doo was roaring through the streets of the colony. In no time, Dr. Dias had stopped the Ski-doo in front of the door of a conduit, which he told me was the Albatross. I got down from the Ski-doo, relieved. But before I could ask him to come in, he left saying "Good-bye!", the roar of the Ski-doo engine
echoing through the colony. The hazy patch of yellow light of the Ski-doo soon vanished behind a conduit.

The conduit was certainly the Albatross. I felt I had reached home, such was my relief and happiness. I climbed the stairs and pressed the bell at the door.

Ajai opened the door. His face lit up on seeing me. Uncle, who was also in the lounge, gave a sigh of relief. I came to know later that both Ajai and Uncle had been waiting for me for over an hour. Both had become upset by the whiteout and were expecting a message from me to reach them any time on the wireless set available in the headquarters. A scientist had been sent to the headquarters to bring back any such message if it reached there because all the remote laboratories, observatories and camps had wireless sets to send messages. But when the scientist did not return, both had become extremely worried. Uncle had even thought of putting the rescue team on the alert when the sound of the Ski-doo raised his hopes. The next moment, I had rung the bell.

"You shouldn't have travelled in this whiteout. It is very risky," said Uncle, when I had removed my field dress and was having breakfast, kept warm for me in the oven. "You could have lost your way. Oh! When I imagine that... What would have I told your mother?" Uncle was indeed annoyed. He had reason enough.

"Uncle, I didn't have any choice," I protested. "Dr. Dias said it was a 15 minutes' run. And, how was I to know that there would be a whiteout?"

"Who is this Dr. Dias?" asked Uncle of a scientist.

"I don't know but I have certainly heard his name," said the scientist. "Quite a reserved chap I am told."

"Anyway, all is well that ends well," said Uncle, getting up. "Now you had better take some rest and enjoy the whiteout from your window. Don't go out
without my permission. I am responsible for your safety here, understand?"

"Yes, I understand, Uncle," I said, munching a vegetable sandwich.

"Understand, Miss Neha?" said Ajai imitating Uncle. For a moment, I felt like confiding in Ajai about my misadventure, but the next moment I changed my mind.

After breakfast I went to my berth. Just out of curiosity I drew aside the curtains of the adjacent window a little and looked out. The whiteout was continuing. Nothing was visible. I left the window and lay down to rest for a while. The trip had not only been tiring but also tense throughout. I closed my eyes to take a nap but scenes of my misadventure came back to me, again and again. Suddenly, a thought came to me which startled me. Was it possible that Dr. Dias had purposely lost his way? Why? We could have easily stayed back in the seal laboratory and sent in a message to the headquarters over the wireless set. He had taken a big risk—why? Moreover, what message had he received on the set when we were still in the seal laboratory? Had he wanted to frighten me? And what would he have gained? Had not his own life been at stake? On this point I could only give him the benefit of the doubt.

I had thought the whiteout would last for a few hours only but I was mistaken. When I got up after the nap, the whiteout was present. I was really apprehensive because just then somebody in the hall had remarked that a whiteout could continue for days together. If it did, all our programmes for the next two days, our last days on the continent, would be cancelled. And what about our flight back home?

When I got up and looked around the place, I found everybody occupied. The few who had some work in the colony itself had left. Others were busy reading or
playing some indoor game. A few like Uncle were watching others play carom. Ajai was also watching the game. I joined him but got bored after some time. Suddenly an idea struck me. I approached Uncle and whispered in his ear, "Uncle, it is high time you fulfill your promise," I said. "Tell us the history of the Indian expeditions to Antarctica."

"Yes, you are right," said Uncle and got up immediately. "It is the right time since we cannot go out anywhere. Come on, Ajai."

Uncle chose a quiet corner near a window. He drew the curtains a little but as soon as he saw the whiteout he drew them back. He sat down on a sofa. Ajai and I sat on either side of him.

"Well," said Uncle, looking at our faces, "how should we begin? Let us start with a question. Who was the first Indian to set foot on Antarctica?"

"I know," said Ajai promptly, "Giriraj Singh Sirohi."

"Correct!" said Uncle. "He came to Antarctica in 1960 and stayed at the American station, McMurdo Sound, which is near the Ross ice shelf. He came as a member of an American team to conduct studies on biological clocks, the clocks inside the bodies of all living beings."

"What are they, Uncle?" I asked.

"Take your own body, for example," he said. "You must have noticed that you wake up in the morning. You feel hungry at particular hours; at a particular hour, you feel drowsy and go to bed. In other words, there is a sort of clock inside your body relating time to your activities. This is called the biological clock. You must have heard of some animals which hibernate for months and wake up in a particular season."

"But the question that had been troubling scientists for a long time was whether the rotation of the earth had any effect on the biological clocks of living beings."
Dr. Sirohi and his American colleagues brought cockroaches and small animals to the south pole to find an answer. Do you know why the south pole was selected, Neha?"

"Because it does not rotate," I replied.
"Are you sure?"
"I am sure, Uncle," I said.
"You are absolutely right. Dr. Sirohi and his colleagues used to create artificial day and night by using black curtains because, as you know, we don’t have the normal day and night here," said Uncle.

"Then what did he find? Has rotation of earth any effect on the biological clocks of animals?" I asked.

"No. He and his colleagues found none. The biological clocks function irrespective of the rotation of the earth. It certainly settled the question, once and for all. In memory of his significant contributions and his visit to the continent, the U.S. Science Foundation named a particular site after him. It is called the 'Sirohi Point'. It is on the Beardmore glacier near McMurdo Sound."

"Can we visit the Point?" asked Ajai.

"No, it is too far away from here. It is as good as on the other side of the continent. That was the first attempt, though one cannot say it was an Indian attempt. Subsequently, a number of Indians visited the continent in their individual capacities. I don't know the names of every individual.

"There was one Dr. P.S. Sehra, a meteorologist who visited the continent as a part of a Russian team in 1972-73. Meher Moos was the first Indian woman to visit the continent as a tourist. There are a few other names... I forget..."

"It is all right, Papa. Let us go ahead," cut in Ajai. "Tell us about our own Indian attempts."

"Right. The Indian scientists have long been interested in establishing a camp on Antarctica. Some
scientists approached the Government of India to provide them the facilities because after all a lot of money is required to establish a camp here. The idea did not click. It was Mrs. Indira Gandhi who gave the green signal to the Indian scientists to visit the continent and establish a camp there. Dr. Syed Zahoor Qasim was selected as the leader of the First Indian Expedition to the continent. His team comprised...

"Why was Dr. Qasim selected?" asked Ajai. "Had he been to the continent earlier?"

"Well, Dr. Qasim was the scientist who had proposed the expedition, in the first place. He was then the Director of the prestigious National Institute of Oceanography, Goa. Moreover, Dr. Qasim had all the experience required in a leader of such an expedition. He had been to the Arctic, the north polar region, once. The Arctic is an ice-filled ocean instead of a land mass. But the conditions are quite similar. Does that answer your question, Ajai?"

"Yes, Papa. Go ahead."

"No, I am not going to do that. It is one o'clock. I am feeling hungry. Let us go for lunch. Come on, get ready."

Uncle got up and began to put on his field dress. We followed suit.

The earlier expeditions

The whiteout prevailed even after we returned from lunch to the Albatross. Uncle continued his tale.

"The First Indian Expedition under the leadership of Dr. Qasim set sail from Marugoa Port, Goa, on December 6, 1981, in a small, 550-ton Norwegian ship, the POLAR CIRCLE. For this maiden voyage most of the 21 expedition members had no experience of
either sea travel or living on ice. Therefore, the members underwent two training sessions. In one session, the members had to camp and live on Machoi glacier, in the Himalayan region of Kashmir. In the other session they were introduced to sea voyage aboard the I.N.S. KILTON off Madras, in the Bay of Bengal. For an Antarctic expedition, the POLAR CIRCLE was a small ship. Nevertheless, it was fully equipped for tackling ice and had facilities for conducting scientific experiments. About 12 truckloads of food, fuel, clothes, were loaded on the ship. The crew members of the ship were Norwegian.

"The ship reached Mauritius. But at Port Louis, the expedition members came to know of a West German mission to the south pole having been abandoned after one of its two ships was trapped in the ice-filled Southern Seas. For the expedition members who were going to the continent without any substantial experience, the news was highly discouraging. Nevertheless, when the ship left Port Louis after loading water and fuel, the morale of the expedition members was high. Things turned sour when the ship entered the rough seas of the Roaring Forties. Being small in size, it tossed from side to side, causing undue seasickness to the members. It was indeed a testing time! Some members thought that the ship would sink any moment and their death was near. Dr. Qasim, however, kept the morale high by giving a lot of pep talk. For, had the majority of expedition members decided to return, he would have had to abandon the maiden mission. No expedition leader would have wanted to do that.

"The ship crossed the Roaring Forties safe and sound, but their troubles were not over. The New Year found the ship tackling ice walls one after the other in the Southern Seas. For seven consecutive days, the crew could not sleep a wink as the ship negotiated the
pack ice. Three attempts were made to cut through, but all failed though the continental shelf was sighted every time. At last, a Japanese ice-breaker FUBI was spotted. A helicopter was sent to get the necessary information to reach the shelf. Aboard the ship a gloom prevailed. Bad weather and sleepless nights began to tell upon the nerves of several members. Some thought of abandoning the mission and some thought their days were numbered. However, on January 8, 1982, the weather took a dramatic turn for the better. It became clear and fine. The ship broke through the pack ice and reached the continent on its fourth attempt, on January 9, 1982, at 3 a.m. The news of the successful landing was flashed all over India and abroad. India became the 15th country to reach Antarctica!

"The expedition, code-named "Operation Gangotri", set up its first camp about 4 km. from the continental shelf. A teakwood refuge hut containing food, medicine, and fuel was installed near the camp as per the convention. A brass plate etched with the names of the members, in Hindi and English, which commemorated the successful landing of the First Indian Expedition on the continent, was fixed on a rock face. The Indian tricolour fluttered on a four-metre pole atop the camp.

"During the stay on the continent, a number of incidents occurred—some unpleasant and some interesting. In one of the trips of a helicopter to the continent, it lost its way and was eventually contacted after frantic efforts of both the persons aboard the ship and the helicopter. When a small camp was set up on Dakshin Gangotri hills for the first time in order to install an unmanned weather station, bad weather had made a helicopter trip to the hills look impossible. There was even talk of abandoning the scientists for the day on the hills! During the expedition, Dr. Qasim and a few
other members visited the nearby Russian station, Novolazar Evskaya.

"During the sea voyage to and from the continent and the ten-day stay of the members on the continent, a number of scientific experiments were conducted. For instance, some studies were conducted on sea, ice, atmosphere, glaciers, propagation of radio waves, and so on. Samples of rocks were collected and magnetic field over the region was studied. One expedition member also undertook bird-watching. One of the significant achievements of the First Indian Expedition was the installation of the unmanned automatic weather station on the continent. The station had a small computer to collect and record weather data on cassettes. It ran on solar-powered batteries.

"The Second Indian Expedition reached the continent on December 28, 1982, hardly eleven months later. The leader of the expedition was Dr. V.K. Raina. There were 28 members and the expedition stayed on the continent for 57 days. The basic aim of the expedition was to prepare the ground for the installation of a permanent manned research station on the continent. A small pre-fabricated metallic hut housing equipment and men was raised. An airstrip was laid. Besides a number of scientific experiments, a group of scientists landed on an iceberg and took samples of its ice. Meteorological studies commenced with the launching of balloon-borne instruments. That part of the continent was drilled for the first time to extract ice cores, which would help in understanding the events that had occurred on the terrain.

"Memorable events happened. The expedition members celebrated the New Year and Republic Day on the continent on a small scale. One Argentinian Hercules plane flew over the airstrip and the Indian camp as a gesture of friendship, dropping food packets. The plane had in it two Indian pilots as a training exercise.

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The entire expedition team visited Novolazarevskaya station to join in the celebrations marking the anniversary of the station.

"A very frightening incident occurred during the fag end of the Second Expedition, when about four members, the only persons who had stayed behind in the pre-fabricated hut for experiments, were trapped in a whiteout for three to four days.

"On a big cargo ship, the 12,000-ton M.S. FINNPOLARIS, the Third Indian Expedition, a team of 83 members, reached Antarctica on December 27, 1983. The leader of the expedition was Dr. H.K. Gupta. For the first time, two women scientists were among the members of the expedition. Also, for the first time, an Indian navy officer was trained aboard the ship for future voyages to the continent. Apart from the usual experiments, the main aim of the expedition was to set up a permanent manned Indian station on the site selected by the previous expedition. Everything went well throughout the voyage. The ship reached the continent when the weather was fine. But trouble erupted when the offloading of the supplies from the ship began. A helicopter lost balance and after hitting the ship, crashed into the sea. Nobody died. One person was in a serious condition but was taken care of aboard the ship. Although such an accident could have shattered the morale of the expedition members, under the spirited leadership of Dr. Gupta things returned to normal very quickly. In fact, the expedition members took this up as a challenge with tremendous zeal and enthusiasm. Within a record setting time of 58 days, they established the first permanent Indian manned station on the continent. It was named Dakshin Gangotri.

"The pre-fabricated permanent station came to the continent in three containers, much like a mechano-set. It consisted of two double-storeyed hut-like blocks
linked by a passage, with a kitchen, living rooms, laboratory, library, garage and a workshop. Built of hollow wooden structures standing on drift-control foundations, it had just enough space for 12 scientists to stay. Luckily, a severe blizzard blew up only after the station had been completely built. During the 64-day stay, the expedition members celebrated the Republic Day and Holi on the continent. Meanwhile, a direct communication link between the station and New Delhi via a satellite was established. Telex messages and AIR radio news could be received at the station. When the expedition returned, it left behind a team of 12 members led by Lt. Col. S.S. Sharma to stay on the continent during its sunless and severely cold winter.

"So continued the Indian expeditions, one after the other. Some met with trouble and some went very smoothly. Not only did the number of scientists who came to stay on the continent increase with time but of those who spent winter there. More residential quarters were built. More conduits were installed to form a colony near the Dakshin Gangotri station which now houses the headquarters. At present, there are about 20 conduits. During summer, about 100 men stay in the colony and during winter the number falls to about 50. Some scientists come to stay for the summer and leave before the cold, dark days of winter begin. Others come to stay for the winter and leave when summer begins."

A continent calling

It was 4 p.m. when Uncle ended the story. The whiteout had disappeared yet the weather could not be called fine. It was hazy. A sort of dullness and laziness had come over us after sitting continuously
for such a long while. Uncle therefore suggested that we should visit the canteen and have coffee. We agreed. In a few minutes, we had dressed and were out of the Albatross.

"It is all right, Uncle," I said, when we had taken a seat in one corner of the canteen and Ajai had volunteered to bring coffee, "but what do we get by coming here and spending so much public money?"

"My dear Neha," said Uncle, "you have raised an important question. When our expeditions had begun, several people asked this question. But tell me one thing: do we human beings always do everything for food? No! I suppose. Such attitudes made us sit tight at home, not moving, for centuries. See our history. We, Indians, did not go out of our country for quite some time; we remained in our shell. This was against our earlier tradition which had made us go in all directions in search of adventure and exploration. Why shouldn't we do so now and expand our horizons of thinking?"

"Uncle, I have read only one book on Antarctica," I said hesitantly, "how can I..."

"What I have mentioned is not given in any book, my dear," said Uncle, smiling. "I am just talking about the need for a spirit of adventure and exploration. Antarctica can provide us that... Anyway, let us see, how far the book has informed you. I think one book is enough to give you some elementary ideas. Come on, Neha."

"Okay, Uncle," I said, giving up my inhibitions. "The continent must have metals and minerals under its icy cover—like any other continent. We can dig out these deposits and send them home. Is it okay?"

"Fine. Go ahead."

"Secondly, there could again be huge deposits of oil and gas under the ice and in the surrounding seas."

"Fine. Next."
"Thirdly, it could be used for launching manned rockets into space because there are no harmful radiation belts over the polar regions. This I have read elsewhere..."

"Then it is a good place to conduct scientific experiments," cut in Ajai, who had returned carrying a tray with three mugs of coffee and biscuits.

"Why do you call Antarctica a good place, my dear?" asked Uncle. "Be scientific in your answers."

"I mean, the continent is unlike any other," replied Ajai.

"Uncle, I think the continent is unique in that it has a different type of life, its air is pure and its low temperature..."

"Yes, Neha, you are coming to the point, but not exactly," said Uncle. "First of all, this continent is still free from any sort of pollution. Its air and ice are pure. Therefore, one can assess how far our air and water back home have been polluted. It is also the place where the global weather patterns are decided for the reason that the hot air from the equator meets the cold air of the continent. In fact, scientists think that it can act as an early warning sensor for global weather. This means one may see here early signs of what the weather would be all over the world! Some scientists think weather over the continent directly affects the monsoon rains in the Indian sub-continent. You know rain is vital for our agriculture. So, if we have to understand our monsoon rains, we have to be here to study its origins. The biological life being limited here, it could help scientists in understanding the complex ecosystems back home..."

"Yes, Uncle Yoga has told us so," cut in Ajai.

"Don't interrupt, Ajai. Let me finish," said Uncle, annoyed. "There are some fishes and marine creatures found in the neighbouring seas which produce certain chemicals that enable them not to freeze and die
however low the temperature may fall. The extraction of such chemicals and their administration to human beings can enable them to stand very low temperatures. This has applications in our defence in relation to regions exposed to extremely cold weather. Besides, the continent can serve as a big refrigerator to keep our food stocks preserved, particularly krill, which is likely to be harvested on a commercial scale. It can be preserved for a long time before it is sent back to Indian markets. So, Neha, you have high protein food for the starving millions!" Uncle was all smiles. "If you have any doubt about the preserving properties of the climate on the continent, one example should be enough to convince you. Even today the biscuits, tin foods and a half-eaten leg of a chicken found in Robert Scott's hut are as fresh as if they had been recently brought from Australia!"

"Papa, you are talking about applications—not science," said Ajai, with a mischievous gleam in his eyes.

"Yes, you are right to some extent. I have digressed a bit," he admitted, and continued, "Well, there are some phenomena such as the polar lights, magnetic storms, whistlers, which occur only over polar regions" "But, Arctic is ..." cut in Ajai again.

"Yes, I am coming to that, Ajai. The Arctic Ocean is however not easily accessible to scientists of every country," replied Uncle. "This is because some countries own some portions of it. Antarctica is, on the other hand, still accessible to any country interested in conducting scientific research over it, thanks to the 1958 Antarctic Treaty."

"That is fine, Uncle," I said. "But I do not understand one thing."

"What..."

"If scientists from the U.S., the U.S.S.R., the U.K., Australia and so on, have been here for the last several
decades, what more can our own scientists do? Already...

"You mean all these western scientists must have found out almost everything about the continent. What can our scientists add? That is your question—isn't it?" Uncle, perhaps amused at our ignorance, smiled as he said, "Well, first of all, Neha, you cannot imagine the size of this continent. You know, it is more than India and China combined in its area. Although scientists have been here for the last several decades, the continent is still far from being explored completely. For instance, no scientist of any country had conducted a detailed geological survey of the Dakshin Gangotri hills till we landed there. Moreover, it is only recently that some systematic research has begun on the continent, thanks to the growing interest in it.

"Also, every country conducts research keeping in mind its own priorities and interests. It is possible that what interests our scientists would be ignored by other scientists, as it happened in the case of Dakshin Gangotri hills. Lastly, regarding the valuable resources lying under the icy cover of the continent, I must tell you, Neha, Ajai, that no country will survey these resources and give us the maps. Forget it! We have to be right here and conduct our own surveys. What do you think, Ajai?"

"Okay, we will have oil, metals and minerals from the continent. But, don't you think they will be very costly? After all, ships will have to come all the way. Furthermore, it will be extremely costly to extract resources from beneath the ice cover of the continent in such harsh conditions," replied Ajai.

"That is very true, Ajai. All the resources will be extremely costly. But that is better than no resources at all! If the oil wells all over the world become dry, oil from the continent, howsoever costly, will be welcomed."
"That is right, Papa," said Ajai, his eyes showing that he was about to ask a question to which Uncle would probably have no answer, "but do you think we will have enough sophisticated equipment to conduct the studies we want? We have not even built our own ice-breaker to reach the continent. We have reached the continent on a West German ship whose original name is the POLARSTERN."

Uncle started laughing. "My dear Ajai," he said, "you have answered your question yourself."

"How come?" Ajai was dumbfounded.

"You say that we haven't built sophisticated equipment and ships to conduct studies here, but we have the POLARSTERN and other very advanced equipment, don't we? So, we can buy what we don't have. The world market is open. We cannot wait until we develop our own indigenous technology for our purpose. If we wait, it will become too late. So, it is better to buy what we don't have. We won't when we develop the technology."

"One more thing, Uncle," I said

"Yes, what is it?"

"Will we Indians be able to get a part of the continent?" I asked rather nervously.

"You want to extend the territory of India beyond the vast Indian Ocean!" Uncle was amused. "My dear, this is a sensitive issue. Frankly speaking, this is not possible, as far as I know. There is no such provision in the 1958 Antarctic Treaty. But one can never say what will happen in 1990 when the Treaty will expire. It depends on the prevailing political situation. In any case, India is already the consultative member to the Treaty. We have presently the right to conduct research over the continent. Ah! look outside! The weather seems fine now!"

A scientist had drawn the curtains to look outside. Ajai and I rushed to the windows.
"Yes, Uncle, the sun is up," I shouted in excitement. "Let us go out Uncle, and take a round of the colony."

"Sure, why not? It is only 7.30 p.m," said Uncle, looking at his watch. "We can return for dinner. Let us go out and give our lungs some fresh air."

The awards

It was totally peaceful and quiet when our party of three set out into the open. We walked in the direction of the sea. Some other scientists, in groups of threes and fours, had come out and were walking around in the 'evening' sun, exercising their legs.

We continued our walk in silence, watching the whiteness around us and the blue strip of sea ahead. There was nothing much to be seen. After every hundred metres or so we came across a red or a green drum indicating the direction of the airstrip. How boring and dull the place was, I thought, the excitement of the morning having worn away. The next moment, a thought came to my mind.

"Uncle, tell me what are the interesting places worth a visit on the continent?" I asked.

"Why? Have you got bored in two days? Just see how scientists live here. You must admire their courage, patience and sacrifice," said Uncle. After pausing for a while, he said, "I remember the words of an American scientist, which I read in a magazine. I still remember them as if I read them recently.

"The scientists says: 'My skin is as dry as that of a mummy. My lips are cracked, my eyes are sore and bloodshot, I get nose-bleeds, and I am always dying of thirst. I forget the day of the week, because down here all the days and nights are alike. I miss my family, and I yearn to see grass, or flowers, or anything alive—even roaches or poison ivy. But I wouldn't
give up the chance to work here for all the money in the Treasury. If you can’t get aboard the Space Shuttle, this is certainly the next best thing. How do you like it?"

"That is really marvellous," I said. "In a few sentences he has put down all his feelings. Scientists are really the pillars of the world...What about the interesting places?"

"Yes, come on," said Uncle as he walked ahead making a sign that we should move. "Well, there are several spots. First, the historical ones. Capt. Robert Scott, who perished during the race to the south pole, had established a camp near McMurdo Sound, where the American station is now situated. The camp is a hut named 'Hut Point' or 'Discovery Hut'. It is now preserved and is a historical monument. At the spot where he and his companions perished on their way back is a great oak cross on which is written: "To strive, to seek, to find and not to yield". It is a place worth a visit.

"Again, there is the 'Nimrod Hut' of Ernest Henry Shackleton, built in 1908 near Cape Royds. From a scenic point of view, it is worthwhile seeing the biggest glacier Beardmore glacier, named after a Glasgow industrialist. It is also near McMurdo Sound. The biggest patch of land on the continent, free of ice, is in Victoria Land. It is called the Dry Valley. If ever any tourist hotel is built on the continent, it will be in the Dry Valley. Then there are two volcanos Terror and Erebus, named after the two ships of Capt. James Ross, which still spout smoke and lava. From a scientific point of View, the American station on the south pole is worth a visit too. Besides, you have already seen the interesting spots, from the Indian viewpoint."

"You have forgotten one thing, Uncle," I said, smiling. "The penguin rookeries! I think a penguin
rookery is the most interesting place on this bleary continent."

"Yes, you are right, Neha," said Uncle. "Could we visit a rookery?" I asked.

"Well, there is one small rookery some distance from the Indian Bay. If you are keen to see a rookery, I will try my best to..."

"Yes, please, Uncle."

We might not have gone even a few metres further when I saw something lying on the ice, to my left. It was a small tin can containing ice. I was about to pick up, when I heard Uncle shouting, "Neha, stop! What are you doing?"

"Nothing, Uncle," I said, turning around. "There is a tin can lying here. I thought I would see if there are any markings on it."

"No, no, don't touch it, my dear," said Uncle. "You had better stay away. You may disturb the can. Some experiment may be in progress. Who knows?"

"What? How do you know that an experiment might be in progress?" I asked in astonishment.

"I don't know," said Uncle, smiling, with his hand on my shoulder, drawing me away from the can. "Then why did you..."

"There is an unwritten agreement on Antarctica that no object, however enticing or ordinary it may appear, found anywhere on ice, should be touched because some experiment may be in progress," he replied.

"What kind of experiment do you think could be in progress with this can?" asked Ajai.

For a second, Uncle was dumbstruck. For once, I thought, Uncle had been beaten. But no, he gave a reply.

"It can be several things," replied Uncle. "For instance, to measure the amount of corrosion on
metallic objects here. It is possible that the can has been lying here for more than one decade. It may have been regularly examined for corrosion. It is also possible that the can may have been used to study the effect of the cold on its painted cover and so on...Here nothing has to be touched. Understand?

"Yes, we understand," chorused Ajai and I.

We continued our leisurely walk. After some time, we turned back. It was when we had almost reached the colony that we saw a wonderful sight—the sun with two hazy, yet sparkling bright, round companions on its sides.

"They are mocking suns or sun-dogs," observed Uncle, seeing the question in my eyes. "They appear when snow crystals hanging in the atmosphere refract sunlight. It is a wonderful sight, isn't it?"

On our way to the mess, Uncle told us that on the continent one could also frequently see a fascinating phenomenon known as 'inverted mirage' which occurs in calm weather conditions. This phenomenon shows the image of any object hanging right above it. "For instance," said Uncle, "if a man is approaching you, you will see him and his image hanging above him!"

The next day was the last of our three-day stay on the continent. It was also New Year's Day, a day of celebrations and prize distribution. One would wonder what there is to celebrate except exchanging New Year greetings. But on the continent, nearly every festival is celebrated with gusto so that the scientists find an opportunity to get together and have relaxation, in an otherwise isolated and routine life. On New Year's Day a special function is held to present the Annual Award for the Best Scientist, the Best Cook, the Best Beard, the Best Bravery Act, and so on.

About 10 a.m., everybody present in the Indian station met in one of the mess halls specially organised for the occasion. Scientists living in remote
camps came. Some foreigners from the neighbouring Russian, Japanese, Polish and West German stations came in their special heavy vehicles to attend the function and exchange greetings. The expedition leader Dr. H.K. Mankad first gave a speech, wishing everyone a Happy New Year. He also introduced the new scientists who had come to the continent for the first time and informed the audience about the kind of experiments they were going to conduct.

It was then the turn of the Chief of the Indian station, Dr. P.S. Gill, who read out the scientific activities in the station during the year. The prize distribution ceremony followed. Amidst clapping and cheering, prizes were announced one by one and presented to the scientists. I was taken aback when I heard my name being announced for the Best Bravery Act of the year! Uncle and Ajai were also stunned. I reached the dais only when my name was called a second time. My act of bravery, the presence of mind I had shown during the whiteout, was read out. I was presented with a certificate and a memento.

The memento was a beautiful piece of brasswork, showing a teak hut on the map of Antarctica. My name was engraved close below the map with 'For the Best Bravery Act.' It was the biggest surprise of my life. I had tried my best to erase the misadventure from my mind for the fear of being ridiculed by Uncle and my parents. And here everyone was openly discussing it! I could only thank Dr. Denzil Dias whose honest revelations to the expedition leader had fetched me the award. Subsequently, Ajai and I were also given beautiful certificates for our stay on the continent.

After the ceremony, everybody rushed to the canteen and had hot coffee and snacks. I suddenly found myself to have become a celebrity in the small colony. Everyone, including the foreigners, came to me and
congratulated me, praising me for showing courage. Later, when I reached home, I found that all the major newspapers had carried a report on the ceremony the next day.

Later in the day, Uncle took us round the laboratories in the colony itself. I was received everywhere with honour and was shown the equipment and experiments in progress as if I were a V.I.P. We were shown an underground laboratory which was nothing more than a room with ice walls. On the walls were fixed various instruments and gauges to measure the amount of drift in the ice at various depths. The purpose of such a study was to determine whether colonies for human beings could be built underground in the ice. In another laboratory, the lowly plants found on the continent were kept and grown in plastic bubbles in which artificial conditions of air, temperature and pressure, similar to those present in the tropics, were maintained. The purpose of the experiment was to judge whether it was possible to grow the native plants back in India.

In yet another laboratory, drilling of the ice at great depths was in progress. Long tubes of ice were drilled out and cut into small cylinders called 'ice cores' for study in the laboratory. Such a study of ice cores at various depths, formed way back in the past, threw light on the climate and environmental conditions present then over the continent. It was like going back in time. An electronic equipment produced very funny and queer whistling sound. The equipment was monitoring what are known as 'Whistlers' studied to understand the ionosphere and magnetosphere. Then there were laboratories to study ice crystals, to monitor environmental conditions, and to conduct psychological tests on the residents of the colony. I was amazed at the amount and variety of scientific experiments that were in progress in the Indian
station. What else could I do other than pray for their safety in the harsh climate.

Uncle was very happy at my getting the award. He threw a small party in the 'evening' to which a select group of his friends was called. Uncle also invited Capt. Kamath, the pilot of the cargo aircraft which had arrived at the Indian station in the morning and which was to take us back to India the next day. The invitees included Dr. Dias.

What Dr. Dias revealed then was still more surprising. It had been a part of his duties during the voyage and our stay on the continent to keep a 'watch' on both Ajai and me! He could, however, not do much justice to the job, he told me smiling, because not many opportunities came his way. When he had seen the signs of the whiteout the previous day he had not wanted to leave the seal laboratory but then he had thought that it would be a good opportunity to test my courage. Once I had readily agreed, he had no alternative but to take me along. And he had never expected to miss the colony so narrowly. It was my courage and presence of mind, he said, that had saved our lives! I was all admiration when he gave me the entire credit. Even today, I do not feel I acted in any particularly courageous manner when the whiteout had engulfed us.

About 11 p.m., all of us returned to the Albatross after a special dinner made for New Year's Day. We went straight to bed because the next day Uncle had arranged a visit to a nearby penguin rookery before we boarded the aircraft for the return journey. Never had I spent such an enjoyable day even back in India. I only wished my parents had been there to share my joys.

I zipped myself into the sleeping bag but I could not sleep. Besides, when I thought of my departure the next day a feeling of sadness came over me. 'You
will not be here tomorrow,' my mind kept reminding me every other minute. 'You will miss all this.' Was it true that I did not want to return home? Did I not love fine weather and pleasant climate? Did I not want to walk outside freely without cumbersome clothes? I certainly wanted to go home and be with my parents. Then, what was it that was making me sad to leave the continent? Was it that I had fallen in love with Antarctica, that grand, cold, old continent which claimed that everybody who visits it does. Yes, it was.

The penguin rookery

The next day we woke up early, packed our bags and at 6.30 a.m. we had boarded the helicopter. I could not say goodbye to the scientists known to me, for everybody was fast asleep. Although our flight back to India was scheduled at 11 a.m., we had got up early to be able to visit the penguin rookery. Giving us company was Dr. A. Nag, who was a zoologist and an avid bird-watcher. Within half an hour the helicopter reached the continental shelf and descended over a flat field of ice. When all of us, climbed out, the helicopter left. It was to return two hours later to take us to the airstrip.

"We have to walk for about half a kilometre," said Uncle Nag, who had been to the rookery several times. "Walk carefully. There are some dangerous spots in the vicinity, where cracks occur leaving crevasses." But for this danger, the ice was soft like a foam mattress.

On one side were the open ice fields stretching away into the distance and on the other the uneven, undulating landscape meeting the deep blue of the sea, about 100 metres away, at a depth of about 10 metres.
Off and on, we came upon huge boulders of ice. Cold winds howled past. The first animal that we saw was a Weddell seal fast asleep on the ice. I was very happy that at last I had seen nature's greatest diver at very close quarters, in its natural environment. Iron-grey in colour with yellowish-white spots, it allowed me to approach it. However, when it looked at me with its beady eyes, flaring nostrils and bared teeth, I was scared and returned to the waiting party. We also came across two emperor penguins. Their big duck-like feet, a golden sheen on their neck, silvery breasts and sharp orange beaks made them marvellous beings. There was however nothing bird-like about them. A few sea birds also flew overhead but it was difficult for me to identify them.

Suddenly, a terrific rumbling was heard. A crackling followed and then a huge splash. The ice beneath my feet trembled. For a second I thought I had put my feet into a crevasse. But the sound had come from a distance. I saw a huge fountain of water shoot up in the sky at least a kilometre away from where we were standing. Flocks of sea birds suddenly began to fly hither and thither in confusion. All of us stood still looking at each other.

"That was the birth of an iceberg," said Uncle Nag. "Nothing to be worried about. It is the normal thing here on the continental shelf. Come on, let us move. We are now nearing the rookery."

Soon I heard some strange buzzing noise coming from the sea. Unmistakably, we were near the rookery. It is difficult to describe the noise I heard but it was closest to the sound of hundreds of ducks quacking together. We saw an Adelie penguin standing near a group of boulders. It was similar to an emperor penguin in several ways yet totally different. It was far smaller in size, hardly two feet in height. There was a prominent white circle around its red
eyes. The beak was also short and pointed. When we approached the penguin, it stood still watching us.

Suddenly, I do not know what happened to Ajai. He made a wild dash at it. Uncle and I were speechless. The penguin immediately tobogganed. It lay down on the ice and began to slide away like a sledge using its legs, uttering piercing cries all the time, "krohk! krohk!" It was fun to watch it slide away at great speed. When it appeared as if Ajai would catch the penguin, he stopped suddenly and sat down on the ice. When we reached his side he was wheezing heavily and his face was red. The penguin had in the meanwhile got up. It approached us guardedly, turning its head this way and that, a bit puzzled, as if curious to know what had happened to its pursuer. I felt a sense of exhilaration on seeing my favourite bird standing so close to me. I wanted to cuddle it. Perhaps, Ajai had been subject to similar feelings.

"So, you were trying to outrun a penguin," said Uncle. "My dear, you can never do that because the penguin has been living here for millions of years, while it is hardly a century that man has invaded its privacy!" Uncle was annoyed but he appeared to be amused.

Ajai got up, embarrassed by his sudden fit of madness. But he was breathing heavily and could not walk without making an effort. Uncle's anger evaporated. He held Ajai by his shoulders and helped him to walk. He told Uncle Nag to go ahead and show me the rookery which was just round the corner, in a small craggy depression looking out to the sea.

We were about to leave Ajai and Uncle, when something hit me. I looked back and saw it was a piece of ice. While I stood looking at everyone, Uncle Sahai and Uncle Nag began to laugh. I could not understand what had happened. The penguin was standing still, looking at me. When Uncle pointed his finger at the penguin, I did not understand what he meant.
"That penguin threw the piece of ice at you!" said Uncle Nag, unable to control his laughter. Uncle Sahai added, "It wants to make you his wife!"

I was astounded. Both went on laughing. Ajai too!

"Okay, laugh! I..." I began angrily. But before I could finish the sentence, the penguin had picked up another piece of ice in its beak and thrown it at me. Again there were peals of laughter, to my embarrassment.

"It likes you very much!" said Uncle Nag.

"It wants you to stay here and be its wife," added Uncle Sahai.

"You be its bride!" added Ajai.

"Will you be quiet, Ajai?" I said in annoyance, but I understood. It is the way a penguin selects its partner during the breeding season. I also began to laugh. I felt like taking the penguin back home. To this day, I remember and narrate this incident with embarrassment, and laughter, of course. Was it a prince in the form of a penguin, spending his life on Antarctica under a curse?

The incident had, if not anything else, eased the tension between Ajai and Uncle. Everyone was happy and in high spirits. Uncle Nag and I proceeded ahead. The noise created by the penguins was definitely on the rise, indicating that we were moving in the right direction. Shortly, we reached a high point on the ice shelf which looked down at the shore below. Looking down, I was amazed to see hundreds of black heads at one glance right up to the shore. With their jet black coats and white silvery breasts, they looked like a huge army battalion camping on the ice. Most of them were sitting on something. A few at the edge of the crowd were wandering around the place, flapping their wings, looking here and there. Using the binoculars hanging about my neck, I looked closely at what was underneath the penguins. I was pleasantly surprised to find

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little, dull grey things—baby penguins—between the legs of most of them. As it was extremely difficult to watch a penguin in the crowd, I looked at the ones on the boundary.

One of the baby penguins had just then managed to leave the warmth of its parent. But no sooner was it out of its parent's reach than three penguins who were without a baby, rushed at it, flapping their wings and making 'krohk! krohk!' sounds. The parent penguin joined them. The baby rushed in one direction, disturbing a row of penguins sitting on their babies, and then took a sudden perpendicular turn. It was fun to watch the baby penguin setting the elders to catch it and disturbing a whole lot of other parents. Suddenly, the baby penguin stumbled and fell. The next moment its pursuers were upon it. Using beaks and claws, they began to pull at it from all directions. Blood rushed to my otherwise cold temples but before I could think of anything, the helpless baby was attacked simultaneously from all sides. In trying to gain possession of it, each elder was pecking it and pulling it from the other, while the baby cried and flapped its tiny wings, and struggled to get out of their grip. In a few seconds it lay limp and dead. With a surprise move, one of the elder penguins pulled the corpse clean out of the grip of the others and rushed headlong in one direction, dragging the body to a spot safe from others.

"Oh! how horrible these birds are!" I said in agony and grief. "How can they be so cruel to their young ones!" I was terribly disappointed.

"No, my dear Neha, you are mistaken," said Uncle Nag. "They are not horrible. This is because of too much love for their young."

"How, Uncle?" I asked, amazed.

"Believe it or not, Neha," said Uncle Nag, "this is based on several studies and observations. Every adult penguin, male or female, wants to take care of a baby,
whether it has one of its own or not. It loves a baby so much that it is ready to snatch one of its neighbour's. What you just saw was the incidental death of the baby because of a mad scramble to possess it. That is all. And if you were to watch the penguin which has got the corpse now, you will notice that it is taking care of the corpse as if it were alive. That was just the exhibition of their survival instinct. In such a harsh climate, these birds need such instincts to survive and proliferate."

True indeed were Uncle Nag's words. When I watched the penguin with the corpse for the next few minutes, it was behaving as Uncle Nag had said. It had kept the corpse between its legs, as if to provide it warmth.

Some time later, we returned to the spot where we had been asked to wait. To my great surprise, I had beads of perspiration on my forehead and I was feeling hot. I was experiencing the Antarctic summer in the real sense! I saw that others were also feeling the same way. It was because of our direct exposure to the sunlight for a long time. The helicopter soon came and picked us up. Within half an hour, we had landed on the airstrip. The aircraft was waiting for us. Accompanying us on the journey were three huge gunny bags which contained the waste created at the Indian station! It was being flown back for dumping; waste is not allowed to stay on the continent.

As soon as we boarded the aircraft, our return journey began. Fortunately, the weather was fine throughout. Our pilot, Capt. Kamath, was highly cooperative. He would bring the aircraft close to the sea surface to show us some of the things which we would have missed otherwise.

As we left the continent, the most emotional parting was with the DAHSHIN SAMRAT which was anchored near the ice shelf. It appeared quiet and calm, with no activities on board. All my memories of having lived on
it came back in a rush. When it receded over the horizon, I felt I was leaving behind a good friend. Immediately after came the deep blue polynia which stretched away in all directions. It was dotted with silvery icebergs which looked like pancakes. The pack ice also glistened like ice-cream in the afternoon sunlight. The most exciting moment was when Ajai spotted a whale surfacing over the sea. It appeared like an ant splashing water all around! Then came the turbulent sea of the Roaring Forties. The aircraft had to come down close to the sea because the sky was cloudy. From above, the sea appeared to be a boiling mass of water. When we saw a ship being tossed like a straw in the waters, we remembered the bad time we had aboard the **DAKSHIN SAMRAT**.

It was evening when our aircraft flew over the equatorial waters. Despite the darkening gloom, however, Capt. Kamath managed to show us nature's exquisite displays underneath a still patch of sea in the neighbourhood of Mauritius—the huge, beautiful corals! It was a sight we had missed during our sea voyage.

At 9 p.m. our aircraft landed at Port Louis airport. While we had dinner in a restaurant, the aircraft went for fuelling and a check-up. Two hours later we were on our way to Goa. Ajai and I slept throughout this part of the flight and were woken up when the airport arrived, early next morning. Feeling drowsy and tired, nevertheless glad to be back, my happiness verged on tears when I met my mother who had come to receive me. I had never felt so happy as when I hugged her. The air flight showed that I was not too far away from her as I had felt when we had reached Antarctica by sea. Antarctica too did not appear to me, then, to be a distant world.

Even otherwise, Antarctica is now ever close to my heart. Although it is now more than a year since I have
been to Antarctica, I feel the urge to go back there again, as if it were calling me. The Roaring Forties, the first iceberg, the humpback whale, the whiteout and the penguin rookery are things that I recall every other day and feel happy to have seen and experienced. Were I given a chance to visit Antarctica again, I would seize it with both hands because it is the next best thing to going to the moon.

Epilogue

Ajai and I were taken aboard the DAKSHIN SAMRAT as guinea pigs, to see how children reacted to the totally new surroundings, and the harsh life on the continent! And I must tell you that we came through with flying colours! Scientists have found that children are as good as adults in facing the harsh conditions prevailing on the continent. The doors to Antarctica, which till now were open only to adults, have, therefore, been flung open for children.

Bon voyage!
Antarctica, where Neha and Ajai have arrived after a long voyage. On one side of the horizon was the deep blue sea, on the other was complete creamy whiteness. The ship lay amidst sheets of ice, a metre thick...Penguins stood on the edge of the icy whiteness, occasionally looking in the direction of the explorers.

Antarctica, one of earth's 'last frontiers', the highest, windiest, vast, is a continent awaiting, with riches yet to be tapped.