

Heat and dust

ow boring!" groaned Shashank, as he got into the school bus. "Another history lesson, that's what this trip is going to be!"

"I know," groaned back Rahul. "And that, too, not in the classroom, but in the middle of a hot desert!"

Mohan remained silent. He loved history and he did not think the trip would be boring.

Mohan was part of a study tour from his school in Ahmedabad. They were visiting the archaeological site of Dholavira, a 5,000-year-old settlement dating back to the Indus Valley civilization.

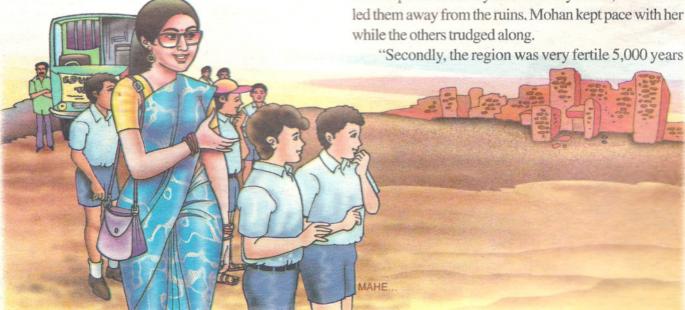
All along the way, their history teacher, who was escorting them, spoke about the civilisation. Rahul yawned and yawned. Shashank tried to drown her voice by loudly crunching up potato wafers. Only Mohan listened keenly.

And then they were there. The children tumbled out of the bus and their teacher led them forward. Dholavira was located on the Khadir Island, an elevated landmass with mountainous outcrops, in the Great Rann of Kachchh. The settlement complex was huge and the remains looked like the ruins of a fortified palace. Standing on the excavated archaeological mound with the others, Mohan surveyed the region.

'But why would any one want to settle down in a dry and barren region like this?' he wondered. At a distance he could see the glistening salt deserts of the Rann. Surely there was a mistake! Mohan knew that there were no rivers here and that the place received very little rainfall. He wanted to clarify his doubt but was a bit hesitant. His classmates were looking rather bored and uninterested. Rahul was scratching some picture on the ground with the tip of his shoe. No one else seemed to have any question to ask. Mohan decided to take the plunge and ask it out.

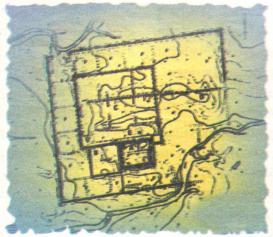
"But, ma'am, why did the people of the Indus valley settle here? In a land so dry and with no water?"

His teacher smiled, "That's a smart question, Mohan!" Mohan went red with pride and the other boys turned to stare at him. "To begin with, reaching Dholavira was not difficult 5,000 years ago because at that time, the Great Rann and the Little Rann were like extended arms of the Arabian Sea through which small boats could sail. Even today, this Rann, which is just a little above sea level, gets flooded with a shallow sheet of water during the monsoon. Since the water is mostly from the sea, when it dries up, the area turns into a saline desert, with thick deposits of salt crystals." As they talked, the teacher led them away from the ruins. Mohan kept pace with her while the others trudged along.



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ago," she continued. Rahul and Shashank had got into a scrape by now, much to Mohan's irritation. Shashank pushed Rahul who slipped and fell. The teacher stopped to help him on his feet. "Rahul, if you had fallen here 5,000 years back, I would have to swim to save you," she said. Now the children looked up at her, puzzled. They were walking through a dry area and why would ma'am have to swim?



"This is the dry bed of River Mansar, which once was a source of fresh water to the entire region," said the teacher, smiling at their puzzled faces. The children gasped and looked around them, stunned. A river and not a drop of water? "Another river, called Manhar, joined up with the Mansar after flowing around Dholavira. The people collected water from the rivers by erecting stone bunds across them. The water was then diverted into the reservoirs inside the Harappan township."

"What happened to Mansar and Manhar?" That was Rahul, now all agog!

"Around 5,000 years ago the people of the Indus valley and its surrounding regions took to cultivation. As time passed, agriculture and cattle rearing became their main occupation. More and more land began to be cleared for irrigation, firewood, grazing, and other purposes. In a short while, the forests began disappearing. So the region began receiving less rainfall. The ground

water level started falling. Soon the rivers were dry!" The teacher paused for a minute. "The dry winds would pick up the silt from the riverbeds and blow it all over the region. This entire process is called desertification. It turns a semi-arid landscape into a completely dry one. Here at Dholavira, desertification began at the end of the Harappan period, 3,500 years ago. Today this is

happening all over the world!"

Meanwhile Bhola, the local guide from a nearby village, came to call them for lunch. "Couldn't anyone do anything at all to prevent further desertification?" Mohan wondered as they trouped behind their guide. Lunch was waiting for them in the village. The children were rather surprised to see that the village was quite unlike the arid surroundings of the ruins. It was rather big and full of people and domesticated animals. Besides shrubs, there were also some trees.

"This village looks green and fertile. Not like Dholavira!" whispered Rahul to Mohan.

"Yes, it is," replied Bhola. The two boys sprang around, surprised. They had not expected a reply from him. Bhola continued, "If we don't take care now, the village will also very soon become as dry as Dholavira! But we are determined to prevent that. The little fresh water in the wells is just enough for drinking and household purposes. Farming is very difficult. We rear animals like

Every year more than 60,000 sq km of soil turns to desert and over 200,000 sq km of land becomes unsuitable for crops because of desertification all over the world. Desertification affects millions of people and animals all over the world, posing serious problems of water and livelihood. It affects the entire biodiversity of the region. Desertification is a major problem in Kachchh. Kachchh is the sole habitat of the last surviving population of the endangered endemic Indian Wild Ass. It also supports the largest breeding colony of the Greater and Lesser Flamingoes in South and South East Asia. More than one million Flamingoes are estimated to breed in the Great Rann of Kachchh, the world's largest saline wetland. It is also home to the unique saline grassland called Banni (approximately 3,847 sq. km in area), which harbors unique and endemic salt tolerant grasses and numerous wild relatives of commercially cultivated and economically valuable species.

cattle, sheep, goat, donkey, and camel. We have developed common grazing grounds close to the Rann. We don't let our animals eat up the sparse vegetation in and around the village. This helps regenerate the original vegetation of this place. We have also planted many trees and shrubs which are unique to this region."

After lunch, the children roamed around the village with Bhola. They saw how the villagers had taken to using cow dung cakes as fuel instead of firewood. They saw how they collected every drop of rainwater they could. "One day we will surely have enough water for dry land

cultivation," said Bhola, almost dreamily. The children grew solemn when they saw the villagers struggling to make their land fertile and bring the vegetation and water back.

As they boarded their bus back home that evening, even Rahul and Shashank admitted that the trip had been an eye-opener. "Not a boring history lesson, eh?" Mohan grinned at the two, his eyes twinkling. And they could only grin back sheepishly!

Text and photos: Bina Thomas Courtesy: Kalpavriksh and the National Biodiversity and Strategic Action Plan