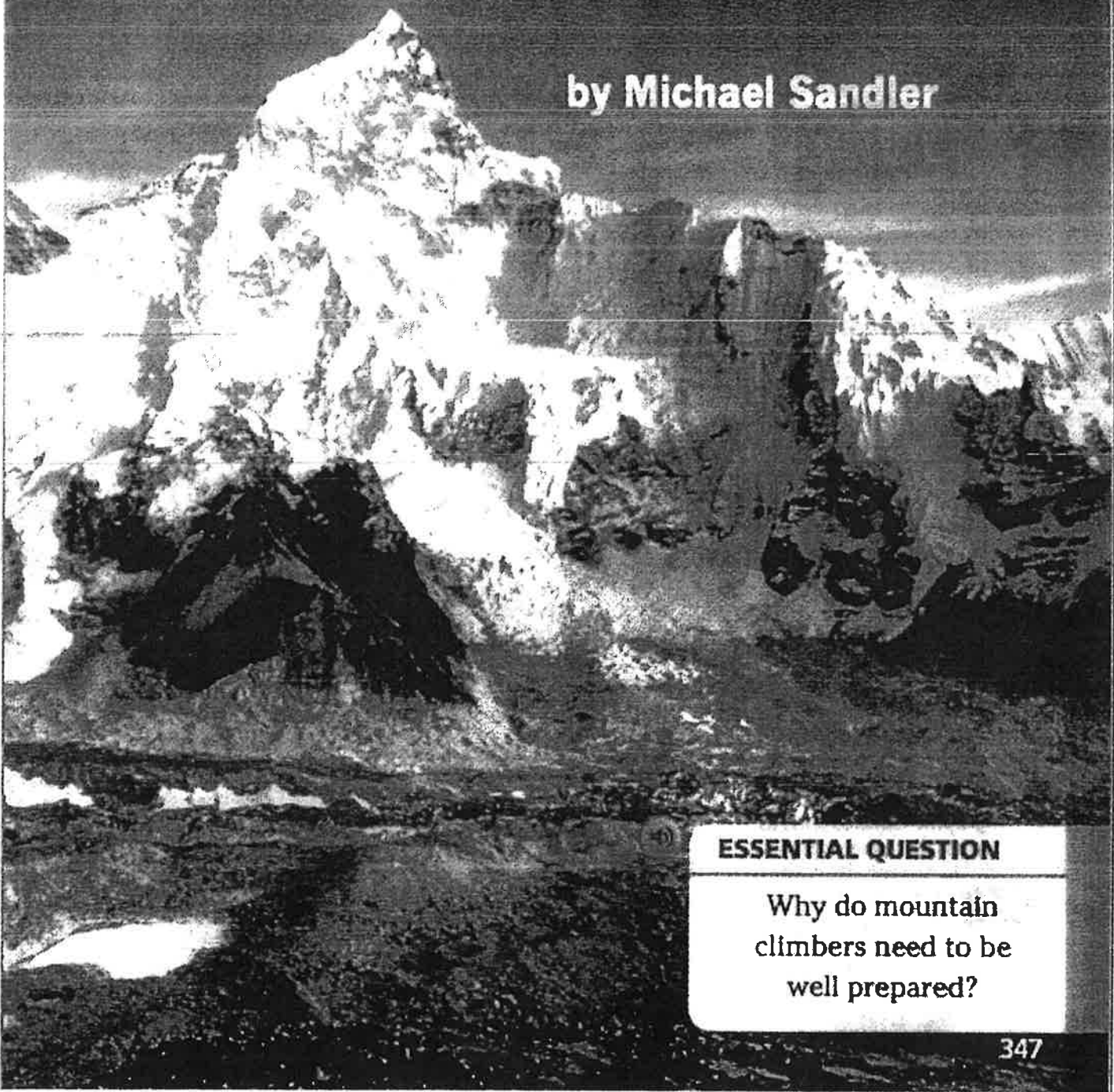




# Mountains

## Surviving on Mt. Everest

by Michael Sandler



**ESSENTIAL QUESTION**

Why do mountain climbers need to be well prepared?

## Climbing Mount Everest

The clock showed almost midnight. The temperature was freezing. Icy winds roared by.

A group of people huddled in the darkness on a rocky ridge. In moments, they would begin the final stage of a dangerous journey. They were climbing to the top of Mount Everest, the world's highest mountain.



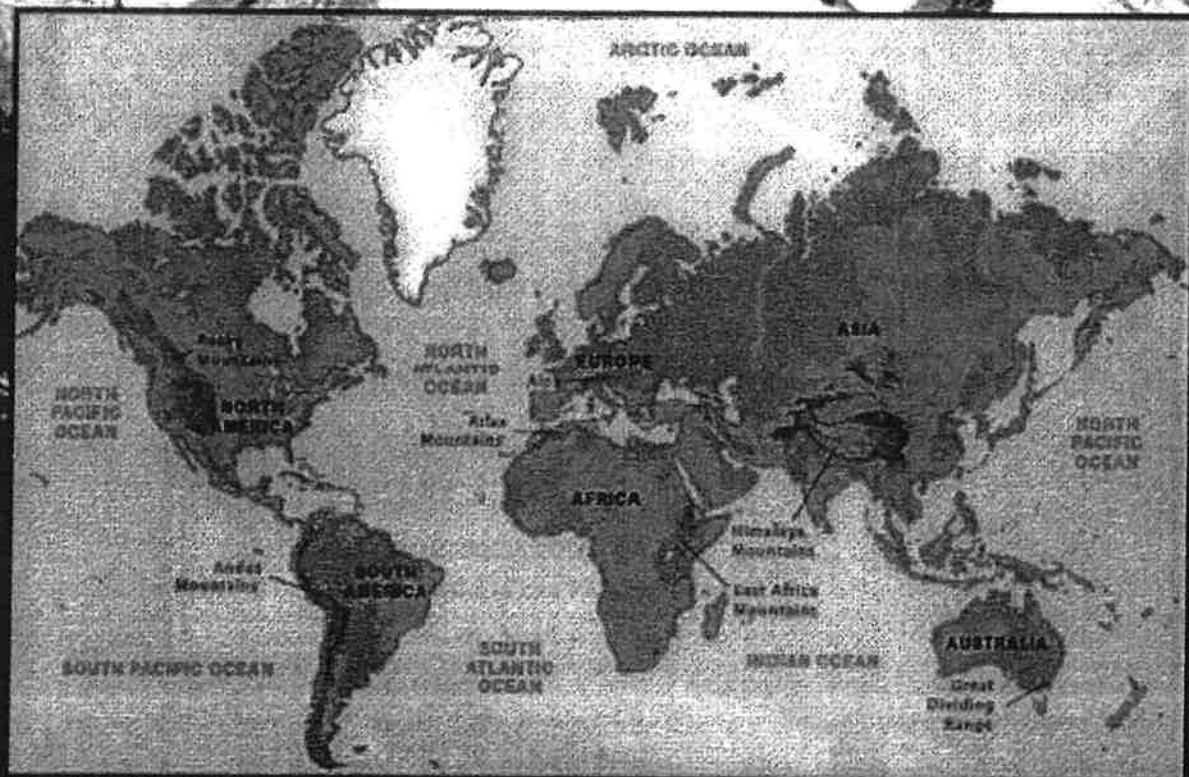
Among the climbers was Temba Tsheri (SHUHR ee) Sherpa. Just two weeks before, Temba had celebrated his 16th birthday. Now he was trying to survive in one of the world's most extreme places. Making it to the top of Everest was Temba's dream. He would be the youngest person ever to reach the summit, which is 29,035 feet (8,850 meters) high.

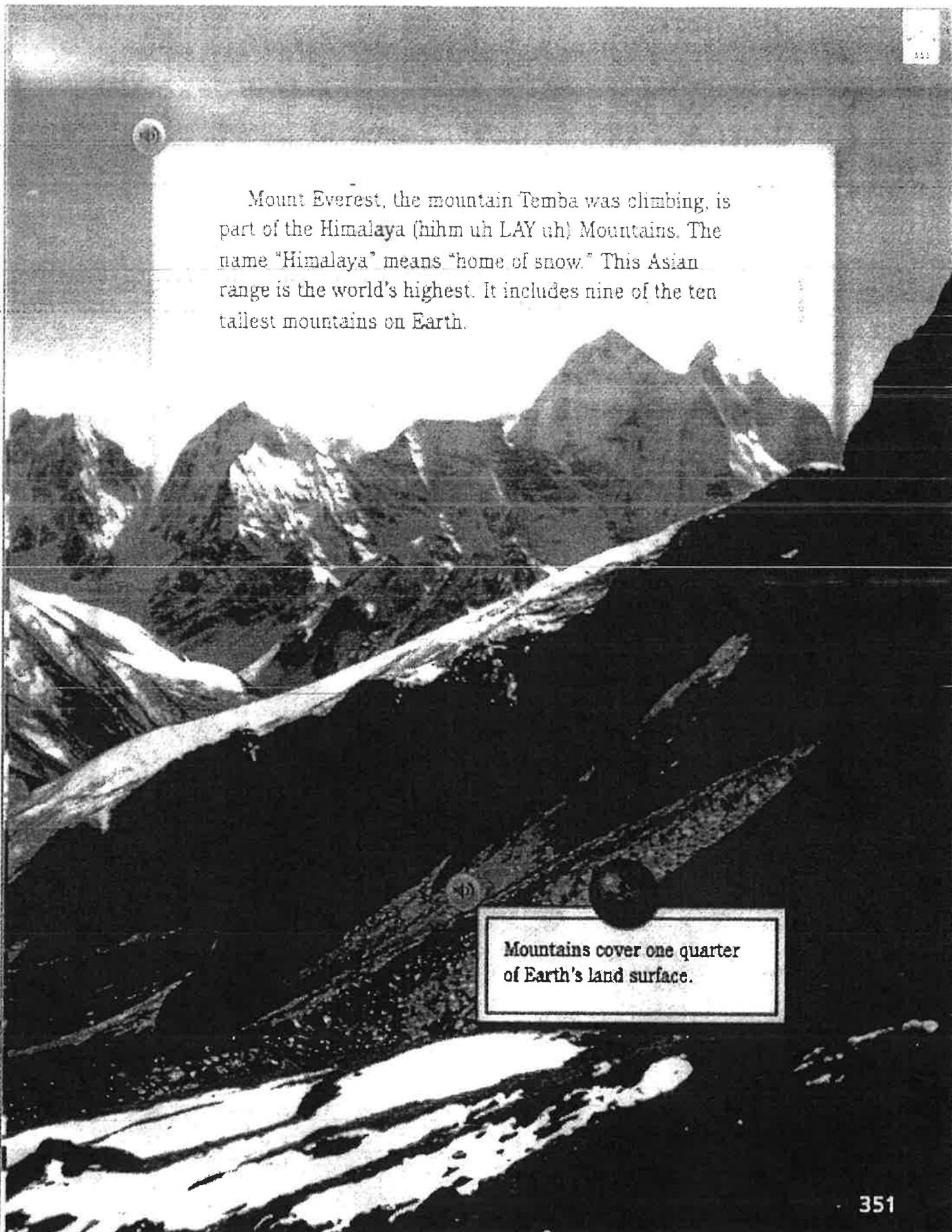


## What Are Mountains?

Mountains are a type of tall landform. They rise high above the area around them. Mountains are taller than hills. They can rise thousands of feet (kilometers) in the air. They are found all over the world, even beneath the sea.

A group of mountains is called a range. The biggest mountain range in North America is the Rocky Mountains. The Andes (AN deez), in South America, is the world's longest mountain range.





Mount Everest, the mountain Temba was climbing, is part of the Himalaya (nihm uh LAY uh) Mountains. The name "Himalaya" means "home of snow." This Asian range is the world's highest. It includes nine of the ten tallest mountains on Earth.

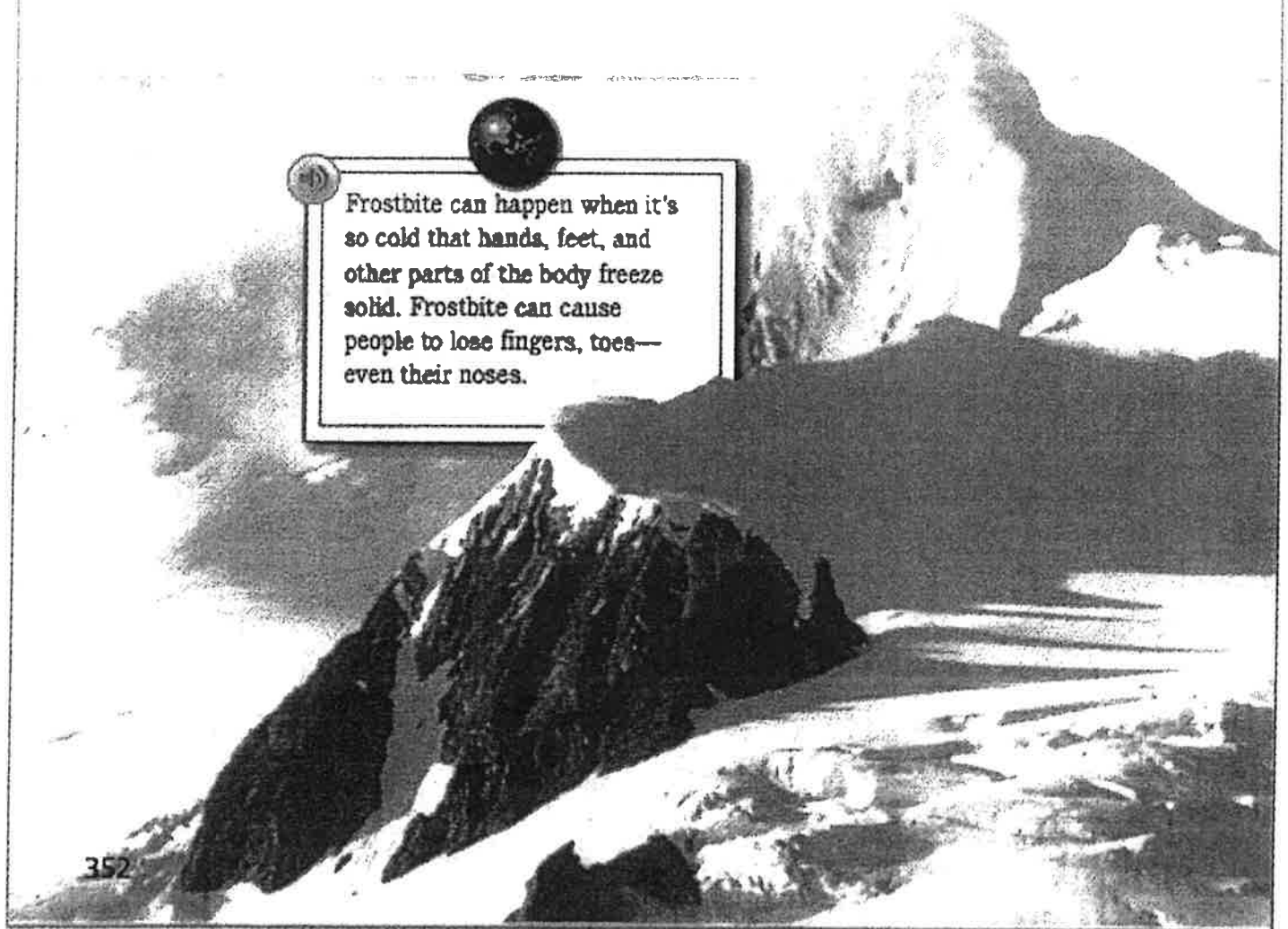
Mountains cover one quarter of Earth's land surface.

## Mountain Conditions

As Temba approached Everest's summit, survival became harder and harder. Mountain conditions get more extreme the higher a person climbs.

Air contains less and less oxygen as the altitude increases. Breathing becomes nearly impossible. Thin air can cause headaches and dizziness at 10,000 feet (3,048 meters). Higher up, it can be deadly.

Humans cannot survive for long at the top section of mountains like Everest. Hurricane-force winds can reach 130 miles per hour (209 kph). Temperatures can plummet to  $-100^{\circ}\text{F}$  ( $-73^{\circ}\text{C}$ ) during the night. Blowing snow makes it hard to see. Temba was headed here.



**F**rostbite can happen when it's so cold that hands, feet, and other parts of the body freeze solid. Frostbite can cause people to lose fingers, toes—even their noses.



## Why Do People Climb Mountains?

People climb mountains for many reasons. Some enjoy the thrill of being high above the clouds. Others like the challenge of testing their skills.

For decades, however, reaching the top of Everest was a test that no climber could pass. The first attempts to climb Everest were made during the 1920s. Again and again, the climbing teams stopped short of their goal. Avalanches, storms, sickness, and exhaustion brought them to a halt.

Then, in 1953, two climbers finally succeeded—Sir Edmund Hillary and Tenzing Norgay. Hillary was from New Zealand. Norgay was a Sherpa from Nepal (nuh PAWL).

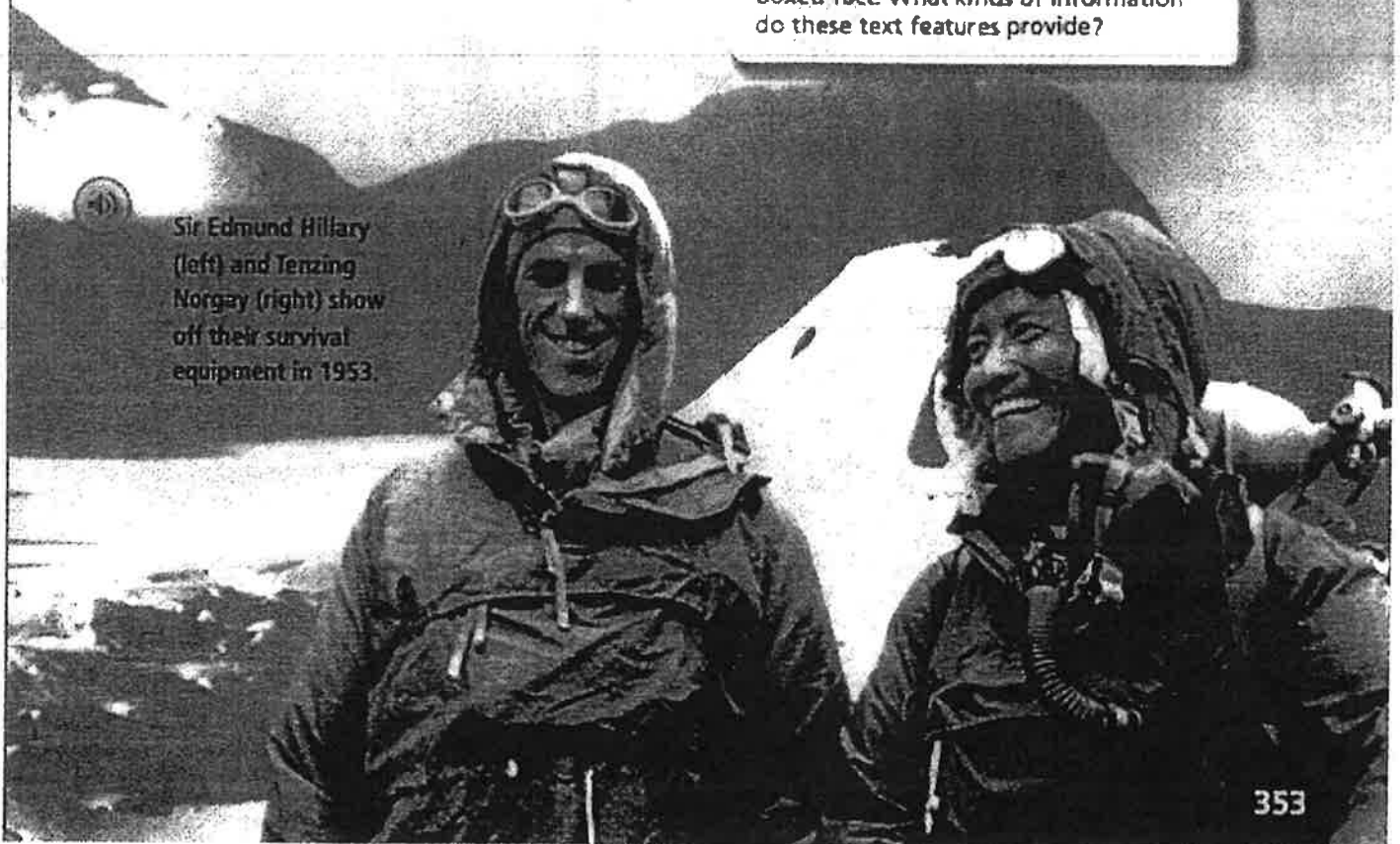


### ANALYZE THE TEXT

**Text and Graphic Features** These pages include headings, a caption, and a boxed fact. What kinds of information do these text features provide?



Sir Edmund Hillary (left) and Tenzing Norgay (right) show off their survival equipment in 1953.






## Temba's Mistake

Temba had tried to climb Everest before. It ended, however, in failure.

"I didn't have enough training or proper equipment," Temba said. He was almost at the summit when his oxygen supply ran out.

Without oxygen, Temba couldn't think clearly. He made a terrible mistake. He took off his gloves to tie his boots. His fingers froze. Temba suffered frostbite on both hands. He had to turn back just 70 feet (21 meters) from his goal.

The next time around, however, Temba was prepared. He had trained hard. He had the right equipment, thanks to his classmates and teachers. They had raised money for his trip.



### Survival Equipment

- CLIMBING SUIT—to protect against cold
- GLOVES—to keep hands warm and dry
- GOGGLES—to protect eyes from the sun's harmful rays and from reflection off snow
- OXYGEN MASK AND TANK—for breathing at the highest altitudes
- ICE AX—to help climb slopes and break up ice
- CLIMBING ROPES—to climb up slopes
- TREKKING POLES—to help a climber stay balanced
- MOUNTAIN BOOTS—with spikes that dig into the snow and ice

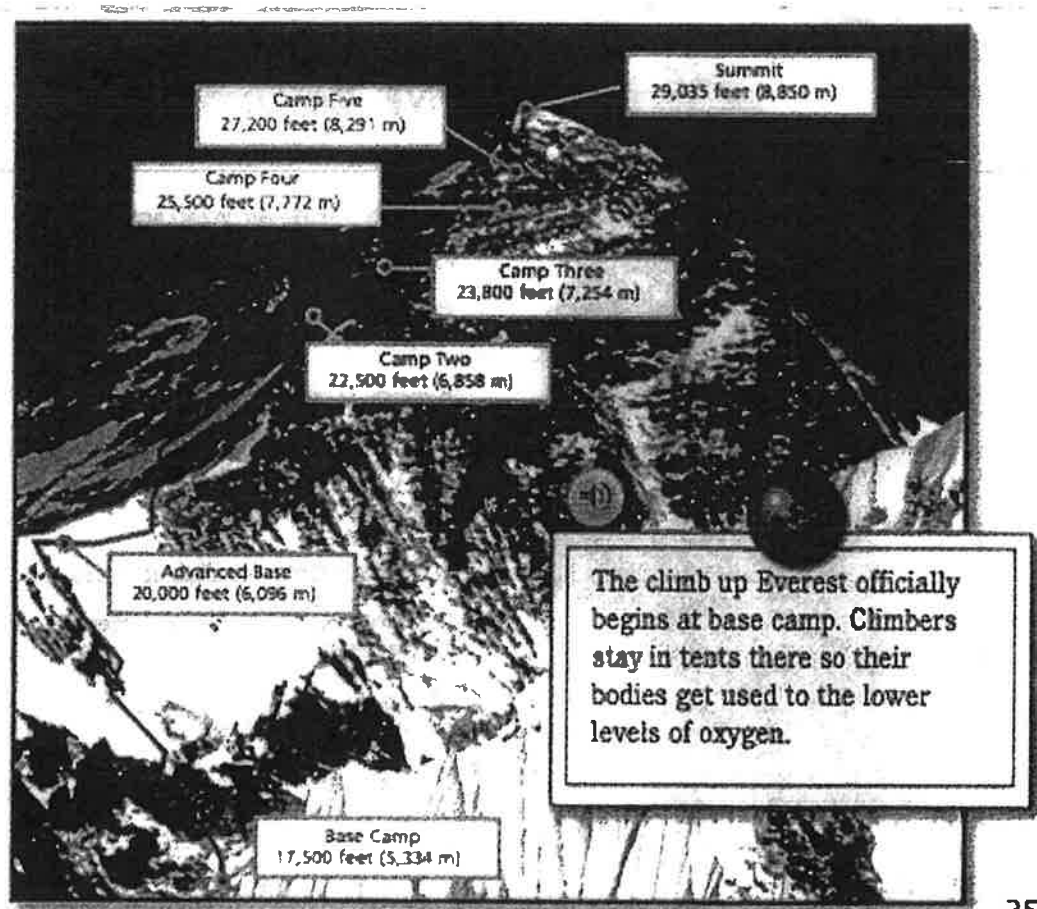


## Camp-to-Camp

Temba's second try began in April 2001. Mount Everest sits between Nepal and Tibet (tuh BEHT). There are several different routes to the top. Temba would take a route from the north, the Tibetan side.

Climbers move from one camp to the next higher one and then rest for a while. At each camp, their bodies get used to the higher altitudes. Temba spent several weeks moving between camps with his team.

At Camp 3, the team waited for a break in the weather. Winter was over, but there had been a series of severe snowstorms. Getting caught in a snowstorm farther up the mountain would be deadly.





## The Climb Along the Ridge

... On May 20, Temba's team reached Camp 4. Then the climbers headed out on the great ridge leading to the summit. Temba plunged his ax into ice walls, pulling himself up. He steadied himself against 50-mile-per-hour (80-kph) winds. Yet, he climbed higher and higher.

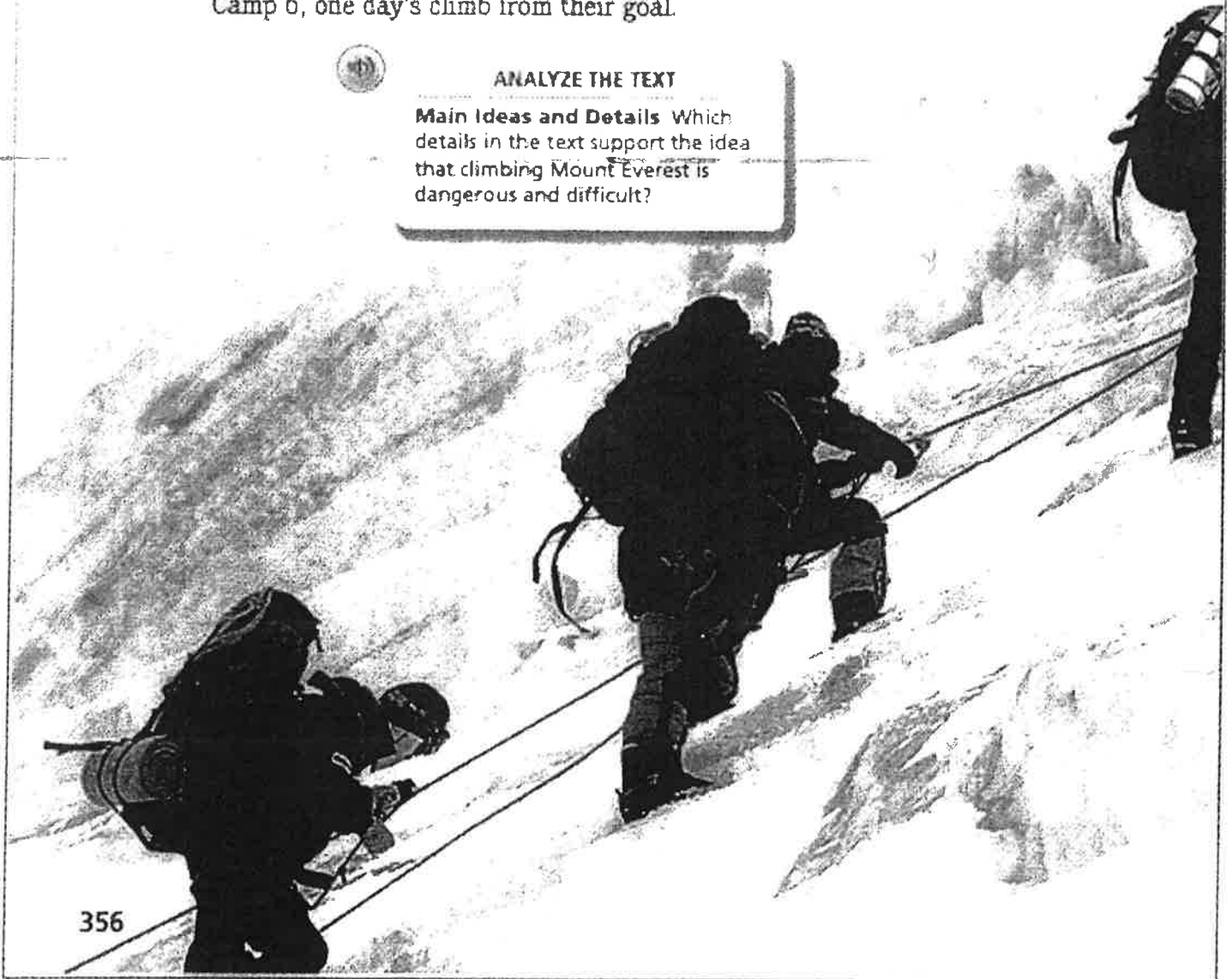
Temba had to move fast or die. Darkness stopped him before he got to Camp 5. His team had gone ahead. Luckily, Temba found a tent. He spent the night frightened and alone.

The next day, Temba rejoined his team. They reached Camp 6, one day's climb from their goal.



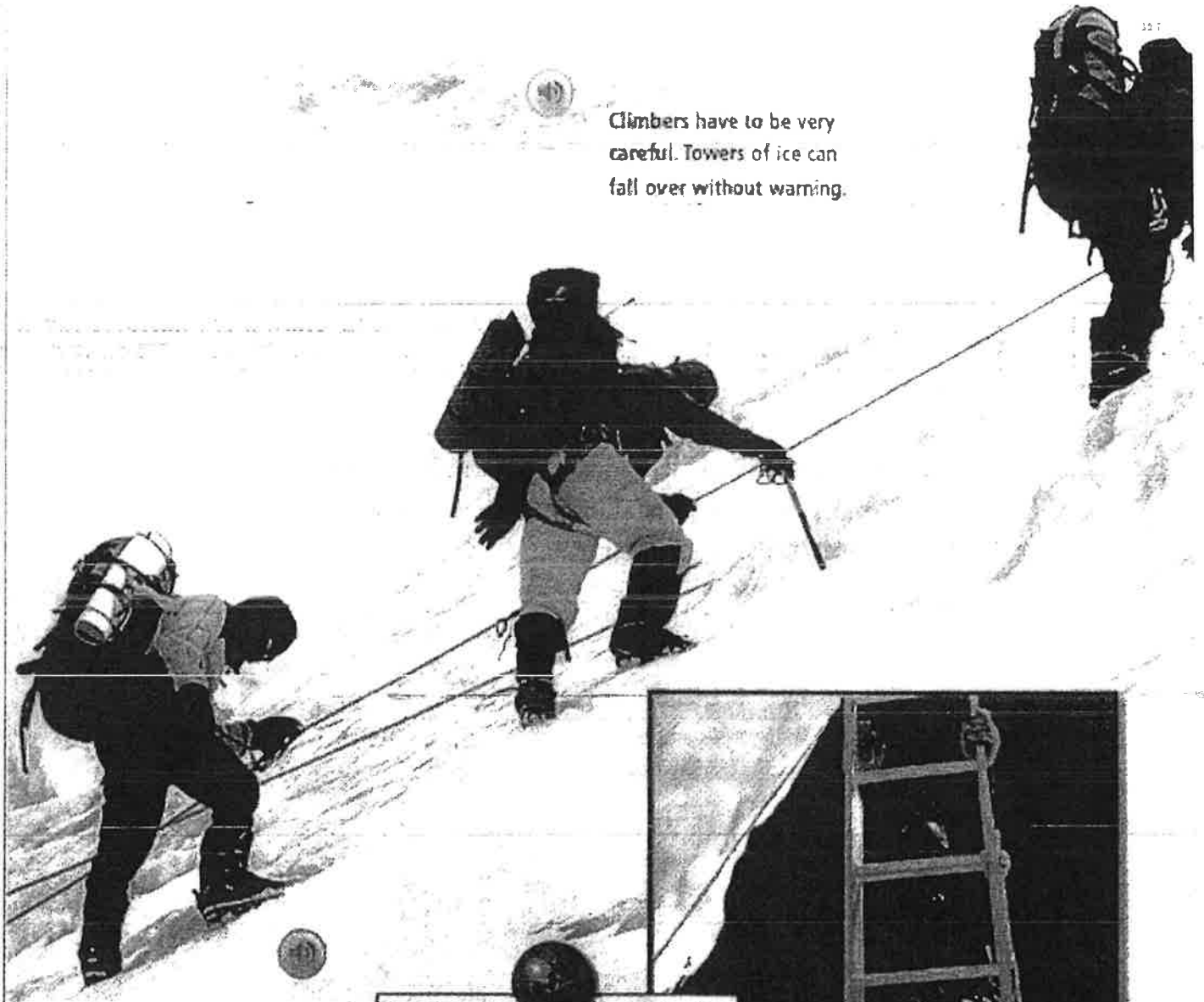
### ANALYZE THE TEXT

**Main Ideas and Details** Which details in the text support the idea that climbing Mount Everest is dangerous and difficult?

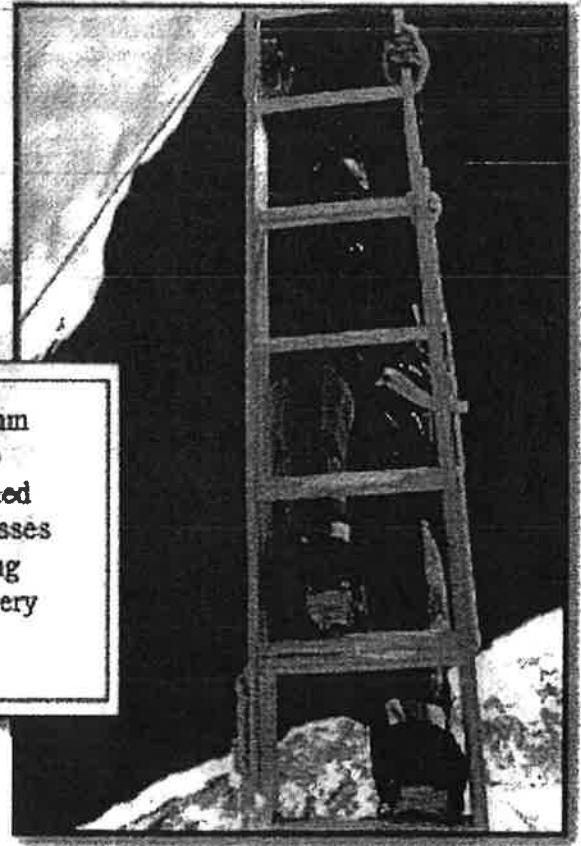


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Climbers have to be very careful. Towers of ice can fall over without warning.



Climbers use aluminum ladders to cross deep cracks in the ice, called crevasses. The crevasses are constantly opening and closing, so it is very dangerous.



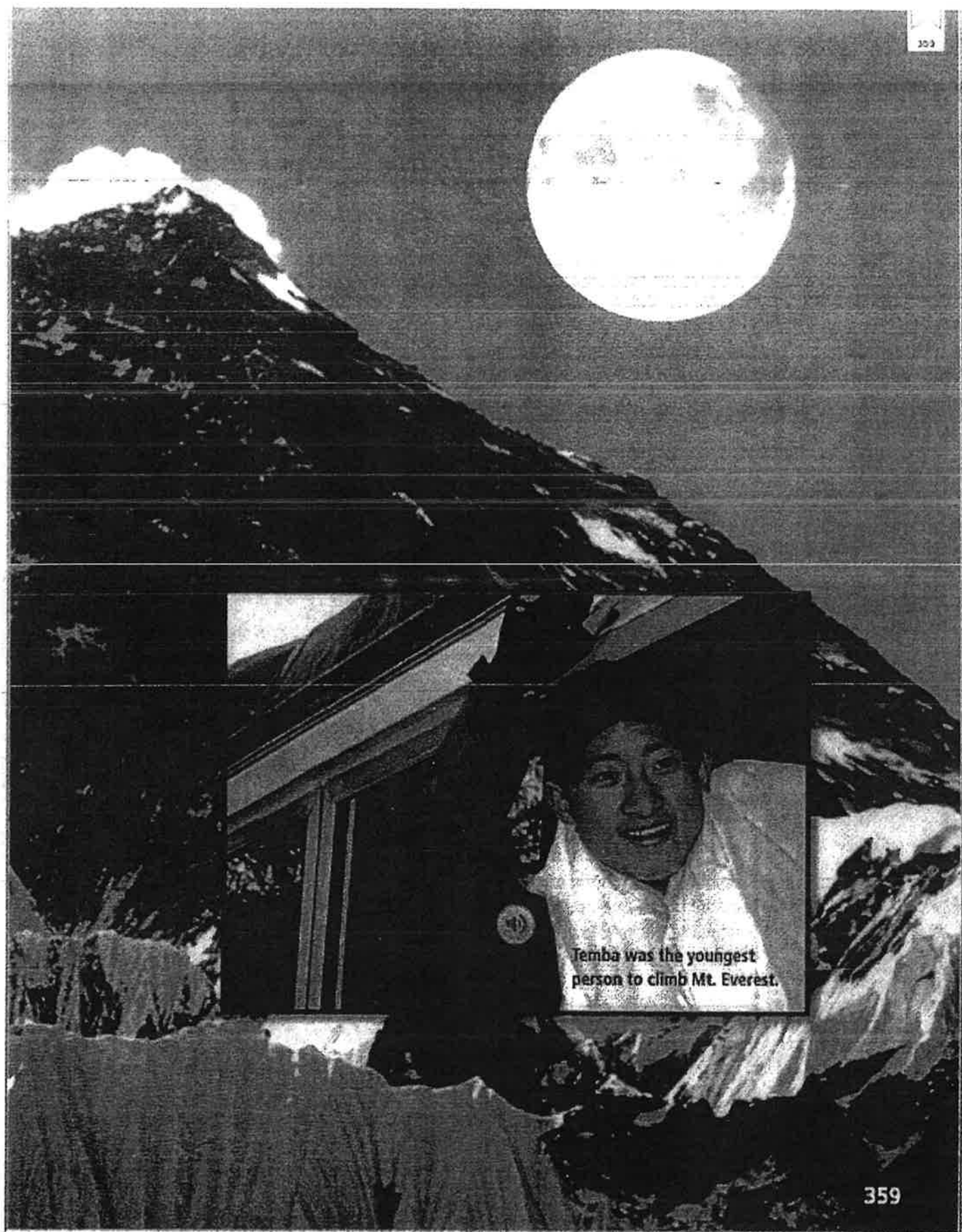
## Reaching the Top of the World

Just before midnight, Temba began his final climb. A headlamp lit the darkness. An oxygen mask helped Temba to breathe. Sometimes he'd stop to rest or to change oxygen bottles.

Just after sunrise, Temba reached Mount Everest's summit. He was higher than anyone else on the planet. Temba planted two flags. One was for his school. The other was for Nepal. "I felt so happy," he said.

It is dangerous for climbers to spend more than ten minutes at the top of Everest. The body needs to get to a lower altitude where there is more oxygen.





Temba was the youngest person to climb Mt. Everest.

## Will the Mountains Survive?

Temba survived in the mountains. Now, he wants to make sure the mountains survive. The world's mountains face many different threats.

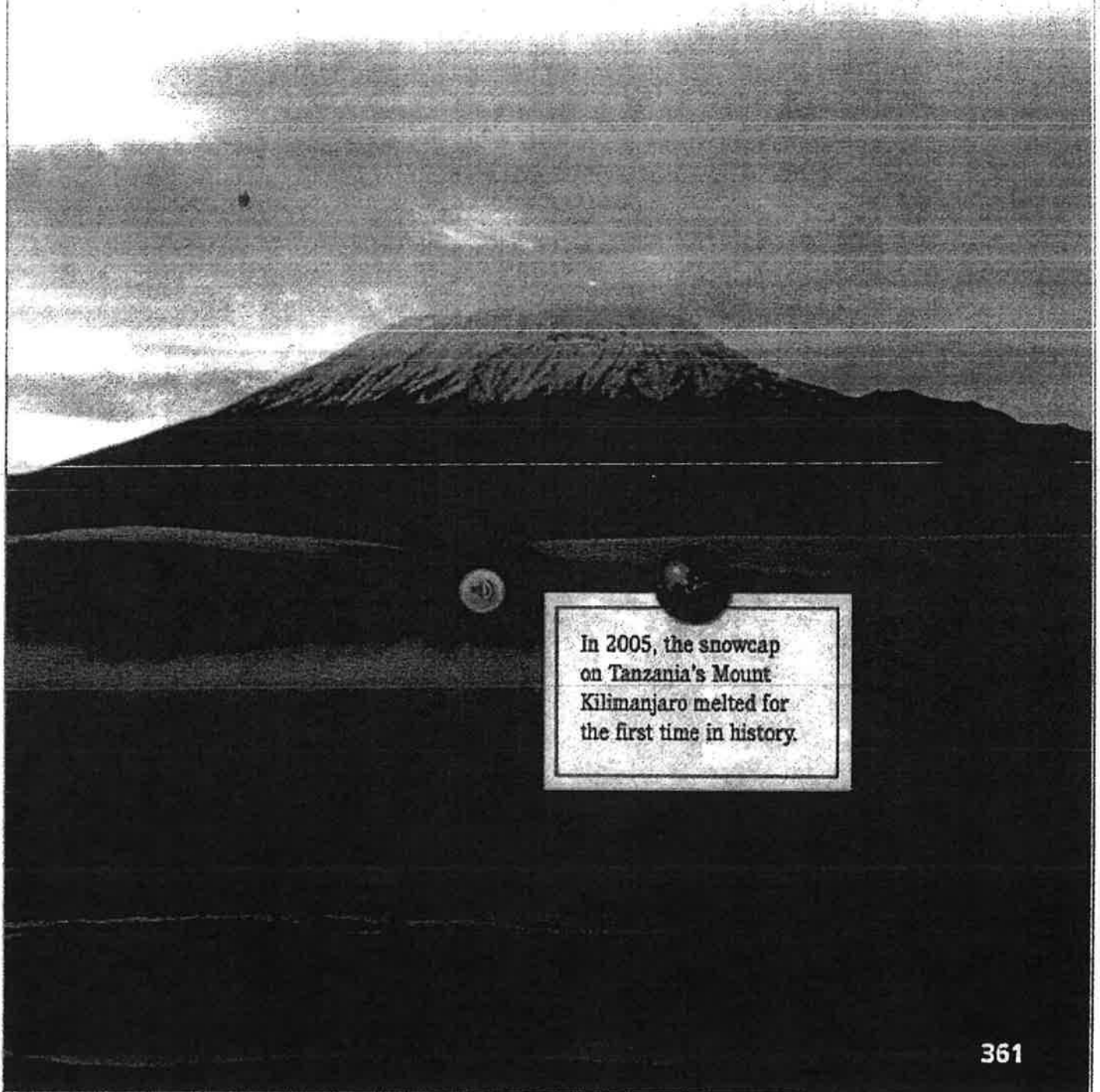
Trash is one problem. For a while, Everest was called the "world's highest garbage dump." The mountain was littered with tons of trash that climbers left behind—batteries, bottles, and empty oxygen tanks. Many climbers didn't have the time or strength to carry these things back down with them.



Climbers have left garbage on Everest since 1921.  
Now, people are trying to clean up the mess.



Global warming is another problem. As Earth gets warmer, mountain glaciers are melting. Himalayan lakes are swelling up with water. When they flood, mountain landscapes will be changed forever.



In 2005, the snowcap on Tanzania's Mount Kilimanjaro melted for the first time in history.



## After the Climb

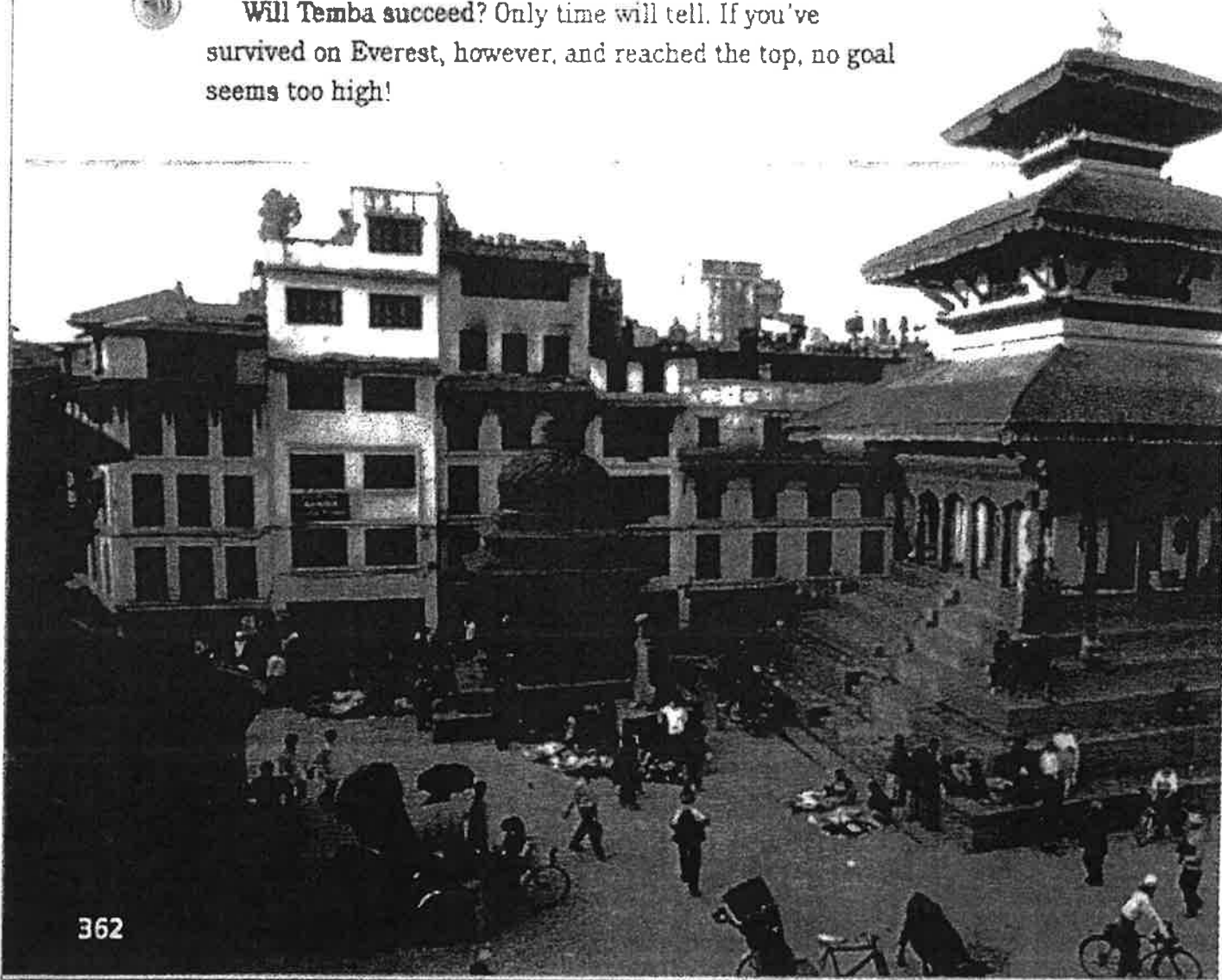
When Temba came down from Everest, he was thinking about food, not fame. After weeks of camping, he was starving for home cooking.

Still, when he flew home to Kathmandu, a huge crowd was waiting. Temba couldn't believe it. "I had never seen so many cameras. . . . All of them were pointed at me," he said.

Despite the attention, Temba focused on his schoolwork. He needed a good education to achieve his other dream, starting a school in Dolakha.



Will Temba succeed? Only time will tell. If you've survived on Everest, however, and reached the top, no goal seems too high!







Temba smiled at supporters who greeted him at the Kathmandu airport after he successfully climbed Mt. Everest.



Kathmandu (kat man DOO) is the capital and largest city of Nepal.

