

LEVELED Book • T

Deserts Dry



Written by Chuck Garofano

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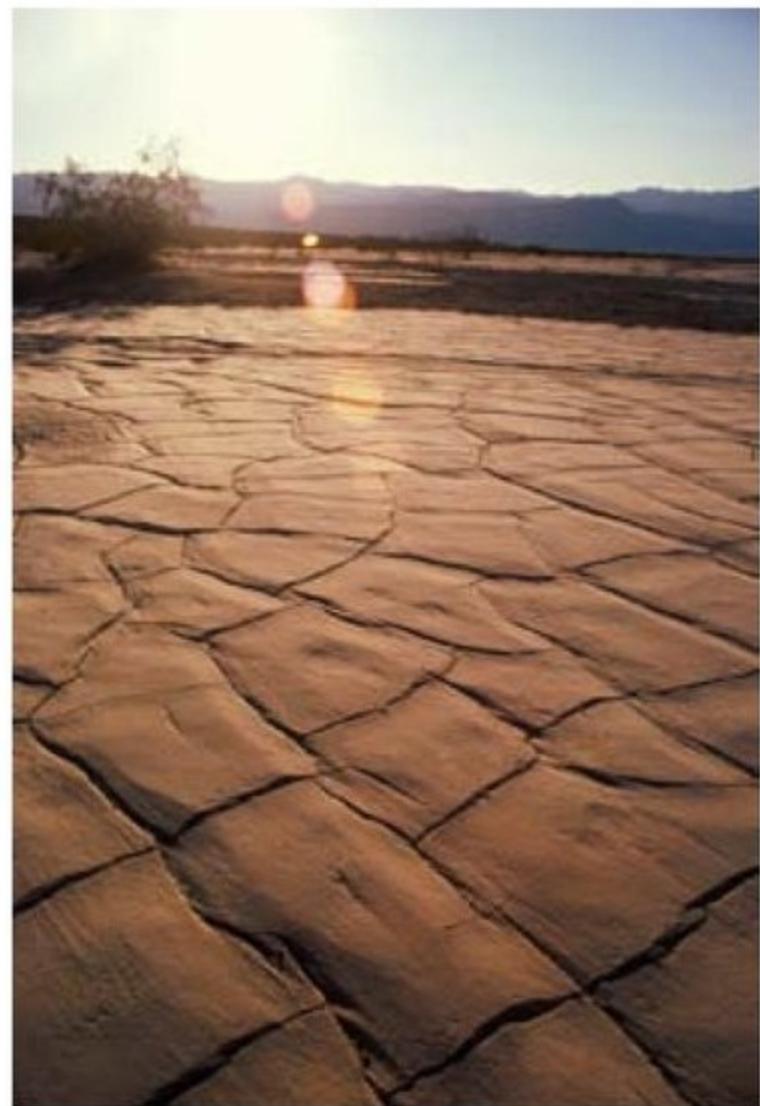


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Dunes are actually found in only a few deserts.

Introduction

Shut your eyes and imagine that you are standing in a desert. What kinds of things do you see around you? Camels, cactuses, and sand dunes? This is what most people think of when they imagine the desert. But deserts are far more rich and varied than the sandy landscape you might imagine.

A desert is any area where more water **evaporates**, or dries up, than falls as rain. Deserts can be hot, cool, or cold. In fact, both the North and South poles are considered deserts because all of the water there is frozen. Deserts make up almost one-third of the land on Earth, covering mountains, canyons, and glaciers. In this book, you will find out more about the surprising inhabitants of three amazing deserts: the Sahara, the Gobi, and the Atacama.

The Sahara

On many maps of Africa, the entire top third of the continent is colored yellow or pale beige. This color represents the vast, dry land of the Sahara Desert—by far the largest desert in the world. This is where we get many of our images of the desert. Great, ocean-like landscapes of yellow sand dunes cover one-fifth of the Sahara. The Tuareg people, in their blue, flowing robes and turbans, lead caravans of camels across the sandy desert to trade salt. But the Sahara is much more than sand.



Many people in the Sahara Desert still rely on camels.

It might surprise you to learn that the world's largest desert contains one of the world's longest rivers. The Nile flows along the eastern edge of the Sahara, bringing life-giving water to crops and cities along its banks. This river allowed the great civilization of ancient Egypt to survive among the dunes. In ancient Egypt, as today, people carved **irrigation**, or watering, channels to carry water from the riverbed to thirsty crops,

animals, and people. There is also water hidden deep underground in the Sahara. In some places, it seeps close to the surface, creating an **oasis**, or a small spot of green land.



A pyramid built by ancient Egyptians

But don't get the idea that the Sahara is moist and pleasant. In some areas, no rain falls for years, the temperature can get as high as 136°F (58°C), and powerful winds whip up sun-blocking dust storms. The Sahara is home to thorn trees, shrubs, and low-growing grasses. Several kinds of antelope survive here, as do many rodents, birds, and reptiles. One kind of reptile, a skink, is known as a sandfish because it can "swim" through the sand.



A worker walks through a plant where gas is made from oil in Algeria.

People have lived in the Sahara for centuries. Northern Africa is a natural trading area for people from Africa, Europe, and Asia. Rich ancient cities survived on irrigated crops and the wealth of spices, fabrics, and precious metals and gems passing through. During the Middle Ages, northern Africa was a center of art, writing, science, and learning.

Today, a treasure lies hidden under the Sahara. The desert holds the world's largest reserves of oil, a liquid that many people depend on heavily for fuel and energy. Some countries of the Sahara have become incredibly wealthy from selling oil. Unfortunately, many nations have fought wars over this valuable **resource**.



The Gobi is more remote than the Sahara.

The Gobi

Mongolia and northern China, which lie deep within the immense continent of Asia, are home to the high, dry Gobi Desert. It might surprise you that the Gobi is cold—it can get as low as -40°F (-40°C). Like the Sahara, the Gobi Desert was often crisscrossed by traders bringing goods to and from Asia. But unlike the Sahara, the Gobi is too harsh and remote to support cities.

Many parts of the Gobi are high, dry, and mountainous. The soil is rocky and salty, so there are few plants other than tough grasses and shrubs. But these grasses are enough to support grazing animals such as Mongolian horses, antelope, and gazelle. Also feeding on the grasses are many kinds of gerbils and another small rodent called the jerboa.



Horses drink from salt pans in the Gobi Desert.

Do You Know?

Normally, naturally occurring salt in the soil gets dissolved by rainwater and carried in rivers to the ocean. This is why the ocean is salty. But in the desert where there is little rain to dissolve the salt and the rivers dry up before reaching the ocean, salt is abundant in the soil. In some places, rivers carry salt into temporary marshes or lakes that dry in the desert air, leaving behind huge areas of white, crystallized salt. These areas are known as salt pans.



A Mongolian horseman herds his horses.

Most of the people who inhabit the Gobi are **nomads**, people who move from place to place, often in search of food. Some of these nomads rely on horses for almost everything they need to live—meat, milk, hides for tents, and transportation. These nomads, who live in Mongolia, are excellent horse trainers who rope and race horses as well as any rodeo rider.

The Gobi has very few natural resources such as oil. But there is a fascinating sort of treasure here—fossils. The dry climate and lack of humans have preserved delicate fossils for millions of years. Today, scientists flock to the Gobi for new discoveries. It was here that the first dinosaur eggs were found, and where the fossil of a feathered reptile led scientists to believe that birds may be related to dinosaurs.



Archaeologists dig for fossils in the Gobi.



The Atacama is one of the highest deserts.

The Atacama

Just west of South America's Atacama Desert is the largest body of water in the world—the Pacific Ocean. The Atacama lies along the Pacific Coast, squeezed in a narrow band between the ocean and the high Andes Mountains. Temperatures in the Atacama are pleasant, between 50° and 70°F (10°–20°C). One would think that being near the ocean would give the Atacama some **moisture**, but this desert is possibly the driest place on Earth. In some places in the Atacama, it may have never rained in human memory.

Some moisture does visit the Atacama. In the spring, snow on the Andes melts and flows in rivers across the desert to the Pacific. But these rivers don't fill with water often, and they are usually steep, narrow, and quick-moving, so the water does not have a chance to spread out and sink in. The only other reliable form of moisture is fog that rolls in off the cold ocean. Many plants have developed ingenious ways to catch this fog. Some plant leaves gather droplets of fog and direct them toward their roots. Small "cloud forests" of these plants can grow in sheltered areas along the coasts where the fog is thick enough.



Other than the cloud forests, almost no plant life grows in the Atacama. Some plants exist as **dormant**, or inactive, seeds that spring to life after a rain shower, which may come only once every ten years. There are few animals in the Atacama besides rodents and insects. The chinchilla, a popular new pet, lives here. Llamas and alpacas, furry relatives of the camel, can also be found in damp areas near rivers and high in the mountains.

But what the Atacama lacks in animals, it makes up for in **minerals**. The Andes are volcanic mountains, and their volcanic activity brought copper, nitrates (an ingredient in fertilizer and explosives), and sulfur to the surface. Salt is also abundant here in marshy lakes. Mining companies build entire towns for workers who dig up these minerals. Port cities spring up along the shore where the minerals are shipped around the world. All food and water must be trucked in or shipped by boat. Because of the desert's unforgiving climate, miners are some of the very few people who have ever made their homes in the Atacama.



Trucks carry ore out of a mine in the Atacama desert.



The city of Tucson, Arizona, lies in the Sonoran Desert.

Conclusion

So, what can you find in the desert that you might not have expected? Lakes of salt, dense fogs, and underground oceans of oil? Ancient civilizations, expert horse herders, and mining towns? You may have thought of deserts as empty, lifeless places. But for thousands of years, plants, animals, and humans have known deserts as sources of life, riches, and wonder.

Glossary

dormant <i>(adj.)</i>	inactive but able to become active again (p. 13)
evaporates <i>(v.)</i>	changes from a liquid to a gas; dries up (p. 4)
irrigation <i>(adj.)</i>	describing the practice of supplying water to land or crops to promote growth (p. 6)
minerals <i>(n.)</i>	solid, natural materials that do not come from a plant or animal (p. 14)
moisture <i>(n.)</i>	a small amount of water in the form of a liquid or a vapor (p. 12)
nomads <i>(n.)</i>	people who move from place to place with no permanent home (p. 10)
oasis <i>(n.)</i>	a fertile place in a desert where there is water (p. 6)
resource <i>(n.)</i>	a supply of something valuable or very useful (p. 7)

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