

**NARRATIVE
NONFICTION**
nonfiction that uses
literary techniques

“THIS IS THE END OF THE WORLD”

The incredible story of the Great Alaska Earthquake of 1964—the most powerful quake in American history **BY LAUREN TARSHIS**

As You Read Look for vivid language that helps you imagine the events of the story.

Growing up in the small town of Valdez, Alaska, 13-year-old Tom Gilson had been through many earthquakes. Every few months, it seemed, the ground under Tom’s feet would momentarily shiver. The walls of his family’s small house would shake. Dishes would rattle on the shelves.



But Tom never worried about it. To him and most people he knew, a little shaking was just part of life in Alaska—like the brown bears he’d spot lapping up water at the river’s edge or the 30 feet of snow that fell every winter.

Then came March 27, 1964.

At 5:36 p.m., the ground in southern Alaska began to shake. And this time, it didn’t stop. As seconds passed, then minutes, the violent shaking continued. Up and down the south central coast, the land shattered. Cliffsides crashed into the sea. Giant waves smashed into towns and villages.

Tom had no idea that he was caught in the middle of the Great Alaska Earthquake, the most powerful quake ever to strike the United States.

All Tom was thinking was that the world was ending.



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Illustration by Shane Behenschied.
Courtesy of Tom Gilson (Tom Gilson). Shutterstock.com (box)

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A Brand-New State

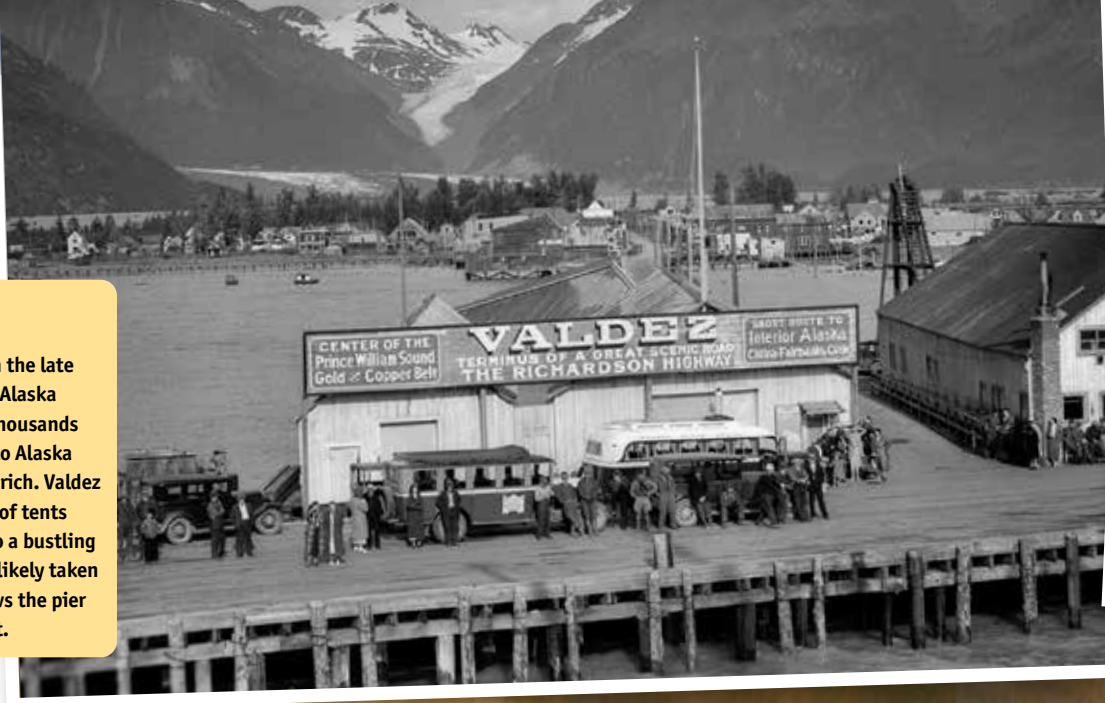
That morning, there had been no hint of the coming disaster. Tom awoke in the bedroom he shared with his two brothers.

The sky was gray, but Tom's mood was bright. It was the holiday Good Friday, which for Tom meant no school. He had a whole day to do whatever he wanted.

Tom loved living in his small wilderness town. But compared to larger cities, there wasn't that much to do in Valdez (val-DEEZ). Alaska had become a state just five years before, in 1959, replacing Texas as

Valdez Before the Quake

Valdez was built in the late 1800s, during the Alaska Gold Rush, when thousands of people flocked to Alaska hoping to strike it rich. Valdez began as a cluster of tents and later grew into a bustling town. This image, likely taken in the 1930s, shows the pier and the waterfront.



Wildlife Everywhere

Alaska is home to a stunning array of wildlife, from humpback whales and brown bears to moose and otters.



the nation's biggest state. Yet most of Alaska was—and still is—wilderness. In 1964, only 263,000 people lived there, enough to fill just three

professional football stadiums. Tiny villages and towns were scattered like freckles across land covered with mountains, rivers, forests, and vast, half-frozen plains called tundra.

Alaska's largest city, Anchorage, had a bustling downtown, a bowling alley, and TV and radio stations. Kids living there could watch hit shows like *Mister Ed*, about a talking horse. They could sing along to popular songs on the radio by the Beatles and Stevie Wonder.

One hundred twenty miles away, Valdez was nothing like Anchorage. True, it was bigger than most towns in the state: 600 people lived there. And unlike kids in many Alaska towns and villages, Tom went to a lively public school. He played Little League baseball in the summer and basketball in the winter. He could buy fresh doughnuts and candy from his uncle George's grocery store.

But Valdez was isolated. When Tom walked just half a mile outside town, he was more likely to see a bear than another human being.

There was no bowling alley. There wasn't even a dentist. Tom had never seen *Mister Ed* because there was no TV service in Valdez. Most of the songs Tom heard were sung by birds.

Eagles and Otters

Then again, who needs bowling or talking horses or pop songs when you live in the middle of one of the most dazzling spots on the planet?

Ringed by mile-high mountains with icy tops that glittered in the sun, Valdez sat at the edge of the spectacular Prince William Sound. Wildlife was everywhere. Glancing up, you might spot an eagle clutching a wriggling salmon in its talons. Sitting on the docks along the harbor, you could watch humpback whales lifting their tails as though waving hello. You might see a furry sea otter float by on a raft of seaweed.

No wonder Tom loved Valdez. And his day off from school was going to be especially fun. Later that afternoon, a supply ship, the *Chena*, would be docking in Valdez Harbor.

The ship's cook was famous in town because he always handed out candy and fresh fruit to kids on the dock.

Tom gobbled his breakfast, certain that a great day was ahead. Never could he have imagined the horror that was to come.

Deadly Forces

Few forces in nature are as destructive as a strong earthquake. Powerful quakes last between 10 and 30 seconds. The very strongest ones can last for several minutes. That's enough time to turn a city into a ruin of twisted metal, shattered glass, and blazing fires.

When earthquakes happen under an ocean, they often trigger

monstrous waves called tsunamis. These waves can move at 400 miles an hour—about twice as fast as a Formula 1 race car. They can stretch for hundreds of miles, tower to heights well over 100 feet, and carry raging ocean waters many miles inland, destroying everything in their path.

Today we know earthquakes are caused by movements deep underground, within Earth's crust. The crust is Earth's outermost layer, the ground that holds up your school and town, as well as mountains and oceans. Many miles thick, Earth's crust is broken up into about 15 massive slabs called plates. These plates rest atop a sea



THE RING OF FIRE

An estimated 90 percent of all quakes on Earth occur here.



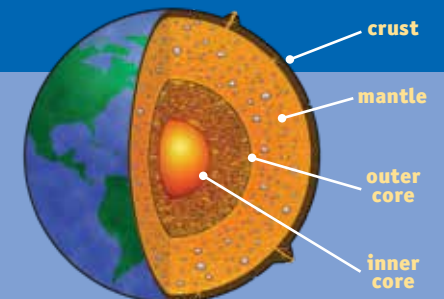
Very large earthquakes almost always happen at plate boundaries, where tectonic plates meet. Nowhere on Earth has more plate boundaries than the Ring of Fire, a horseshoe-shaped area along the edge of the Pacific Ocean. In the United States, Alaska gets the most earthquakes, followed by California. No surprise, they're both located on the Ring of Fire.

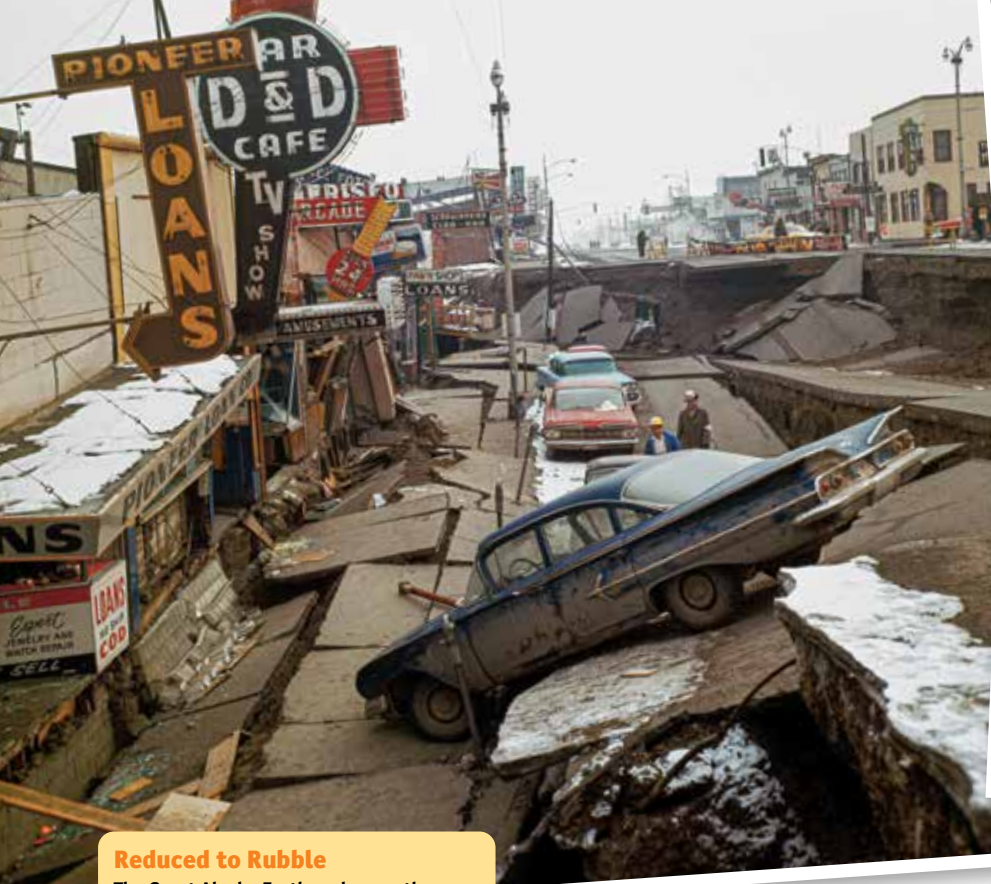
Shutterstock.com (background); Jim McMahon/Mapman (map); H. Armstrong Roberts/ClassicStock/Getty Images (Valdez)

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Layers of the Earth

Our planet is composed of four layers. The crust is the outermost layer. It's made up of tectonic plates that are always in motion. These plates float on the mantle, a sea of partially molten rock.





Reduced to Rubble
The Great Alaska Earthquake was the second most powerful in recorded history. This image shows the damage to Alaska's biggest city, Anchorage. On this street, parts of the ground dropped 11 feet.

of partially **molten** rock—Earth's mantle. Like enormous pieces of chocolate floating slowly on a layer of hot gooey caramel, Earth's plates are always in motion.

Sometimes, though, two plates get stuck together. As they push against each other, pressure builds, sometimes over hundreds of years. Eventually, the force can become so strong that one plate slips violently over, under, or past the other. That sudden shift causes an earthquake.

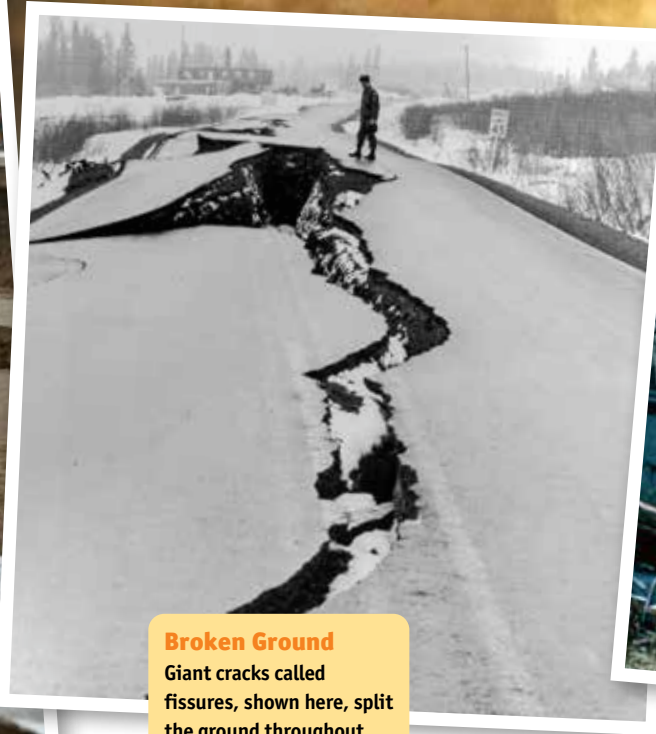
The idea that large chunks of Earth's crust are always in motion is known as the theory of plate tectonics. This scientific theory is key to our understanding of forces like earthquakes, tsunamis, and volcanoes.

Today's earthquake scientists, called seismologists, use high-tech tools to study how and why earthquakes happen. Powerful drills **bore** down into Earth's crust to collect rock samples that help them better understand what's happening deep beneath the surface. Sensitive instruments called seismographs detect the slightest shakes and quivers.

But back in 1964, seismology was a new field. The theory of plate tectonics was still not fully accepted. Seismologists struggled to understand the causes of earthquakes and where the biggest ones could strike.

Take, for example, Alaska. Everyone knew the new state was **prone** to quakes. Most scientists, though, would have agreed with Tom that a truly powerful earthquake was unlikely to happen there.

They would have been wrong.



Broken Ground
Giant cracks called fissures, shown here, split the ground throughout Alaska's southern coast.

Billions of Tons of Dynamite

Tom spent his free day with friends. One of the older boys, Ed, had a new car and took Tom and some other kids for a spin around town. At about 5:30 p.m., they decided to go to the waterfront. The *Chena* had docked, and they didn't want to miss out on the candy and fresh fruit.

As they headed over the bridge to the docks, Tom saw the *Chena* and a crowd of people—workers, families, kids. Then Ed stopped the car to talk with a friend who was standing in the street.

That's when the car suddenly started to bounce up and down.

At first, Tom thought some joker was standing on the car's bumper. What he didn't know—what nobody knew—was what was happening about 56 miles from Valdez, deep

below the Pacific Ocean. There, two plates had been pushing against each other for hundreds of years. Finally, their epic struggle was over: One plate had burst free and shoved itself under the other.

This sudden movement unleashed more energy than 25 billion tons of dynamite. The ground across southern Alaska shook violently.

"It's an earthquake!" screamed Ed.

Gone in a Blink

The ground rose and fell and split apart. Trees and telephone poles swayed. Electrical wires snapped. The harbor, usually glassy calm, looked like it was boiling. The *Chena* tossed and turned like a toy in a bathtub.

The boys managed to get out of the car, but the street around them had broken apart and enormous chunks of icy dirt and snow blocked their way.



After the Waves
Tsunami damage in the town of Kodiak, Alaska

This is it, Tom thought. This is the end of the world.

A Changed Land

One minute passed, then two. Then another. And another.

Finally, after about four-and-a-half agonizing minutes, the shaking stopped.

But the terror continued. Within minutes, tsunamis began crashing into Valdez and other towns, pushing boats and debris into the streets. Oil and gas tanks exploded, igniting fires that burned

for days. Emergency responders and residents worked frantically to free people from crumpled buildings and crushed cars. Desperate families searched for loved ones.

Because of the size of Alaska and the isolation of many of its communities, it took days for a full picture of the devastation to come into focus. In some areas, including downtown Anchorage, the ground had dropped 20 or even 30 feet. In other places, the seafloor had been pushed up.

Mountains had collapsed. Forests had been drowned by the monster waves. Fissures now stretched across the land like evil, jagged-toothed smiles.

The destruction wasn't limited to Alaska. Tsunamis raced down the west coast of the U.S. at more than 400 miles per hour. Four people died when the waves

Shutterstock.com (background); Bettmann Archive/Getty Images (Anchorage); USGS (cracks)

Science History Images/Alamy Stock Photo (Kodiak)

crashed ashore in Oregon. Twelve people drowned in waves that hit California. The waves even ripped onto shore 5,000 miles away in Japan.

Because so much of Alaska is wilderness, the death toll there was miraculously low—115 people were lost. Valdez, though, was especially hard hit. Thirty-two people died there, all but four of them at the waterfront.

Soon came another shock: Valdez remained in grave danger.

Not long after the quake, scientists who came to town to study the event discovered that most of Valdez had been built on tiny bits of rock and sand mixed with water. When the shaking started, the ground melted away. That's why the waterfront crumbled into the sea.

And it could happen again one day, experts warned. Valdez, some believed, was doomed.

A New Valdez

The people of Valdez were not ready to give up though. They banded together and came up with a plan to rebuild 4 miles down the coast, where the ground was more solid. Within two years, a new Valdez was born.

Today nearly 4,000 people live there. It's a bustling town with delicious restaurants, a respected hospital, and a museum that



Old and New
Little remains of old Valdez (top). After the quake, the town was rebuilt further inland.



celebrates the town's unique history. Thousands of visitors come each year. They **gape** at the snow-topped mountains and hope to catch glimpses of eagles and moose, of whales leaping out of the shimmering waters of Prince William Sound. Some say Valdez is the most beautiful town in Alaska.

If you are lucky enough to travel there, perhaps you will meet a friendly man with bright-blue eyes.

Tom Gilson.

After the shaking stopped, Tom slowly made his way home through the wreckage. His parents and brothers were unhurt, and his house was still standing. He and his family

helped build the town in its new location.

Tom is in his early seventies now, and he's proud that he's spent nearly his entire life in Valdez. He and his wife raised their family there. Their daughter is now an English teacher at Valdez High School.

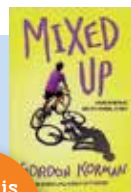
Tom cherishes his childhood memories of Valdez. He also knows how lucky he was that he and his family and friends all survived the most powerful earthquake in U.S. history. Still, the fear and sorrow of that day remain **etched** in his heart.

"Not a day goes by when I don't think about the earthquake," he says. ●

Writing Contest

How does author Lauren Tarshis transport readers to March 27, 1964? Answer this question in a short response. Use text evidence. Send your work to **Great Alaska Earthquake Contest**. Three winners will each get a copy of *Mixed Up* by Gordon Korman.

Entries must be submitted by a legal resident of the U.S. age 18 or older, who is the teacher, parent, or guardian of the student. See page 2 for details.



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