



Glaciers

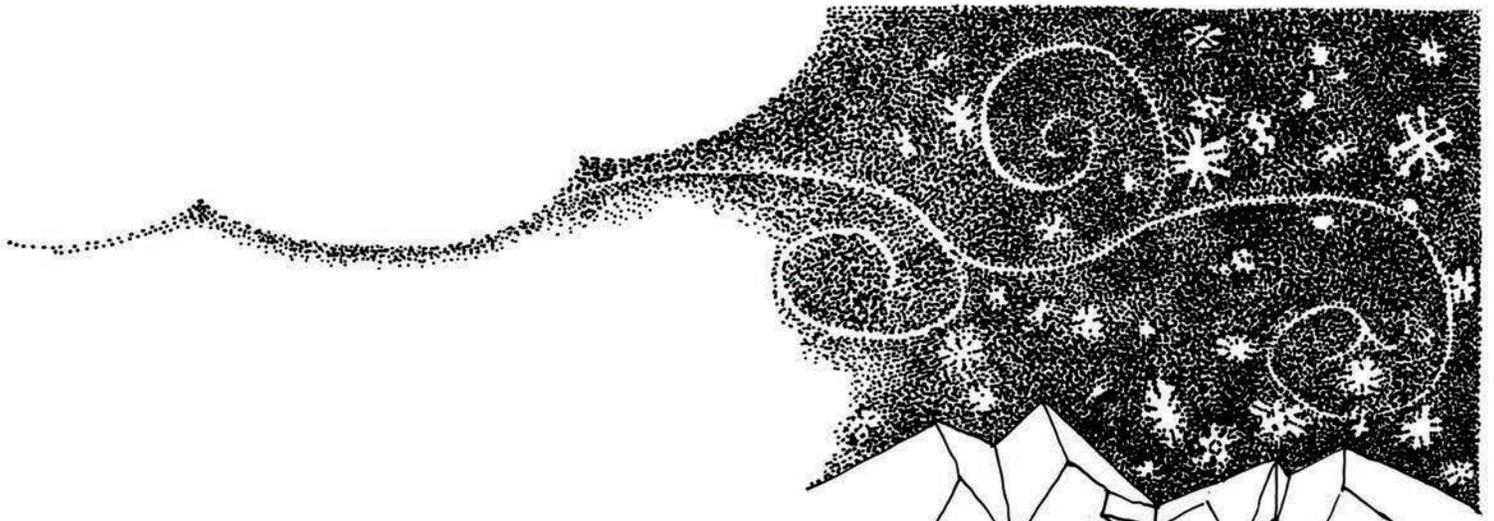
In the long-ago time, before the first Suquamish or S'Klallam had settled in the land we call Kitsap County, Thunderbird ruled the air like a good-hearted king. His reign extended to the earth, too, for his life-giving rains nurtured every plant, every animal.

All creatures - slugs and mosquitoes, mushrooms and blackberries - relied on Thunderbird for their survival. They rarely saw him, though, because Thunderbird flew only when clouds covered the sky. Yet everyone always knew when Thunderbird flew. They could hear the distant rumbling of his thunder, which was the sound of his moving wings, and they could see the terrifying bolts of lightning as they struck the earth from above, and fire would explode in the trees.

One day long ago, Thunderbird, when he was high in the sky, could see a great white invader from the north creeping down on heavy relentless feet. It was Glacier. Although Thunderbird saw it long before it reached Kitsap County, there was nothing he could do to slow its advance. He tried cracking its icy armor with the deafening sounds of his thunder. It didn't work. He attempted to melt it with the searing heat of his lightning. To no avail. He even tried raining on it steadily, to make the ice turn to liquid. That didn't work either.

Finally Glacier covered this land under a chilling blanket half a mile deep, destroying all the plants and animals in Thunderbird's care. Thunderbird waited for Glacier to leave, so he could once again provide for his subjects. But Glacier didn't move. After centuries passed, frustrated and angry, Thunderbird demanded that Glacier go back to where it had come - forever.





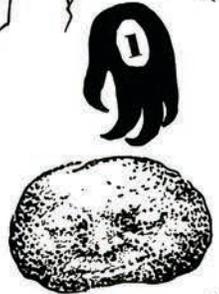
“Great bird of the sky,” Glacier said, “this is the way of the earth. I am not cruel. I am simply a force, like the ocean wave, the volcano, like you.”

Thunderbird thought about this as he flew over the vast expanse of Glacier, which now reached from the Olympic mountains to the Cascades. Watching him fly in lonely circles, Glacier began to feel sorry for Thunderbird, who grieved the loss of his children.

“I will make a deal with you, Thunderbird,” said Glacier. “I know that I smother all life under me with my crushing weight and terrible cold. But so that life can flourish once more, I promise that after a while I will go back north, and that life will flow again in all its renewed glory. But you must know that my absence is not permanent. I will come again to cover this land, as is my destiny.”

And so Thunderbird agreed, and ever since that time two million years ago, Glacier has come and gone, life a great tide of ice, each time changing the land and the life under it. Today, thanks to Thunderbird, Glacier is far away in the north. But one day he will return again, as surely as thunder follows lightning.

*The name of the place has no point you say?
I disagree, it's all a word play!
In a park just south of the flashing eyes,
Is where Thunderbird's first track lies.
Ol' Gus Halvor will take you there,
Stash your car by the eagle's lair.
Walk down the path to the top of the bluff,
It's there you'll find Thunderbird's stuff.
And what of the hitchhiker, Glacier's erratic "gift?"
Step down to the beach - but don't try to lift!*



CHERI STRAINKE'S

Glacier Facts

Water formed Kitsap County in much the same way that a construction crew builds a house. The crew brings in materials, adding some here, taking some away there, and then, when the job is finished, leaves. So too with the frozen water that made up Ice Age glaciers. The shape of the land and lakes, the makeup of the earth's surface, the way water flows beneath the ground - all were determined by the powerful forces of glaciers.

From two million to 10,000 years ago, huge ice sheets reached down into Kitsap County. The glacier that once covered the place where you're standing was called the Puget Lobe of the Cordilleran Ice Sheet.

How big was the glacier?

Imagine four Space Needles stacked one on top of the other. Look up and see where you think the top of the stack might be. That point represents the height of the last glacier that covered Kitsap County. The Puget Lobe of the Ice Sheet reached a maximum thickness of about 7,000 feet at the Canadian border, 3,000 feet at Seattle and Bremerton, 2,000 feet at Tacoma and 1,200 feet at Olympia.

Glaciers have covered and uncovered the Puget Sound region several times in the last 2 million years. Geologists expect another glacier to swallow Puget Sound 50,000 to 100,000 years from now. The last glacier, which receded without all the trees, shrubs and wildlife, of course.

Materials "drifted" in on the glacial tide.

Kitsap County is part of a broad glacial "drift plain" that extends across the Puget Lowland between the Olympic Mountains on the west and the Cascade Range on the east.

The drift plain is the surface of a great thickness of materials - gravels, sands, silts, clays and tills. It is so named because the materials were carried down from the north by the glaciers, just as logs and debris drift on tidal currents. Because water travels easily down through gravel, most underground water sources, called aquifers, are in areas with abundant gravel.

Glacial "erratics" were also carried down from the north. They're large boulders often seen lying in open fields or along beaches. A "signature" of glaciers, erratics originated hundreds of miles to the north, in British Columbia, where they were eroded from mountains and fell on top of a glacier. Then they "hitchhiked" down to the U.S. as the glacier advanced. But when the glacier melted, these boulders were left behind, far from their homes.



Do you dare to drive on drumlins?

North and east of the glacier track, as you head counterclockwise around the Thunderbird's beak, the main road travels up and down geologic "signatures" of glacial activity called "drumlins". They're easy to spot because they resemble roller-coasters - up, then down, then up, then down. Hold on to your stomach!

Because the glaciers moved in a north-south direction, these long, narrow hills also are orient north-south. The hills were formed when the southward-flowing glacier scooped out the land like a bulldozer, piling and pushing up sands and gravels into the shapes you see. Drumlins occur all over the county, but the best ones are located here and on Sedgwick Road near Port Orchard.

