THE

VULCAN VOICE 2

Mount Rainier National Park, Washington

August 12, 2013

Hot Fudge Mundae

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About a mile along Skyline Train we began to climb above the forest. The high point on our hike, 7,200-foot Panorama Point, is the rocky prominence at the top left.

The sound – like the muffled roar of a passing freight train – momentarily interrupted David's and my conversation about the fantastic hike we had Monday.

The noise was the groaning of the Nisqually Glacier, a four-mile long river of ice slowly creeping down the southern flank of 14,410-foot Mount Rainier like a rivulet of cold ice cream dripping down the side of a hot fudge cake.

Only this was millions of tons of ice grinding its way down from the top of the fifth-tallest mountain in the contiguous United States to the 4,700-foot level, shattering and shoving rock ahead of it like a 300-foot tall bulldozer blade at a rate of about 30 inches a day.

A snowflake that lands atop Mount Rainier this winter and is crushed into ice by the weight of its fellow flakes – which accumulate to a depth of 50 feet in a typical season – will remain frozen for about 25 years before it reaches the glacier's toe and melts to become the Nisqually River to flow into Puget Sound.

The Nisqually is one of 25 major glaciers flowing down the sides of Rainier, originally called "Tahoma" or "Tacoma" by the Nisqually tribe, meaning "mother of waters," making this volcano the most heavily glaciated U.S. peak outside Alaska.

No matter where David and I were on our five-mile hike on the Skyline Trail, a loop beginning and ending about 5,400 feet up the mountain, the glacier was a constant presence, cooling the breeze, interrupting our conversations and competing with the

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colors of bazillions of wild flowers enjoying their brief respite from winter, which up here is due to begin again late next month.

When I began checking trail conditions for this trip on the Fourth of July, 90 percent of our trail was covered by snow.

The trail was billed as the one you should hike if you can only do one trail at Rainier, and we had no reason to argue. The first two miles climbed 1,800 feet from the forested subalpine zone into the almost barren alpine Level, where there's nothing but rock, snow and ice.

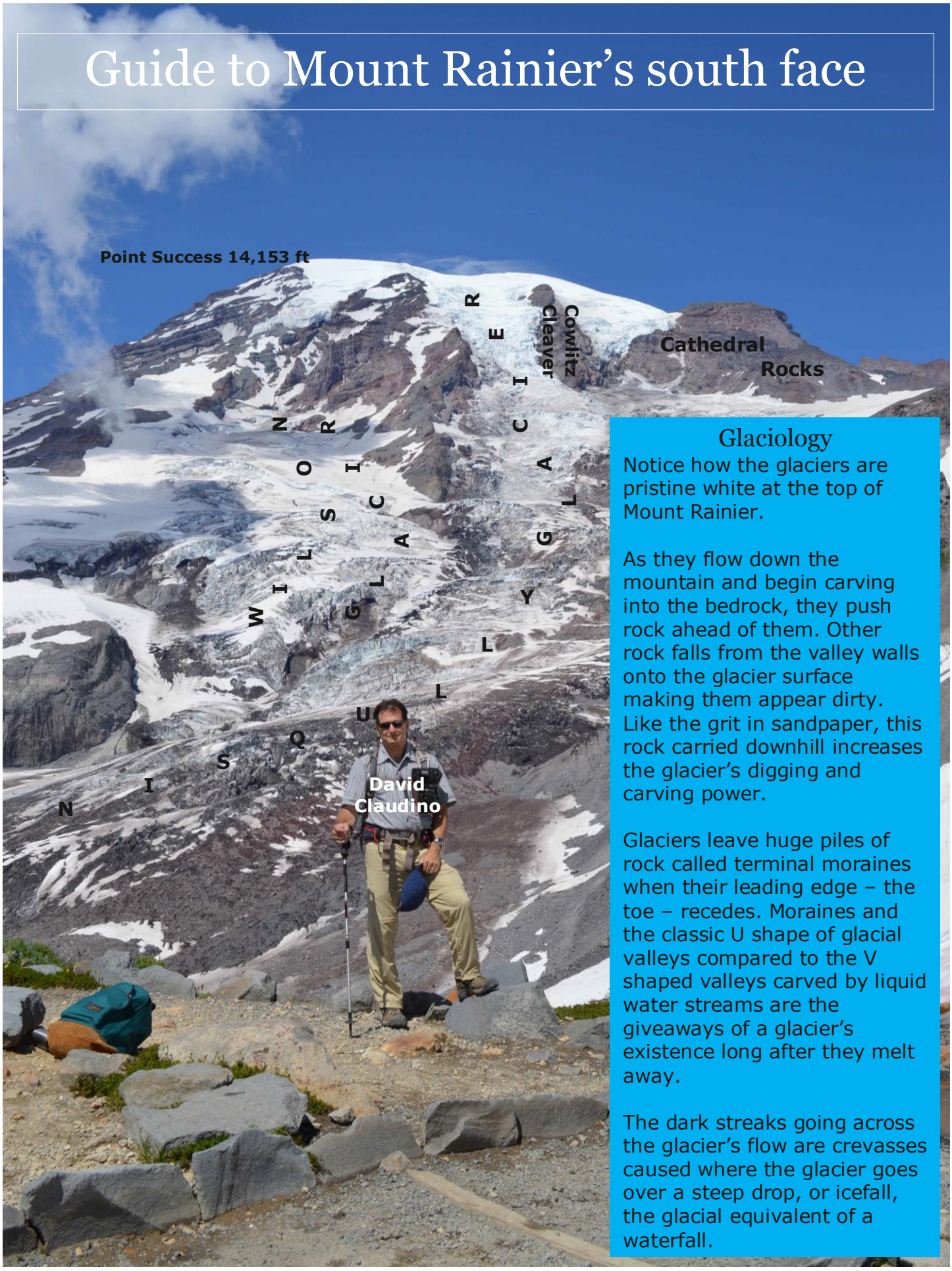
Nearing Panorama Point, the highest part of our hike, I'm well above the tree line.

Above us we could see dark specks – really alpine climbers – inching their way up to Camp Muir at 10,000 feet. There they pitch their tents in the snow and get to sleep by late afternoon so that around midnight they can put on their miner's lamps and begin the climb up the Ingraham Glacier to the top, where they get a whiff of volcanic sulfur. They want to arrive before noon so that they can return to the bottom before dark.

Mount Rainier is one of those places that lets you know you're not in Kansas anymore, an ice-capped volcano biding its time until, like Mount St. Helens, it decides to turn up the heat and make news.

The tiny climbers on the Paradise Glacier near the gray rock outcroppings on the right are ascending to Camp Muir at 10,000 feet, located just above the curved snow line on the left.

Guide to Mount Rainier's south face



Glaciology

Notice how the glaciers are pristine white at the top of Mount Rainier.

As they flow down the mountain and begin carving into the bedrock, they push rock ahead of them. Other rock falls from the valley walls onto the glacier surface making them appear dirty. Like the grit in sandpaper, this rock carried downhill increases the glacier's digging and carving power.

Glaciers leave huge piles of rock called terminal moraines when their leading edge – the toe – recedes. Moraines and the classic U shape of glacial valleys compared to the V shaped valleys carved by liquid water streams are the giveaways of a glacier's existence long after they melt away.

The dark streaks going across the glacier's flow are crevasses caused where the glacier goes over a steep drop, or icefall, the glacial equivalent of a waterfall.

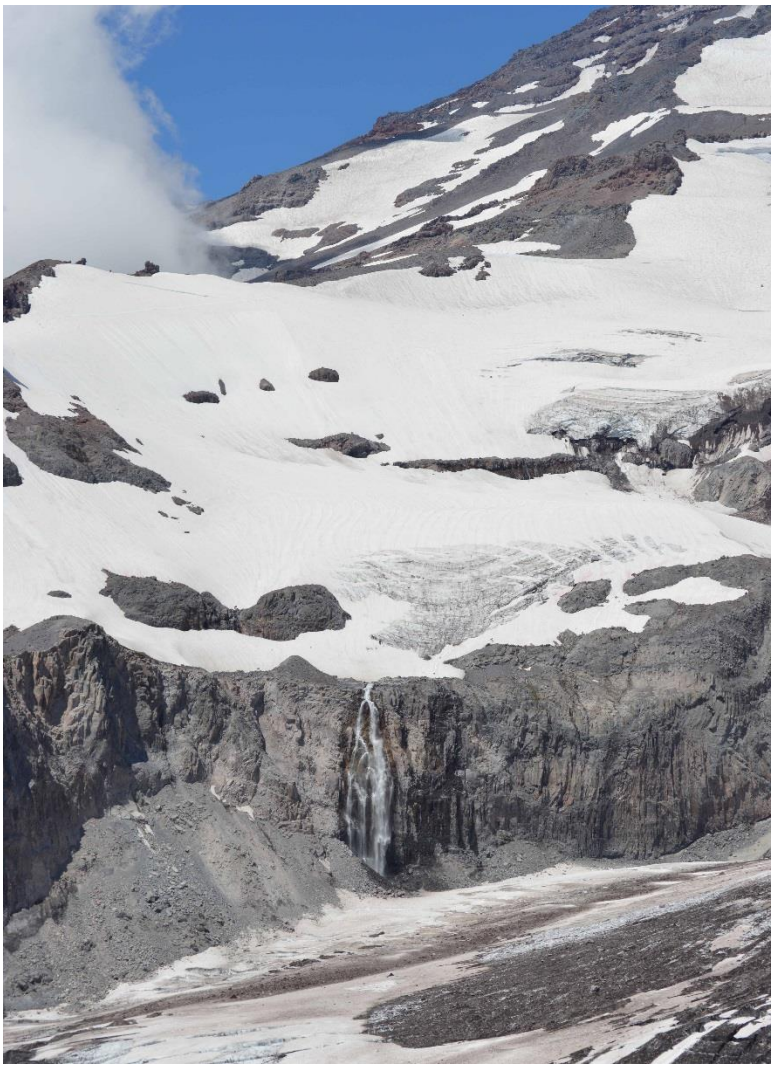
Climbers have traditionally built rock piles atop mountain peaks called cairns. At our high point of 7,200 feet on Mount Rainier, as high as you can get without transitioning to snow, cairn builders have gotten fanciful.

We met several marmots, cat-sized rodents that live among the rocks in western mountains. This one is Merle, and he's having lupine leaves for an *al fresco* lunch. This winter he will hibernate in a den or beneath rocks covered by snow.

These unusual brown flowers look like a thistle. But they are downy soft when you touch them, not prickly. They're officially known as a Pasqueflower (Easter flower) or western anemone, but why would anyone call them anything but their common name: mouse-on-a-stick?

An ephemeral stream, born beneath a snow bank just behind us, cuts through a snowbank before plunging over a waterfall. The mountains in the background to the south are the Tatoosh Range.

At the toe of the western lobe of the Wilson Glacier, meltwater pours over a cliff in a waterfall several hundred feet high onto the Nisqually Glacier. One of the amazing things about this hike was the change from winter to spring – from black and white to living color – in just a few hundred feet of elevation change, or by turning a corner around a rocky outcropping as shown by the wildflowers in the picture below.



A look back at what we enjoyed. At this point there's only about a mile left to go in our five mile loop. We went up the green ridge in the distance to a point behind the tree on the right edge of the image, then descended out of frame on the right to here. Part of the rest of our trail is in the bottom left corner leading back to Paradise.