

**Geology Drive and Discuss – developed by Geologist Kelsay Stanton
Wenatchee Valley, Hwy 2 Driving E from Wenatchee to Leavenworth**

This is a “drive-by” guide for some of the geology that you see on Hwy 2, driving W from Wenatchee to Leavenworth. This is the first edition, so if you see any interested outcrops that you feel should be added, please make note of the location and I’ll check it out!

These are written for a passenger to read-aloud to the car, providing some discussion questions about the outcrops.

All sites are with reference to Hwy 2 West-bound. North, therefore, is on the right-hand side of Hwy 2 W, while south is on the left-hand side of Hwy 2 W.

1. As you leave Wenatchee on Hwy 2 you begin climbing a hill. You’ll see horizontal layers, or beds, of gravel and sand in the road cuts on this hill. These are the loose and partially-lithified sediments of the Wenatchee River. This is an ancient gravel and sand bar.

What do these river sediments imply about the Wenatchee River?

You will see terraces (flat-topped plateaus) of the Wenatchee River gravels all the way up the Wenatchee River Valley. Frequently these terraces have orchards.

2. As you drive down the hill into the current flood plain look NE “over your shoulder” as you pass Lower Sunny Slope Road. Through the trees you should see some dipping sandstone beds. This is the Chumstick Formation, a group of sandstones, siltstones, and conglomerates that formed in the Eocene (~45-50 million years ago).

Do you think the sediments were deposited in steeply dipping beds?

If not, what happened to them?

3. As you near Old Monitor Road (across the street from D’Anjou Bakery) look N up the hill. If it’s clear you should see a large rock formation on the flanks of Burch Mountain. This is called Eagle Rock and it is composed of Burch Mountain Andesite, which is Miocene in age (between 5-20 million years old).

This is somewhat of an anomaly on Burch Mountain. The NE portion of the mountain is very old gneiss while the SW side of the mountain is Chumstick Formation (see #2). The Entiat fault separates the gneiss from the sandstone.

4. As you come out of Cashmere you can see lots of terraces to the S of Hwy 2 (across the river).

Are they all the same height?

If not, what does that mean?

5. Most of the drive is through Chumstick Formation. You can see the dipping beds on either side of the road as you look up side canyons.

When you get into Leavenworth, you suddenly see a large “wall” of rock rising up as Hwy 2 approaches the W end of town and Tumwater Canyon.

What do you think is happening here?

The “wall” is a different kind of rock – the Mount Stuart batholith, composed of 90 million year old granodiorite. Granodiorite is much harder than sandstone. That is why it erodes much less. This is what gives the wall impression. This is also the location of the Leavenworth fault. You’ll notice that the E face of Icicle Ridge is fairly straight. Faults generally are straight, or a series of straight, lines. They are not usually “wavy” or scalloped in shape.

Geology & Plant Ecology Field Trip Wenatchee Naturalist

Local painter, Jan Cook Mack, wrote her own legend telling an imaginary story about how our valley came to be. In the painting, look for the folds of the rainbow robe and the princess herself in the hills above the Wenatchee River.

Legend

Wenatchee Valley means Valley of the Rainbow Robe. Legend has it that a Wenatchee princess came over from the west-side of the mountains. When she found our valley, she fell in love with the sun. He invited her to dance in his light. She being of the waters and he the sun, led to the creation of the rainbows from their union. He wove her a wedding robe of rainbow threads which she wore when she danced. Her mother, the moon, heard of the marriage and became enraged with jealousy. She caused lava to erupt and flow across the east plateau. The princess' tears caused a great flood which opened up Moses Coulee and blocked the lava before it filled our valley. She threw off her robe and ran to hide in the hills. From Burch Mountain, you may see the princess west of the robe folds of hills. Her arms reach up to the sun. (Copyright 1998) b

W A - N A T - C H E E

THE PLACE OF THE RAINBOW ROBE

A Legend

There are a number of legends defining the word "Wenatchee". The Indians called the river by this name, and as such it was known when the first white settlers came to the country. To the Yakima Indian it means Boiling Waters, and was doubtless so idealized because of the frothing, foaming, spuming way the river makes as it flows through Tumwater Canyon, another Indian name, meaning noisy waters. Another tale declares it to be the name of a mighty warrior who lived many, many years ago, when tradition was in its youth. He was called Chief Wenatchee, because he and his bands roamed this valley in undisputed sway. But, according to other authorities, there is another, a romantic derivation of the word. By those who have made a comprehensive study of Indian traditions, it is said that Wenatchee is the title of one of the Charm Tales of the Indians, a chant told at Pow Wows. It relates the story of an old love legend, and is derived from the tale of the Love Daughter of the widowed Moon. Beautiful and possessed of all the graces that contribute to make maidens adorable, was the young Princess. At first she was admired and subsequently passionately loved by the Sun. But the Moon, according to this fanciful legend, deemed the Sun much too old to woo the fair Princess, not yet arrived at the age when she knew her own heart, and had fixed her wish upon the marriage of her daughter with a younger, if less dazzling, yet handsome child of the sky. But the wayward maiden loved the majestic Sun. For a long period Mother Moon remained awake at night, keeping vigil over the movements of her daughter, lest the mighty Sun should bear her away. Already the sun had woven for her a bridal robe of threads spun from the rainbow, and one day while the Moon slumbered the Princess arrayed herself in this beautiful, luminous garment, and went down to the sea, to wed the Sun. Shortly after departure the Moon awoke and hastened in pursuit of the fugitive lovers. On the Moon's approach the maiden shrieked and fled to the mountains upon a bar of silvery lightning, hurled by her rejected lover from his place in the sky. In the dark despair of her terror the Princess flung her gorgeous mantle over the mountain top and concealed herself in the heart of the cliffs, where from that evil day until the present she has dwelt in seclusion, bewailing her sad fate. It is the Indians' belief that her melancholy, yet musical voice floats out upon the wind whenever the night is still. The robe still hangs where it was cast by the affrightened maiden, from the mountain top and over its sides, in the form of a river, and yet possessing all the hues of the rainbow, when the Sun comes down through gorge and glen to caress its rippling folds. And it is called:

Wa-Nat-Chee, or "Robe of the Rainbows".

Source: Wenatchee Valley Museum and Cultural Center