

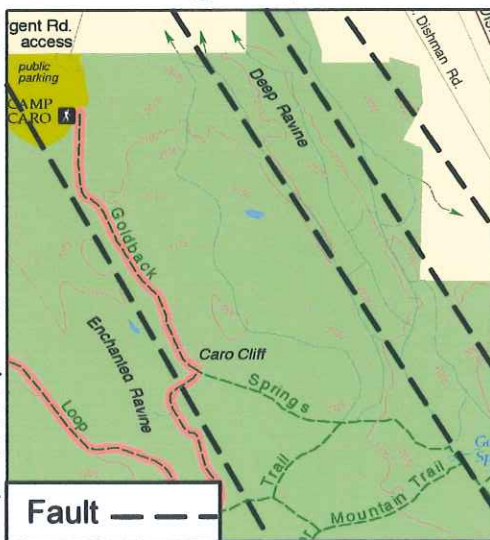
# LIGHTS and SHADOWS

from the  
Dishman Hills



## IT'S NOT ALL OUR FAULT

Several topographic features in the northern and eastern parts of the Natural Area have a very interesting geologic story to tell. A series of parallel ravines starting with the main trail south of Camp Caro to Caro Cliff and through Enchanted Ravine, and Deep Ravine along with several more ravines further to the east, all represent faults where the Earth's crust has been fractured and moved. These ravines run from southeast to northwest and are part of a larger set of faults that in the Spokane area. Recent work by Washington State geologists have shed some light on the nature and origin of these faults. The fracture plane of these structures is thought to be near vertical and the motion is the western side to the north. Movement on one of these faults, just north of Gonzaga Univ., was the source of the earthquakes that visited Spokane about five years ago. Where the earth is faulted the fractured rock is more susceptible to erosion, thus faults are often hidden under the bottom of valleys. The 80-mile-long Hangman Creek/Spokane River valley on the west side of the city is our best local example of fault liniment topography. On the eastern side of the Natural Area a younger granite has "oozed" up through these fractures resulting in a fine building stone which was mined from a quarry off Dishman Road.



Besides providing beautiful, steep-walled ravines and handy locations for trails, what are these faults all about? They have the same orientation as California's famous San Andreas Fault, and also have the same connection with plate tectonics. Spokane and the rest of North America is drifting west at the break-neck speed of about 1 inch per year. As we cruise west, we are colliding and overriding the Pacific floor causing all types of geologic havoc (Rocky Mtns, Cascade Mtns and volcanoes, western earthquakes, etc.). This collision is not straight on but at an angle so that there is not only the expected east-west compression but also a sliding to the north of rocks on the western edge (California is coming our way!).

Back to the Natural Area. This model explains the orientation and motion of our faults, but why here? For that answer we have to look way back into earth history. The bedrock in the Natural Area is old, very old, maybe up to 1.5 billion years old! Back then we were on the western edge of an ancient North American continent, and to the west was the newly formed Pacific ocean. Recent geologic mapping by the State revealed an occurrence of ancient (0.5 billion years old) marine fossils preserved just to the west of Spokane. While the continental edge now is hundred of miles west of us, the deep roots of the older continent are beneath us and are even thicker to the

*Civilization exist by geological consent, subject to change without notice— Will Durant, writer/philosopher*

east. As tensions in the Earths crust transmit to the east from the plate collision off the coast of Washington, they run up against the old continental edge and release their energy by fracturing the local rocks. Maybe like waves crashing on a breakwater. So the next time you hike along one of these fault-caused ravines visualize if you can the changes in time that has affected this topography.

## SPRING EVENTS

As winter breaks and spring arrives it's time to shake off those late winter doldrums and look forward to a new season of activity. Coming up is our annual Buttercup Hike on Saturday, April 8th. We will start at Camp Caro at 1pm for several hours of hiking and chatting about what's going on in the Dishman Hills. Some of us will have a picnic at Camp Caro before the hike. This year we will endeavor to find the lost ponds.

On May 13th, there will be a geologic walking tour of the Dishman Hills lead by Michael Hamilton. This field trip is through the Continuing Education courses offered by Spokane Community Colleges and to sign up you will have to contact them and pay a nominal fee for the course. To understand the geology there is nothing better that getting out into the field.

On May 21st, the Association will be hosting, along with many others, a concert of "Walking Jim" Stoltz. This will be a free concert, and maybe, who knows, your last chance to catch a fellow who knows how to blend nature and music. We hoping to put up a display as are others to make this a community conservation event.

## ORGANIZATION NEWS

We are a non-profit organization dedicated to saving nature areas in the Spokane region for public enjoyment and education. Call Michael Hamilton, 747-8147, if you have any questions. We meet every other month on the third Tuesday at Opportunity Elementary School, S. 1109 Wilbur, in the teacher's lounge, 7pm. Our next meeting will be May 15th.

The following are our February donors that have consented to be listed: Mary Burroughs, Eric & Beth Calkins, Nancy Cashion, Dave Cole, Myrtle Erickson, Michael Hamilton, Danne & Mark Huggar, Pat Killien, Maxine Leszcykowski, Lewis Lovell, , Sandra Mansfield, Marilyn Miller, Diane Rogers, William Thrasher, Sylvia Wilson, and two anonymous donors. Thank you all for your support.

Please use this form when sending **CONTRIBUTIONS or DUES**

All contributions are tax deductible.

Send contributions to: DHNAA

3415 S. Lincoln Dr.  
Spokane, WA 99203

Your Name: \_\_\_\_\_  
Please put your account no. on your check (see on address)

\$ \_\_\_\_\_ Memorial for: \_\_\_\_\_  
\$ \_\_\_\_\_ Land Purchase Fund  
\$ \_\_\_\_\_ Annual dues, due by June 30 (\$10)  
\$ \_\_\_\_\_ TOTAL

New ?  Renewal ?  Don't list me as donor

Please tell us if this newsletter is unwanted or if there is an address mistake