Appendix G - Locating Wagon Trails in Mountainous Forested Terrain

May 14, 2005

The following guidelines for locating wagon trails in hilly, or mountainous forested terrain was primarily taken from the Oregon-California Trails Association's MET Field Manual.[1]

1. In hilly or mountainous terrain, emigrant wagons generally followed ridges or higher elevations rather than gullies, ravines, or canyons. Evidence of trails is likely to be found on ridges rather than down or up narrow canyons or ravines.

2. Staying high would usually avoid seasonal muddy ground that could trap wagons. Staying high also mostly avoided the deeper sections of gullies which when crossing required that the sides be dug out and the bottoms filled in to allow the passage of the wagons. This strenuous labor usually kept the wagons higher uphill where the cuts were more shallow.

3. Where possible, emigrants would avoid forested areas as these areas required intensive efforts to blaze trails wide enough for their wagons. Where wagon trails were necessary in forested areas the path would usually follow earlier Indian, trapper, or pack train trails, as less labor was necessary to widen a trail versus blazing a trail from start.

4. When encountering hills on steep ascents or descents, wagons normally traveled directly up or down to avoid sideling or side hilling on steep slopes. Trails traversing along the sides of slopes usually will not be emigrant wagon trails. Exceptions might be where there was either no alternative to a steep slope or the slope angle was not steep enough to make wagons unstable.

5. Generally, wagons ascended and descended on the spine of a ridge rather than up or down gullies. Therefore, an unnatural drainage on the spine of a hill may indicate a one-time wagon trail.

6. In forested areas, loggers often used emigrant wagon traces for skidding logs which resulted in these traces now appearing as swales. Also, loggers often pulled wheeled logging equipment up and down ravines and gullies which left swales or ruts that would not be emigrant in origin.

7. Trail width varied, but in restricted forested areas averaged between 8' to 10'.   The normal wheel base for the typical wagon was 54" wide.

8. Wherever wagon passage was difficult — such as either steep descents and ascents — wagon parts, pottery fragments, and barrel hoops are commonly located. These are the remains of wagon breakdowns or abandoned provisions.

9. Another way to determine if a deeply-eroded feature is a onetime trail is to observe its linear pattern. Often the deeply-eroded feature will abruptly turn at a sharp angle in a different

direction and leave the trail that connects with it in a non-eroded condition once again. For the erosion feature to be the remains of a onetime wagon trail, there must be linear uniformity between the non-eroded trail segment that precedes and follows the erosion channel.

10. Where emigrants took their wagons twisting and turning through dense forests, wagon wheel hubs rubbing against trees may have left scars at hub heights (anywhere from 1½ to 2½ feet from the ground).

11. At the top of steep slopes, emigrants commonly snubbed ropes and chains around tree trunks to lower down and pull up wagons.

12. The following is from *The Applegate Trail of 1846*:[2]

> *"The trail Levi Scott, Virgil Pringle and others helped cut went straight up a grade between Hayden Mountain and Buck Mountain. The wagon wheels were tall to clear obstacles in their path. This higher center of gravity made them top heavy. They could not go on the side of a mountain because the wagons had to keep as level as possible. They went straight up and down the grades. Roads were later cut into the side of the mountains."*

1. Office of National Trails Preservation & Oregon-California Trails Association (P.O. box 1019, Independence, MO, 64051-0519, 816-252-2276, octa@indepmo.org). July 2002, 4th edition. *Mapping Emigrants Trails MET Field Manual.*
2. Emerson, William. 1996. *The Applegate Trail of 1846*. Page 65. Ember Enterprises, Ashland, OR.