Observatory Hill Trailwork Project – Rock Armoring
Saturday, December 9, 2006
CAMBC Trailwork Report
(Project organized and led by James Gist)

There is a renewed vigor for trail work at Observatory Hill. CAMBC has always been available and excited to respond to large trail work problems at "O-Hill" (blowdowns,etc), but hopefully this is the first step of many proactive, preventive days of trail work at O-Hill. There are several low-lying spots that are always wet. Previous short-term solutions have included random branches, slats of wood and even refrigerator doors. The 16-foot measuring tape in the pictures below captures the scale of the section that we decided to tackle first.

(a) Taken from the viewpoint of the existing bridge

(b) Taken from one approach to the pre-existing bridge

Rock armoring is used for several reasons. First, an elevated trail tread can be created above especially soft or wet terrain when no alternate route is available. Second, armoring can be used to harden the trail tread against user-caused erosion.[1] The technique we decided to use was ***rock pitching***. Several rock armoring techniques are outlined on the IMBA webpage. (http://www.imba.com/resources/trail_building/rock_armoring.html)

Rock pitching requires placing several immovable "anchor stones" 4-6 feet apart, then stacking flat rocks against those anchor stones for a nice tight fit, like books in a bookshelf. You end up riding/walking on the narrow part of the stones.

(c) Armoring using rock pitching technique

After we laid down the anchor stones (d), everyone took a section and started locking in the smaller rocks (e).

[1]IMBA Resources: Trailbuilding and Maintenance: Armouring – Using Rock to Harden Trails
http://www.imba.com/resources/trail_building/rock_armoring.html

(d) Anchor stones are laid.

(e) Filling in the spaces with smaller rocks

Once all of the rocks were laid out, we shoveled a bit of the surrounding dirt into the crevices to help lock the stone into place. Ideally, one would want stone aggregate to really cement the rocks in but since we loaned out our dump truck, we had to make do. We also used leaves from the surrounding area to cover up some of the dirt that was trampled during the construction.

(f) The finished armored section

(g) Partial group shot

This project was completed in one morning of trail work with 6-7 people. Overall it was approximately 20-25 hours for the 16 foot section. The most difficult part was transporting the stone from the surrounding area. A wheelbarrow was an essential tool and a small sledge hammer is also very useful for making the best out of a tight fit.

And no…it's never too early to learn how to do trailwork!