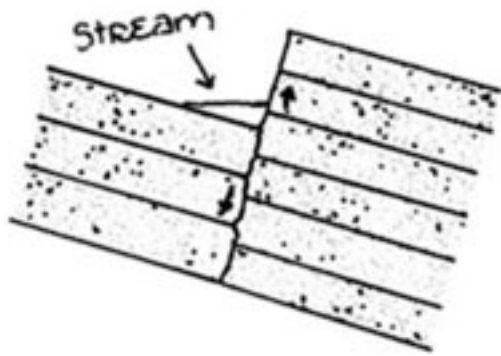


# Chesterfield Gorge Natural Area

## How Was it Formed?

Geologists have proposed many theories about how Chesterfield Gorge was created. The formation of the gorge can be attributed to a number of factors. The actual orientation, or foliation, of the bedrock played a role in the gorge's development. The bedrock layers are not, in fact, parallel to the earth's surface, but slope downward at a 30-degree angle to the southwest. The sloped bank dropped down along a fault, or fracture in the earth's crust, to create the cliff you see today. This phenomenon is illustrated below. You can simulate this action with your hands by putting the knuckles of your fists together, the top of your hands tilting to the right. Slip your left hand down, as shown below, and note the steep cliff formed by your right.



Wilde Brook is a superimposed stream, as are many in the Monadnock region. Originating from glacial meltwater 12,000 years ago, and flowing through the created fault joint, the abrasive materials of the stream gradually wore away the sand and gravel. For thousands of years, the stream has continued to erode, or eat away at the bedrock.

Evidence of natural erosion processes continuing to shape the gorge can be seen. Roots and frost wedge into and between boulders and cause them to split; while soil, rock and debris in the streambed continue to erode the bedrock.

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