"Geologic seeing is poetic vision constrained by the sobriety of science, a series of daring imaginative leaps disciplined by examination and measurement. Defying the stereotypes of science, field geologists remain a clan of surreptitious poets. Their original aesthetic and metaphysical delight in landscapes still beats beneath their discipline’s technical terms and laboratory apparatus. Field geology is a kind of walking meditation, a disciplining of the soul through the training of the eyes and body."

Rock, Water, Life, & Culture: An Experiential Classroom in Nature and Culture

Flatirons Elementary—Boulder, Colorado

"Rock, Water, Life, & Culture" is a project at Flatirons Elementary in Boulder, Colorado, that consists of the creation of an interdisciplinary outdoor learning environment combining elements of science, art, social studies, and the humanities. The project has two parts. Part 1 focuses on the creation of an outdoor classroom space made up of the four elements listed below. Subsequently, Part 2 proposes and ongoing school curriculum projects to make full use of this unique space.

1.1. The Riverbed will consist of a creatively sculpted representation of the riverbed will follow the natural drainage pattern of the site, directing runoff water along the channel, around the sides of the school, and into a swale to direct it away from the building. Classes will be able to "turn on" the river using a water source at the top, and watch the water flow through the river course and its pools. Learning by doing, students will see the river and its watersheds.

1.2. The Geology Wall will use actual samples of local rock to represent the rock and other strata. Adjacent to the Geology Wall, on the side of the building, a large mural will be created that depicts Colorado across geologic time as a tool for instructing students in the nature of scientific research: juxtaposing the geologic strata to the picture of the geologic past, students will see the rock and its story.

1.3. The Fountain Formation will use water for Flatirons classes in subjects related to music, art, and the humanities. The fountain will be a focal point of the famous Riverwalk of Sandstone. This pool would be dry most of the time, but could be filled and flowing during performances. The wall space behind the stage could be a botanical garden with various herbs and plants for Flatirons performances.

1.4. The Botanical Garden will be created with mounded earth, structural plants and large boulders. Soil will be contained behind low walls just the right height for our young gardeners. The garden will collect water as it runs off the hill above. The students will learn about the curriculum ties to the garden: small Zen gardens will provide opportunities for artistic expression and play quietly.

One-time permission is being obtained from the Denver Museum of Nature and Science to use the following pictures as part of the geology mural that will be placed on the south side of the building. Each of these pictures is a scientific-artistic representation of what Colorado looked like at the time these rocks were being deposited.

The Lyons Sandstone

The Fountain Formation (the Flatirons)

The Pierre Shale

The Denver Formation

The Lykins Formation

54 million years ago

250 million years ago

16 Thousand years ago

The end of the Ice Age