

# The Ancient Ozarks

## Rocky Falls

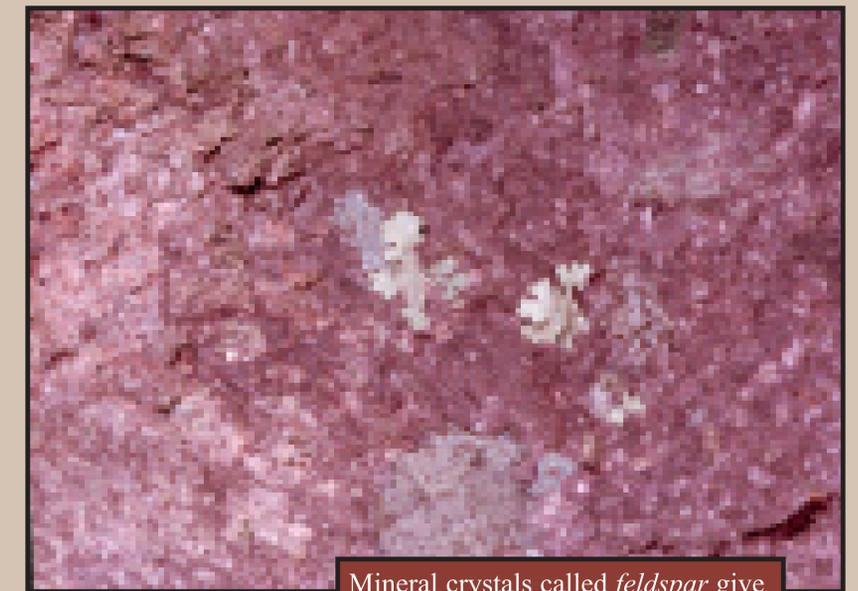
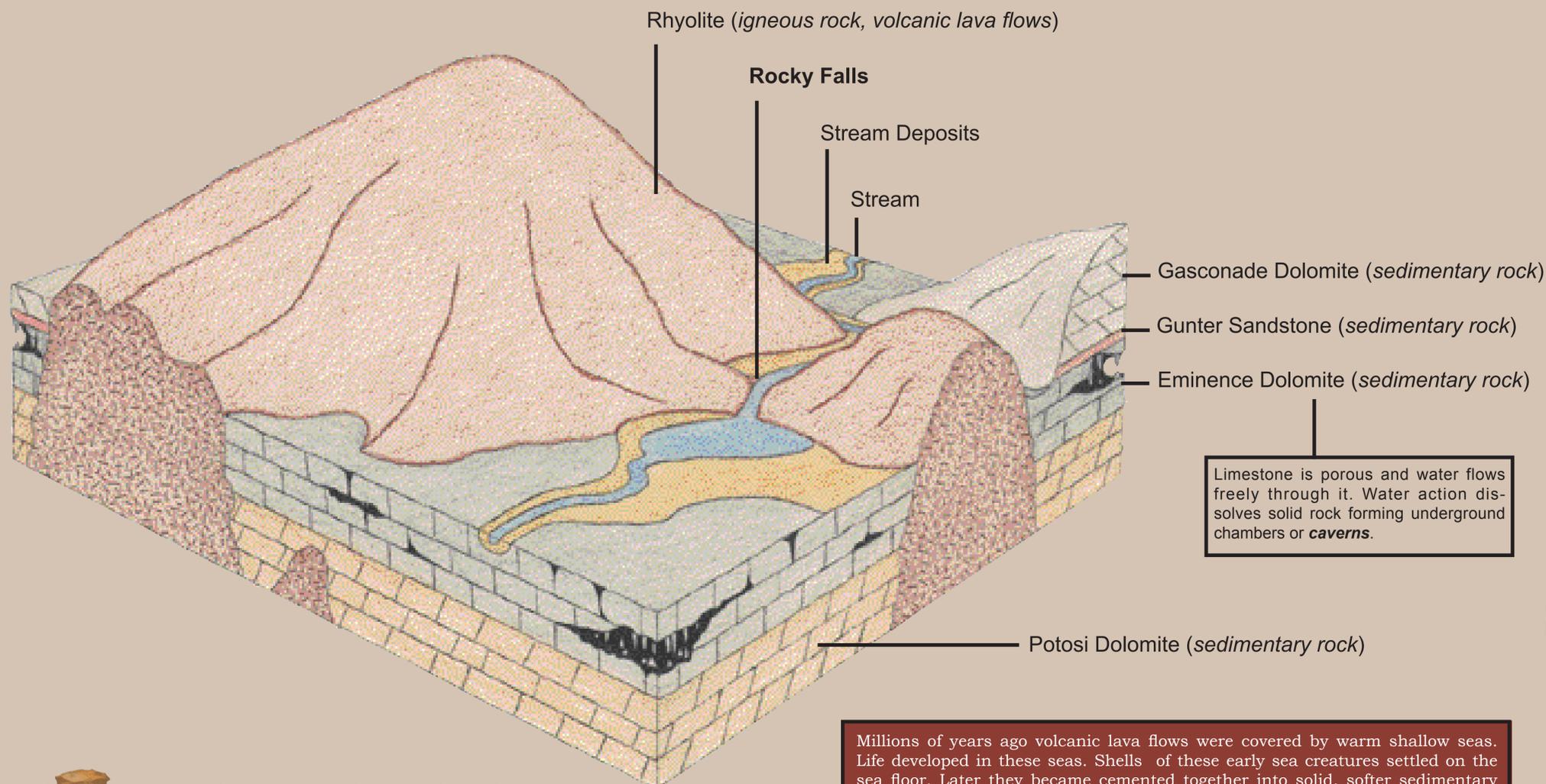
Time and Change

Few places in the Ozarks provide a glimpse of earth's turbulent past as well as Rocky Falls. The reddish-brown rock you see here is rhyolite porphyry. It formed as molten rock deep within the earth and flowed onto the surface about 1.5 billion years ago. At the time, no living thing existed to see the awesome flow of glowing hot lava slowly advancing over the barren landscape.

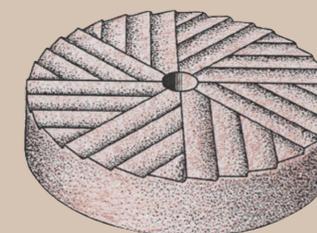
Normally, a stream eroding softer dolomite, a type of limestone, would make a wider valley for itself. Since the rhyolite is harder, the stream tends to stay within whatever cracks that it finds, deepening it only a little by erosion. Thus a "shut in" is formed where the harder rock has "shut in" the stream. Farther downstream, past the constricting rhyolite, the stream valley widens once again. This allows the stream to expand into a pool.

### Life Clings to Rock

Lichens have the remarkable ability to grow where few plants can, on solid rock. Lichens are composed of algae and fungi. They thrive in the moist, humid conditions of the Ozarks. This plant is very acidic and contributes to the weathering of sedimentary rocks. The acidic nature of lichens has very little erosional effect on the durable rhyolite.



Mineral crystals called *feldspar* give Rhyolite its reddish brown color.



The durability of rhyolite proved useful to early settlers. At nearby Klepzig Mill, built in 1912 on Rocky Creek, this stone was used as the material for mill "**burr's**" or grinding stones, used to grind wheat into flour and corn into meal. Small water-powered mills typified the early Ozark farmer's landscape.

Millions of years ago volcanic lava flows were covered by warm shallow seas. Life developed in these seas. Shells of these early sea creatures settled on the sea floor. Later they became cemented together into solid, softer sedimentary rock called limestone or dolomite. Much of the exposed rock in the Ozarks is this blue/gray sedimentary rock called dolomite. In time, dolomite eroded and exposed the hard igneous knobs of rhyolite at Rocky Falls.



Ozark National Scenic Riverways  
National Park Service  
U. S. Department of the Interior