Erosion caused by rain or irrigation, showing how water can wash away the soil

Soil erosion caused by rain

Shoreline erosion caused by the ocean

Erosion at the edge of a road, caused by rain

Erosion caused by flooding

The Grand Canyon, formed by erosion from water and wind

Erosion by waves, forming a natural bridge

Natural Bridge, Virginia, formed by erosion from river water

Weathering and erosion caused by wind

Erosion in fields caused by wind blowing loose soil

Wind erosion of sand dunes

Dust storm caused by wind erosion of loose soil

Extreme erosion caused by wind over long periods of time

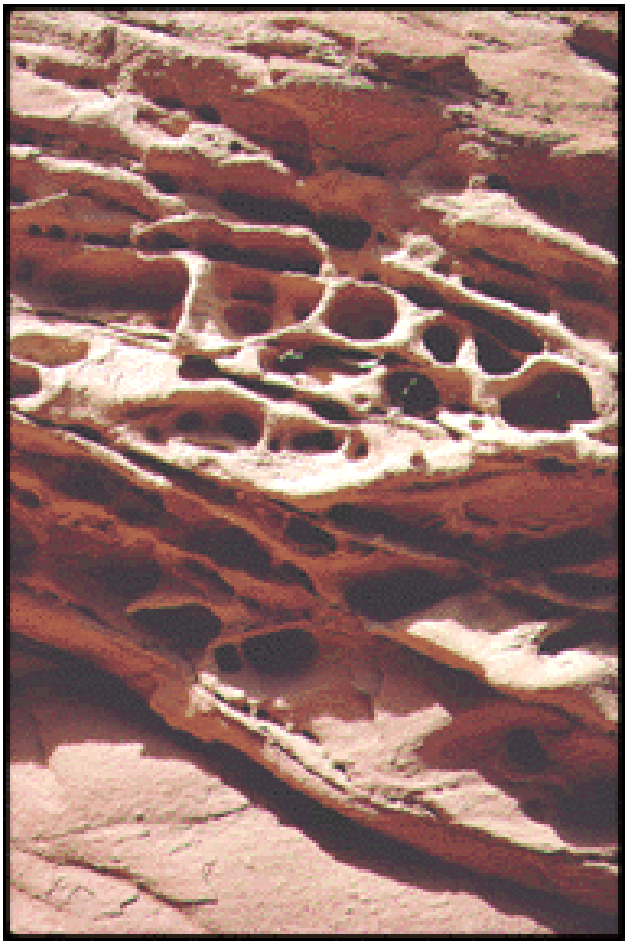
Weathering caused by chemicals in the rocks reacting with the groundwater

Weathering of a statue, caused by acid rain

Weathering caused by rain and wind

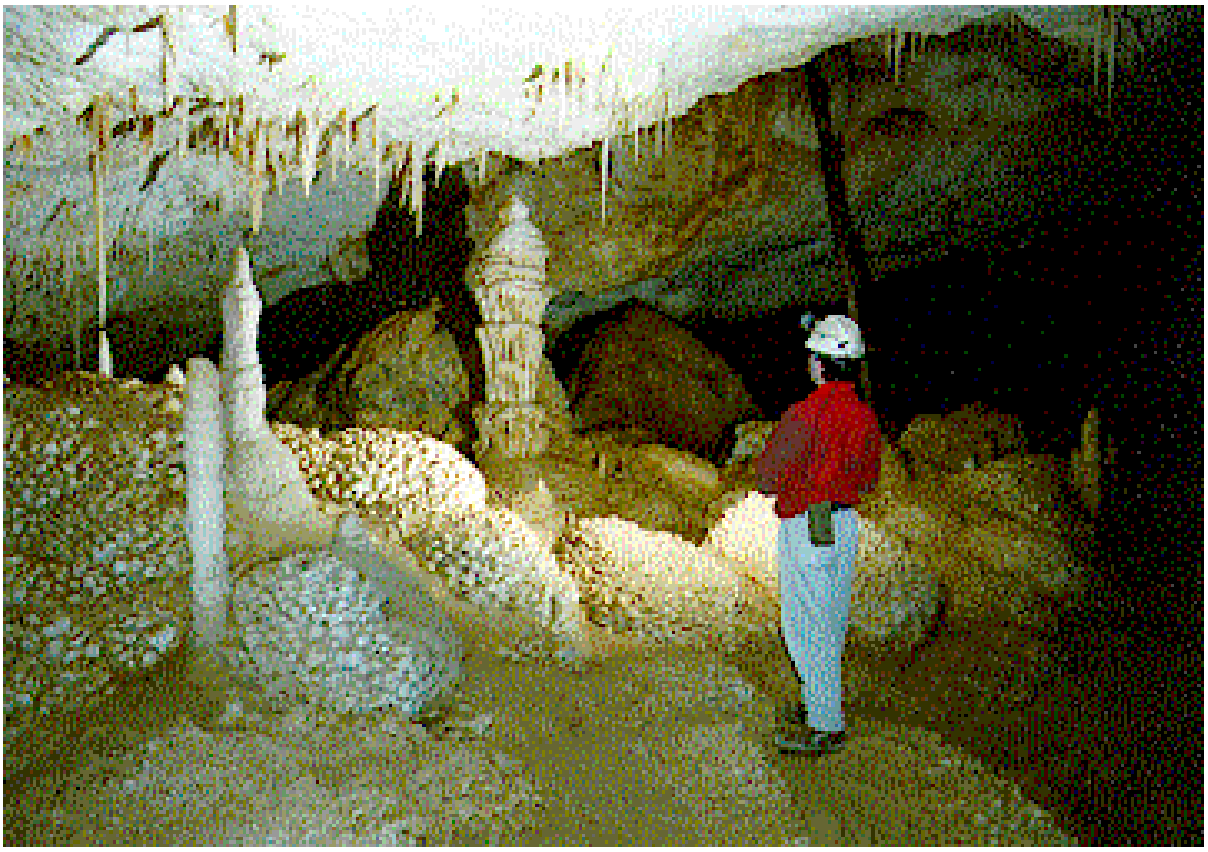
Weathering caused by glacial ice

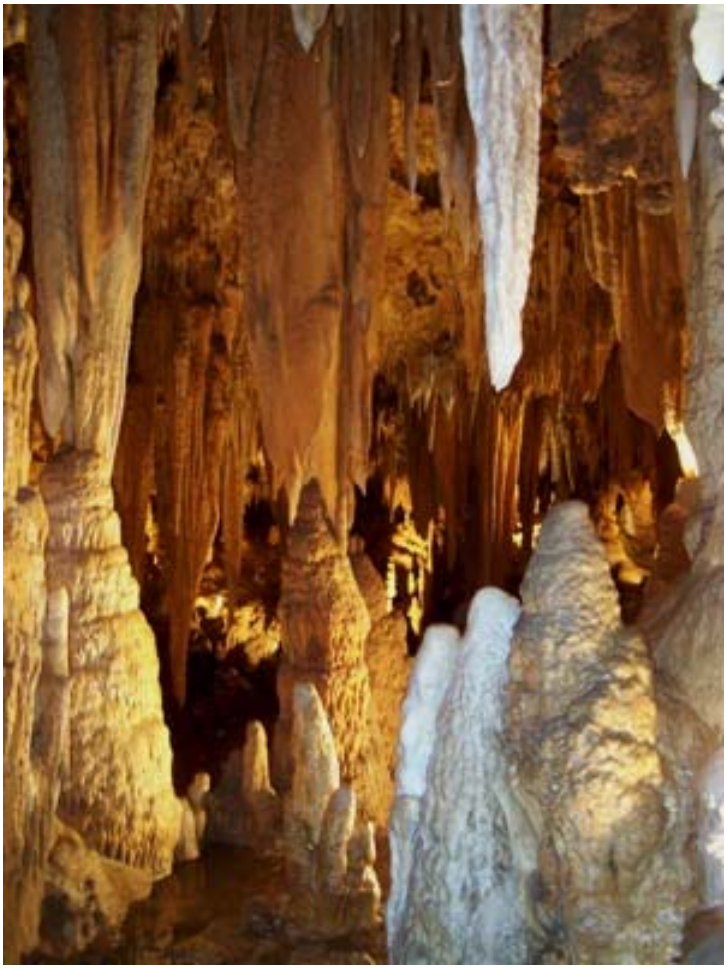
Weathering by frost and ice, causing the rocks to break apart



Weathering of large rock formations

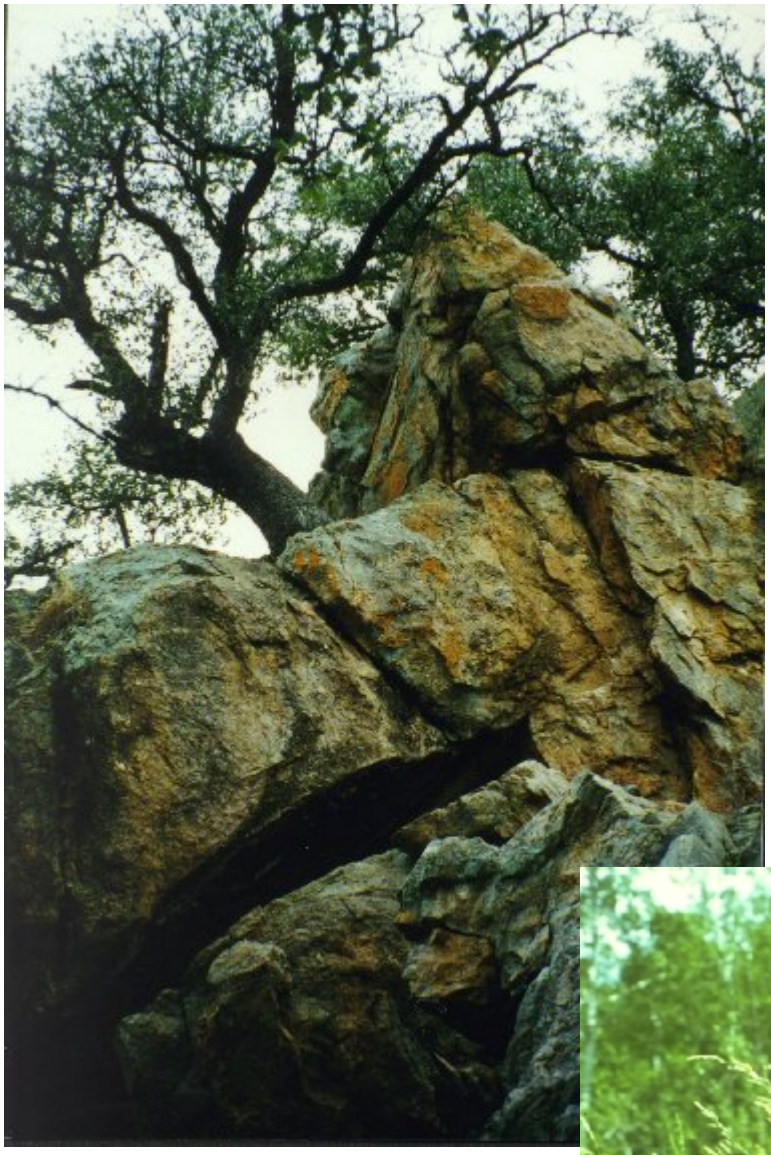
Weathering that caused the rocks to break into layers





Weathering causing minerals in the rocks to dissolve, and then form stalactites and stalag-mites in a cave

Weathering showing how rocks can be broken by ice or water



Weathering
caused by tree roots

Weathering caused by plant roots, lichens, and mosses on the rock

Weathering and erosion caused by a landslide

Natural Chimney, West Virginia

What do you think caused this rock formation?

What is the difference between weathering and erosion?

Weathering is the process of decomposing, breaking up, or changing the color of rocks. Weathering may be caused by the action of water, air, chemicals, plants, or animals. **Chemical weathering** involves chemical changes in the minerals of the rock, or on the surface of the rock, that make the rock change its shape or color. Carbon dioxide, oxygen, water, and acids may all cause chemical weathering. **Mechanical weathering** is the process of breaking a large rock into smaller pieces without changing the minerals in the rock. Mechanical weathering may be caused by frost, ice, plant roots, running water, or heat from the sun.

Once the small pieces of rocks are changed or broken apart by weathering, they may start to be moved by wind, water, or ice. When the smaller rock pieces (now pebbles, sand or soil) are moved by these natural forces, it is called **erosion.**

So, if a rock is changed or broken but stays where it is, it is called weathering. If the pieces of weathered rock are moved away, it is called erosion.