## Loamy Topsoil

## **Ancient Beach Deposits**

This cliff was first quarried in 1893 when a railroad was constructed to haul logs from less accessible areas in the watershed to a dump-off place along the river. The rock was used as "ballast" to pack the railroad bed so it could withstand the heavy locomotives and loads of logs.

> In 1936, the railroad was abandoned in favor of trucks. Rock from the quarry kept the new dirt logging roads passable. Quarry operations halted in 2002.

Over time, quarry activities exposed the geologic history buried in the rock. The

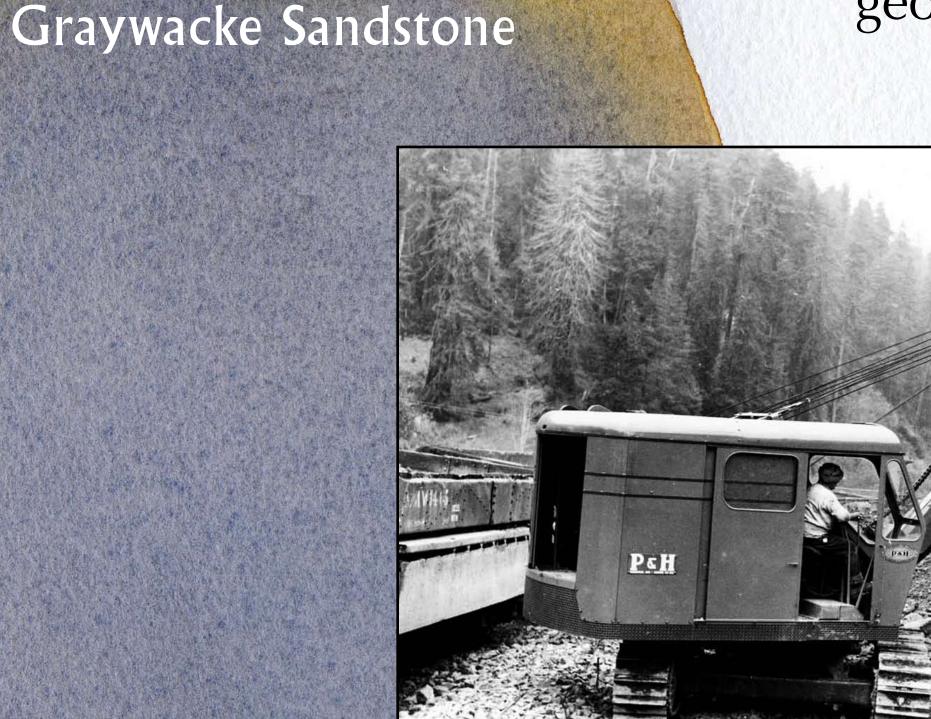


Photo Credit: Mendocino County Museum Rock mover loading a rail car in the early 1930s.

## Story in a Quarry

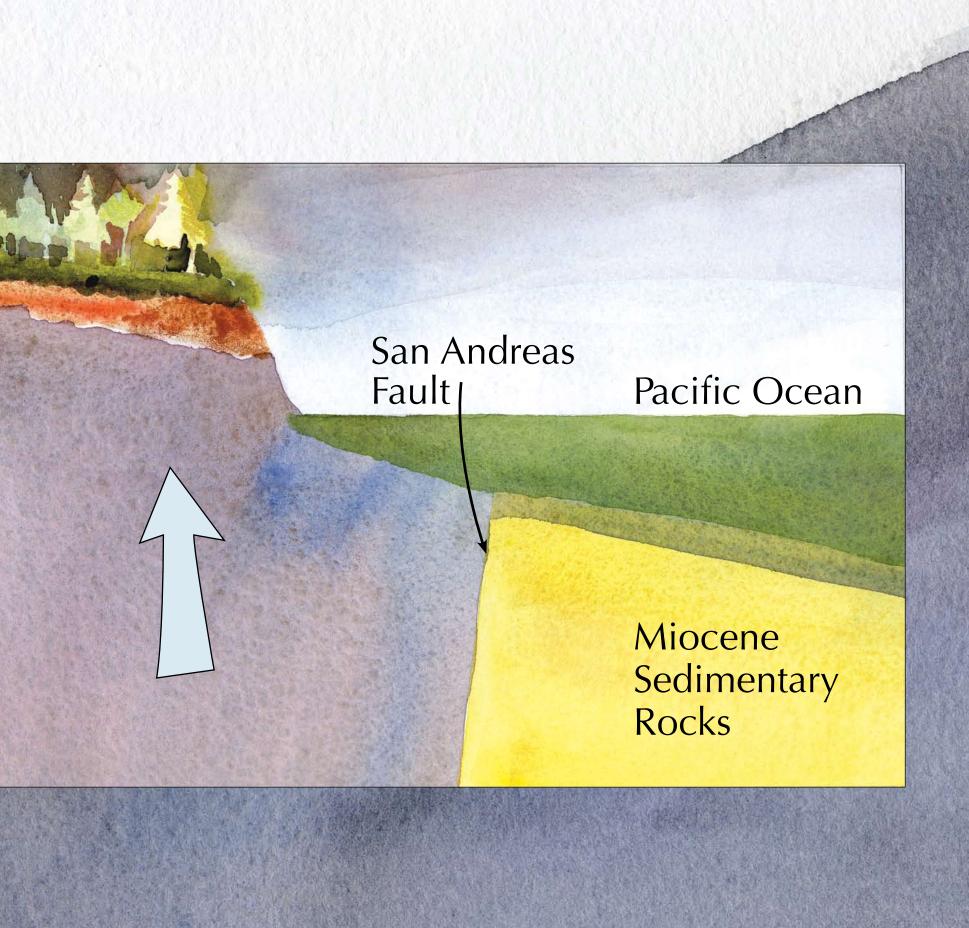
lower portion of the exposed cliff shows cracked gray material, known as Graywacke Sandstone, formed deep beneath the Pacific Ocean millions of years ago. The road builders mined this rock.

Above this, you can see rusty-colored ancient beach sand carried upward atop the sandstone for hundreds of thousands of years (see diagram). Capping the beach sand is a dark layer of loamy soil formed by plant and animal decomposition. Geologic forces may seem slow, but given enough time, they can move mountains.



Loamy Topsoil > Ancient Sandy > Beach Deposits

Graywacke Sandstone > Uplifted Continental Plate



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