

ON THE METAMORPHIC TRAIL

Let's go on a field trip in search of a specific metamorphic rock. We are going to start in Los Angeles and travel up Interstate 15 to the turnoff for the mountain community of Wrightwood. Now we are traveling west up the San Andreas Fault valley. As we approach the town, we see a nice display of geology spread out around us. On the right side of the road you can see brown, yellowish, and pink sandstones. On the left side of the road is a display of dark crystalline rocks forming a mountain ridge. Up ahead the way seems blocked by a bright white cliff. Pretty interesting place.



When we get up close to the white cliffs, we turn off the highway onto a rutted dirt road that takes us right up to the white rock outcrop. It turns out to be a quarry. There is evidence that humans have dug out a lot of the white rock and hauled it away. The cliff is carved into huge steplike tiers.



We can scramble up on one of the tiers to look closely at some pieces of the shiny rocks. They are white and crystalline, and can be scratched by a steel nail. A drop of acid produces fizzing. Aha, calcite!



Marble is composed of the mineral calcite. It fizzes when dilute acid is dropped on its surface.

This rock is marble. How did it come to be here, wedged between the igneous rocks of the mountain ridge and the sedimentary sandstones? This white rock must have a story.