

Sibley Volcanic Regional Preserve

Continued from reverse

is disrupted, giving the appearance of drag-folding resulting from relative uplift of the lava occurring during the past 10 million years. Alternatively, the disruption of the mudstones may have occurred earlier, at the time of volcanic activity. This site was close to, or was in, the wall of the volcano, and would have been subject to all kinds of slumping, sliding, and plowing. To see Post 5, proceed northwest along the main road, then take the first right, then left to the quarry pit.

5 Massive basalt was removed from this major quarry pit. The north wall shows a set of thick lava flows tilted on edge, nearly vertical. The well-defined layers near the top of the face are jointing-units resulting from shrinkage caused by cooling. They are analogous to the basalt pillars of Devil's Postpile in the southern Sierra.

6 This is a sequence of basaltic tuffs (ash) lying on top of a dark lava (far left), all tilted steeply to the east. The base of the tuffs was baked red, probably because the lava below was still hot and steaming when the ash landed. At the top of the sequence there is another lava flow (far right, to the right of the post) that baked the underlying tuffs red.

7 Before you is a basalt flow, massive at left, rubblely to the right. The lower parts of lava flows, coming into contact with cold land surfaces, harden early and are then often jumbled by turbulence and drag. The angle of the cut here makes the structure of the flow difficult to visualize, and the picture is further complicated by a shear zone (fault) cutting from lower left to upper right in the massive basalt, giving a false impression of bedding. The rubblely part of the flow is filled with vesicles caused by gas pockets, which were later filled with chalcedony, opal, calcite, zeolites, and sometimes green celadonite. To your far right you can see another view of the sequence at stop 6. Note the thin parallel bands in the soft tuff. These suggest the ash fell into water because bedding in ash that falls on dry land is usually disrupted by tree roots.

8 This huge, reddish-brown block of lava fell from the cliffs to the upper right. The lava cooled and hardened while it was still moving, resulting in dramatic fragmenta-

tion, what geologists call "autobrecciation" (self-broken).

9 Here you see hard lava to the right and left, and soft, easily eroded tuff between, all tilted eastward almost to vertical. The lava to the left baked the top of the tuffs brick red. This lava has been mostly quarried away, but looks as if it was probably 100-150 feet thick. These flows were not fluid, but contained enough silica to be more viscous. They probably moved at a slow walk, with glowing blocks of lava tumbling down a steep front and setting vegetation on fire.

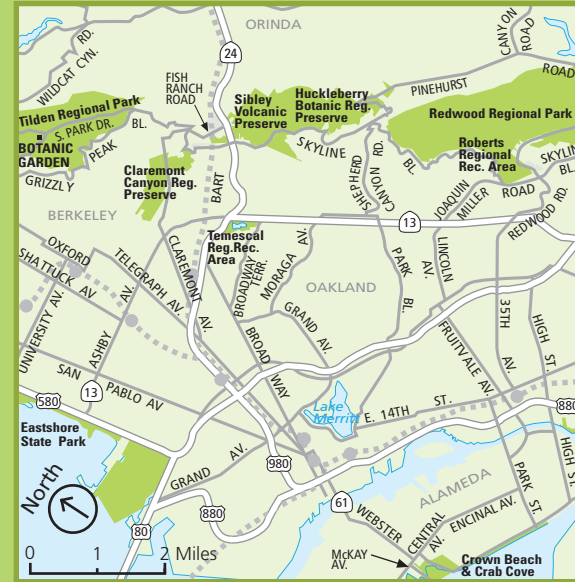
10 The brick-red knobs in the foreground, and rugged outcrops of the same color on the skyline, are made of cinder that flew from Round Top and landed while still hot, so the pieces welded together.

11 The major valley to the north across Highway 24 is Siesta Valley. It coincides with the axis of the Siesta Syncline, a great fold that has lifted up thousands of feet of rocks on both sides. You are standing on the southwest limb of the fold, which includes all the rocks in Sibley.

HOW MANY VOLCANOES? Round Top is the obvious one. There are smaller ones outside the Preserve to the north and southeast. Another, of rhyodacitic composition (rather like the ash from Mount St. Helens), underlies the Lawrence Berkeley Laboratory and Little Grizzly Peak in Tilden Regional Park. About 9.8 million years ago it was erupting beside Round Top. Subsequently it was shifted about three and one-half miles northwest by movement along Wildcat Fault. That makes a total of four volcanoes.

THIS PRESERVE is named to honor Robert Sibley, a founder and director of the East Bay Regional Park District, and president of the Board of Directors from 1948 until his death in 1958. The original 227-acre Preserve was dedicated with Tilden Regional Park and Temescal Regional Recreation Area in October 1936, two years after the Park District's formation. A quarry site north of Round Top was added in 1977, and another quarry site farther to the northwest was added in 1991. Together, these acquisitions brought the Preserve close to its current 660 acres. With the addition of these quarry sites, the Park District inherited a cross-sectional look at relics of the volcanic activity that occurred in the Berkeley Hills.

At the southern park boundary is 235-acre Huckleberry Botanic Regional Preserve. The Skyline National Recreation Trail, which connects Richmond-El Sobrante to Castro Valley, traverses both of these parks.



To Reach Sibley Volcanic Regional Preserve:

From Highway 24 just east of the Caldecott Tunnel, take the Fish Ranch Road exit and go north, uphill, for .8 miles to Grizzly Peak Blvd. Turn left and go 2.4 miles to Skyline Boulevard. Turn left on Skyline and proceed to the park entrance, on the left. PUBLIC TRANSIT: The closest bus line, AC Transit #305, runs Tuesdays and Thursdays, from mid-morning to mid-afternoon. From Lake Merritt BART, 19th Street BART, or Rockridge BART, take AC Transit bus 59 or 59A to the Montclair Transit Center. Transfer to AC Transit #305 and exit at Colton Boulevard and Ridgewood Drive. Walk the short distance from Colton to Skyline Boulevard, turn left and proceed a mostly level, 0.9-mile walk that passes the Huckleberry Preserve staging area. AC Transit: dial 511 (TDD/TTY: 1-800-448-9790) to confirm transit information.

If you would like this information in an alternative format, please contact the EBRPD Public Affairs Department at (510) 544-2200, fax (510) 635-3478, TDD (510) 633-0460, or info@ebparks.org.



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