



Figure 9. Scale trees. Sandstone casts of the trunks are abundant in the park area. From Russell (1958, fig. 8).

through parts of Coal, Pittsburg, Latimer, and Le Flore Counties. The area is one of resistant Pennsylvanian sandstones that cap broad hills and mountains, rising from 300 to almost 2,000 feet above wide hilly plains.

In the process of mountain building, rocks are often folded into an upward arch (called an anticline) and a downward arch (a syncline). If the deformation is too intense, the strata are broken and are offset as faults. Joints are cracks that form perpendicular to stratification in rocks; commonly two sets of joints occur, in many cases extending at right angles to one another. Weathering and erosion, which result in the removal of rock material, are greater along bedding planes, joints, and faults.

The major structural feature in northern Latimer County is the Sansbois Syncline (pl. 1). The linear extent, or axis, of the fold extends across the middle of the park, with Robbers Cave on the north flank and Old Circle Campground on the south flank, then continues in an east-west direction across the central part of the map area. The topographic highs occur along the axis of the fold. Even though synclines are

downfolds of rock, as erosion continues they commonly form subsequent topographic highs. Figure 12 is a block diagram of a canoe-shaped synclinal mountain west of Robbers Cave State Park, along the axis of the fold. The dashed line is the park boundary.

The North Wilburton Fold (pl. 1) is an anticline shown in the north-central part of the map area. In the northwestern part of the area faults have cut isolated outcrops of the IPsv-11 sandstone member of the Savanna Formation.

The Sans Bois Mountains form the main mountain range between Sans Bois Creek (at an elevation of approximately 550 feet on the north) and Fourche Maline Creek (at an elevation of approximately 600 feet on the south). Blue Mountain in sec. 35, T. 7 N., R. 20 E., northeast of the map area, is the highest point in the Sans Bois Mountains. It is composed of the uppermost sandstone in the Boggy Formation, and the axis of the Sansbois Syncline passes through it. Tucker Knob, elevation 1,532 feet, is a picturesque, isolated, cone-shaped mountain half a mile east of State Highway 2, approximately 7 miles