remains of many ancient plants are present in the rocks that crop out in northern Latimer County. Fossil remains of animals are rare, but they can be found with careful searching. Fossil tree stems, stumps, and trunks are common. Sandstone has replaced the original woody material, and imprints of plant leaves are also present in many of the shales—but they are difficult to find. Coal beds in this region nearly always contain the remains of leaves, stems, and spores of many plants.

The most common fossils in the region include *Stigmaria* (fig. 7) and *Calamites* (fig. 8). The two genera of scale trees most common are *Lepidodendron* and *Sigillaria* (fig. 9). In excavating for State Highway 2 many years ago, the thick sandstone layer IPsv-11 of the Savanna Formation (pl. 1), which forms the ridge underlying the park's tourist cabins, yielded the large stump of a scale tree. The road cut where it was found is north of Coon Creek and overlooks Lake Carlton. Specimens of *Stigmaria* are the fossil underground stems of scale trees, and they resemble cacti at first glance. They have been mistaken for the fossil remains of ancient snakes by those not familiar with paleobotany. Numerous *Stigmaria* specimens can be found in creek beds, where they have come to rest after having been eroded out of the strata. *Calamites* specimens, which are numerous, are fossils of a rush-like plant with vertical grooves up the trunk.

Studying fossil plants found in strata helps paleobotanists better understand the Earth's history, because fossils provide information about the conditions and the types of life that existed during the time that the enclosing strata were deposited. For example, plant fossils found in the region surrounding the park area are of plants similar to ones that now grow only in warm, humid climates. Therefore, the rock strata in which they are preserved must have been deposited during a period of warm, moist conditions.

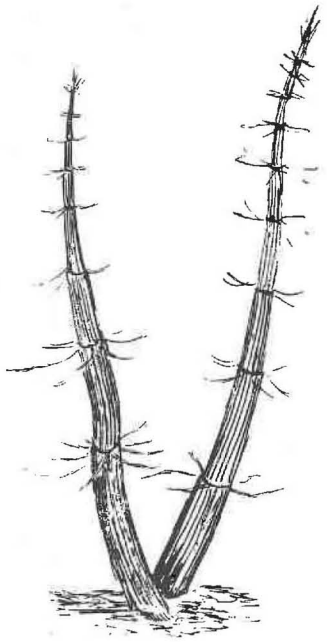

Figure 8. *Calamites.* Vertical grooves in the bark characterize this Pennsylvanian rush. Sand casts of this plant are numerous in the park area. From Russell (1958, fig. 10).

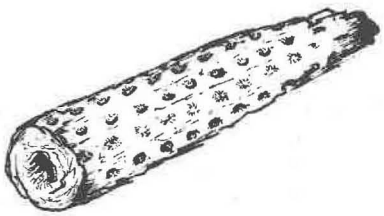

Figure 7. *Stigmaria.* Fossil underground stem of a scale tree. Pits are where rootlets were attached. These plants are common in the camp area and have been mistaken for fossil cacti or even fossil snakes. From Russell (1958, fig. 11).

Topography and Structural Geology

Topography refers to the shape of the Earth's surface. Robbers Cave State Park is in the Interior Highlands geomorphic province, which includes the Ozark Plateau in northeastern Oklahoma, southwestern Missouri, and northwestern Arkansas, and the Ouachita Mountains in southeastern Oklahoma and west-central Arkansas (fig. 10). The Sans Bois Mountains are in the northwestern part of the Ouachita Mountains, where the region is a submature-to-mature plateau with gently folded strong and weak strata.

The map showing geomorphic provinces of eastern Oklahoma (fig. 11) shows Robbers Cave State Park in the McAlester Marginal Hills Belt. This belt extends from northern Atoka County northeastward