Roubidoux Sandstone

By Dan Stais

The rocks throughout the south central Ozarks have added character to its historical heritage. The gray sedimentary cliffs around us containing the springs and caves are known as the Gasconade Dolomite. In the 1800's, geologists would find that the bluffs on the rivers provided the best exposures to identify rock layers. Throughout Laclede, Pulaski, and Phelps Counties, the Gasconade Dolomite is easily seen in these bluff sections along the Gasconade River.

Dolomite is a calcium carbonate rock which can be dissolved by rain and groundwater over a period of time. As a result, the Gasconade Dolomite contains many of our caves and springs. Our chert gravel of river gravel bars also comes from the Gasconade formation. The Gasconade Dolomite contains an abundance of chert nodules. The chert, SiO2, is much harder than the dolomite and remains present as the dolomite erodes. Appearing in many colors and shapes, this chert gravel is as much a part of the river as the water itself.

The sandstone layers in this area have an interesting story. In 1855, Swallow reported to the Missouri Geological Survey that three sandstones existed in the Missouri Ozarks. These layers were named First, Second, and Third Sandstone. It would be the Second Sandstone that we see in Pulaski County. In 1892, more extensive work by Nason realized several local names of sandstone were all identifying the same rock unit. Nason combined the Second, Moreau, St. Elizabeth, and Bolin Creek layers, and named them the Roubidoux Sandstone. It was not until 1954 that Robert L. Heller labeled the type section of the Roubidoux Sandstone. A type section is one location that best shows the rock's typical structure.

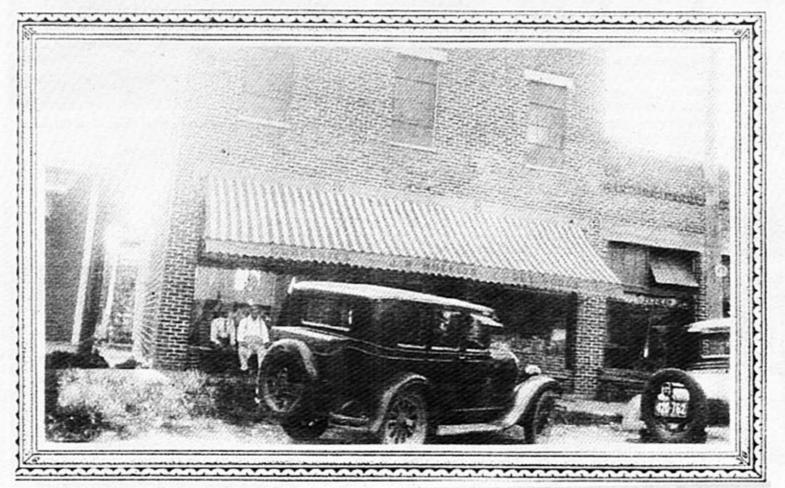
The type section for the Roubidoux Sandstone is found at geographic section SE 1/4, NW 1/4, SW 1/4, Section 10, T33N, R12W in the Roby 7.5' Quadrangle. This location is off St. Anna Road along a southeast facing hillside or cliff overlooking the Roubidoux Creek in Texas County. Heller labeled 18 feet of Gasconade Dolomite from the stream edge, 150 feet of Roubidoux Sandstone, and 12 more feet of Rich Fountain



The Roubidoux Sandstone rocks used in the construction of this Waynesville structure exhibit typeical ripple marks. Courtesy of Dan Slais.

(Jefferson City) Dolomite.

The Roubidoux formation can be described as a medium grained quartz sand. It is often clear, brown, or red, depending on iron coloration. It is noted for outcrops with the display of ripple marks left by oceans some 450 million years ago during its formation. The Roubidoux
Sandstone appears in flat layers
and can be quarried for attractive
building stone as seen in many
houses and stores around
Waynesville. To the east, the
Roubidoux becomes an
important underground well water,
producing aquifer in Gasconade
and Franklin Counties in Missouri.



Wheeler Store in downtown Waynesville. This is the same building that currently is occupied by the Dusty Attic.