

Red Slopes - Geology

How come the „Red Slopes“ are red?

The “Red Slopes” or vineyard hillsides surrounding the village of Nierstein were formed by the steep decline of the Rheinhessen plateau, which borders on the basin of Mainz and the upper Rhein valley. Unique compositions of red clay and sandstone surfaced.

Travels into the times of the „Red Soil“

The foundations for today’s “Red Slopes” were formed 280 million years ago. No saurians had shown up yet and it wasn’t until 278 million years later, that the first human beings appeared on our planet. At this time, Nierstein enjoyed subtropical, though dry climate.

“Red Soil”

The “Red Soil” in and around the village of Nierstein is seen as the most recent deposition of its kind in the basin of the Saar-Nahe region. Due to its isolated appearance, it has been named “Nierstein formation”. This series of sandstone and clay, enriched by small parts of chalk, has a depth of at least 770 meters. While the bottom and middle part are seen as deposit of standing waters, the upper part was formed by wind. The red color of the soil is due to its high content of iron.

Within several Million years time and due to high pressure, clay mud and sand turned into clay- and sandstone. The properties of this stone remind of slate. Today’s shape of the hillsides along the Rhein river was formed by the river waters, which cut into the slopes.

Every wine is strongly influenced by the soil which nourishes the vines. The vines, which grow in the “Red Soil” of Nierstein produce very fragrant, delicate and minerally wines. Its character is a classic example for the influence of the soil in a wine. Another important influence in the origin of one of the greatest and most famous Riesling wines from around the World is the special microclimate the vines in Nierstein enjoy. Inclination towards the South and Southeast protect the vineyards from cold winds and rain from the West and expose the vineyards in an almost perfect 90° angle to the sun. Also, the reflection of the sun, due to the vicinity of the Rhein river, has its share in the unique ripening of the grapes in the “Red Soil” of Nierstein.