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Humboldt County
I-75 45**VIRGIN VALLEY OPAL FIELD HISTORY by Harry & Walter Wilson - Royal Peacock Mine**

An expedition sent by the Emperor of China, hundreds of years ago, was the first recorded mining of the Black Fire Opal of Virgin Valley. But it wasn't until the 1800's, as the westward expansion of the United States reached this remote section of Humboldt County, that they became known to western civilization. Buckaroos, working cattle and sheep in the Virgin Valley area, picked up a few Opals on the surface as curiosities and to later trade for a Saturday night beer in town.

Serious prospecting began around the turn of the century as the world demand for quality Opals began to climb. The first underground workings in Virgin Valley were started in 1905, beginning a period of increasing activity that has only been interrupted by two World Wars.

Today, several commercial mining operations and numerous claims holders produce not only the prized Black Opal, but also Fire Opals of many hues with the brilliant fire unique to the Valley's gem.

Millions of dollars in Opals have have been taken from Virgin Valley since 1905. The most famous of these, the Robeling Opal, and fourteen other spectacular examples are on permanent display at the Smithsonian Institute in Washington D.C.

VIRGIN VALLEY FIELD GEOLOGY by Harry & Walter Wilson - Royal Peacock Mine

Nearly 14 million years ago, in what is now the northwest corner of Humboldt County, Virgin Valley was a land of lakes, and forests covered the now bare hills. The entire area was several thousand feet lower and more like the coastal mountain ranges of today. However, the earth was not quiet, volcanos periodically erupted, blasting the forests apart and burying them under hundreds of feet of ash. This cycle was repeated many times over the millennium. Magma later pushed to the surface and repeatedly flowed over the region. The layers of ash and blasted trees were buried more than 1500 feet deep.

Under millions of tons of rock and ash one of the miracles of nature was taking place, transforming common silica into Fire Opal. The pieces of the buried forests were disintegrating and the ash surrounding them was compressed into clay. From deep underground, super hot water flowed upward through the cracks and faults in the silicon rich ash layers.

No one is quite sure how an Opal is formed, as the exact process has never been observed or recreated. However, the current theory is that as the super heated water moved through the ash layers, it dissolved some of the silica to be deposited. Over the centuries, this process was repeated again and again, forming Opals in the cavities left by the decayed wood. Above ground, the climate and land forms slowly changed into what we see today, a high arid desert cut by rugged mountain ranges. But the Opals have not changed, their formation was a billion to one chance, one of the mysteries of nature. The Fire Opals of Virgin Valley patiently await their time to shine in the Nevada sun.

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