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October 5, 2014

Astronomy

Geology of the Moon

While continuing on the reading about the geology of the moon I learned more about its volcanic activity and the way in which some of the surface of the moon formed. Reviewing the article I notice that for a long time we thought the moon was formed of volcanic rock, however this was proven false after our first expedition to the moon. When we took a look at the moon up close we learned that there were vast floods of basaltic lava and the moon had a spectacular volcanic history. Pictures from satellites and rocks from Apollo both supported this idea.

The Lunar Maria, is a place that looks very smooth and from far away it may even look like an ocean because there aren’t many visible craters in the region. The main reason why this section of the moon is smooth like this is because of the flood of lava. Some of the rocks show that they can be as young as 2.5 billion years old. While thinking about lava, you might believe there was a strata volcano but this is a false statement. There is very few volcanic shields and little evidence of zones of fissures from lava was erupted. Part of the reason is because the lava in the moon was much more fluid like. The lava was very similar to water here on earth, for instance water accumulating a lake. This liquid like lava made it very hard to find visible margins to the individual flow.

The southern part of the Mare Imbrium, tells a different story. Lava was more viscous, compare to the Lunar Maria, this made it possible to develop well-defined flow margins. The distance flow margins depend on the slope viscosity and the degree on the rate of the eruption. The reading also mentions that the lava in the *Mare* region was pretty high, and much greater than the one in earth. Some other features associated with Maria and believed to be volcanic origin are *Sinuous Rilles.* Many of these sinuous rilles begin at a volcanic crater and when traced downslope they become progressively smaller until they disappear. In addition Astronauts from Apollo 15 got a chance to see Hadley Rille. Which is a large sinuous on the edge if the Imbrium Basin. Looking at sinuous rilles they appear to be very similar to terrestrial valleys but they differ in many things. For instance they lack features such as increase in channel size downslope, dispositional delta, flood , plains