Sculpting earth's surface

Science, Physics

SCULPTING EARTH’S SURFACE Physical weathering processes relates to production of change on the surfaces of rocks which are exposed to the atmosphere. On the other hand, chemical weathering processes arises when there is a chemical change on the rock materials. Physical or chemical weathering is responsible for a number of land forms as well as physical features. This study will focus on Karst landscapes which are formed when soluble rocks such as dolomite, limestone and gypsum undergoes chemical weathering. A case in point is that witnessed in the Minerve in France. There exist a large number of landforms that are found within karst landscapes which include sinkholes, cockpit karst, karst valleys, tower karst and mogotes.

The initial stage in the development of a Karst landscape arises when acidic water begins to tear apart the top of the bedrock at its bedding planes. The continued tearing apart of the bedrock widens the cracks and in the long run a drainage system emerges. The process of dissolution which is attributed to the presence of acidic rain occurs when rain water collects carbon dioxide gas present in the atmosphere and the gas dissolves in it. The weak carbonic acid formed then causes dissolution of calcium carbonate within the rocks.

The Minerve region in France is characterized by a large number of karst landforms which have been shaped over time by chemical weathering processes. The land features are made evident by the presence of a river that flows underground through a well curved tunnel as a result of the dissolution of rock sediments (Migoń, 2010).

Reference

Migoń, P. (2010). Geomorphological landscapes of the world. New York: Springer.