

Unstable Overhanging Structures Formed from Tafoni in Steep Sandstone Slopes.

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Tafoni and overhanging structures are well developed over steep slopes of the Miocene sandstone near Oda City, Japan. They tend to appear on the surfaces of coarse-grained sandstone with plunging structure. However, the elevation is not constant. Extraction of gypsum means that they have been formed by weathering with solution of materials. The height/width ratio of tafoni decreases with its width, and the shape therefore becomes flatten with its evolution. This means that concave structures elongating horizontally and overhanging structures on slopes have been formed with the development of tafoni. When an overhanging structure developed, large toppling moment generates tension cracks in its neck. These processes may bring about rock fall in such steep slopes.