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## **The Interplay of Micrite Precipitation And Mechanical Deposition on a Steep Platform Slope - Alpine Triassic, Italy**

We report on the discovery of extensive automicrite on a steep Triassic platform slope. Automicrite stands for autochthonous micritic carbonate, formed by in-situ precipitation that was mediated by organisms. The automicrite occurs on the 400 m high, 258-358 dipping slopes of the Sella platform that were pervasively dolomitized. Textures include typical microbial textures, e.g. laminoid-peloidal, thrombolitic-peloidal or simple crusts of clotted micrite, irregular spar-filled cavities as well as biodetritus. Automicrite, abundant early marine cements and micro-organisms such as Tubiphytes, formed a rigid framework, thus substituting for the lack of a metazoan reef. The preservation of automicrite textures along with the nearly unaltered slope geometry of the platform lead to several conclusions on the development of automicrite on such steep and high platform slopes. Automicrite formed patches and layers from the platform top down to over 200 m on the flank and constitutes about 25% of the volume of slope sediment. Automicrite alternates with layers of skeletal and lithoclastic rubble and sand. Despite the extensive occurrence of automicrite, no mud mounds developed on the steep slopes. The autochthonous carbonate only forms layers and cushions that do not significantly alter the planar clinoforms. On the slope, layers of automicrite slid, became fragmented and turned into breccias that dominate the lower slope. We assume that they slid on the layers of loose detritus. The undolomitized, distal ends of these breccias contain the Cipit boulders extensively described in the past. The Sella edifice is a flat-topped platform with the composition of a mud-mound.