

The Kieslerstein near Katzhütte - relict of a Permo-Carboniferous caldera

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Abstract

In the Thuringian Slate Mountains near Kieslerstein, Katzhütte, NE-SW striking pre-kinematic (Glasbachgranit, Metaquarzkeratophyr) and late post-kinematic (Porphyrite [Trachyandesite], Kersantite) dykes were disclosed. The dykes are located in old geological zones of weakness. The top of Kieslerstein (Großer Kieslerstein) consists of porphyritic igneous breccia, which can be seen as a relictic breccia pipe of a NE-SW striking andesitic body. Mapping results and laserscan images shows that the "Großer Kieslerstein" is located in the center of a collapsed caldera. Mophological at least three collapsed blocks lying concentric round the center can be identified. The outward block has an area of about 3 x 1,5 km.