

shales of the equivalent Irati Fm. show TOC-values as high as 23 % and are mined for petroleum extraction (FRANÇA et al. 1995). Offshore Namibia Mesozoic gas-bearing sandstones have been explored in the Kudu gasfield, with the Whitehill shales acting as possible source rocks. The fact that the boreholes are only gas-producing can probably also be explained by (hydro?)-thermal alteration of the Carboniferous-Permian source rocks caused by widespread Mesozoic dolerite intrusions. Preliminary investigations show that shales from surface outcrops still have up to 5 % TOC despite their thermal overprinting in the vicinity of dolerite intrusions. Further investigation, especially determination of the hydrogen index, will be carried out to determine the degree of thermal degradation of the organic material.

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### Condensed horizons as turning events in passive margin evolution: the Tatra Mts. examples

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Condensed horizons are frequently related to extension processes

leading to the opening of ancient oceans. They occur on the passive margins of the Tethyan ocean and document the turning events in their evolution.

In Tatricum zone of the Tatra Mts., which is a Carpathian segment born from Tethyan margin (WIECZOREK 1996), condensed horizon of Bathonian age mark the beginning of post-rift stage of its evolution (Fig. 1). It lies on syn-rift Lower - Middle Jurassic mixed clastic-carbonate sediments or directly on pre-rift Triassic carbonate sediments with small angular unconformity, which could be interpreted as break-up unconformity (DUMONT, WIECZOREK & BOUILLIN 1996). The condensed horizon, which attains 0-0,5 m of thickness, is composed of red limestones with abundant ammonites and belemnites. In some places of the extremely condensed layer there occur stromatolites and ferrous concretions. Frequently condensed sediments occur exclusively as fissure-filling (neptunian dykes).

In Fatricum succession, Toarcian condensed red limestones with belemnites and Fe-concretions preceded the post-rift collapse of Fatricum domain documented by radiolaritic facies (see Fig. 1). The next stage of the condensed horizons formation is related to the drowning of Tatricum Urgonian platform during the Albian time. Some centimetres thick gray-green limestones with numerous ammonites, belemnites and phosphatic stromatolites cover the uneven surface of Urgonian limestones (KRAJEWSKI 1984).

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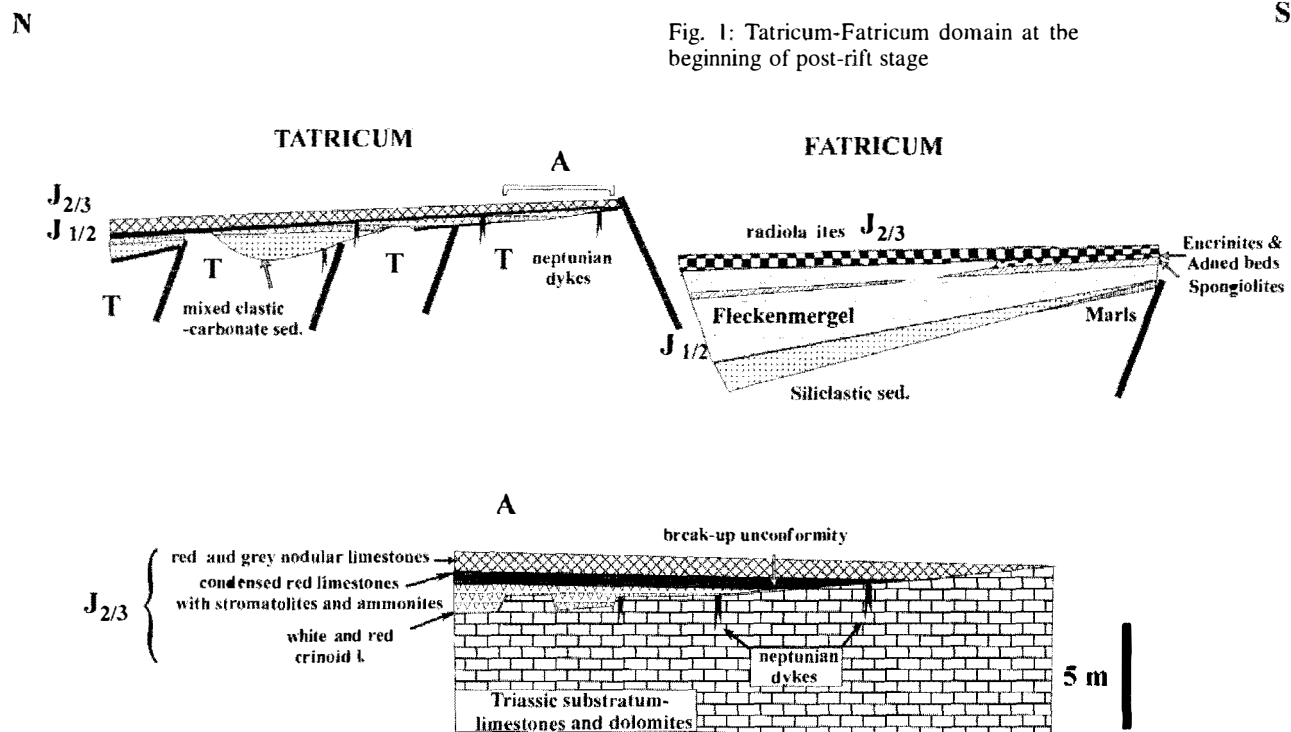


Fig. 1: Tatricum-Fatricum domain at the beginning of post-rift stage