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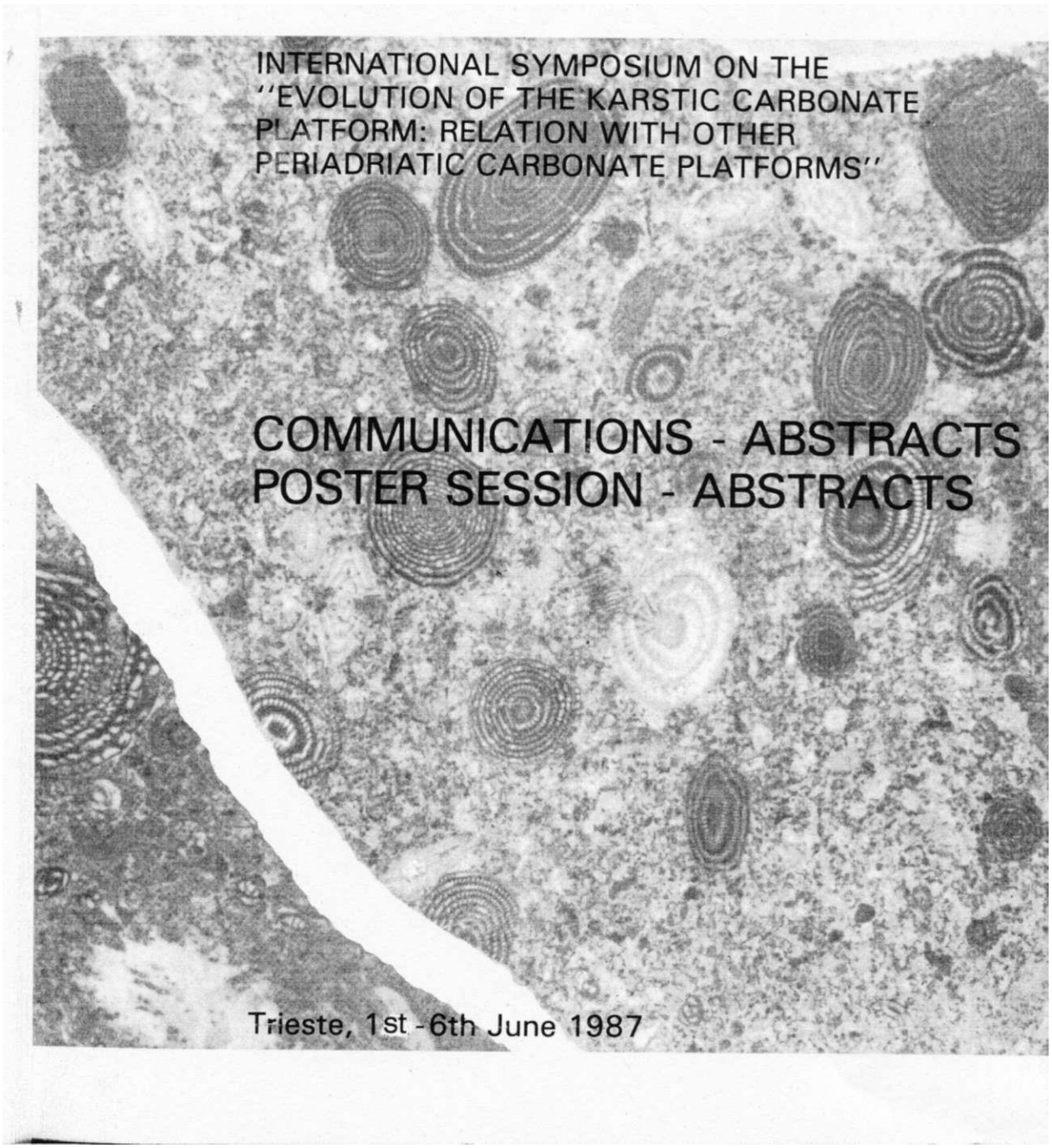

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BARITE-BEARING STROMATOLITES AT THE PERMIAN/TRIASSIC BOUNDARY IN GORSKI. KOTAR (CROATIA,YUGOSLAVIA)

Barite mineralisation in Gorski kotar is a stratabound ore deposit conformably situated at the Permian/Triassic boundary. The Uppermost Permian sediments (shales, siltstones and sandstones) are followed by dolomite and micaceous dolomitic sandstone, and then surmounted by typical Lower Triassic sandstone in continuation.

The barite ore bodies are interstratified in the lower part of the dolomite horizon, most often lying directly over the Paleozoic elastics rich in early diagenetic pyrite. On the basis of structural and textural sedimentary features PALINKAŠ & ŠINK0VEC (1986) proposed a tidal flat environment as a site where the early diagenetic barite mineralisation took place. Discovery of cryptalgal fabrics in elastics and dolomites supports, the early diagenetic ore forming model as well.

In the area of Mrzle Vodice Upper Permian red and green elastics of the Gröden type are overlain by grey sandstones. Amount of the pyrite in sandstones increases upwards, therefore almost pure pyrite-barite stratum occurs in the base of the Triassic dolomites. Biosedimentary structures occur as a coarse uneven lamination in pyritic sandstone (1), more regular lamination with small fenestrae in pyrite-barite stratum (2) and layered cryptalgal fabric in light grey dolomite (3).

At Lokve locality Upper Permian black shales and sandstones are conformably overlain by light grey dolomites enriched with barite at the very contact. Sponge-like cellular structures form a bioherm above the barite lenses (4).

In the area of Školski brijeg columnar stromatolites occur in the basis of barite-bearing dolomites overlying the Upper Permian elastics (5). Their upper surface is clearly demarcated by pyrite crusts.

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