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Stop 3: St. Pankrazen (Graz Palaeozoic, Austria)

The Middle Devonian section is exposed along the road south of the village of St. Pankrazen and exhibits some hundreds of meters of bioclastic limestones, dolomites and subordinately shale intercalations (N 47°07´53´´/ E 15°11´01´´). Specia l for this area is the transition of the Plabutsch Formation to the Gaisbergsattel Member of the Kollerkogel Formation (compare HUBMANN & HASENHÜTTL 1995 and HUBMANN & MESSNER 2005). Following the suggestions of FLÜGEL (2000) the Kollerkogel Formation can be divided into four members within the Rannach Nappe: Gaisbergsattel Mb, Kanzel Mb, Platzlkogel Mb and Platzl Mb. The entire formation can reach a thickness of approximately 100 to 150 meters.

Lithology: Within this section the uppermost part of the Plabutsch Formation consists of grey bioclastic limestones alternating with marls which yield calcareous algae, dendroid stromatoporoids, rugose and tabulate corals, some gastropods, and abundant thick valved brachiopods (*Zdimir*). This fossil-rich unit is overlain by a succession of penecontemporaneous or early diagenetic dolomites of the Gaisbergsattel Member which consist of mudstones, microbial bindstones, crinoidal wackestones and brachiopod-tabulate packstones. Preservation of fossils is poor and in some cases skeletons are totally dissolved and displaced by neomorphic cement.
These dolostones (approx. 100 m in thickness) are succeeded by well bedded grey limestones (Platzlkogel Mb, approx. 75 m). In some places, e.g. at the western slope of Höllererkogel (approx. 5 km North of St. Pankrazen) *Stachyodes* meadows are passing into biohermal patch-reef structures built by domal and delicate branching stromatoporoids which are encrusted by alveolitids. Here, along the road some 20 meters to the village limits of St. Pankrazen, beds rich in rugose corals (dominated by *Sociophyllum*) and tabulates (*Favosites, Alveolites*) point to a “biostromal” structure.

Biostratigraphy: The unit above the Gaisbergsattel Member (which according to FLÜGEL 2000) corresponds to the Platzlkogel Member of the Kollerkogel Formation was assigned a Givetian age by EBNER et al. (1979) who extracted a small conodont fauna which includes representatives of the *varcus* Zone.

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On the map (A) and (E) indicate the sampling area along the road to St. Pankrazen. A. Plabutsch Fm; B-D. Occurrence of abundant thick shelled brachiopods, which most probably belong to the genus *Zdimir*; E. Boundary of the Plabutsch Fm to the Kollerkogel Fm (which at the base exposes the Gaisbergsattel Mb).

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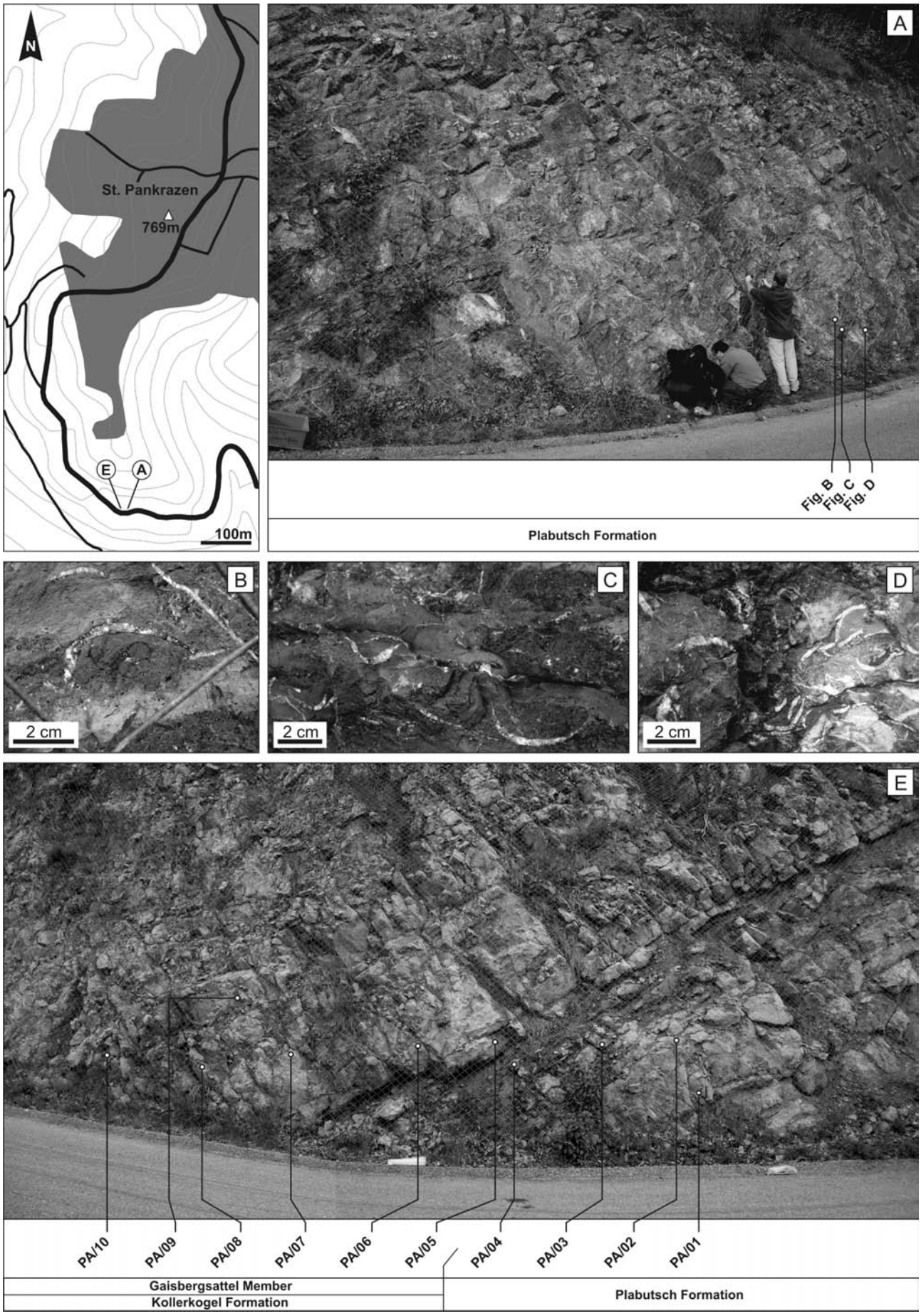

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Zeitschrift/Journal: Berichte der Geologischen Bundesanstalt

Jahr/Year: 2009

Band/Volume: 79

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