

NEW CONODONT DATA OF THE 'BARON V. KOTTWITZ' SECTION (UPPER SILURIAN TO LOWER DEVONIAN)

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Introduction

Resampling of the Palaeozoic section at the 'Baron von Kottwitz' quarry (Hohensteinmaißberg) near Kirchfidisch (southern Burgenland) yield additional conodonts suggesting an Upper Silurian to Lower Devonian age. HOFFMANN (1877) first recognized Palaeozoic rocks in that area was, followed by SCHMIDT (1956). POLLAK (1962) provided a stratigraphic and petrographic overview on the sections near Hannersdorf and Kirchfidisch in his unpublished PhD. According to EBNER (1978) and FLÜGEL (1988) both localities are referred to the Blumau Formation (defined after a core near the village of Bad Waltersdorf).

After the study of corals and crinoids collected by HOFFMANN in 1877, TOULA (1878) concluded a Devonian age for the limestones in the quarry. Becoming aware of the potential of conodonts for biostratigraphy, several conodont samples were taken and examined by KOCKEL (POLLAK, 1962). However, due to too small samples, no conodonts were recovered. Later on SCHÖNLAUB (1984, 1994) found few strongly fragmented and indeterminable conodont elements. More successful was a recent study by SUTTNER & LUKENEDER (2004) who discovered a small conodont assemblage belonging to the genus *Ozarkodina* indicating an Upper Silurian age.

Locality

The investigated section is located at the Hohensteinmaißberg ('Baron von Kottwitz' quarry) near Kirchfidisch in southern Burgenland. At its base the section consists of phyllitic schists (? 15 m) followed by dolomites, bituminous laminated dolomites and well bedded grey limestone (more than 100 m). The carbonate complex is divided into four different facial parts (text-fig. 1). Palaeozoic sediments of this area are part of the 'Kohfidischer Schieferinseln'; i.e. island-like exposures of weakly metamorphic Palaeozoic rocks surrounded by sediments of Neogen age.

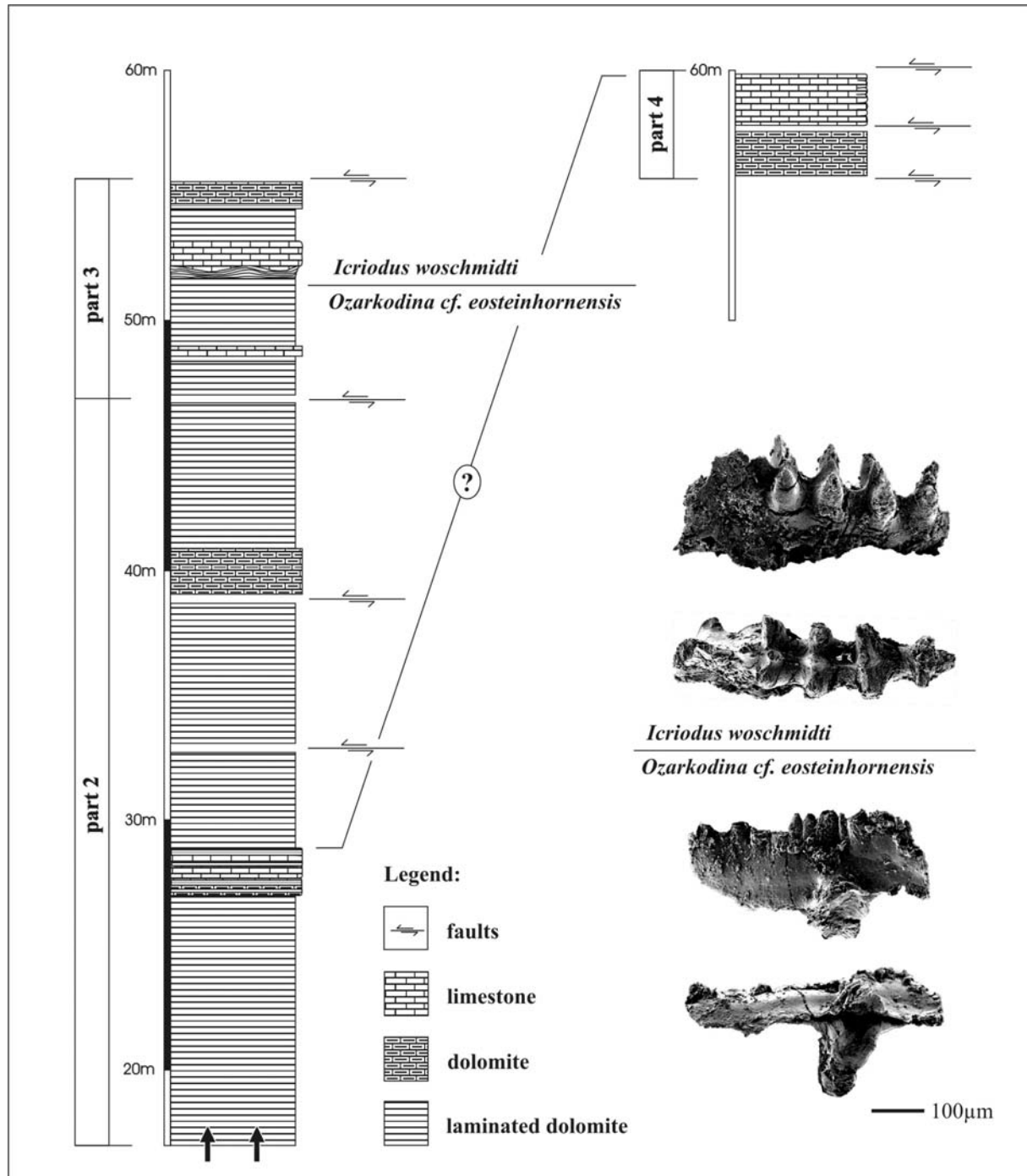
Biostratigraphy

About 150 conodonts were found at the 'Baron von Kottwitz' section. Derived from grey laminated (dolomitic) limestone of 'part 3' (text-fig. 1), few of them are slightly deformed and recrystallized, but most of the elements are moderately well preserved and permit a determination. They reflect a CAI (Color Alteration Index) of 4-5 (personal comment of Prof. GAWLIK; Leoben). Two conodont Zones are distinguished:

1) *Ozarkodina eosteinhornensis* Zone (Upper Silurian). This Zone is represented by the occurrences of *Ozarkodina remscheidensis eosteinhornensis* (WALLISER, 1964), *Ozarkodina confluens* (BRANSON & MEHL, 1933b), *Ozarkodina sp.* and simple cone elements.

2) *Icriodus woschmidti* Zone (Lower Devonian). Typical elements are *Icriodus woschmidti* ZIEGLER, 1960, *Ozarkodina remscheidensis remscheidensis* (ZIEGLER, 1960) and few simple cones.

The boundary between these two Zones can be defined quite well, as there is a rather distinct change from *Ozarkodina* – to *Icriodus* dominated deposits. No Polygnathides were found in the residues at all.



Text-Fig. 1: Carbonate sequence of the 'Baron von Kottwitz' section within the *Oz. eosteinhornensis* - and *I. woschmidti* Zone (Upper Silurian to Lower Devonian).

Conclusion

Through a determinable conodont fauna (150 elements, 3-4 different genera) a part of the 'Baron von Kottwitz' section can be assigned to the interval from the Pridolian (Upper Silurian) to the Lochkovian (Lower Devonian). The portion of the sequence which yielded the above mentioned conodont fauna embraces two biozones, i.e. the *Ozarkodina*

eosteinhornensis and the *Icriodus woschmidti* Zone. Lack of any representatives of Polygnathides seems to confirm the putative pre-Emsian age of the studied section.

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