of the true shallow-water sequence of Wetterstein-type (DIMITRIJEVIC & DIMITRIJEVIC, 1991). The decollement surface below is characterized by grey-greenish tuffitic layer and nearly the whole Ladinian and the highest part of Bulog are missing below this low angle normal fault.
In the wider surrounding of the quarry different blocks and shallow-water limestones of Upper Triassic age (Dachstein limestone) are present separated by the radiolaritic-ophiolitic matrix of Middle Jurassic age, also incontaining Carnian radiolarites.
This drowing of the Steinalm carbonate platform is contemporaneous in the whole western Neotethys realm from Hellenides, over the Dinarides to the Eastern Alps. This process was governed by tectonic events like rapid subsidence, followed by rapid sea–level rise and other processes which are known by now (paradox of carbonate platform drowing). This drowing led to an overall change of the shallow-water conditions the whole western Neotethys realm to hemipelagic, extremely condensed sedimentary sequences. Crustal extention firstly led to the formation of neptunian dykes and to the end of the shallow-water production. Due to the beginning of the block tilting and new topographic relief was formed. On topographic highs very reduced sedimentation rate occurs where as in the newly formed asymetric basins accumulations of several metres occur. In comparison with other Late Pelsonian to Illyrian hemipelagic sequences, similar to Bulog limestone (e.g. Schreyeralm limestone in the Eastern Alps), in the western Neotethys realm, the investigated sequence in the Klisura quarry reaches a thickness up to 17 m. Continuous block tilting is mirrord in the accumulation of ammonites layers and the occurence of condensed sections.
The slides in Zlatibor mélange show identical facial stratigraphic and tectonic evolution as known in complete sequences from the Hellenides to the Eastern Alps. The sedimentary evolution in this whole realm follows overall geodynamic phases. Therefore, they belong to the same shelf, the Western Neotethys continental margin.

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Radiolarian dating in the Middle Jurassic radiolaritic-ophiolitic wildflysch (= ophiolitic mélange) of the Dinaridic Ophiolite Belt, SW Serbia

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The Dinaridic Ophiolite Belt with its widespread mélange areas is an important link within the Alpine–Dinaridic–Albanide–Hellenic orogenic system. The Dinaridic Ophiolite Belt forms as northward continuation of the Mirdita ophiolites from northern Albania into Kosovo and Serbia through Bosnia to Croatia together with the Western Hellenic ophiolites in Greece and southern Albania a relatively continous ophiolitic belt. The Dinaridic Ophiolite Belt of western and southwestern Serbia is made of ophiolites and widespread mélanges containing different components up to nappe–size and is now interpreted as radiolaritic–ophiolitic wildflysch. The matrix of the components and blocks consists mainly of fine- to partly coarse–grained, partly radiolaritic, ophiolitic siliciclastics, further of shales, radiolaritic marls and rare radiolarites. Direct datings of these radiolaritic matrix-sediments in the Dinaridic Ophiolite Belt are missing. Westnorthwest of Sjenica in the central Dinaridic Ophiolite Belt occur an albite granite olistolith together with various ophiolitic material, spilite olistoliths, Late Triassic radiolarite olistoliths, and various very small still undetermable carbonate components.
From the radiolaritic matrix, which is in the surrounding of the albite granite olistolith we, isolate a radiolarian fauna of Middle Jurassic age, e.g.: *Archaeodictyomitra amabilis*, *Archaeodictyomitra mitra*, *Archaeodictyomitra rigida*, *Archaeodictyomitra* sp. B, *Dictyomitrella kamoensis*, *Eucyrtidiellum circumperforatum*, *Eucyrtidiellum semifactum*, *Eucyrtidiellum unumaense pustulatum*, *Eucyrtidiellum unumaense dentatum*, *Eucyrtidiellum unumaense unumaense*, *Hsuum maxwelli*, *Helvetocapsa* cf. *matsuokai*, *Hiscopaspsa magnipora Parvicingula spinata*, *Parvicingula* sp., *Praezhamoidellum buekkense*, *Praezhamoidellum yaoi*, *Protunuma lanosus*, *Protunuma turbo*, *Pseudodictyomitra* cf. *venusta*, *Quarticella ovalis*, *Stichocapsa convexa*, *Stichocapsa japonica*, *Striatojaponocapsa* cf. *conexa*, *Striatojaponocapsa* cf. *synconrexa*, *Tetracapsa himedarum*, *Tricolocapsa* aff. *fusiformis*, *Tricolocapsa fusiformis*, *Tricolocapsa* sp. S, *Tricolocapsa tetragona*, *Triversus hungaricus*, *Williriedellum dierschei*, *Williriedellum marcucciae*, and *Zhamoidellum exquisita*. This late Middle Jurassic dating of these matrix sediments proves directly the sedimentary emplacement of the different blocks. Therefore the ophiolitic mélange is interpreted to be formed originally as a primary synorogenic sediment (radiolaritic wild-flysch sequence) formed simultaneously during west-directed thrusting of ophiolite and sediment-cover nappes representing ocean floor and underplated fragments of the western continental margin (Drina-Ivanjica Element), later overprinted by contem-poraneous and younger tectonics forming a typical mélange.
The age range of the Sjenica mélange and the sedimentary emplacement of the olistoliths in the Dinaridic Ophiolite Belt seems to be similar to the radiolaritic-ophiolitic wildflysch in the Mirdita Ophiolite Zone of Albania to the south and the ophiolitic mélange areas in Medvenica and Kalnik Mts. to the northwest. The age of the ophiolitic-radiolaritic wildflysch is also similar to the radiolaritic carbonate-clastic flysch in the Northern Calcareous Alps (Hallstatt Mélange) and the Western Carpathians (Meliata Mélange) as well as to the ophiolitic–radiolaritic wildflysch in the Mirdita zone.
The situation in the Dinaridic Ophiolite Belt conform that of the Albanides („Mirdita mélange“) and Medvednica and Kalnik mountains in Croatia. To clearify the palaeogeographic derivation of the different blocks and the time span of their emplacement in detail, widespread investigations in a larger regional scale are necessary in future. Only a detailed component analysis of the „mélange“ with dating of the matrix allows a reconstruction of the source area.

Bioorganic particles as transport vehicles for iron in the continental runoff

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The bioavailability of iron exerts a controlling influence on the biological productivity in surface waters of the ocean and thus plays an important role in regulating atmospheric partial pressure of carbon dioxide (Buessler 2003). Although it is ordinarily observed that dramatic change in ionic strengths during estuarine mixing causes inorganic and organic iron bearing compounds to flocculate (Wen et al. 1999), recent studies showed that certain organic complexes between Fe^{3+} and terrestrially derived organic material escape the estuarine mixing zone and contribute essentially to the fertility of the coastal waters (Rose & Waite 2003). Therefore a research need lies in the characterization of the organic substances which are leaching from soils and serving as iron carriers in river water and coastal waters. The results are apt to show the role of the terrestrial ecosystem as a supplier of iron which is an essential nutrient for oceanic biota.
The methodology for investigation and characterization of iron-bearing colloids in soil leachates and the transect from freshwater to the ocean accounts for iron complexed by humic/fulvic acids as well as iron-oxide colloids/nanoparticles, which may be present in the sub-20 nm scale and covered by organic macromolecules as humic/fulvic acids. These small colloids may be stabilized against aggregation and settling by electrostatic and steric effects originating from the adsorbed organic macromolecules.
Standard cross-flow ultrafiltration is employed as a prefractionation and preconcentration step before analysis with size exclusion chromatography and field-flow fractionation both coupled to ICP-MS in order to localize the molecular/particulate structures responsible for iron-binding. Detailed characterization of colloidal iron carriers will be performed on waters from peat-bog draining creeks in Austria and UK. During the sampling campaigns 200-400 L of selected river and estuary water samples will be collected and processed to obtain 100-200 mL concentrates of 100-1000 mg L^{-1} DOC to determine the fate of iron carriers.
The presentation will give an introduction to the processes taking place on the transport pathway from peat-bog drainage to the estuarine mixing zone and show first results from the characterization of nanoscale iron-rich substances present in peat-bog drainage.

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Proposal for a lithostratigraphic revision of the Palaeozoic 'Schieferinsel' Area south of Eisenberg (Burgenland, Austria)

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A first detailed stratigraphic and petrographic overview of the sequence exposed at the Hohensteinmaißberg near Kirchfidisch was reported in an unpublished thesis by Pollak (1962). According to Flügel (1988) the sequence is assigned to the Blumau Formation. This unit, however, was established as subsurface formation defined by a drilling core some 30 km west of Kirchfidisch. Recent studies of the 'Baron von Kottwitz' quarry at Hohensteinmaißberg resulted in a proposal for renaming the sequence into Kirchfidisch Formation.
The entire formation measures approximately 40 metres, its boundary to the underlying unit is unknown due to non-exposure. The upper boundary is recognized by a distinct change from gray, well bedded dolostones to brownish shales/siltstones. The contact is tectonical.
Within the Kirchfidisch Formation 3 members are distinguished. The lower Member (Harmisch Member = village in the vicinity of the quarry) which is exposed near the quarry entrance is about 8 m in thickness. It consists of unfossiliferous phyllitic shales. Following the succeeding units outcropping towards the south a lithological change is visible which marks the base of the middle Member (Hohensteinmaißberg Member = outcropping hill). It consists of altered white calcareous marls (4 m in thickness) which are overlain by fine laminated limestones (17 m). The upper part of this member is represented by an interval of dolomitic siltstones. This unit is overlain by the upper Member (Kottwitz Member = old quarry name), which contains 7 m of well bedded dolostones and limestones. The middle part of this Member shows some minor variations. Limestone beds contain serpulid tubes (up to 80 percent of the rock) and are intercalated by thin layers of brownish siltstones.
According to conodont data (Icriodus woschmidti, Ozarkodina remscheidensis and a few simple cones) at least the upper Member of the Kirchfidisch Formation is assigned to the Lochkovian (Lower Devonian).
The Kirchfidisch Formation is overlain by monotonous brownish ferrous shales/siltstones with frequent Liesegang rings. This sequence of well bedded (2 to 8 cm) beds reaches up to ?40 m thickness in the 'Baron von Kottwitz' quarry. According to the exposure of its top in the abandoned quarry NE of Punitz the name Punitz Formation is proposed.

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Callovian radiolarians of siliceous limestones below the Hallstätter Salzberg, Northern Calcareous Alps

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The central Northern Calcareous Alps with the type localities for the Hallstatt and Dachstein nappes play a key role for the internal structure of the Northern Calcareous Alps. The classical locality of the controversy is the Hallstatt zone of the type locality Hallstatt, which, according to several authors, has been thrust over the Dachstein unit by far-distance transport, whereas other authors interpreted the salt-rich Hallstatt zone as a diapir penetrating the overlying Dachstein unit from a position below, and spreading over the Dachstein unit.
In the Northern Calcareous Alps, salt deposits of Permo-Triassic age are distributed and excavated. One of the key points to solve