

thick-bedded marly turbidites occur below. In the Carpathians other good example of olistoliths derived from basin margin are Bukowiec olistostromes within the Krosno Formation (Oligocene) which contain blocks of shallow water limestones and basement metamorphic rocks. Within the youngest sediments that terminated Western Carpathian flysch succession there are olistoliths derived from accretionary prism that was build up of older, Cretaceous and Paleogene rocks. Good examples are olistostromes within Menilite Formation in Skrzydlna and Klęczany with large olistoliths of Lower Cretaceous flysch deposits derived from a southern margin of the Silesian Basin. Locally, huge olistoplaques, up to hundreds meters in diameter, are also observed within the Krosno Formation (Late Oligocene - Early Miocene) in Gorlice - Jasło area that are represented by the Magura and Fore-Magura successions. The Monte Sacro Succession is terminated by a thick complex of conglomerates. That can be compared with the early Miocene Sloboda Conglomerates from the Borislav-Pokutya Nappe in marginal part of the E Carpathians

On the other hand, the olistoliths and olistostromes within the Cretaceous sediments of the Pieniny Klippen Belt are believed to be of origin related to the tectonic margin along the active ridge migrating during the Late Cretaceous till Early Eocene. The rising “cordillera” produced a huge amount of clastic material, mostly deposited in flysch facies sporadically intercalated with diastrophic slumped bodies.

Some spectacular outcrops of flysch and conglomerate olistostromes are in Orava river bank (N Slovakia), where thick flysch sequence of Turonian – Coniacian age contains bodies of chaotic slump sediments 15-80 m thick.

Nearby, at the Dolný Kubín town another type of olistostrome outcrops: the Late Cretaceous Globotruncana marls (Púchov Formation) are overfilled with clasts of Early to Late Cretaceous marls and marlstones. Both examples document the proximity of source area, and even the erosion of synchronous sediments involved. Such phenomena support the idea that at least part of the klippen in some areas of the Pieniny Klippen Belt is of sedimentary origin, as stated earlier and recently.

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## **The impact of a uranium mining site on the stream sediments (Crucea mine, Romania)**

Petrescu L.<sup>1</sup>, Bilal E.<sup>2</sup> and Iatan L.E.<sup>1</sup>

<sup>1</sup>University of Bucharest, Faculty of Geology et Geophysics, Department of Mineralogy, 1 N.Balcescu Ave., 010041 Bucharest, Romania, lucpet@geo.edu.ro

<sup>2</sup>Ecole Nationale Supérieure des Mines, Département GENERIC, 158 cours Fauriel, 42023 Saint Etienne, France, bilal@emse.fr

XRF methods were used to evaluate the impact of uranium mine dumps on the stream sediments from Crucea region (Romania). In order to estimate the natural and anthropogenic inputs of radioactive and heavy metals in the sediments, normalization to Al was applied. The pollution degree of the bottom sediments show that U, Th and Pb reach medium and punctual high values, while the rest of the elements appears in concentrations close to the background or lower. The measurements carried out in the surroundings of a local uranium mine show that the impact of Crucea mine on water quality downstream of mining area is insignificant.

## **The Lower Danube Valley. Geological structure and evolution during the Pliocene-Quaternary**

Petru E.

Institute of Geography-Romanian Academy, Bucharest, Romania, petru\_enciu@yahoo.com

Stratigraphical and geophysical arguments are put forward, whereby that the beginning of sediment deposition by the Lower Danube and by its tributaries date back to the Late