least 120 km from the W to the E. It is structurally underlain by a Lower Unit consisting of Pangeon gneisses with Variscan age and a metasedimentary cover of marbles with Triassic(?) age and overlain by the Upper Unit, a Late Jurassic sequence consisting of orthogneisses at the base, discordantly covered by (meta-)ophiolites (Circum Rhodope) on top. Considering our proposed model, the Lower Unit was derived from the Apulian plate during the Paleogene whereas the Upper Unit indicates calc-alkaline magmatism which took place during the early exhumation phase of the suture zone rocks. (Meta-) ophiolites are related to a rifting stage within the southern Neotethyan Ocean and have been obducted in north direction during Jurassic/Cretaceous time. The material from the investigated suture zone most likely originated as an extensional allochthon south of the European continent during Permo/Triassic time was subsequently subducted beneath Europe in the Early Jurassic (≥180 Ma). On the basis of comparable metamorphic ages and coherent structures but differences in metamorphic conditions and lithologies the rocks of the RSZ are subdivided into an Upper and a Lower Part. The P-T-d history of both parts differs due to the relative tectonic position within the exhuming wedge. Information for the prograde history is derived from subduction-related structures within quartzites in the Lower Part. Metapelites marking the transition between both parts contain microdiamonds and indicate that central parts of the RSZ experienced UHP conditions before exhumation started. Exhumation was controlled by buoyancy-driven normal displacement with SW-shearing at the base (Lower Part) and NE-shearing on top (Upper Part) indicating an early activity of a deep crust shear zone (Nestos Shear Zone) from the Late Jurassic to the Late Cretaceous. An intervening stage of mineral re-crystallization and thermal re-equilibration from partial anatexis in the Upper Part probably decreased exhumation rates and rocks experienced long-lasting overprinting at mid-crustal levels. Because of slow exhumation rates, peak indicators of a probable UHP stage were almost totally obliterated. A common exhumation history of both parts at pressures lower than about 12 kbar (35 – 40 km depth) is proposed. During this stage, rocks of the RSZ experienced their main ductile overprint due to southwest-directed shearing and folding. Differences in the deformation overprint of both parts are indicated by plunge angles of the stretching lineation which are steeply dipping to the NE in the Lower Part and subhorizontally dipping to the NE in the Upper Part. The Lower Part experienced long-lasting retrogression due to SW-directed shearing with the lack of partial anatexis and thermal re-equilibration. Upper crustal structures evolved most likely due to slab retreat and point to tectonic erosion as a final exhumation mechanism for the units of the Upper Part. Late stage shear activity at the Nestos Shear Zone accompanied with magmatism dominated in the footwall units of the Lower Part. This late tectonics is considered as coevally with the formation of Variscan basement domes originating from the underthrusted Lower Unit, thus making the Rhodope orogen a classic core complex juxtaposed to former structurally higher units.

Latest Jurassic – Earliest Cretaceous mass movements in the polish part of the Pieniny Klippen Belt and Silesian Unit (Outer Flysch Carpathians)

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Distribution of sedimentary breccias, mass flows; redeposited clasts, which indicate time and mechanisms of origin of tectonic movements within sedimentary basins, are the main objects of the presented paper. These types of tectonic activity in Polish part of the Carpathians are well documented both in the Outer (Flysch) Carpathians and in the Pieniny Klippen Belt. Neo-Cimmerian tectonic events took place both in the Alpine Tethys and Proto-Silesian Basin. A big geotectonic reorganization, known as the Walentowa Phase, took place in AT during the latest Jurassic-earliest Cretaceous (Neo-Cimmerian) movements resulting in extensive gravitational faulting. Several tectonic horsts and grabens, documented by facies diversification, were formed. These rejuvenated some older structures and Middle/Late Jurassic (Meso-Cimmerian) faults which caused uplift of the shallow intrabasinal Czorsztyn pelagic swell. The over-regional significance of this geodynamic episode in the northernmost margin of the Tethyan Ocean is documented also by foundation of the Proto-Silesian Basin. Chaotic type of sedimentation dominated during Late Jurassic times indicating early stages of the Proto-Silesian Basin opening with increased tectonic activity. The detritic material was supplied from two sources: from the Baška-Inwałd uplift separating the Proto-Silesian Basin and the Bachowice Basin located within the North European Platform, and from the island arcs within the Silesian Ridge separating the Proto-Silesian Basin and the Alpine Tethys. The biogenic material originated within shallow-water reefal and carbonate platform zones was transported by turbiditic currents from the uplifted structures on the Proto-Silesian Basin margins into the deeper zones of this basin. Both the calciturbidites and calcifluxoturbidites formed, constituting the main lithosome within the younger lithostratigraphic unit – the Cieszyn Limestone Formation. These deposits represent the oldest turbiditic currents sedimentation known from the Polish Outer Carpathian Basin.

Miocene Charophyta of Maoče, Pljevlja (Northern Montenegro)

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The siliciclastic sediments of Maoče, with its sand beds and sand lenses of fluvial origin, as the clearly featured former shoreline, characterize this remote gulf of DS Lake. Its shallow water is corroborated by the frequent appearance of desiccation cracks. The lacustrine influence is mirrored in rare marly interbeds. Gyrogonites with mostly smooth spiral cells also indicate a low water mineralisation. An age is determined by *Rhabdochara langeri*, the key fossil for Burdigalian equivalents of W Europe, found both in Maoče and close laying Pljevlja. *Nitellopsis merianii* is an Euroasian Miocene species. A large mammal, from Pljevlja - *Chalicotherium grande*, a small morph – indicates the Lower Miocene. An entire herd of *Chalicotherium* was killed by a catastrophic earthquake catting forest they inhabit. The tuff of Maoče was destroyed by fluvial and vawe actions; in mineralized lakes, as Pljevlja is, tuff was transformed into siderite. Basaltic flows cannot support age because of the melting of the lower crust part. So, the biostratigraphic age is the upper part of Lower Miocene.

Shows of lithospheric plates collision in region of Eastern Carpathians

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Classical shows of lithospheric plate collision in Carpathian region are known in the backside of Ukrainian Folded Carpathians and Trans-Carpathian flexure. These shows are: 1. Presence of sima (ophiolites) fragments in allochthonous occurrence. These are the complexes of basalts, andesite-basalts, trachytes that showed during the Upper Triassic – Lower Cretaceous. Fragments of ophiolites are known in the base of the Trans-Carpathian flexure, Marmarosh cliff zone and in the band of the thrust of Rakhiv-Burkut zone over the Krosno-Chornogora zone, as well as in the frontal part of the Marmarosh crystalline massif. 2. Post-orogenic magmatism is pronounced by Vygorlat-Gutynsk volcanic chain composed of basaltic andesites (70%), basalts (20-25%) and acidic differentiates (2-6%). Volcanic ridge stretches along the Trans-Carpathian flexure from the border with Slovakia to the town of Khust, where its strike changes to meridional and continues on the territory of Romania. 3. Increased heat flow in Trans-Carpathian flexure (more than 2 mkcal/cm^2/sec) in