Jurassic-Cretaceous accretionary mélange zone and bear witness of the the advanced rifting in the NW-part of Neotethys.

The complex lithostratigraphy of the Triassic formations, including sediments and magmatic rocks, supports existance of Advanced rifting processes, at the former passive continental margin of Gondwana, but deny creation of the Oceanic crust in the Lower and Middle Triassic time, in the Neotethyan evolution.

Triassic pillow lavas on the head of the obduction front of the Zlatibor Mt. ophiolite, SW Serbia

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The Tethyan evolution in Dinarides includes rifting, sea-floor spreading, ophiolite genesis and emplacement, mélange accretion, ocean basin closure and collision. Advanced rifting of Adria (Gondwana) in Triassic time opened a deep rift basin but still not floored by oceanic crust. The basin was intensively filled up by volcano-sedimentary successions; deep water carbonates, clastics, cherts, and extensive basaltic magmatism, with spilites and keratophyres, preferentially as lava flows and pillow lavas. The intra-oceanic subduction and consequent obduction of the two colliding oceanic crusts, after reversal from extension to compression regime, created bulldozing effect on the head of the obducting ophiolite front. The incorporated deep-water formations, underwent different degree of metamorphism and turned into the diabase-chert formation. This feature along the obduction ophiolite front from the Zagorje-Mid-Transdanubian megaunit, to Dinarides, Albanides and Helenides, and up to the Zagros ophiolites, with due delay in time, is a common large-scale phenomenon. Recognition of peperite facies within pillow lava complexes, with its paleontological records in the sedimentary part, gives an efficient tool for distinction of the sea-floor pillow lavas (ophiolites) from those rift-originated, which usually stacked together in the mélange.

The abstract deals with peperite in pillow lavas sampled at the Bistrica locality, on the road Prijepolje-Priboj, near to the dam where Bistrica rivulet flows into the Lim river, at the southern slopes of Zlatibor Mt. At the locality, the diabase-chert formation consists of sliding and gravity mass flows of unconsolidated, chaotically distributed rocks, m-sized blocks of sandstones, siltstones, claystones, m-km sized olistolith/olistoplakes of Jurassic and Triassic limestones. Magmatic rocks are represented by diabases and spilites (olistoliths, flows, “pillow” lavas etc.), gabbros, ultramafics (harzburgites, serpentinites). The ultramafics of Zlatibor Mt. lie over Ophiolite mélange. North of Bistrica rivulet, at confluence into the Lim River, the terrain is built of ultramafics, lherzolite, amphibolites, epidot-amphibolites, eclogites, gabbro-amphibolites and metamorphosed diabases, shists, metasandstones, etc. On the road between Bistrica and Pribojska Banja, the mélange contains massive amphibolites and amphibolite schists with corundum and garnet. The amphibolites are a product of Jurassic subduction and exhumation during the collision and tectonic emplacement. The pile of pillow lavas stacked together with ultramafics and amphibolites, has been interpreted as a dismembered ophiolitic unit. It consists of m-sized lobs, closely spaced pillows, with accommodation emplacement and younging upward. The chilled, dark green, chloritized rims separate the green, gray and reddish, densely spaced lobes. The peperites, made of pink micritic limestone within highly contorted lobs, contain small but diagnostic conodont fauna: *Paragondolella tadpole* (Hayashi), CAI, medium light gray, 61/2, Triassic in age from the Cordevolian to the Lower Tuvalian. The peperite facies, within a huge pile of pillow lavas corroborates rifting magmatic activity in Triassic time, and supports obduction of oceanic crust on the elements of the passive continental margin, including volcano-sedimentary formations with basalt extrusives.