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# Gondwanan, peri-Amazonian terranes in North Dobrogea, Romania: Megina metamorphic sequence

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The Cimmerian North Dobrogea orogen includes pre-Alpine dismembered metamorphic components assigned to three main groups: Orliga, Megina and Boclugea. While detrital zircon age distribution reported for the Orliga sequence indicate a Cadomian provenance, the zircon age distribution in the situation of the Boclugea terrane point to a peri-Amazonian provenance model (Balintoni et al., 2010). Two orhogneisses sampled from the Megina sequence yielded Concordia ages strongly clustered around 500 Ma (510 Ma and 504 Ma respectively). The distribution of the detrital zircon ages starts with 467 Ma in a quartzite and 445 Ma in a paragneiss constraining the maximum age of deposition to Mid – Late Ordovician, by contrast to the other two terranes whose deposition age was constrained to Mid – Late Cambrian. It also point to two major zircon supliers: a Grenvillian source (1.0 – 1.25 Ga) and another important source with 1.4-1.65 Ga. A relatively important number of ages cover the 0.65-0.75 interval. These sources are usually attributed to the Gondwanan, peri-Amazonian terranes, the absence of the late Neoproterozoic ages excluding Baltican sources. This new terrane with Avalonian affinity, identified within the N Dobrogea orogen, together with Boclugea terrane also from North Dobrogea, and the Danubian terranes (South Carpathians) and their correlatives from Balkans, presumably accreted to Moesia during Mid Paleozoic.

Balintoni, I., Balica, C., Seghedi, A., and Ducea, M. N., 2010. Avalonian and Cadomian terranes in North Dobrogea, Romania. Precambrian Research 182, 217-229.

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