



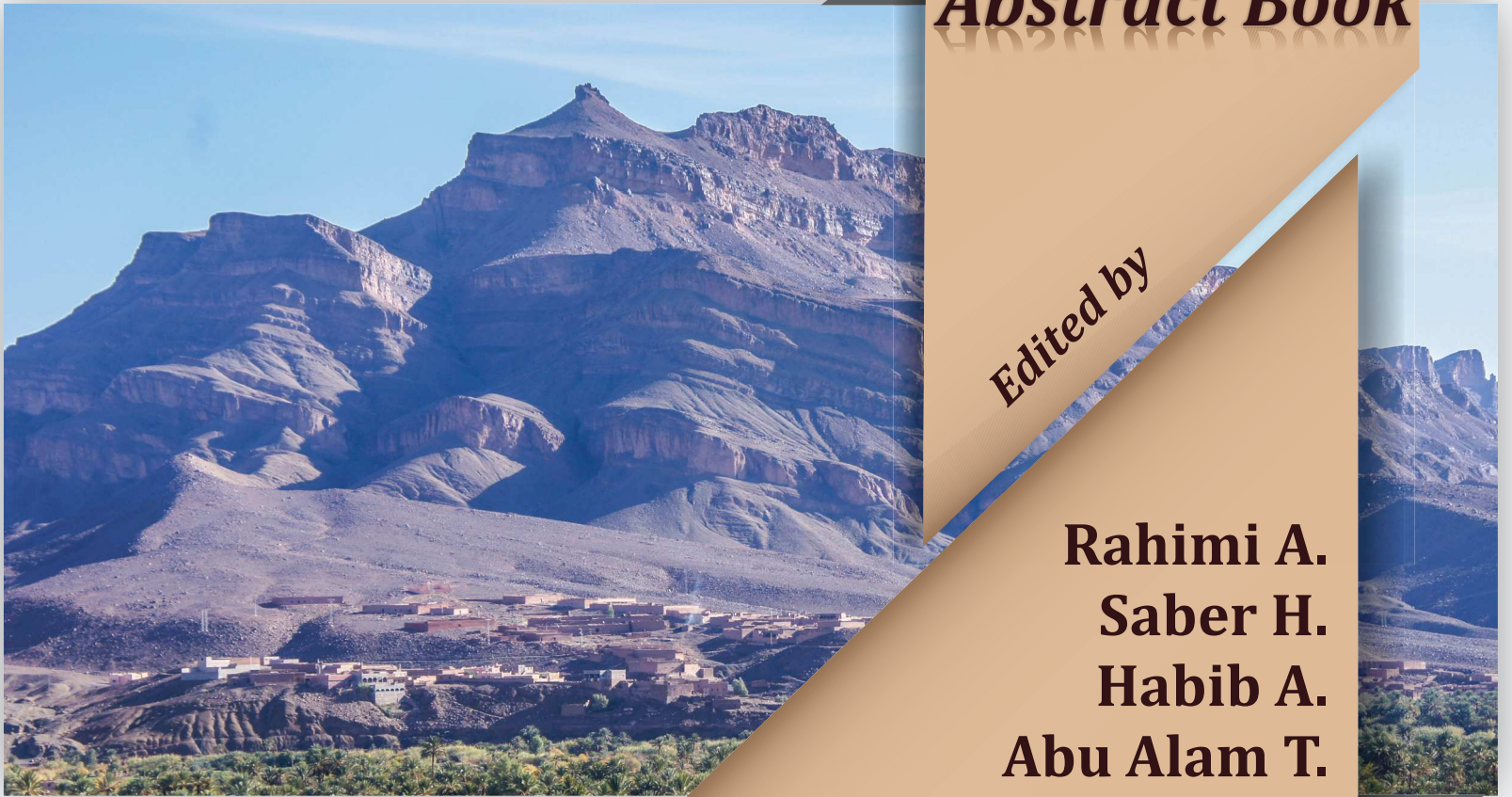
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Abstract Book

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Can the Iberian Finisterra Terrane extends until Central Europe Variscides?

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The Finisterra Terrane is located in the western sector of the Iberian Variscides and its eastern boundary is a N-S to NNW-SSE lithospheric structure, the Porto-Tomar-Ferreira do Alentejo Shear Zone (PTFSZ). The PTFSZ makes the contact between the Finisterra Terrane and two distinct paleogeographic zones of the Iberian Terrane: Central Iberian and Ossa-Morena Zones.

The Finisterra Terrane is characterized by three low to high-grade tectono-metamorphic units:

- A lower gneiss-migmatite unit, mainly composed by para-derived gneisses, highly deformed migmatites and mylonites, with lenses of micaschists and ortho-derived gneisses and amphibolites (Lourosa, S. Pedro de Tomar and Foz do Douro gneiss-migmatite complexes);
- An upper micaschist unit, mainly composed by garnet-staurotide-biotite micaschists with some meta-quartzwackes, quartzites, mylonites and ortho-derived mafic rocks, presenting high-strain patterns (Junceira-Tramagal and Espinho Units);
- A low-grade tectono-metamorphic unit (Arada Unit), with probable Neoproterozoic age, composed by black to green phyllites and quartzites with some mafic rocks, being imbricated with very low-grade black shales, Frasnian-Serpukhovian in age (Machado et al., 2011).

Geochronological studies in the HT metamorphic Units (Pereira et al., 2010; Almeida et al., 2014) point a Lower Palaeozoic-Neoproterozoic age for the siliciclastic protolith, although some youngest (Ordovician to Devonian) zircons are obtained. In both units, a Mississippian (ca. 340-320 Ma) HT metamorphic episode is described, being associated to the PTFSZ dextral shearing.

In Berlengas Islands, for similar gneiss-migmatite unit, an Upper Devonian metamorphic age (ca. 380 Ma) was obtained, emphasizing the presence of an early Variscan HT metamorphic episode (Valverde-Vaquero et al., 2010). Late Silurian-Early Devonian ages (ca. 420 Ma) was obtained in the gneissic granite bodies included in gneiss-migmatite unit (Chaminé et al., 1998), which were also affected by the Mississippian tectono-metamorphic episode. The Late Silurian-Devonian zircon ages, obtained in previous described HT tectono-metamorphic units, could be result of such early Variscan metamorphic episode, extending from 430 to 360 Ma.

Similar geological features, with Late Silurian-Devonian tectono-metamorphic and magmatic episodes, preserved in Mississippian high-grade tectono-stratigraphic units are also described in León Block (Ballèvre et al., 2009) and in Mid-German Crystalline Rise (Zeh and Will, 2010). The correlation between León Block and Mid-German Crystalline Rise has already been proposed due to their tectono-metamorphic and magmatic similarities. We propose that this Terrane could extends until Finisterra Terrane, however the nature and evolution of this Terrane is still dubious, not only concerning the extension, significance and meaning of its boundaries and tectonostratigraphic units, but also its relation with the Peri-Gondwana Terranes and neighbouring major plates.

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