

# THE PARAUTOCHTHONOUS THRUST COMPLEX IN TRÁS-OS-MONTES: ESSAY OF TECTONOSTRATIGRAPHIC CORRELATION BETWEEN BRAGANÇA AND V.P. AGUIAR SECTORS

CARLOS A.P. MEIRELES

Instituto Nacional de Energia, Tecnologia e Inovação. 4466-956 S. Mamede de Infesta, Portugal

MARIA ANJOS RIBEIRO

Departamento de Geologia. Universidade do Porto. 4099-002 Porto, Portugal

HELENA COUTO

Departamento de Geologia. Universidade do Porto. 4099-002 Porto, Portugal

The main feature of the Schistose Domain of Galiza – Trás-os-Montes Zone (GTMZ) is the presence of a wide range of tectonostratigraphic units thrust bounded and stacked over an autochthon sequence (Farias et al., 1987) corresponding to the Parautochthonous Thrust Complex (PTC). It was initially named “PeriTransmontano” domain (Ribeiro, 1974; Ribeiro et al., 1990). The PTC includes diversified metasedimentary and metavolcanic rocks suite (namely phyllites, quartzites, black cherts, porphyry rocks) ascribed to a Silurian - Devonian age and affected by greenschist facies metamorphism. Recent U-Pb dating revealed an Ordovician age in volcanic rocks of the parautochthonous around Cabo Ortegá massif (Valverde Vaquero et al. 2005). It is generally accepted that this sequence has lithologic and paleogeographic affinities with the sub-autochthon and autochthon units (Farias et al., 1987).

In the parautochthonous of Trás-os-Montes the global tectonostratigraphic sequence, from the top to the base, is: “Xistos e grauvaques culminantes” – fine intercalations of monotonous sequence of phyllites, psammites and metagreywackes; “Xistos superiores” – phyllites and psammites with intercalations of black cherts, metavolcanic and porphiritic rhyolitic tuff; “Grés quartzíticos superiores” – quartzites with phyllites intercalations; “Complexo de xistos, grauvaques e psamitos” - fine intercalations of monotonous sequence of phyllites, psammites and metagreywackes with black phyllites and intercalations of phyllites, black cherts and porphiritic acid tuffs to the top; “Xistos inferiores” – phyllites and quartz phyllites and psammites (Ribeiro, 1974).

In the Alcañices sinform it is revealed that most of the litostratigraphic sequence considered as autochthon (Ribeiro, 1974) is also affected by thrust bounding tectonostratigraphic units, and so regarded as parautochthon and sub-autochthon units (Meireles et al., 1995; González Clavijo, 1997; González Clavijo & Martínez Catalán, 2003). In western Trás-os-Montes (V. P. Aguiar area) field evidences supported by lithochemical data confirms the presence of parautochthonous and sub-

autochthonous units, with different paleogeographic context in a broad peri-Gondwanic basin (Ribeiro & Noronha, 1997; Ribeiro, 1998; Ribeiro et al., 2003). It is also confirmed that in the core of PTC, the recumbent fold nappes is the structural style while in the external zones a complex overlapping of thrusts is the predominant structural feature. So the PTC is subdivided in upper parautochthon and lower parautochthon (Rodrigues et al., 2003; 2006).

The regional geology of PTC reveals diversified tectonostratigraphic units with similar lithologies (grey carbonaceous phyllites with intercalations of black cherts, greywackes, quartzites and metavolcanics) and with the same range in age (Ordovician (?), Silurian and Devonian). In the southern sector (V. P. Aguiar) the gresopelitic metasediments and black shales are more expressive while in the northeastern sector (Espinhosela), a volcano-sedimentary suite predominates besides the great number of tectonic slides. Meanwhile the role of the pre-orogenic episodes in the disruption of the stratigraphic sequence is not yet well understood. In the Alcañices sinform, the presence of important olistostromes was reported for the first time (Garrido & Barberá, 1980 in González Clavijo, 1997). At least in this sector the regional expression of these extensional events might be more significant than currently thought (Meireles, in prep.). What are the implications and the role of these events in the duplications of the original litostratigraphic sequence is difficult to say. A new propose of correlation is being essayed between NE and SW Trás-os-Montes and the adjacent Spanish sectors (Alcañices and Verin).

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