

Interactive comment on “A tectonic carpet of Variscan flysch at the base of an unrooted accretion prism in NW Iberia: U-Pb zircon age constrains from sediments and volcanic olistoliths” by Emilio González Clavijo et al.

Emilio González Clavijo et al.

ipicaparopo@gmail.com

Received and published: 24 December 2020

Dear Manuel Francisco Pereira,

We gladly appreciate your comments and reviews to our manuscript. We are sure they will make it more interesting to read and more accessible for a broader audience.

After a close look to the annotated PDF you provided, we found that most of the proposed changes are related to English writing and other formal aspects. All of them were considered and are being applied to the revised version of the manuscript to be

C1

uploaded. We went deeper in some comments and included some text parts which improve readability. Likewise, some text was eliminated to avoid repetitions and redundant text. We did not find necessary to make the text migration (e.g. section 5.2) as proposed by you, but not from John Wakabayashi (Reviewer 2).

We made some other important changes as you suggested. Fig. 4 and Table 1 migrated to the Supplementary File. We have produced 2 new figures: i) one (new Fig 4) with the tectono-stratigraphic correlation of the Lower Parautochthon (LPa) from Cabo Ortegal (Spain) to Marão Range (Vila Real, Portugal) showing the detrital and igneous zircon research made in the Parautochthon to date (including new data) and, ii) another (new Fig. 5) with the sedimentological aspects, main U-Pb (YZ and MDA) ages and biostratigraphic ages. They will be a great support for the text and undoubtedly will help the reader to follow the text. Because 2 new figures are added and tab. 1 and Fig. 4 migrated to the Supplementary File, we will also make changes in the figure numbering and their reference in the text. We also apply minor changes to some figures, according to the new figure order and to other graphical and grammatical aspects which we have identified and were not enunciated by any of the reviewers. Some moderate changes were made to Figure 13 (paleogeographic/source-to-sink model), namely we have erased the airborne zircon cloud from the (we discuss it in the manuscript) and corrected some aspects highlighted by the reviewers.

In relation to the discussion on the origin of the detrital zircons in the LPa, we believe that it is not necessary to have far away or occult sources, because all the pattern of the detrital zircon age populations in the synorogenic marine basin of NW Iberia - including the Variscan (400-320 Ma), Silurian, Upper, Middle and Lower Ordovician, Cambrian and older (Neoproterozoic-Archean) populations - are easily found in the neighbouring geological domains, in the underlying autochthon (representing the peripheral bulge) and in the tectonically overriding allochthonous complexes and Upper Parautochthon (representing the accretionary wedge), all considered “classical” Gondwanan sources. Because it is expected that in a synorogenic basin the source of sediments is generally

C2

in the nearby (surrounding) reliefs, it is easier to assume that this particular segment of the early Carboniferous flysch basin cannot be compared with other basins such as the ones described in SW Iberia (South Portuguese Zone), where “exotic” laurussian sources (i.e. Baltica, Meguma, Avalonia) have to be evoked to explain the presence of Early Devonian, Silurian, Upper Ordovician and Mesoproterozoic zircon age populations, which are absent in the nearby, currently exposed pre-Variscan basement (e.g. Ossa Morena Zone). We have dedicated some lines of text about this subject in the discussion section.

Once again, thank you for the comments and reviews!

Best wishes,

Ícaro Dias da Silva (corresponding author)

Interactive comment on Solid Earth Discuss., <https://doi.org/10.5194/se-2020-173>, 2020.