

# Data Supplement item I for Ring et al. 2024

## The Samail subduction zone dilemma: Geochronology of high-pressure rocks from the Saih Hatat window, Oman, reveals juxtaposition of two subduction zones with contrasting thermal histories. Earth Science-reviews

### Detailed rifted-margin cross section

A schematic figure of the rifted-margin section of the Arabian margin is provided in Figure 5 of the main paper. Here we add a more detailed figure that includes stratigraphic columns of the various rift compartments.

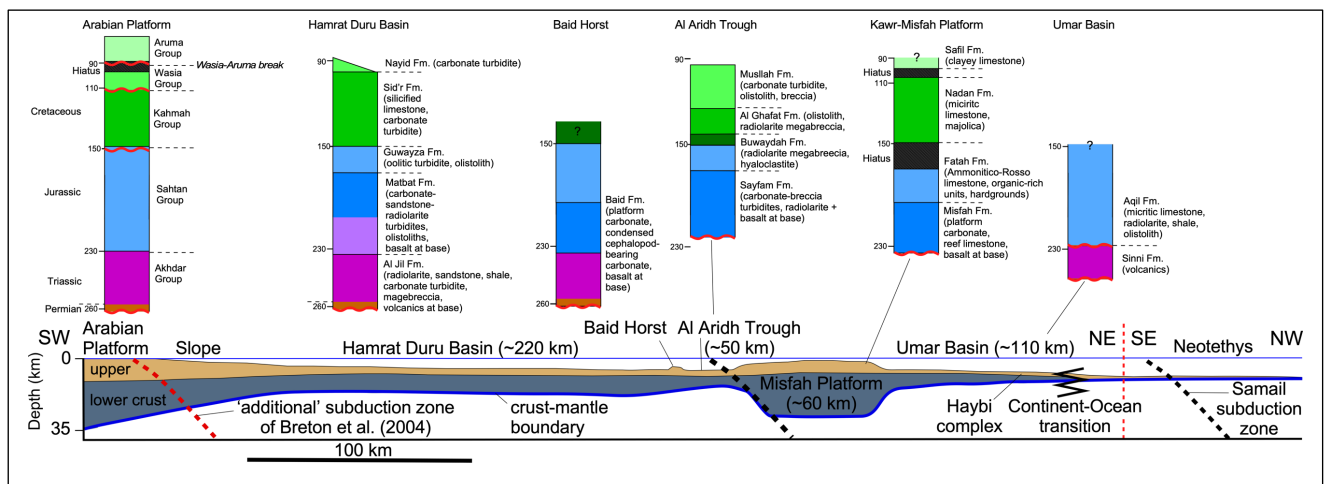


Figure I-1. Mid-Cretaceous paleogeographic restoration of the rifted margin of Oman before the onset of subduction (according to Béchenne et al., 1990; Blechschmidt et al., 2004; Searle, 2007). The rifted margin was structured during two rifting phases in the late Permian and the middle/late Triassic, which resulted in splitting of the Hawasina Basin into two basins separated by the Kawr-Misfah Platform (Misfah Platform in sketch). The stratigraphic columns provide generalized successions in the various segments of the rifted margin (modified from Béchenne et al., 1990). Note the changing direction of rifted margin section (see Fig. 1b in main paper).

### References:

- Béchenne, F. et al. (1990). The Hawasina Nappes; Stratigraphy, paleogeography and structural evolution of a fragment of the South-Tethyan passive continental margin. In: Robertson, A.H.F., Searle, M.P., Ries, A.C. (Eds.), *The Geology and Tectonics of the Oman Region*, vol. 49, pp. 213–223. <https://doi.org/10.1144/GSL.SP.1992.049.01.14>.
- Blechschmidt, I. et al. (2004). Stratigraphic architecture of the northern Oman continental margin-Mesozoic Hamrat Duru Group, Hawasina complex, Oman. *GeoArabia*, 9, 81–132.
- Searle, M.P. (2007). Structural geometry, style and timing of deformation in the Hawasina Window, Al Jabal al Akhdar and Saih Hatat culminations, Oman Mountains. *Georabia*, 12,

311pp.