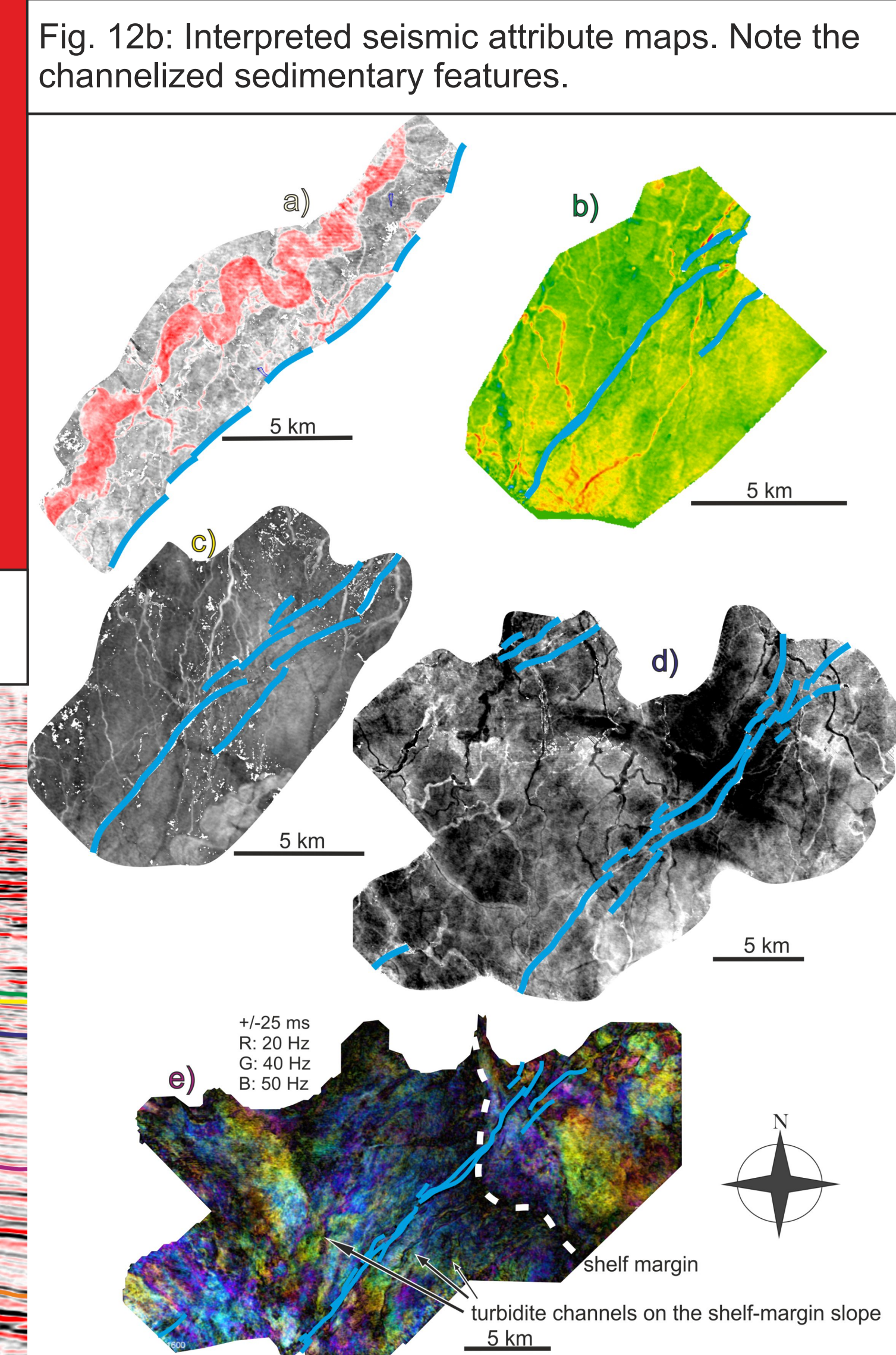
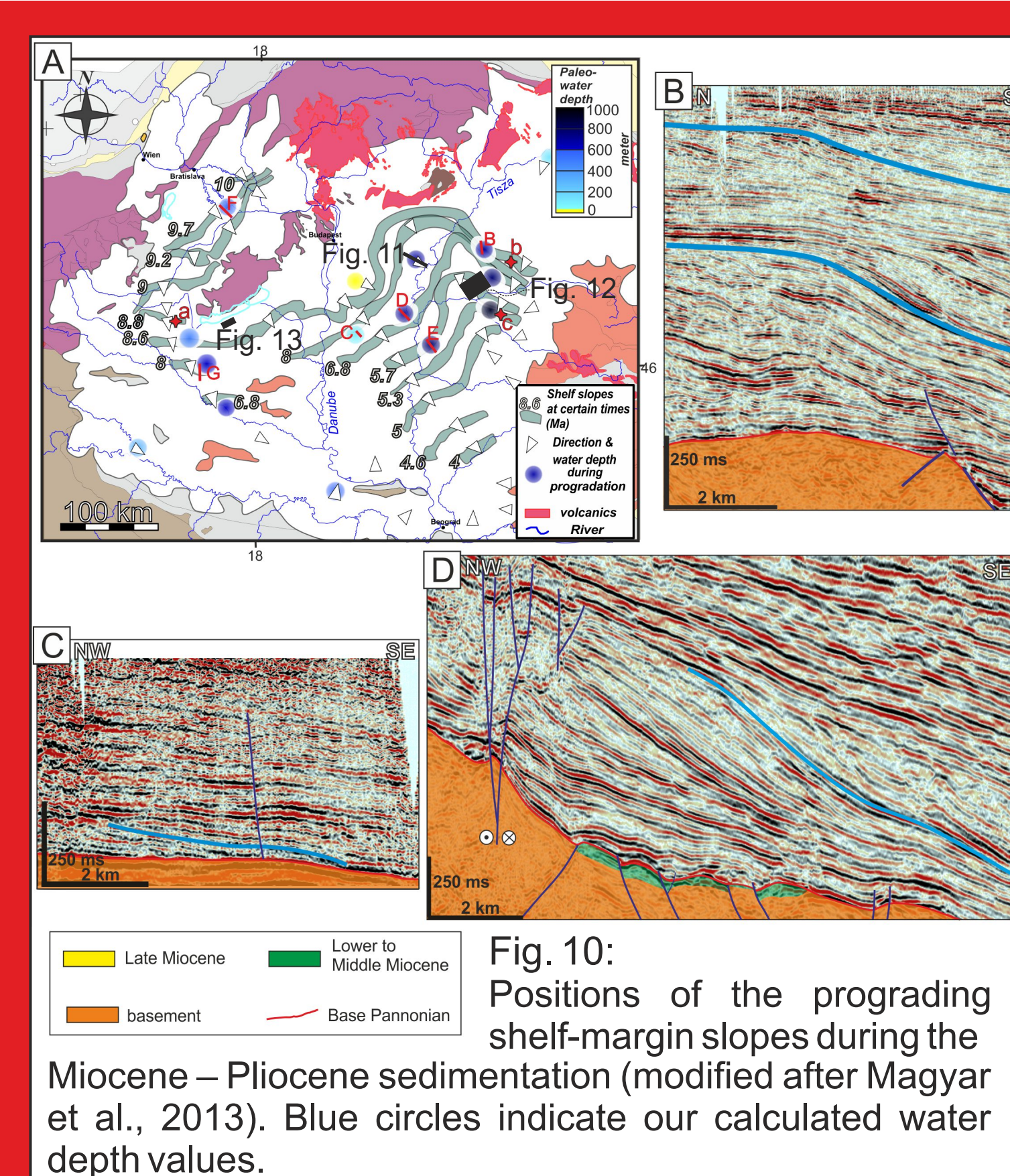
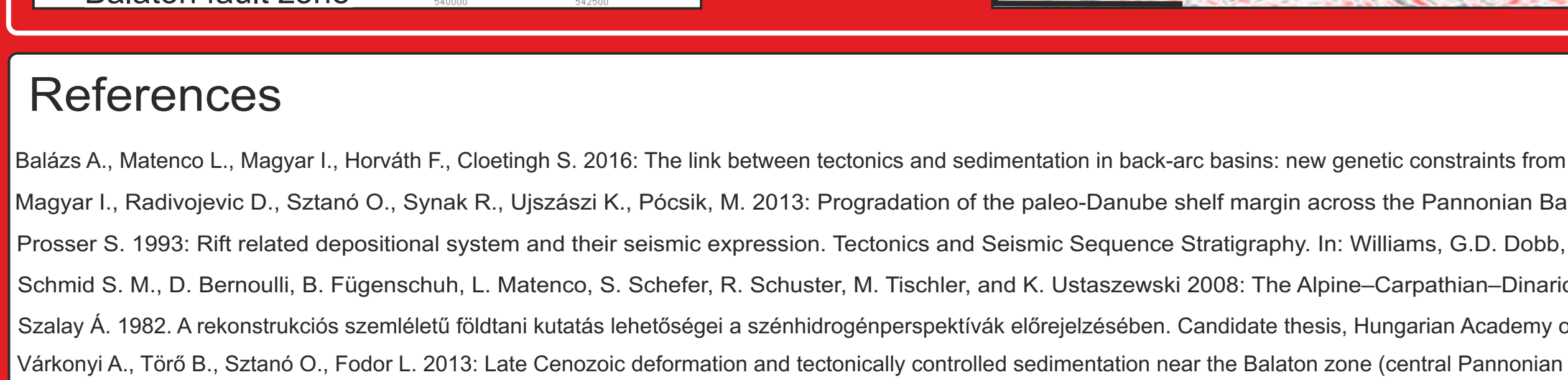
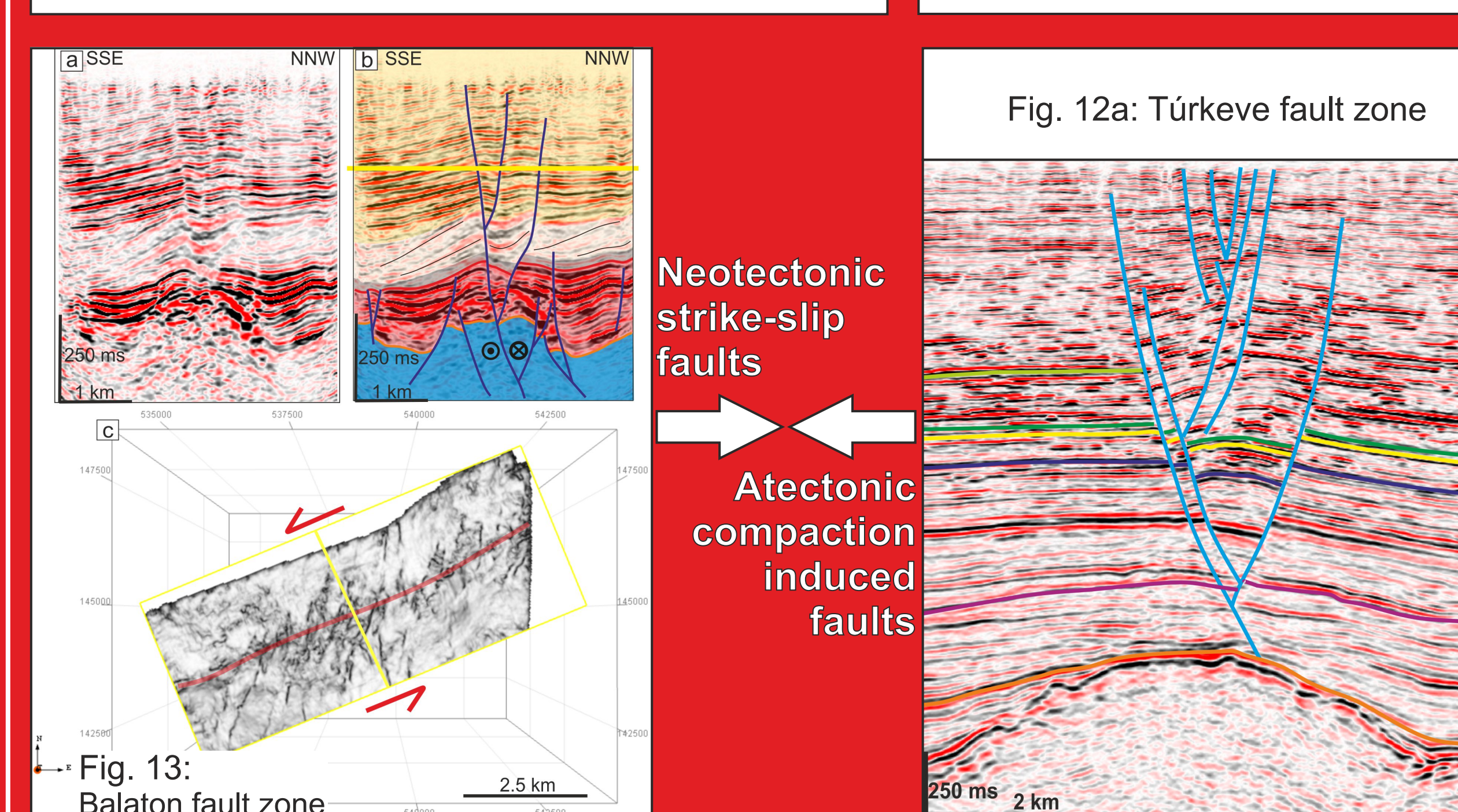
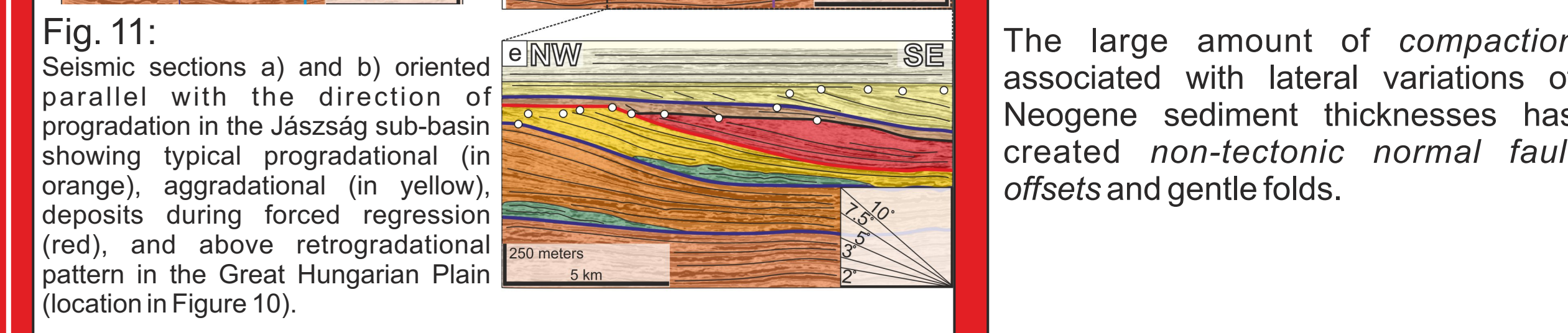
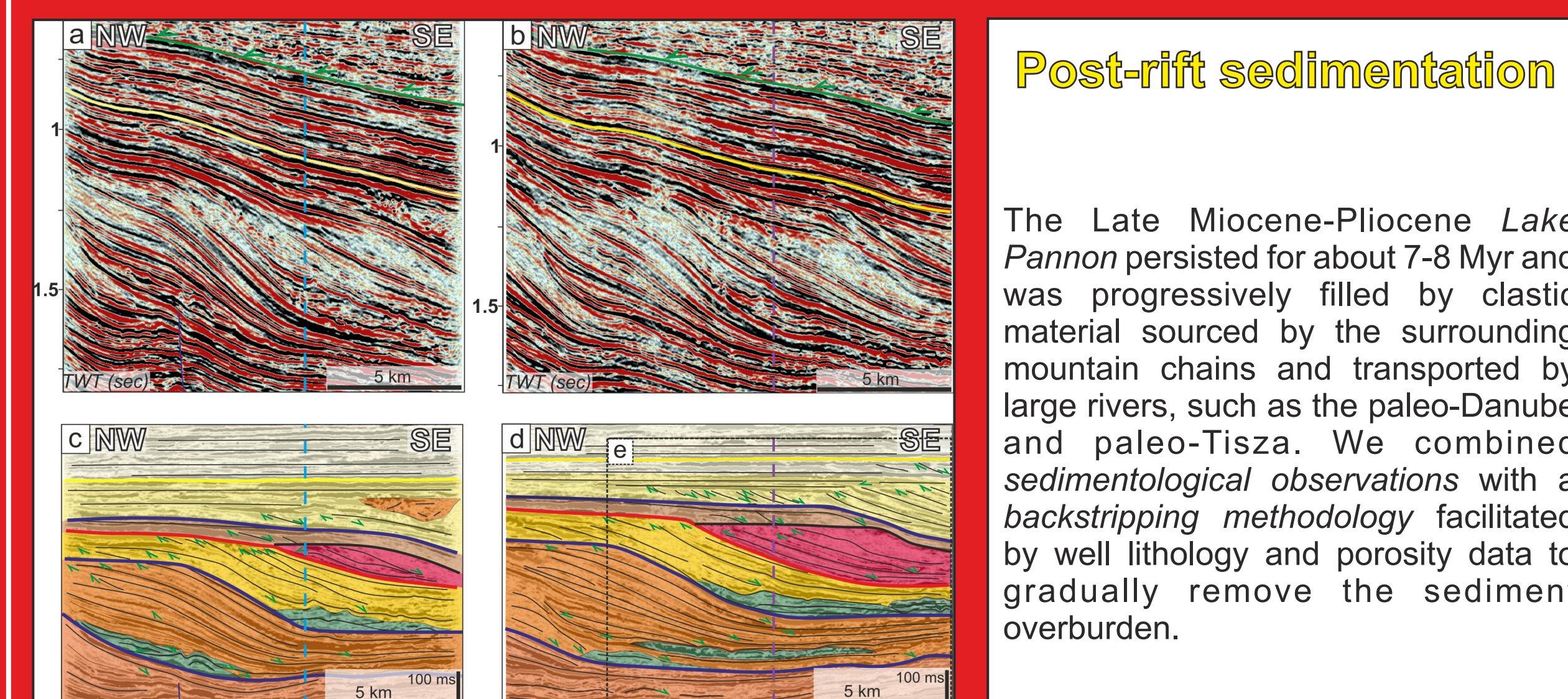
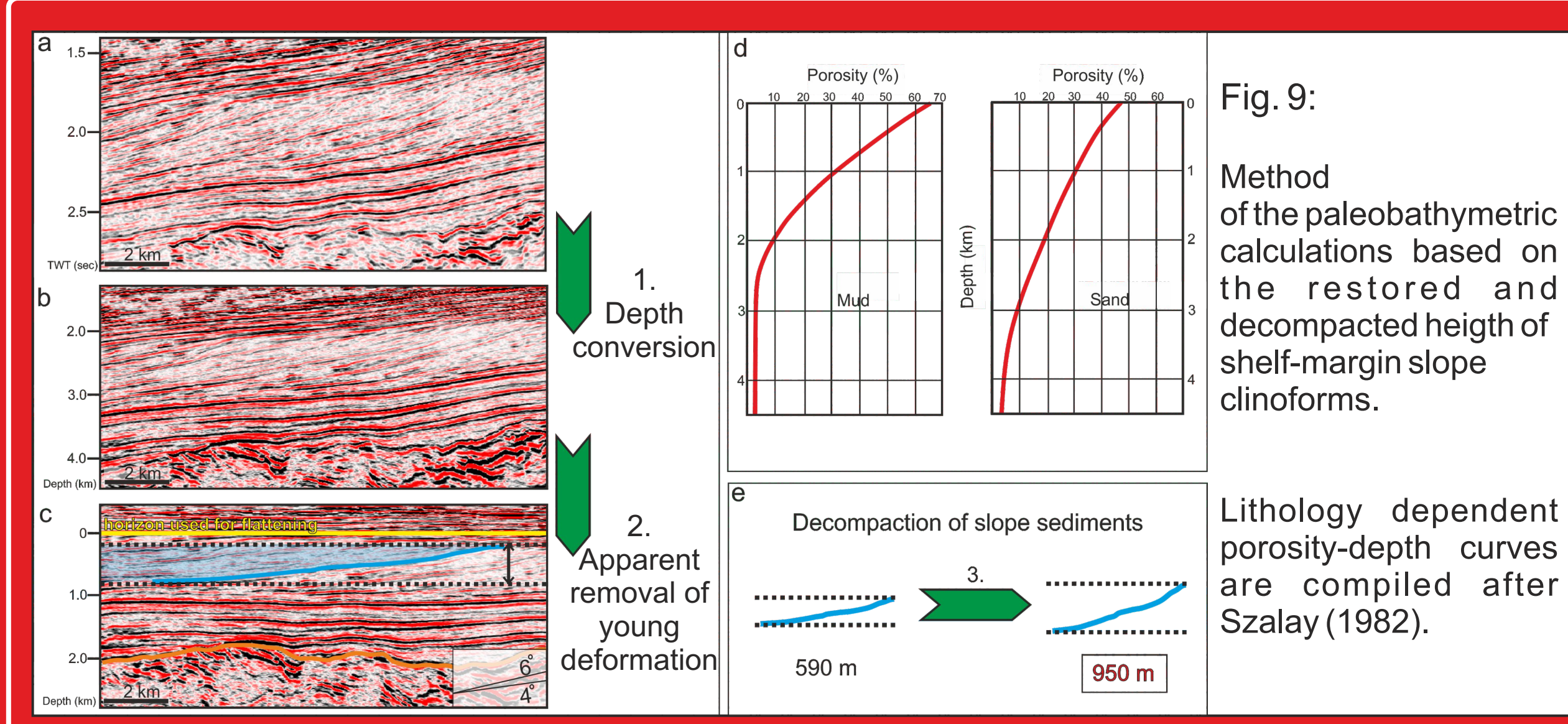
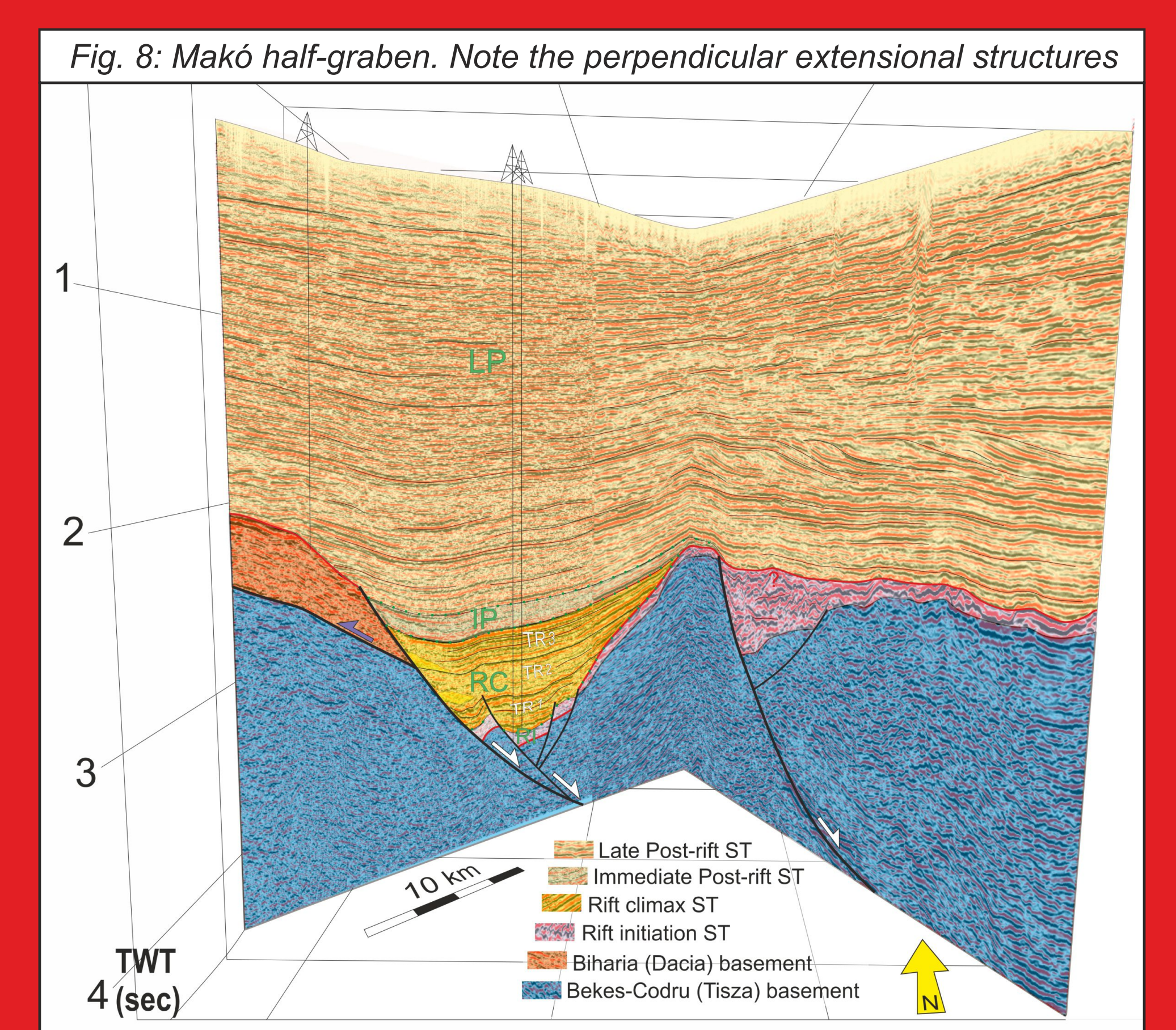
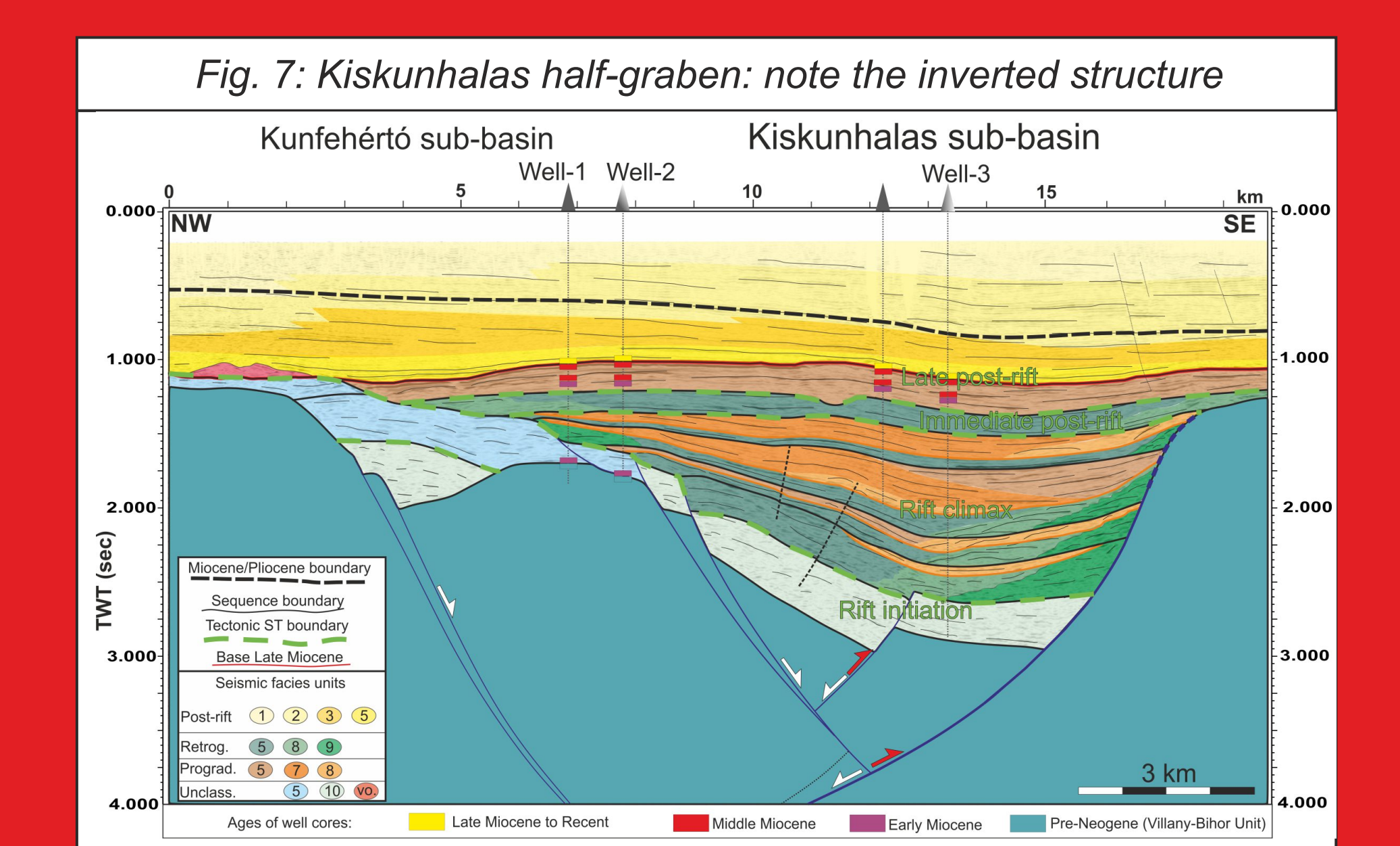
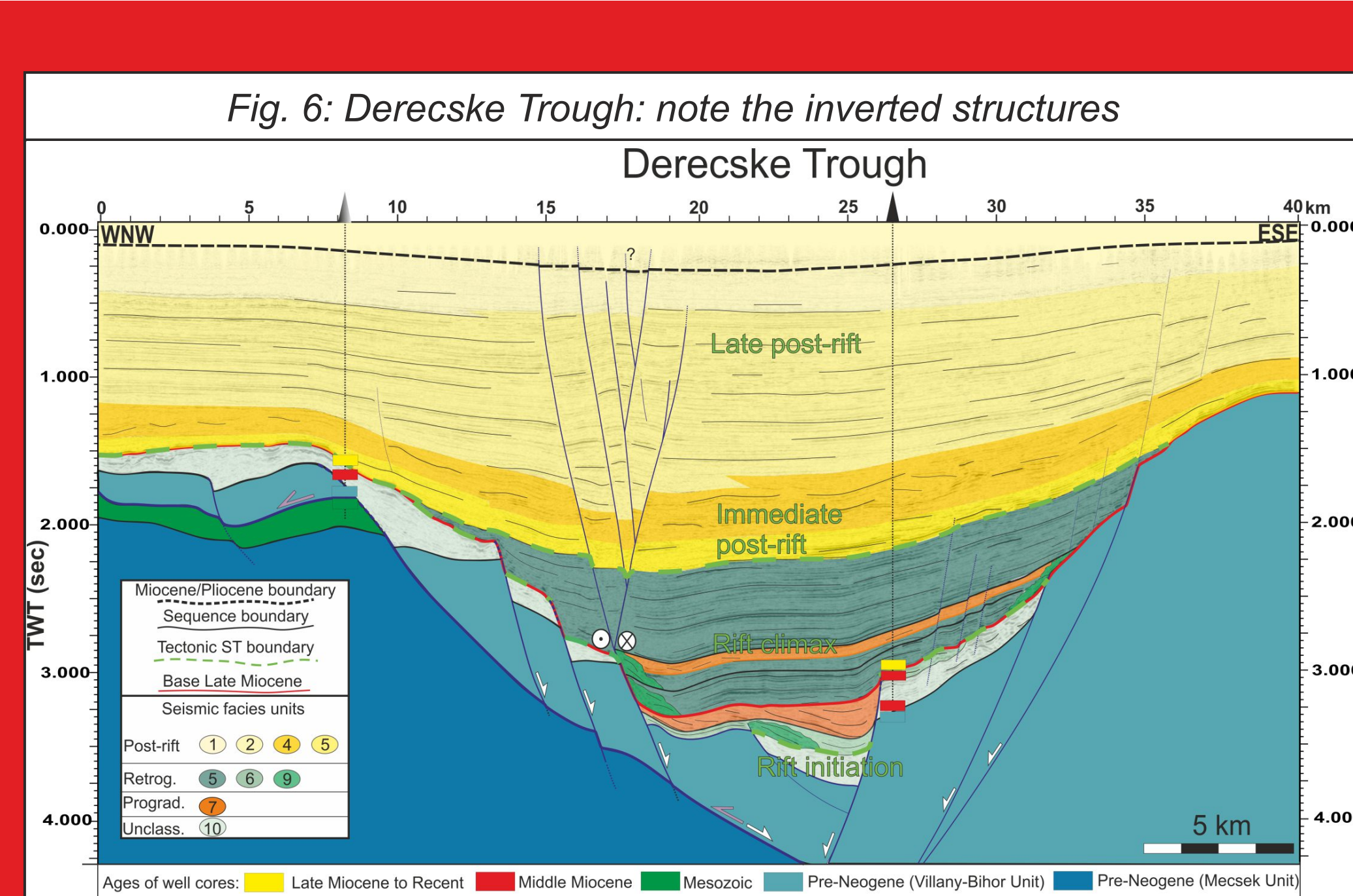
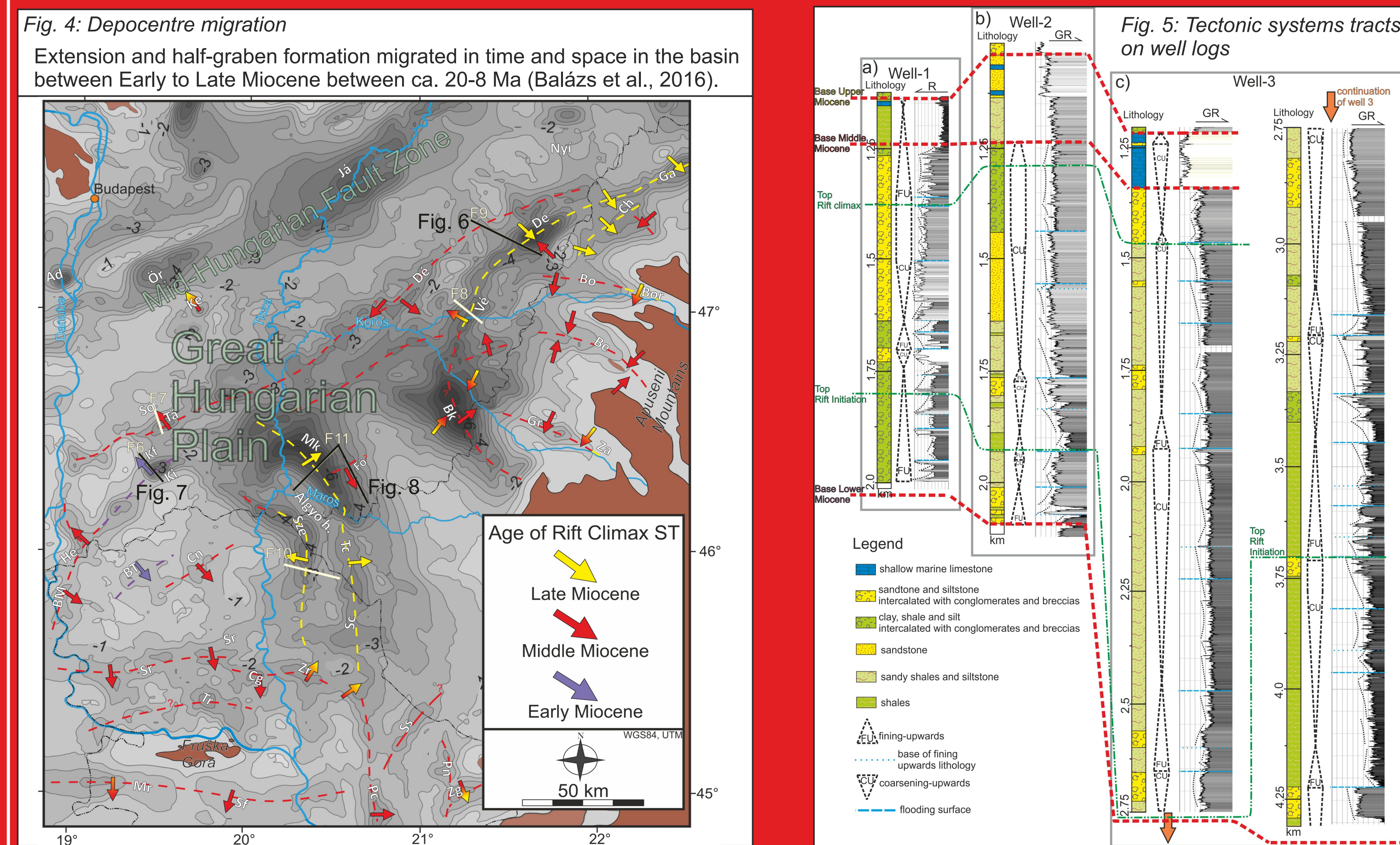
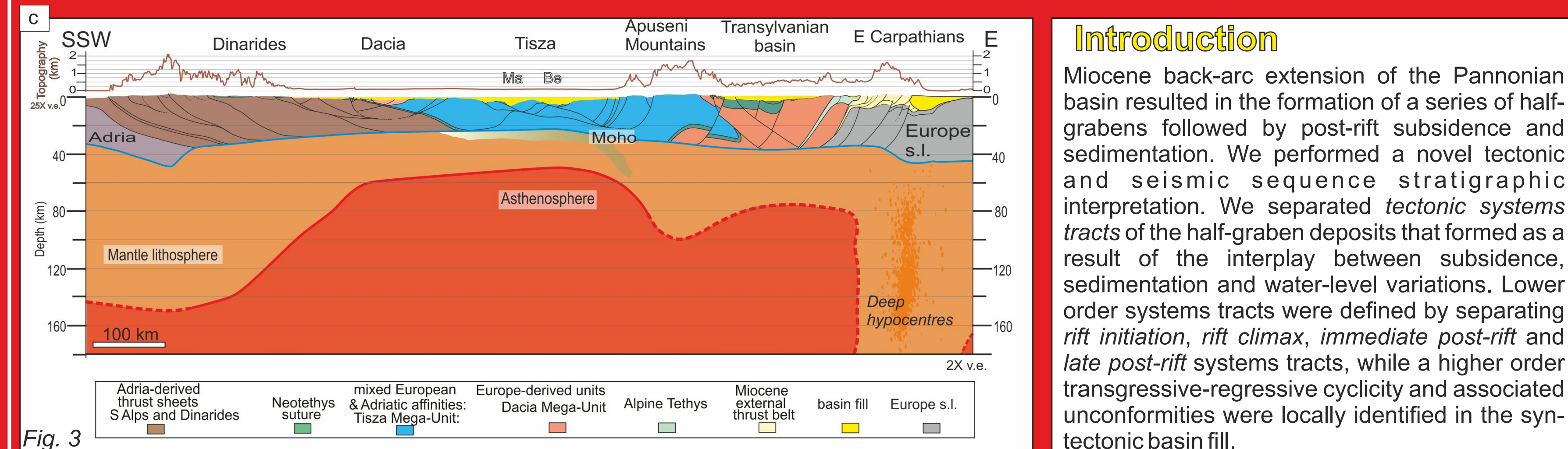
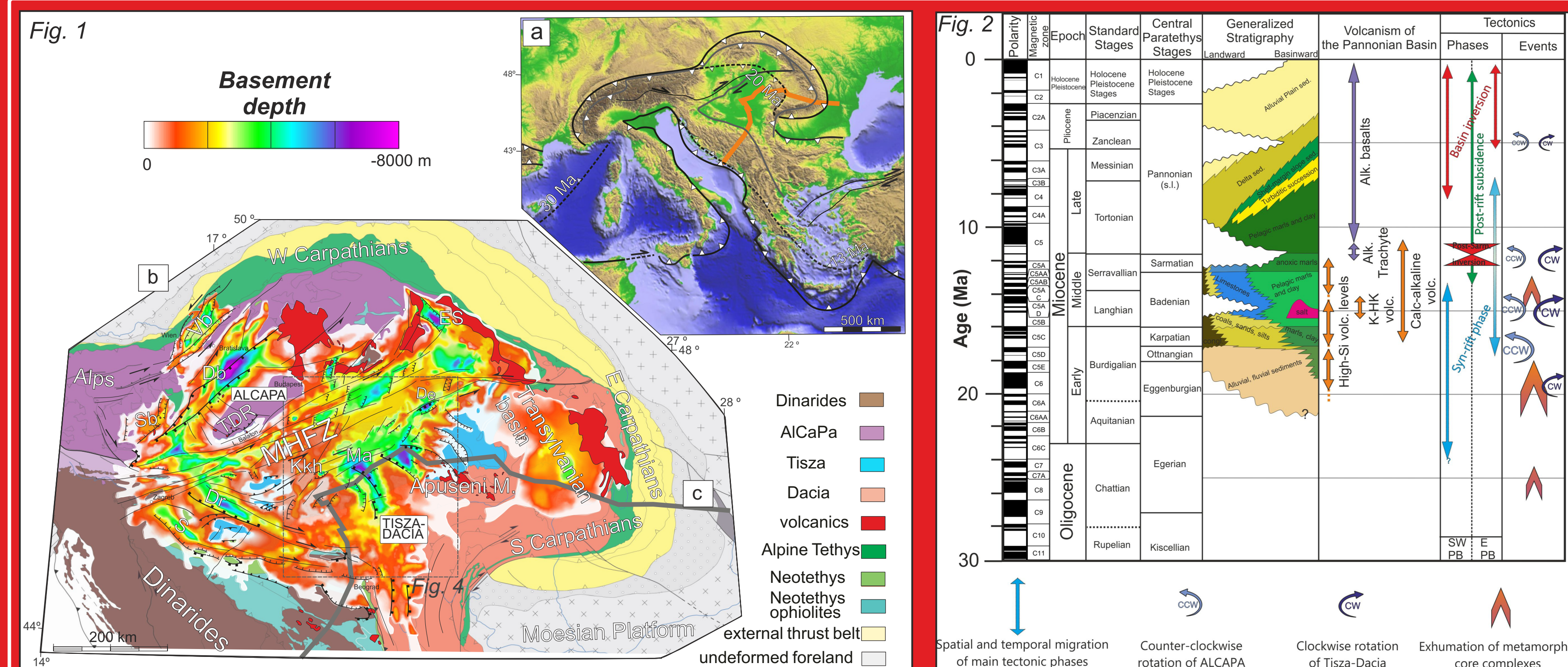




# The link between tectonics and sedimentation in the Pannonian basin: seismic analysis of structural and stratigraphic features and compaction effects

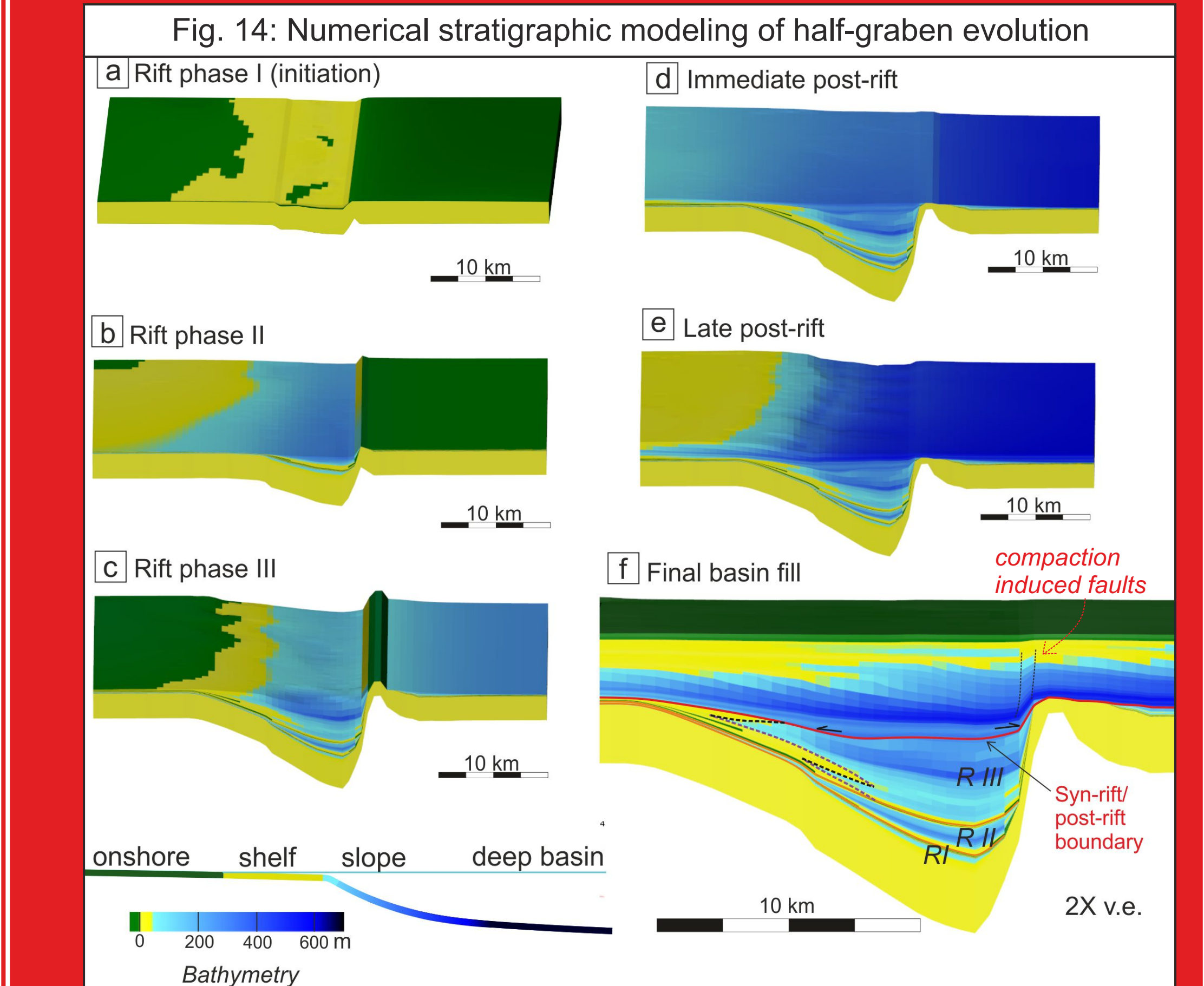
Attila Balázs<sup>1</sup>, Liviu Matenco<sup>1</sup>, Imre Magyar<sup>2,3</sup>, Orsolya Sztanó<sup>4</sup>, Ferenc Horváth<sup>5</sup>, and Sierd Cloetingh<sup>1</sup>

(1) Netherlands Research Centre for Integrated Solid Earth Science, Utrecht University, Faculty of Geosciences, Utrecht, the Netherlands, e-mail: a.balazs@uu.nl  
(2) MOL Hungarian Oil and Gas Plc., Budapest, Hungary; (3) MTA-MTM-ELTE Research Group for Paleontology, Budapest, Hungary  
(4) Department of Physical and Applied Geology, Eötvös Loránd University, Budapest, Hungary; (5) Geomega Ltd, Budapest, Hungary



## Conclusions and further research

- Our study demonstrates that the 270 km of extension in the entire Great Hungarian Plain was diachronous and migrated in space and time across the basin between ca. 20-8 Ma. Internal deformation accommodated the different amounts of rotations in various parts of the area (Figs. 2 and 4)
- Lower order tectonic induced sedimentary cycles characterize the main phases of extension in various sub-basins, the higher order cyclicity and associated unconformities define individual moments of fault (re-)activation (Figs. 5 and 7).
- Highest water depth values characterized the SE latest Miocene to Pliocene remnant of the lake due to the higher subsidence rates and more distal position from the main source areas (Figs. 10 and 12).
- Water depth and sedimentary transport routes were primarily determined by inherited and/or local active tectonics and compaction effects including the control of the Miocene shelf-margin progradation directions and Recent fluvial transport routes (Figs. 10 and 12b).
- The Túrkeve fault was previously misinterpreted as a strike-slip zone. Correlation of channels on horizon attribute maps demonstrates the pure normal kinematics of fault segments with upwards increasing throw revealing its connection with differential compaction (Fig. 12).



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