Poříčí-Hronov Fault Zone: Malé Svatoňovice locality

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The locality Malé Svatoňovice was presented during the field trip at Recent Geodynamics 9th in 2008, as an example of deformation style within the Poříčí-Hronov Fault Zone. Detailed geological mapping complemented with both structural and sedimentological analysis has led the present author to a conclusion that the hitherto proposed overthrust style of the local kinematics of the Svatoňovice Fault (SF; cf. Weithofer 1897; Petrascheck 1934, 1944 &1949) is rather excluded. The SF defines the N boundary of the Poříčí-Hronov Trough (PHT), that formed during the Cainozoic between the Intrasudetic Synclinorium (IS) to the NE and the Karkonosze Piedmont Basin to the SW (Trutnov Basin (TB) according to Holub 1976). Kinematic indicators both within the SF and the adjoining Permian and Cretaceous sedimentary rocks suggests an oblique-slip, dextral-normal kinematics of the local motion on the fault (Fig. 1) (cf. Uličný 2001; Uličný et al., 2002; Wojewoda 2009) accompanied by drape folding of the overlying sedimentary strata(Fig. 2).

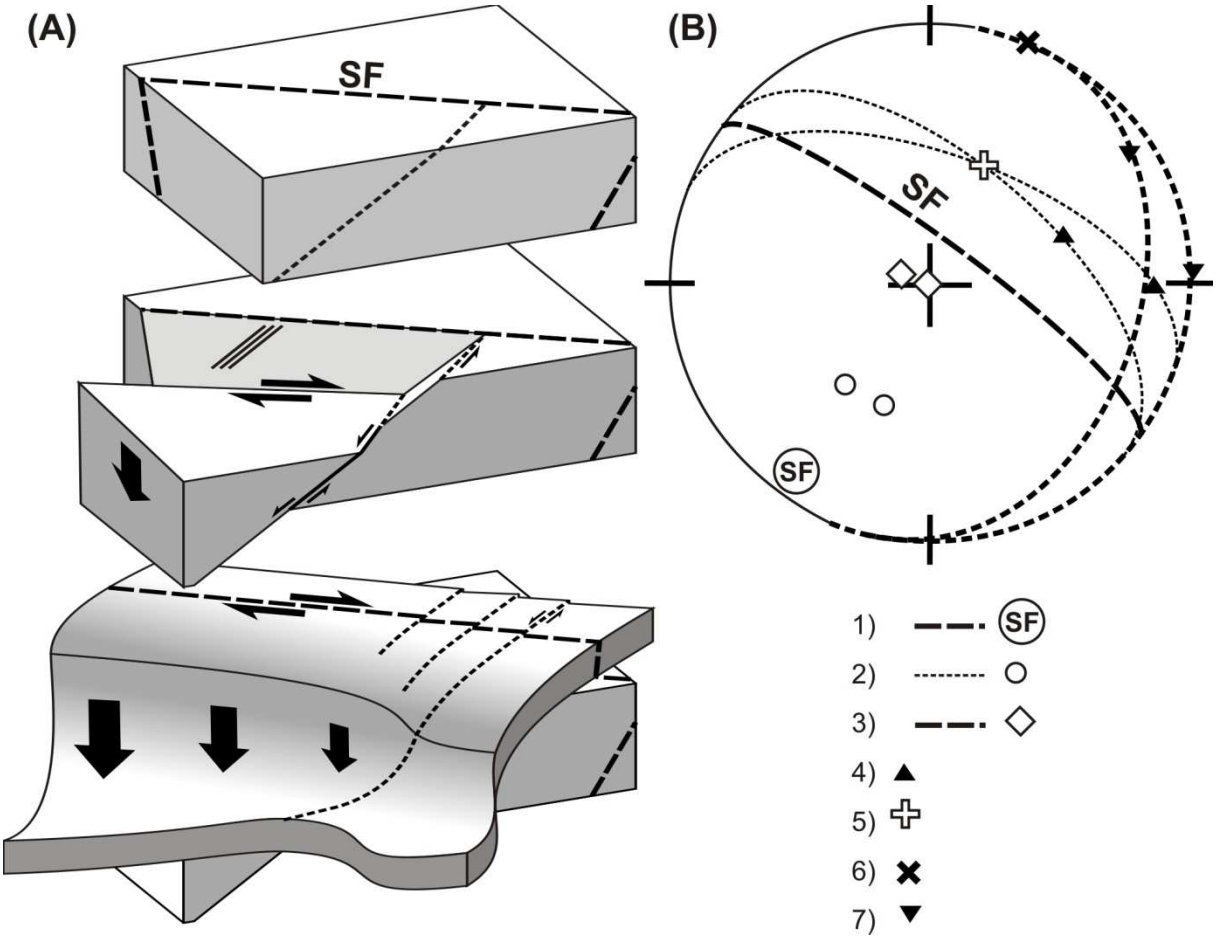

Fig. 1. Scheme of structural relationships at Malé Svatoňovice . 1 – Svatoňovice Fault; 2 – stratification in Cretaceous sediments; 3 – stratification after rotation to horizontal position; 4 – fault striation; 5 – complementary fractures; 6 – complementary fractures after rotation; 7 – fault striation after rotation.

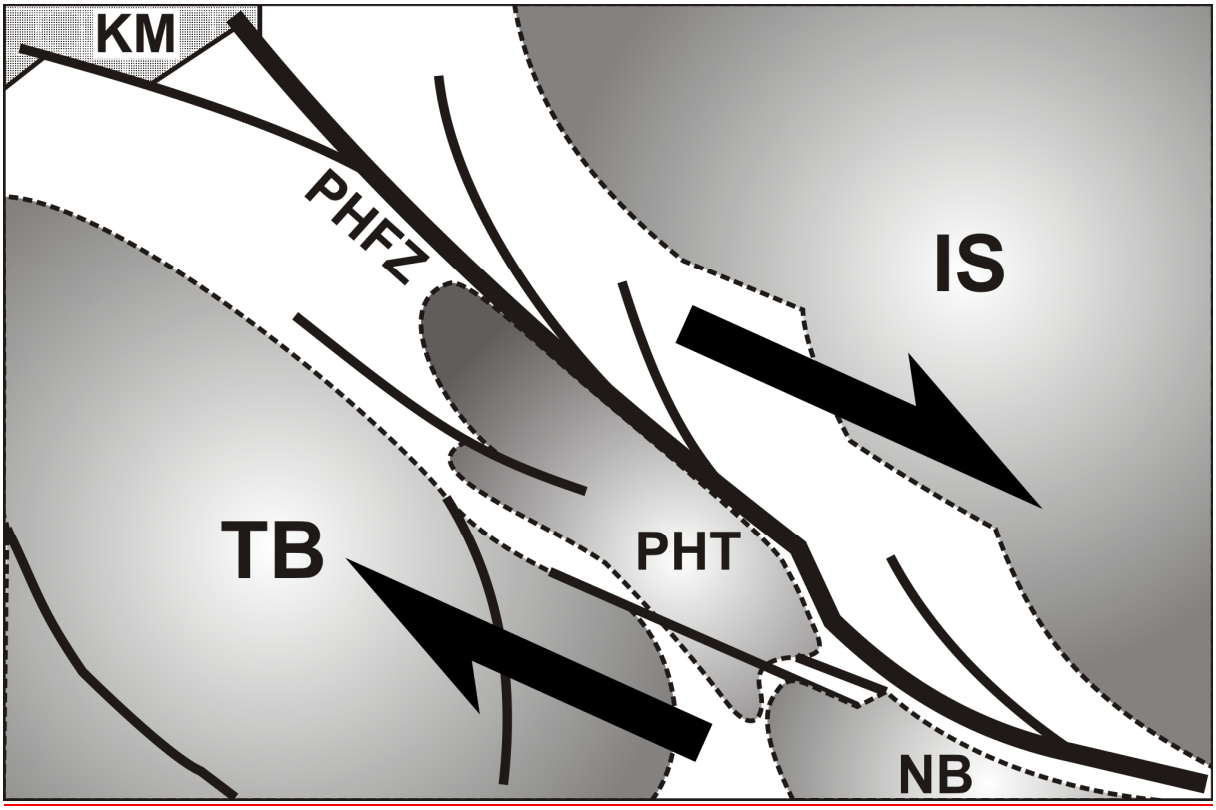

Fig. 2. Regional kinematic model. IS – Intrasudetic Synclinorium; TB – Trutnov Basin; PHFZ - Poříčí-Hronov Fault Zone; PHT - Poříčí-Hronov Trough; NB – Nachod Basin; KM – Karkonosze Massif

REFERENCES: **Holub, V.M., 1976.** Permian Basins In the Bohemian Massif. In: H. Falke [ed.] – The Continental Permian in Central, West and South Europe. Riedel Publ. Co., pp. 53-79. **Petrascheck, W., 1934**. Der böhmische Anteil der Mittelsudeten und sein Vorland. Mitt. Geol. Gesel., Wien. XXVI Bd., 1933, pp. 2-136. **Petrascheck, W., 1944**. Morphologisch-tektonische Einteilung. In: W. Petrascheck, L. Waldmann & A. Liebus [eds.] - Die Sudetenlander: Handbuch der regionalen Geologie. 54 p. **Petrascheck, W., 1949**. Die Berge zwischen Schatzlar Und Schadowitz in den Mittelsudeten. Eine geologische Nachlese. Mitt. Geol. Gesel., Wien, 36-38 Bd, 1943-1945. Pp. 245-248. **Uličný , D., 2001**. Depositional systems and sequence stratigraphy of coarse-grained deltas in a shallow-marine, strike-slip setting: the Bohemian Cretaceous Basin, Czech Republic. Sedimentology, 48, 599-628. **Uličný D., Martínek K. & Grygar R., 2002**. Syndepositional Geometry and Post-Depositional Deformation of the Krkonoše Piedmont Basin: A Preliminary Model. Proceedings of the 7th Meeting of the Czech Tectonic Studies Group, Zelazno, Poland, May 9-12, 2002, Geolines,14, 101-102. **Weithofer, K.A., 1897** (1898). Der Schatzlar-Schwadowitzer Muldenflügel des niederschlesisch-böhmischen Steinkohlen beckens. Jb. Geol. Reichenanst., J. 47, 455-478. **Wojewoda, J., 2009**. The role of the Poříčí-Hronov Fault Zone in foundation of Sudetic basins. 7th Central European Tectonic Studies Group, 13-16 May, Pecs, p. 60.