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Cherts of the Přídolí Formation and accompanying trace fossils (Pridoli, Silurian), Barrandian area, Czech Republic

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Abstract. In the area of the "Amerika" Anticline (central part of the Prague Basin, Barrandian area), bedded cherts are present in the upper part of the Přídolí Formation (uppermost Silurian). According to the study of thin sections, an ideal succession of lithification and diagenesis of these rock was as follows: 1. crystallization of cryptocrystalline quartz from gels, which were derived mostly from sponge spicules; 2. nearly contemporaneous appearance of quartz veinlets, 3. fine cracking of the lithified rocks, 4. healing of the cracks by calcite, 5. pressure-induced solution combined with the appearance of stylolite sutures, which consume calcite-filled cracks, 6. crystallization of dolomite along the sutures, 7. partial silicification of the dolomite rhombi, 8. crystallization of pyrite.

Relative hardness of the bottom and its composition (newly formed silica in the cement) might represent main ecologic stress for in-faunal benthic organisms that caused a development of a dense but monospecific (more correctly, "monoichnospecific") assemblage. The shaft-like structure, falling to the group of "plug-shaped" ichnofossils, is designated herein as *Pridolichnus pollex* igen. et isp. nov.

Key words: cherts, silicification, spiculites, trace fossils, Přídolí Formation, Silurian, Prague Basin