contain inclusions of plagioclase, similar to those from TP, but the shape and fabric of these inclusions greatly differ. The Plgs from LBG are accreted on the K-f growth surfaces. Yellow pattern of CL distinctly marked oscillatory zoning. Matrix Plgs manifest similar style of zoning.

The feldspars from mafic members G and MG of the durbachites suite display simple continuous magmatic zoning. Such a style of zoning together with decreasing X_{Mg} from G to MG indicates a substantial role of fractionation in their evolution. The complex feldspar fabric from evolved members PABS, LBG indicate multiple evolution with participation of fraction crystallization, remelting and remixing. The complex fabrics of feldspars from TP, if compared with rather simple fabric from JP, indicate that both plutons underwent different magmatic evolution. The primary fabrics are well preserved in JP, whereas in the TP, the primary fabrics were to a larger extent overprinted by later processes such as remelting (Bowes and Košler 1993).

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Structural Study of the Jílové Cleavage and its Relationship to the Magmatic and Sub-solidus Fabric in the Sázava-type Tonalite – SE Margin of the Teplá–Barrandian Zone (Bohemian Massif).

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The study area is situated in the SE margin of the Teplá–Barrandian Zone of the Bohemian Massif. It is composed of three main units: Late Proterozoic volcanic complex of the Jílové Belt with overlying flysch sequence of the Štěchovice Group and Variscan Central Bohemian Plutonic Complex. Several types of rocks occur in the area. Precambrian volcanic rocks of the Jílové Belt contain metabasalts, metaandesites, metarhyolites and metadacites and their volcaniclastic equivalents, flysch sequence of the Štěchovice Group is composed of anchimetamorphosed alternating shales, siltstones, graywackes and conglomerates. The study area extends SE to the marginal part of the Central Bohemian Plutonic Complex, where amphibole–biotite tonalite of the Sázava type is exposed.

The aim of this study was to determine the age of the Jílové cleavage and its geometrical and temporal relationships to the structures in the surrounding rocks. Although the Jílové cleavage is the most remarkable structural phenomenon in the study area, interpretations concerning its age remained controversial. Kodym (1946), Morávek and Röhlich (1971) and Waldhausrová (1984) assume Cadomian age of the cleavage whereas Rajlich (1988) and Rajlich et al. (1988) interpreted the Jílové cleavage as a result of Variscan tectonic processes.

E–W structural cross-sections were documented across the Jílové Belt and the Sázava-type tonalite. Penetrative S_1 cleavage (the Jílové cleavage) in different rock types and its relationships to the preexisting S_0 fabric were investigated. The Jílové cleavage (S_1) is very steeply ESE-dipping spaced disjunctive cleavage superimposed on the pre-existing sedimentary (S_0) or magmatic fabric. Its development depends on rock competence and on the local lithotectonic conditions. The S_1 cleavage is most intensively developed in the sediments of the Štěchovice Group; in volcanic rocks of the Jílové Belt the intensity of cleavage development decreases with increasing content of quartz. Upright large-scale open folds with steep axial surfaces and subhorizontal hinges folded the whole area. The S_1 cleavage is subparallel to axial planes of the folds. NNE-trending subhorizontal stretching lineations L_1 are sub-parallel to fold hinges, implying coeval development of both structures. Progressive compression was also accommodated by longitudinal overthrusting. There is a strain gradient in the study area, marked by increasing intensity of cleavage development towards SE. The last tectonic event is characterized by conjugate normal kink bands with locally developed S2 cleavage that often deform the S1 cleavage in the Štěchovice Group sediments.

Studies in the tonalite of the Sázava type concentrated on geometries of magmatic foliations, syn-cooling S-C structures and shapes of deformed mafic magmatic enclaves. The Sázava-type tonalite represents syn-tectonic intrusion with well-developed sub-vertical foliations nearly parallel to the contact and syn-cooling S-C structures in marginal parts. Fabric analysis and magmatic fabric of the tonalite were studied with the use of AMS method (anisotropy of magnetic susceptibility) and measurements of shapes of mafic enclaves.

The orientation of C-planes and magmatic foliation at the boundary of the Sázava-type tonalite are concordant to the S_1 cleavage developed in the Jílové Belt. Also the kinematics of both fabrics are concordant. This conclusion confirms the syn-tectonic development of these structures and their Variscan age. The increasing intensity of the Jílové cleavage is interpreted in terms of possible thermal weakening due to syn-tectonic heating resulting from syn-tectonic intrusion of the Sázava-type tonalite.

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