



Photograph of the Month

Contrasting tail-geometry around K-feldspar porphyroclasts in granite-mylonite, central India



Mantled porphyroclasts in a mylonitised granite. An apophysis of biotite-rich granodiorite in the host granite has been more strongly mylonitised than the host rock, and two isolated porphyroclasts in the apophysis have developed into a sigma and a delta shape. N21°51'26.1", E78°44'47.1". Photograph A. Chattopadhyay, Delhi, India. © A. Chattopadhyay.

This field photograph shows two mantled feldspar porphyroclasts in a granodioritic apophysis that intruded into pink K-feldspar phenocryst-rich granite. The outcrop is part of the Gavilgarh-Tan shear zone, central India. The apophysis deformed more strongly than the adjacent granite, probably because it was more fine-grained. Two isolated feldspar phenocrysts in the apophysis developed into a sigma-type (at left), and delta-type (at right) porphyroclast, both indicating sinistral shear sense in conformity with the kinematics of Gavilgarh-Tan shear zone (e.g. [Chattopadhyay et al. 2008](#)). In the granitic wall rock, mantled porphyroclasts are not well developed, illustrating that isolated clasts in a fine-grained matrix are optimally suited to form this kind of kinematic indicator. Scale bar 15 cm.

Please send comments to jsg@uni-mainz.de.

References

- Chattopadhyay, A., Khasdeo, L., Holdsworth, R.E., Smith, S.A.F., 2008. Fault reactivation and pseudotachylyte generation in the semi-brittle and brittle regimes: examples from Gavilgarh-Tan shear zone, central India. *Geological Magazine* 145, 766–777.

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Available online 8 July 2009