



Photograph of the Month

Disharmonic ptygmatic folding in the Hasan-Robat Marbles, North Isfahan, Iran



The Precambrian Basement of the Hasan-Robat Region, north Isfahan, in the Sanandaj-Sirjan Metamorphic Belt of Iran preserves evidence of multiple orogenic events. The Sanandaj-Sirjan Zone is the inner crystalline zone of the Zagros Orogen, which has been highly deformed and exhumed during continental collision between the Arabian Plate and Central Iran (Stöcklin, 1968). The Hasan-Robat Region is an example of the exhumed Precambrian basement complexes (Nadimi and Nadimi, 2008).

In the photo, deformed Precambrian grey marbles contain metamorphosed chert (cream folded layers) which record a complex shortening and shearing history. This led to the development of **disharmonic ptygmatic folds with vertical axes** during the Pan African Orogeny and later phases.

Location: **The photo has taken in the southeast Hasan-Robat Village in the north Isfahan, Iran and at latitude: N 33°, 24', 05" and longitude: E050°, 54', 50".**

References

- Nadimi, A., Nadimi, H., 2008. Exhumation of old rocks during the Zagros collision in the northwestern part of the Zagros Mountains, Iran. In: Burchfiel, B.C., Wang, E. (Eds.), Investigation into the Tectonics of the Tibetan plateau: Geological Society of America Special Paper 444, pp. 105–122.
- Stöcklin, J., 1968. Structural history and tectonics of Iran: A review. AAPG Bull., 52 (7), 1229–1258.

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