Rock magnetism and preliminary archaeointensity results from Harappa potsherds, India

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New archaeointensity results from the Indian archaeological excavation at the historical Harappa Rakhigarhi site, India, dating from the third millennium BC, are reported. Fifteen samples from nine potsherd fragments were collected and subjected to the IZZI Thellier palaeointensity method. Detailed rock magnetic measurements were performed on representative potsherds. Rock magnetic properties indicate that magnetite is the dominant carrier of remanent magnetization. Archaeointensity values range from 23.65 ± 1.23 μT to 41.22 ± 1.82 μT (mean 32.64 ± 0.81 μT), while corresponding virtual axial dipole movements range from 5.06 to 10.60 × 10^{22} Am^2 (mean 8.11 × 10^{22} Am^2).

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via maintaining online databases like GEOMAGIA50.v3, (http://geomagia.gfz-potsdam.de)[8] and MagIC (http://earthref.org/MAGIC/).

The PSV curve for the Indian region has been prepared[9–12]. The advancement in the experimental procedures and application of strict reliability criteria could improve the available data. Indian AI data demands much-needed attention and constant updates by generating new AI data. Contributions of absolute archaeo/palaeointensity (AI/PI) datasets from India are rare, and related estimations are nascent. The AI data can reveal information about climatic changes as defined in an article[13], which opens a new field of study in relating the geomagnetic field strength to climate change events.