



## **The earliest record of a colour pattern in molluscs**

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Unique preservation of the oldest colour pattern (c. 490 Ma) of a molluscan shell, and the first record in monoplacophorans, are reported from the borehole that penetrated the Early Ordovician (Tremadocian) sediments in the Pechora Basin of Arctic Russia. The unusual preservation reflects low subsidence temperatures and minimal tectonic deformation, possibly due to close association of the fossil-bearing strata to the solid metamorphosed Precambrian basement. A colour pattern in the form of radial stripes coincides with the pattern of multiple muscle attachments to the shell which obviously influenced the mantle margin responsible for the shell formation and pigment deposition. We assume that this type of colour pattern is one of the most ancient to have appeared in molluscan evolution.