

### **Third Superchron During the Early Paleozoic ?**

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Since the 1960's, research on geomagnetic reversal chronology has established the existence of two superchrons, one during the Cretaceous and the other (Kiaman) during the Late Paleozoic. The occurrence of superchrons has been linked to major events in the Earth's history such as plumes, flushing events or true polar wander episodes. Over the past few years, we have performed several magnetostratigraphic studies on Early Paleozoic (Cambrian and Ordovician) sedimentary sequences from Siberia. Our results show high magnetic reversal frequencies during the Middle and Early Cambrian. In contrast, several records suggest the occurrence of a ~20 Myr long, reversed polarity interval in the Lower (Arenig) and Middle (Llanvirn and lower half of the Llandeilo) Ordovician, suggesting the presence of a new superchron. Given our present state of knowledge, we propose that the reversal behavior during the Early Paleozoic was similar to the one which prevailed during the Cretaceous, marked by a drastic decrease in magnetic reversal frequency between the Lower-Middle Cambrian and the Lower Ordovician leading up to a superchron. We further propose to give the name of " Moyero " to this probable third superchron. This name is attributed to the Siberian section which yields a complete record of this reversed polarity interval.

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