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Early Paleozoic tectonics of Asia: A preliminary full-plate model

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One of the largest and longest evolving orogens on Earth, the Central Asian Orogenic Belt (CAOB; alt. the Altaids) is as endlessly fascinating as it is astonishingly complex. By the slow grind of tectonics, the CAOB was forged over hundreds of millions of years, with a spectacular climax during the late Paleozoic and early Mesozoic, when a series of terrane collisions first melded a mosaic of island arcs and continental blocks into a colossal landmass that we now know as Asia. Unsurprisingly, that dynamic late Paleozoic to early Mesozoic interval has garnered tremendous interest, stimulated a great wealth of studies, and instigated captivating ongoing debates. But what set the stage for this action-packed display? Here I report on an ongoing initiative to weave together a self-consistent, full-plate tectonic model of the building blocks of Asia in the early Paleozoic (~500-400 Ma), this will provide a testable and freely-available geodynamic framework for early CAOB genesis that can focus new work and foster new insights into the nature and evolution of Asia.