

## Testing the core of the Proterozoic Supercontinent Nuna

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To understand processes occurring from the planetary interior to the surface environment, a robust paleogeography of tectonic plates is important. The development of models of pre-Rodinian Paleo-Mesoproterozoic Nuna supercontinent has been slow (Evans 2013), but recently new high quality paleomagnetic and U-Pb data from mafic dykes have been produced allowing new Nuna reconstructions. To reconstruct complete Nuna and to study its life cycle it is vital to reconstruct its core.

There is a general agreement that a tectonic core of the Nuna includes geologically and paleomagnetically viable connection between Northern Europe and North America (NENA), where Baltica is in “upside-down” position relative to Laurentia (e.g. Gower et al. 1990). However, contradicting reconstructions have been proposed (e.g. Halls et al. 2011). Here we show that recent data for Baltica supports the NENA connection.

Other Nuna core continents include Australia and Siberia (e.g. Evans 2013). Commonly Australia is shown in geologically and paleomagnetically valid proto-SWEAT juxtaposition with western Laurentia allowing later standard Rodinia models. Siberia has been reconstructed either in tight fit with NENA (e.g. Wu et al. 2005) or ca. 1500 km away from it (Pisarevsky et al. 2008). Based on coeval 1.5 Ga magmatism on Siberia and Congo/São Francisco (C/SF) a direct link between them has been proposed (e.g. Ernst et al. 2013). We test with new 1.5 Ga paleomagnetic data for C/SF its proposed connection with Siberia and NENA. Finally we will show our tentative Nuna reconstruction including also Amazonia, West Africa, Kalahari, India, North China and South China.

### References:

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