

Possible Interpretations for the Arctic

N-S extension in Bering Strait and southward migration of subduction accommodates extrusion by dextral strike-slip faults in eastern Alaska

Possible time range for development of Amerasia Basin?

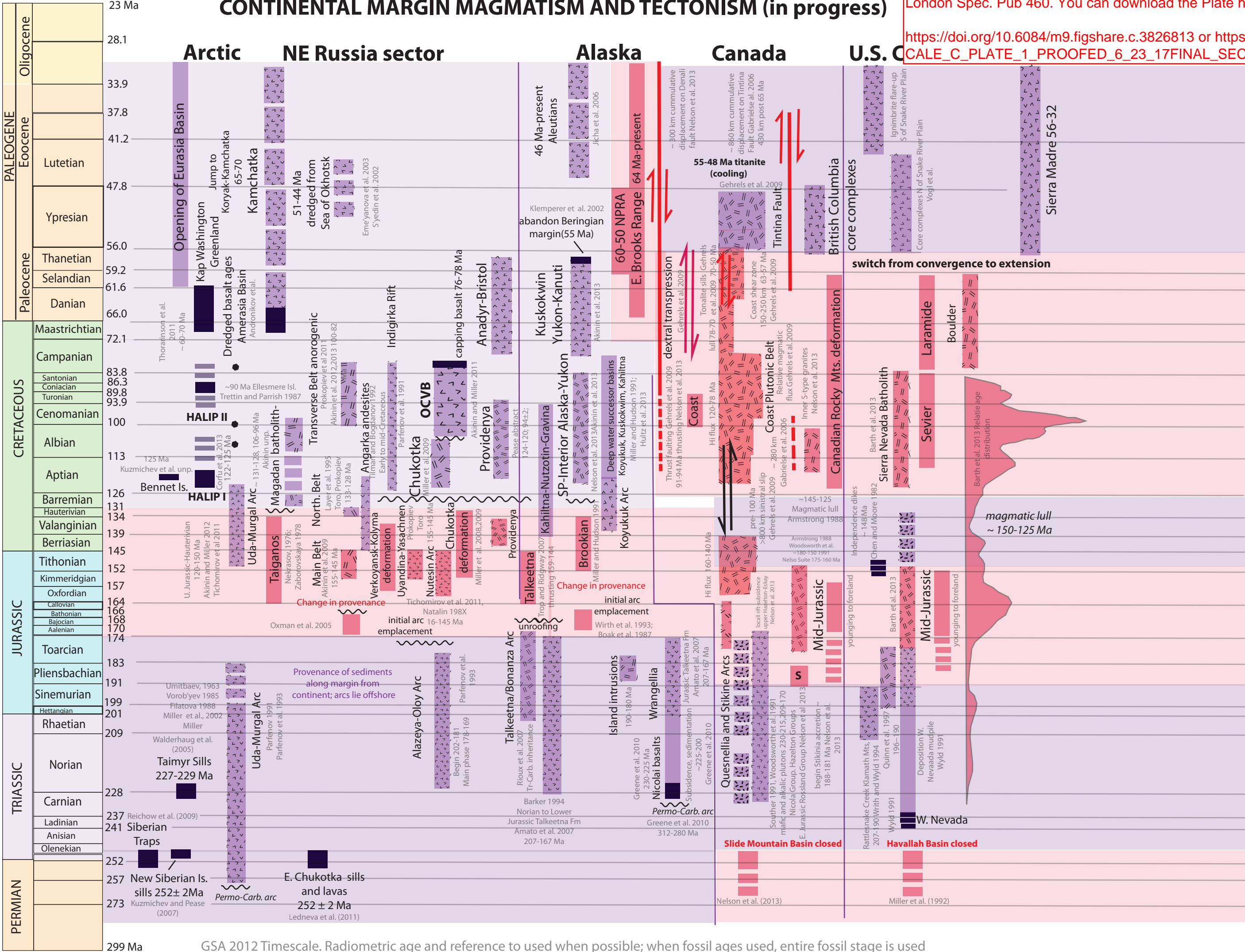
accreted arcs rift away

Closure of the "South Annuyi Ocean" aka paleo-Pacific margin arc-accretion event
(South Annuyi=Angayucham= paleo-Pacific margin of the Arctic region)

The Arctic was a passive margin with offshore arc systems

post-Uralian, Permo-Triassic to mid-Triassic rifting of continental margin and Permo-Carboniferous arcs.

CONTINENTAL MARGIN MAGMATISM AND TECTONISM (in progress)



GSA 2012 Timescale. Radiometric age and reference to used when possible; when fossil ages used, entire fossil stage is used

Last updated 2014. Russian and Alaska-Canada 2017 update to be found in the main plate of Miller et al. 2017 Circum-Arctic Lithosphere Evolution (CALE) Transect C, in Pease, V. and Coakley, B., eds., Geol. Soc. London Spec. Pub 460. You can download the Plate here:
<https://doi.org/10.6084/m9.figshare.c.3826813> or https://www.dropbox.com/s/vp0y46muxlhkv43/CALE_C_PLATE_1_PROOFED_6_23_17FINAL_SECURED.pdf?dl=0

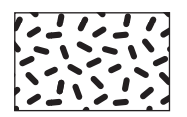
Magma composition



Calc-alkaline mafic-intermediate volcanics



Calc-alkaline batholiths



Mafic alkalic to calc-alkaline plutons



LIP and rift-related flood basalts

Tectonic setting of magmatism



syn-convergent magmatism



neutral to syn-extensional magmatism

important shortening event

Deep water sedimentation, quiescence

unconformity