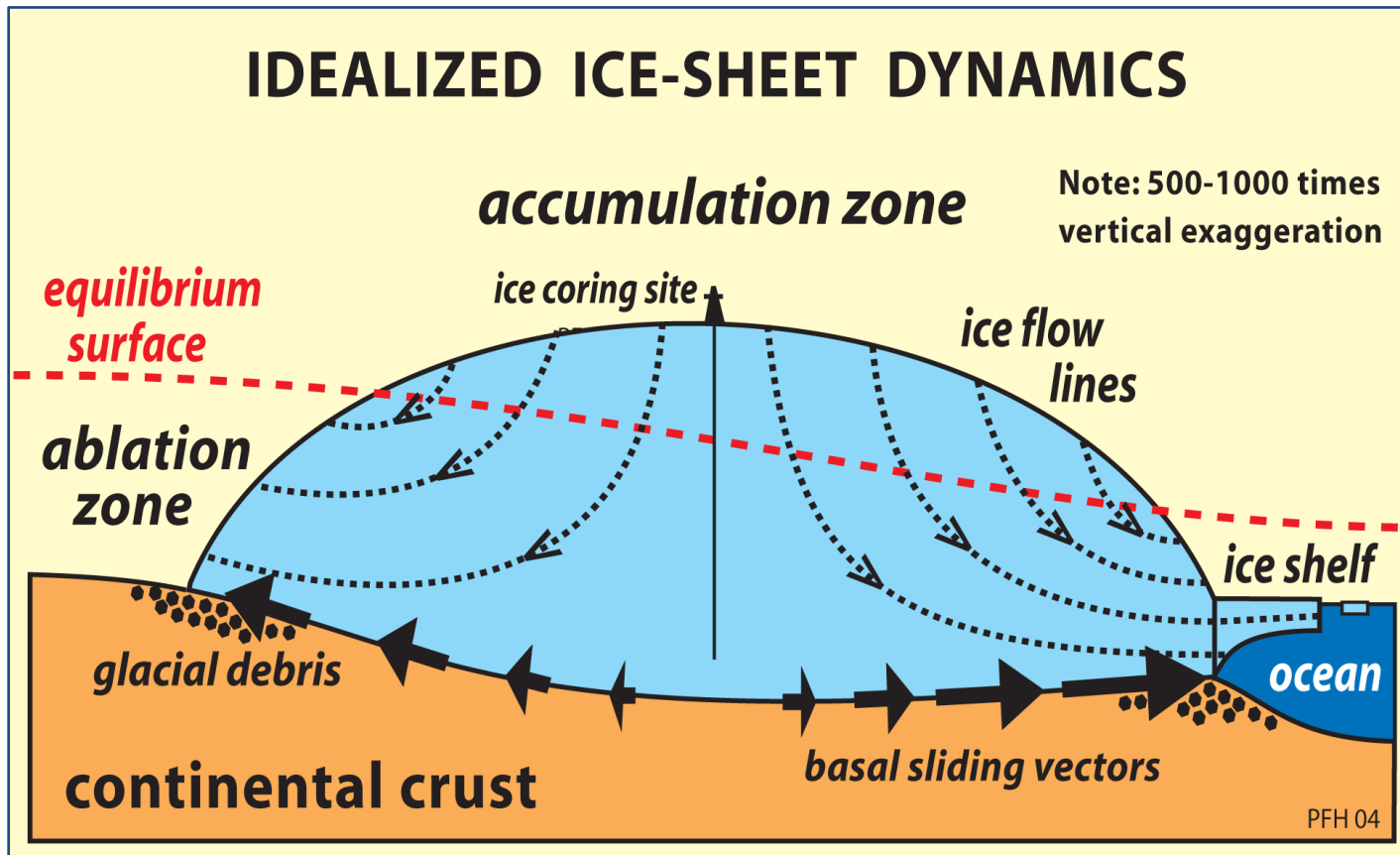
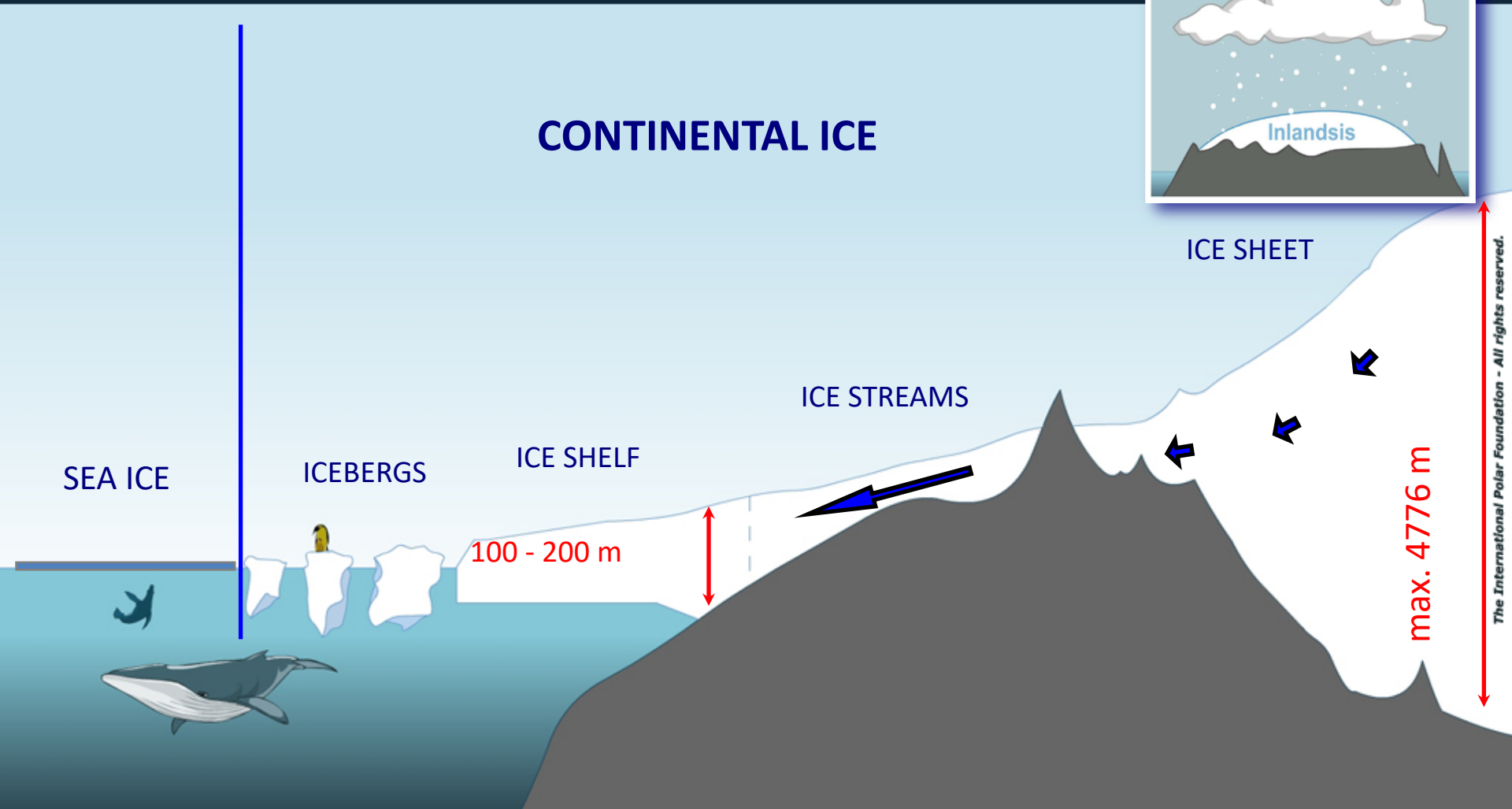




ICE SHEET-DOMINATED SEDIMENTARY SYSTEMS



Types of ice





ARCTIC OCEAN
Sea ice

ANTARCTICA
Sea ice





ANTARCTICA
Ice sheet



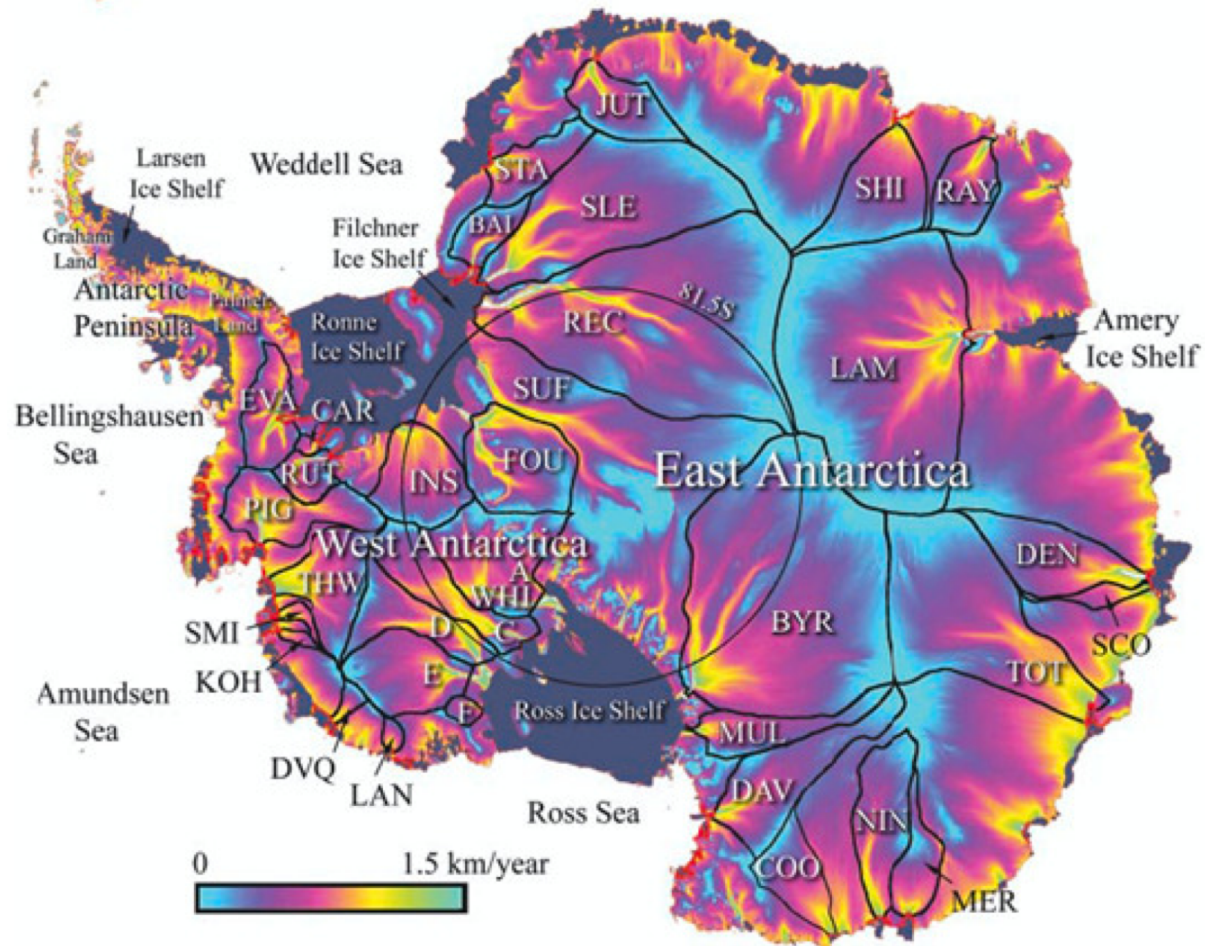
ANTARCTICA
Icebergs and sea ice

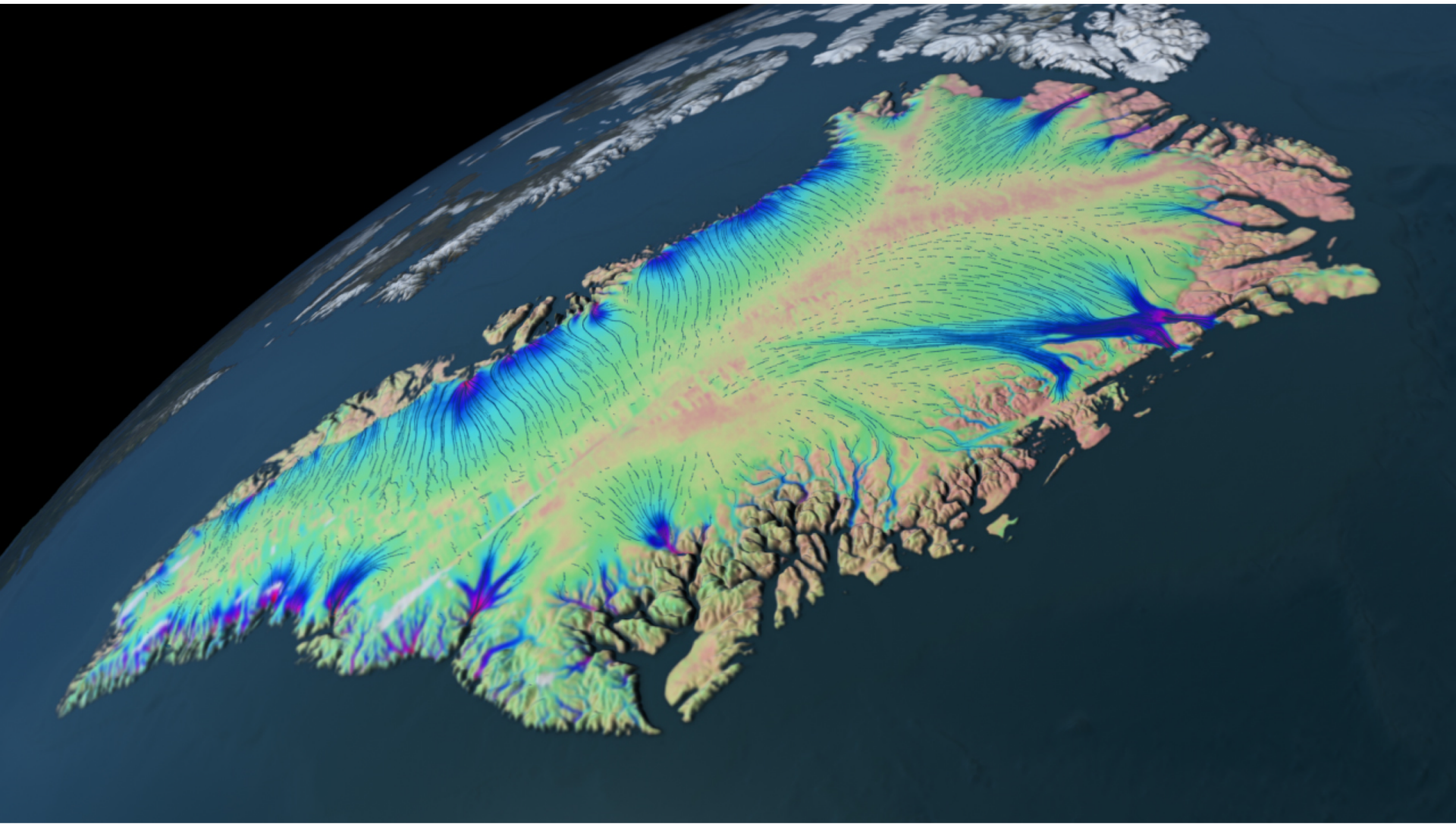
ANTARCTICA
Ice sheet and
icebergs

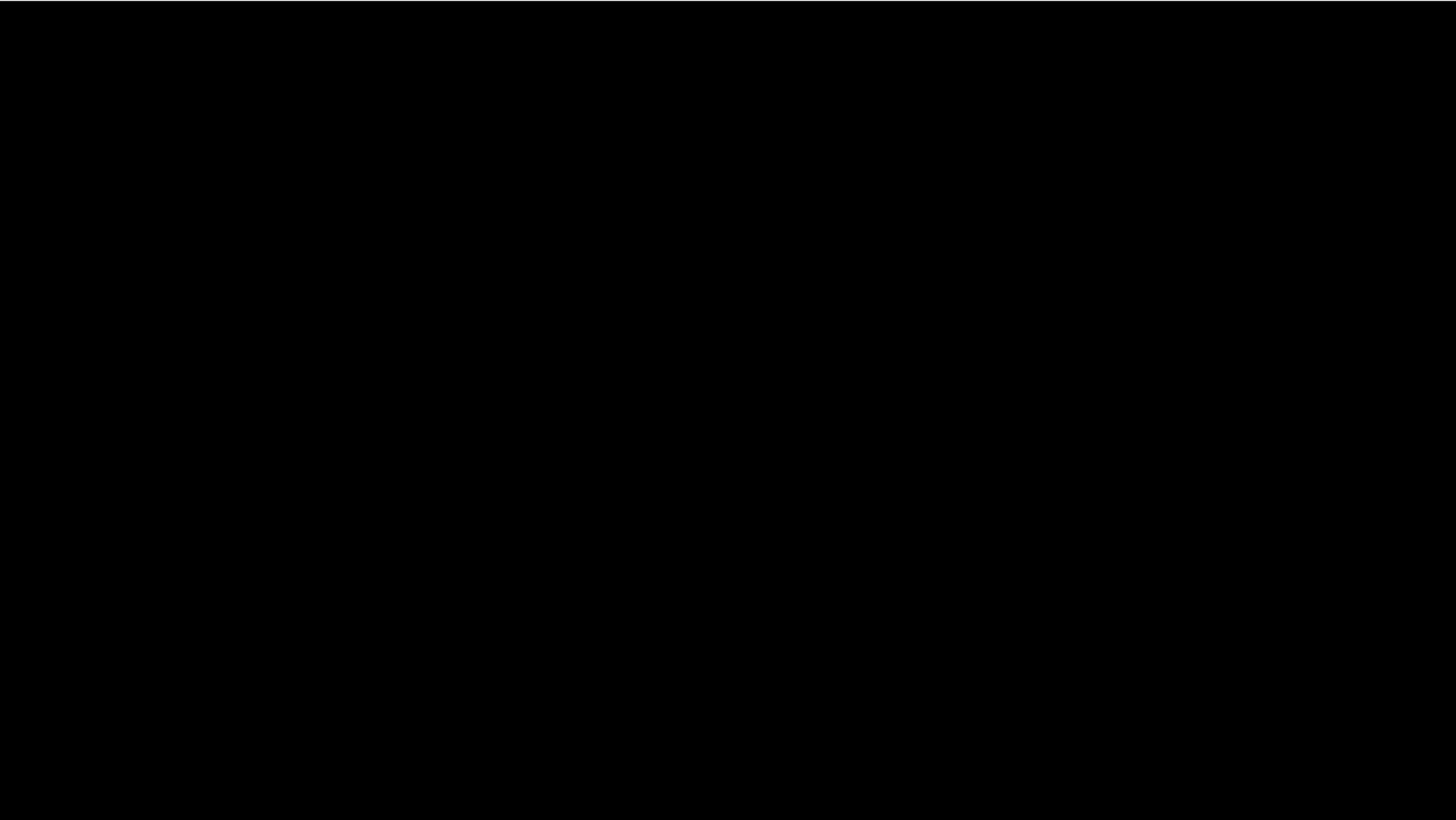


ICE SHEET-DOMINATED SEDIMENTARY SYSTEMS

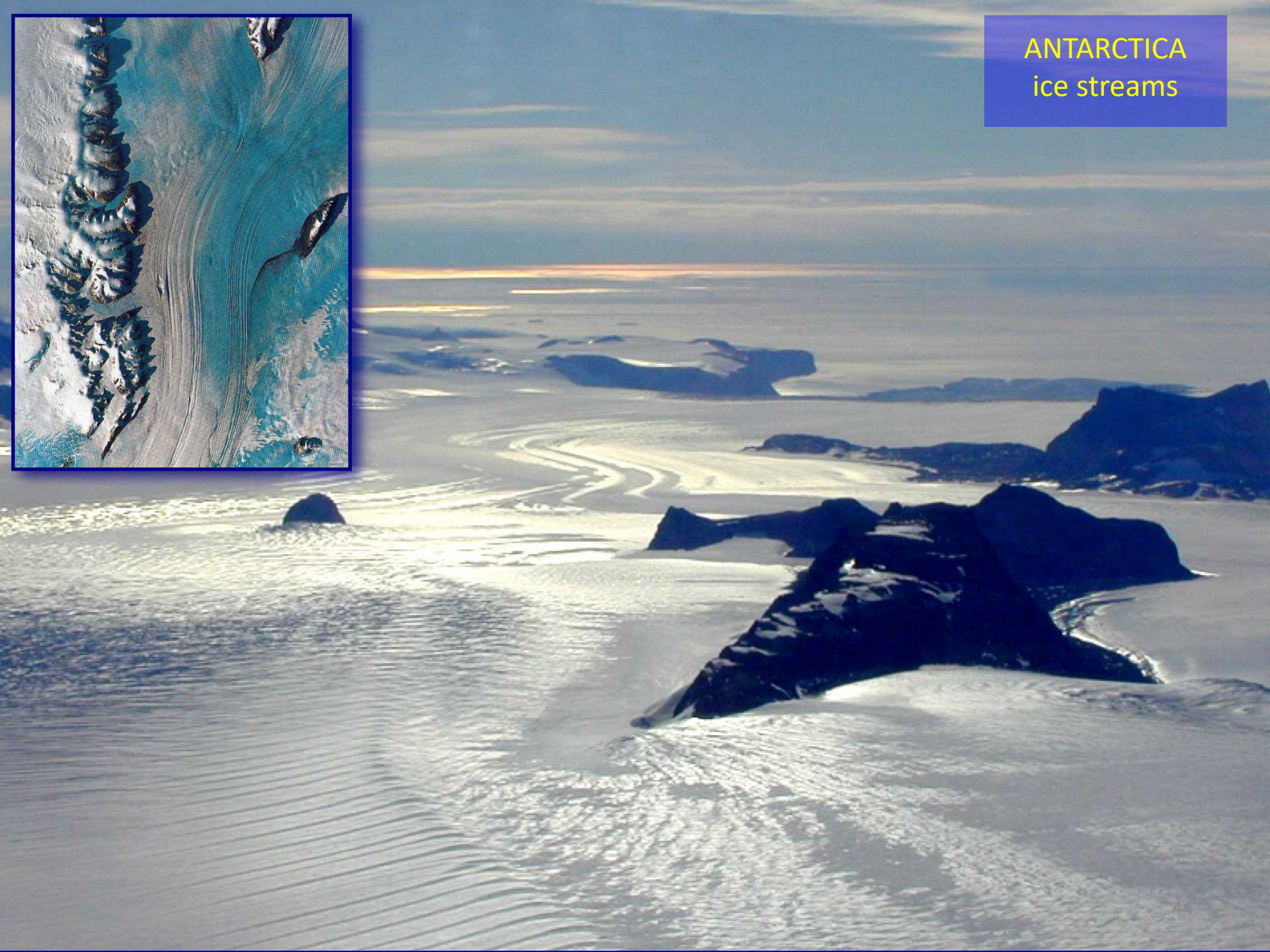
ICE STREAMS







ANTARCTICA
ice streams



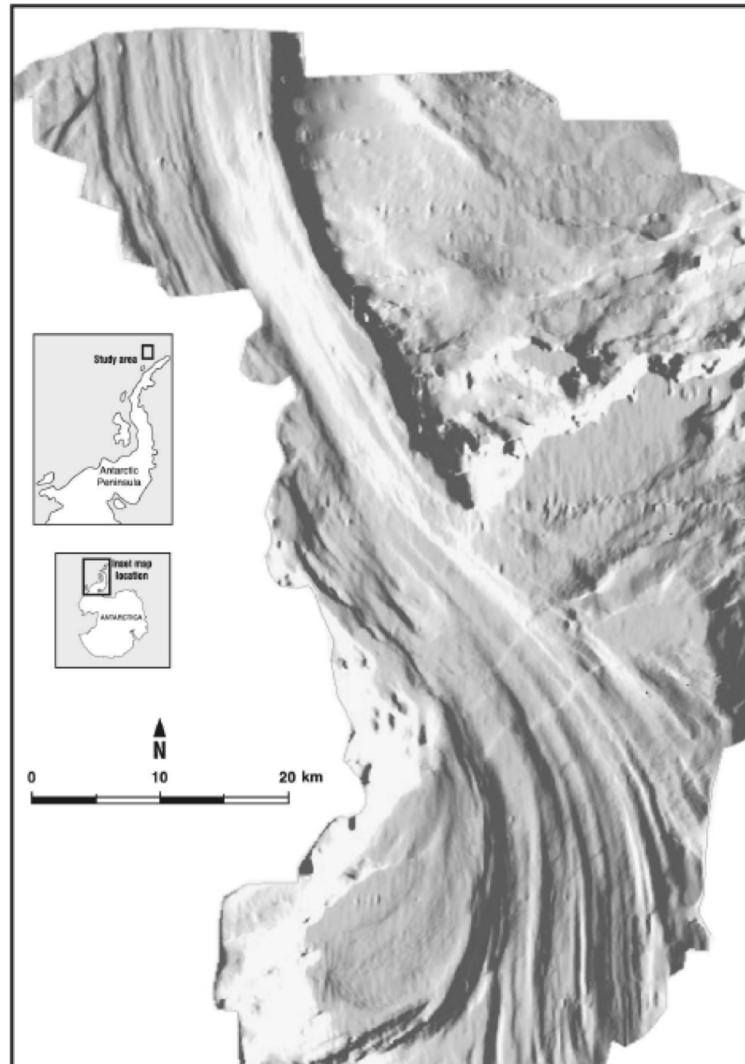


Two ice streams separated by a zone of more sluggish ice in Wilkes Land, Antarctica. The ice embayment coincides with the zone of sluggish ice -- on either side of it the ice is moving much faster, and has pushed out across the coast in distinct tongues.

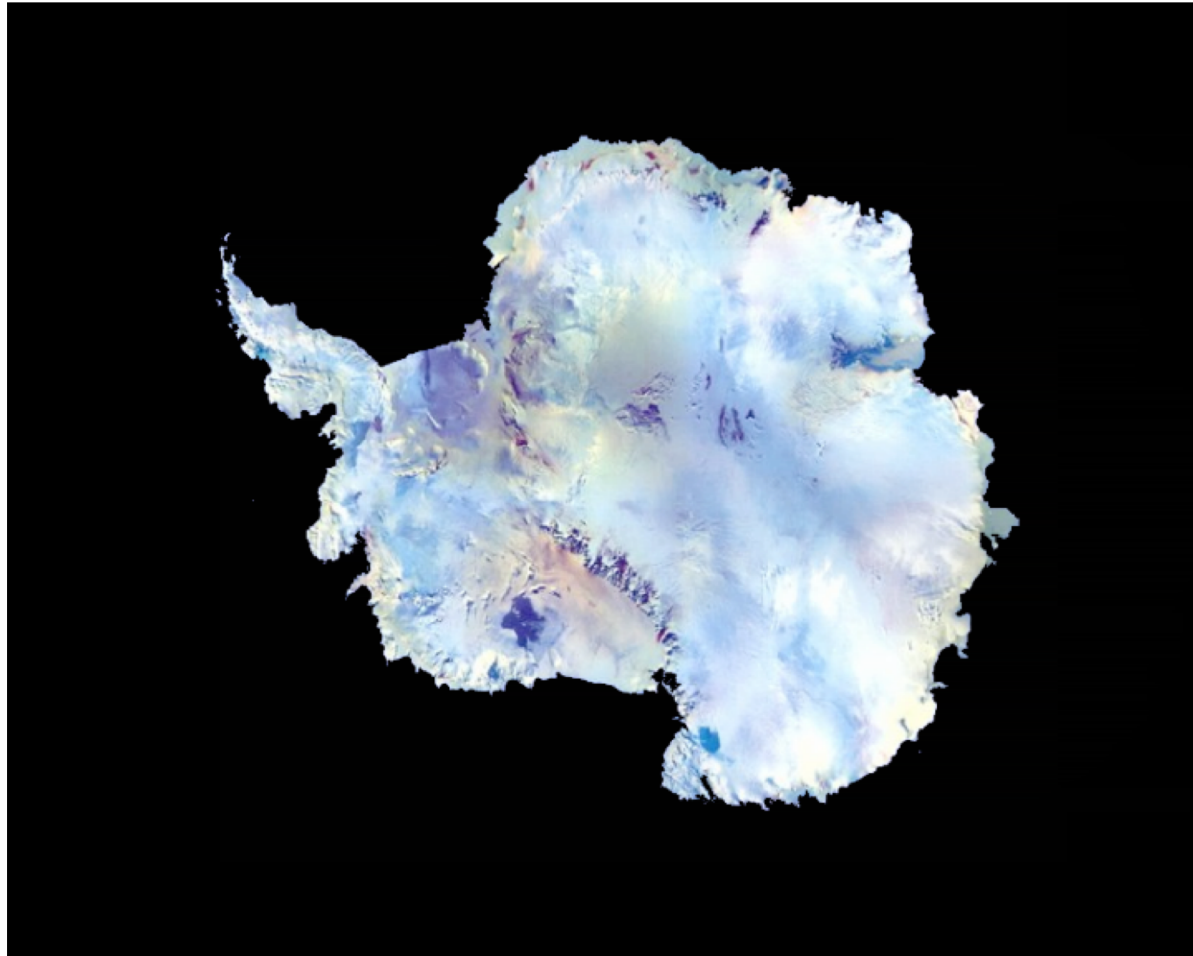
ICE SHEET-DOMINATED SEDIMENTARY SYSTEMS

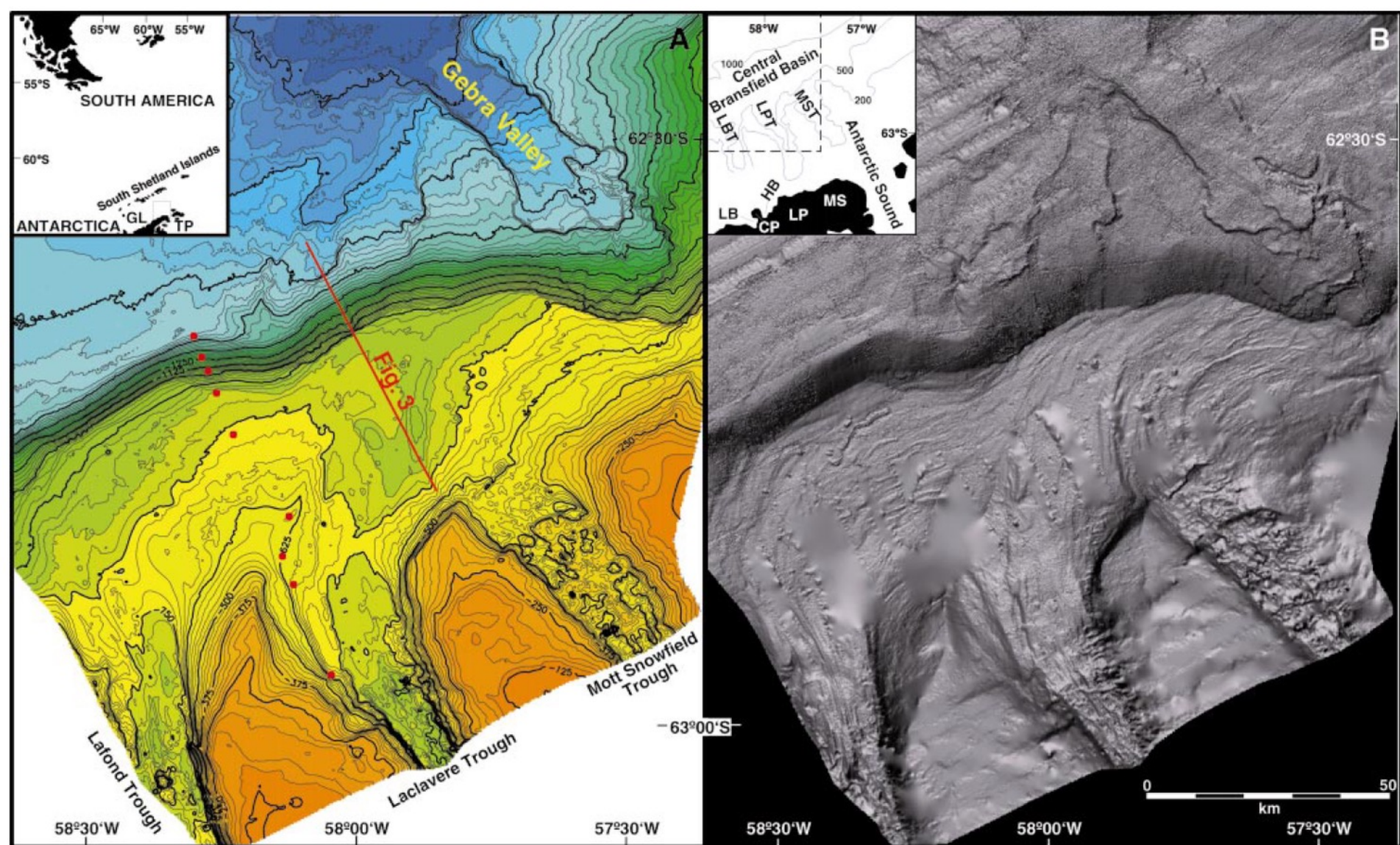
PALEO ICE STREAMS Offshore evidence

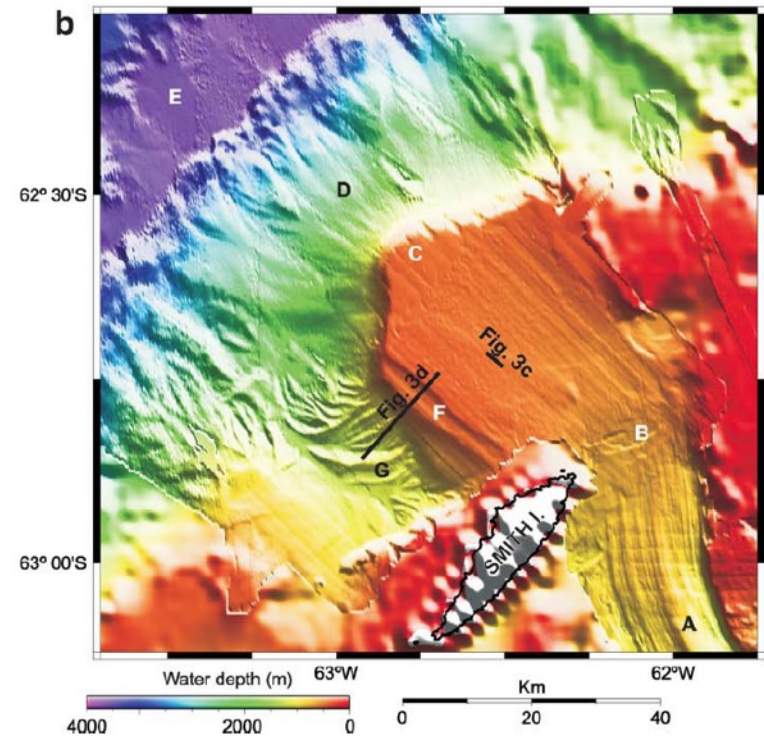
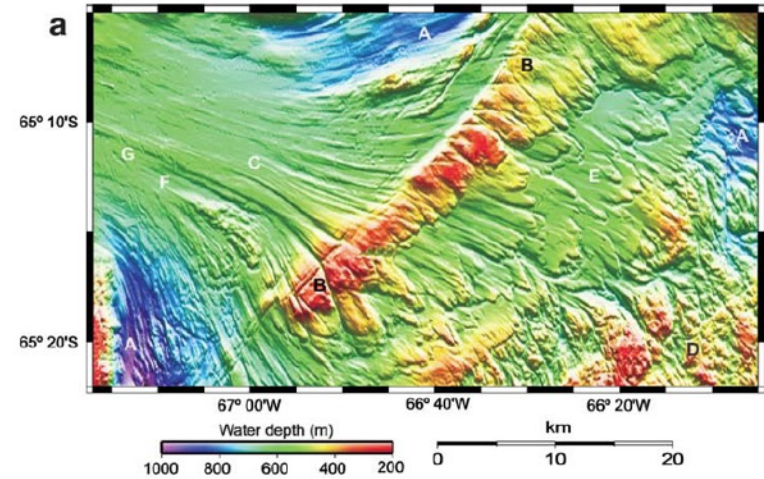
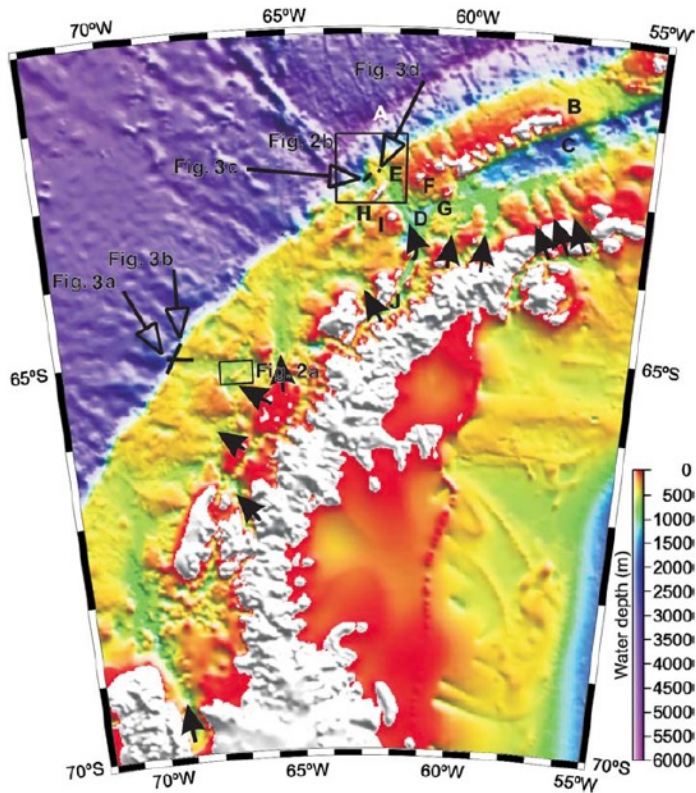
MEGA-SCALE GLACIAL LINEATIONS

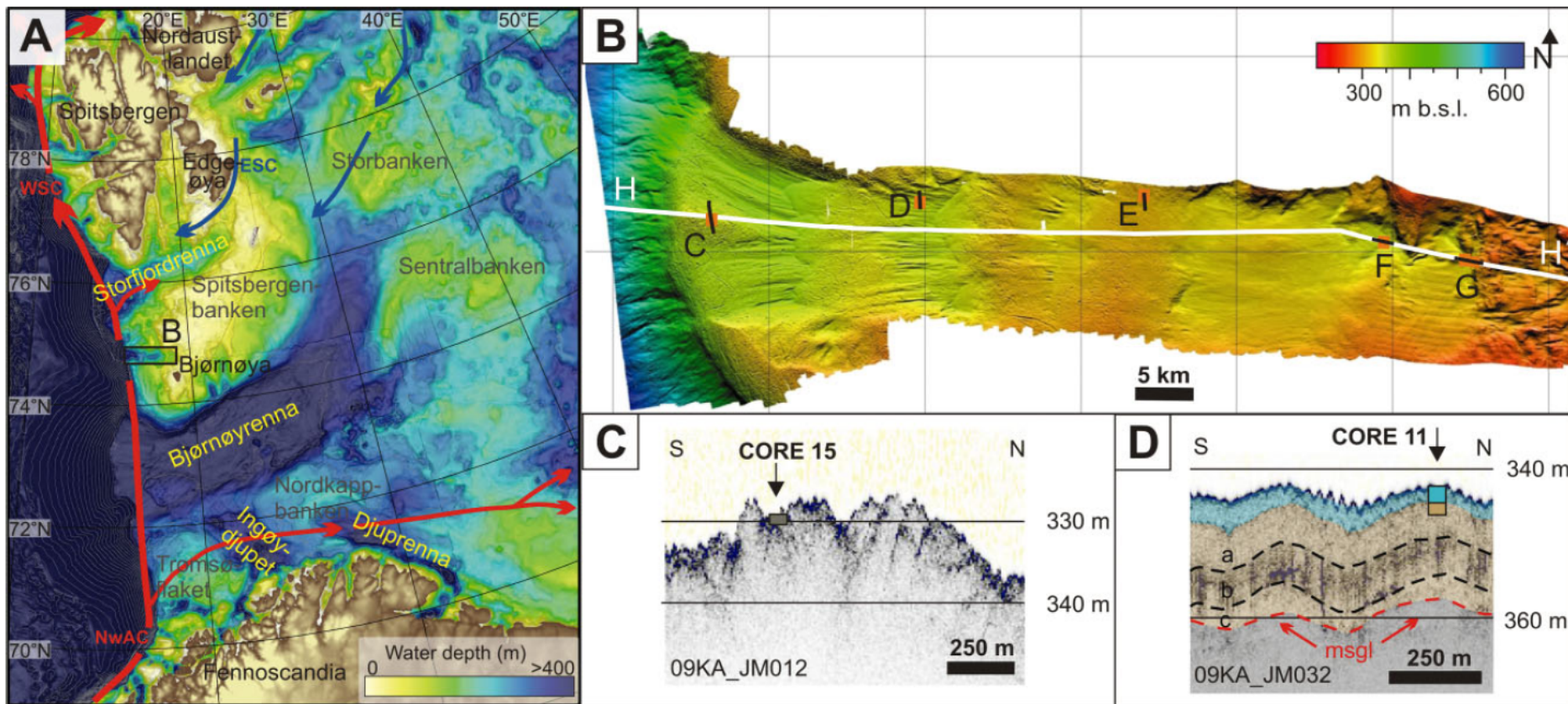


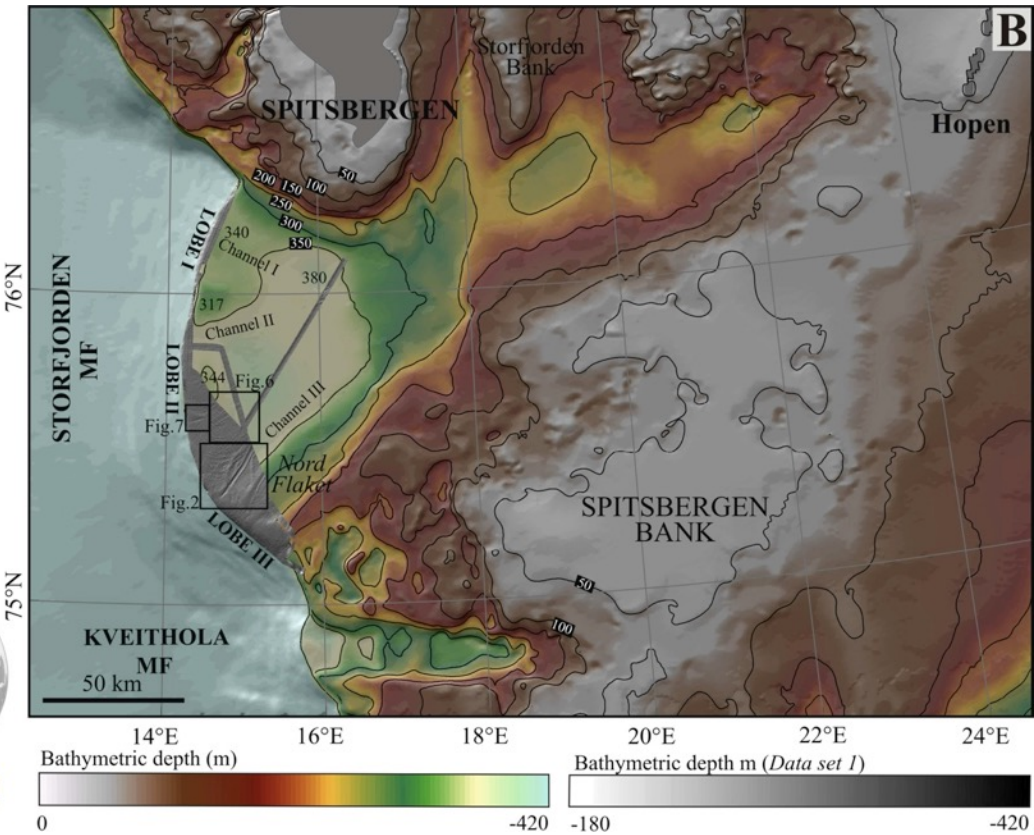
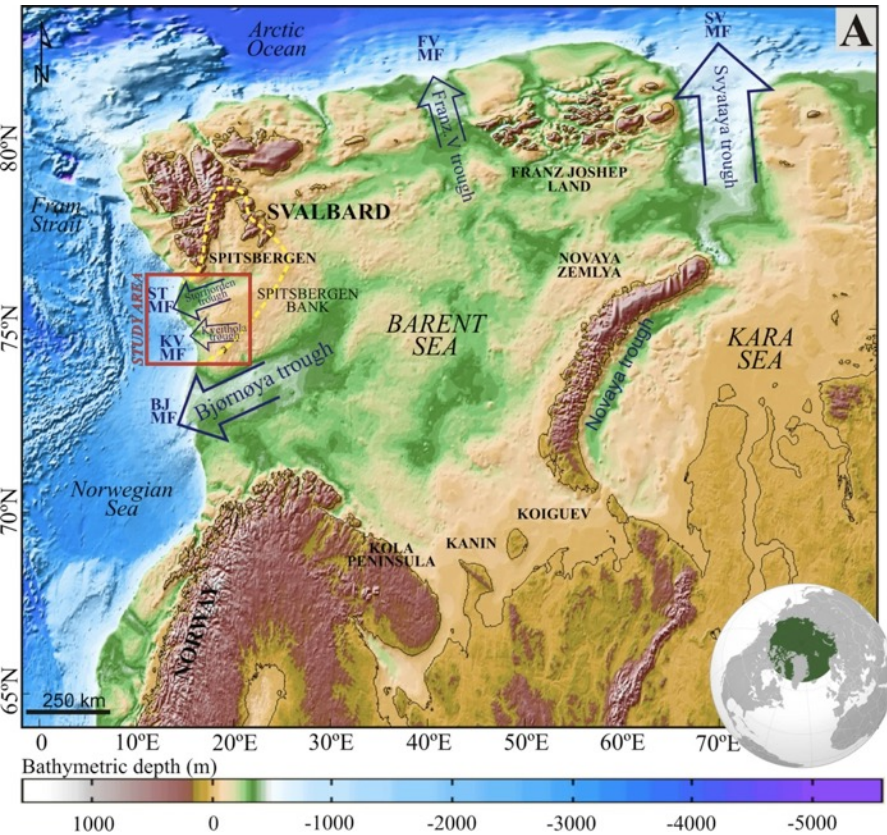
Stokes and Clark_2001_QSR

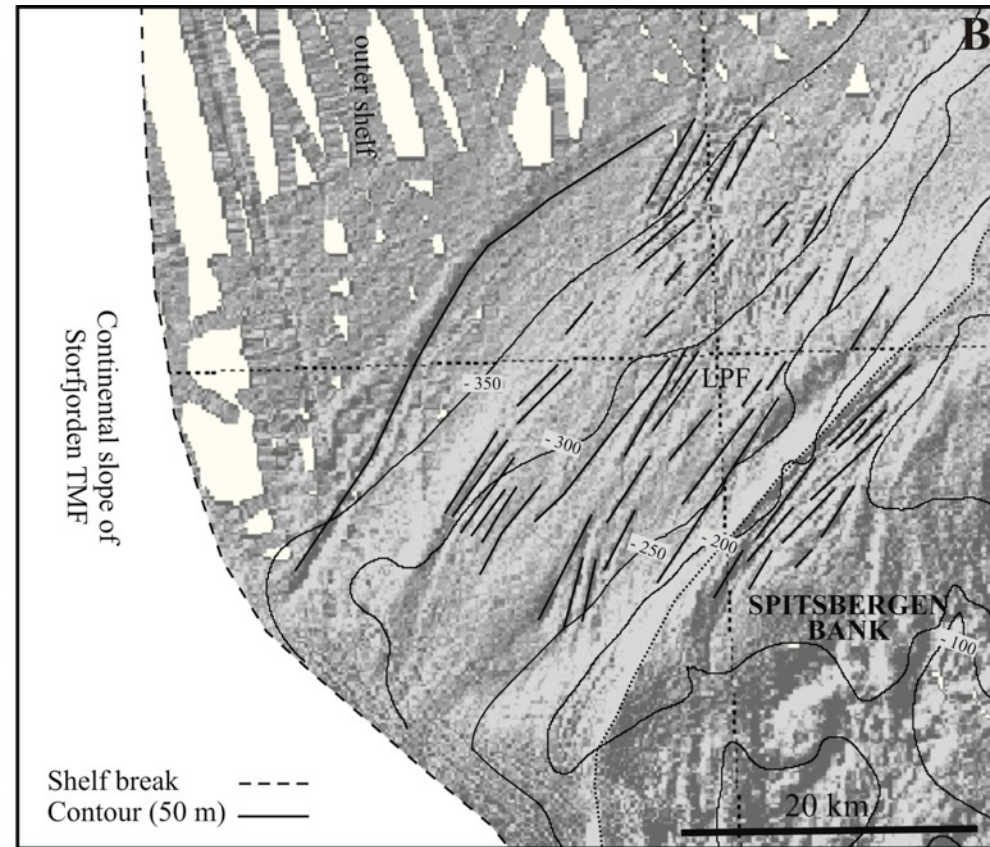
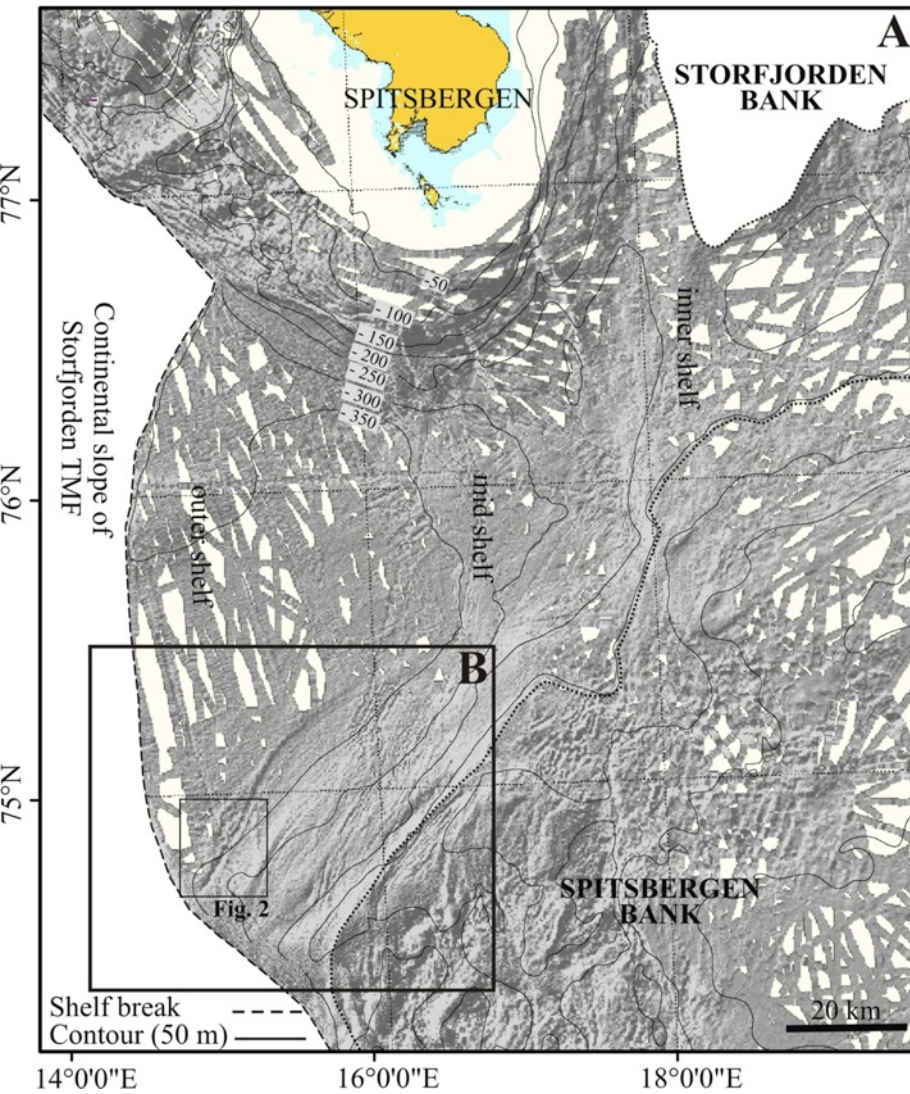










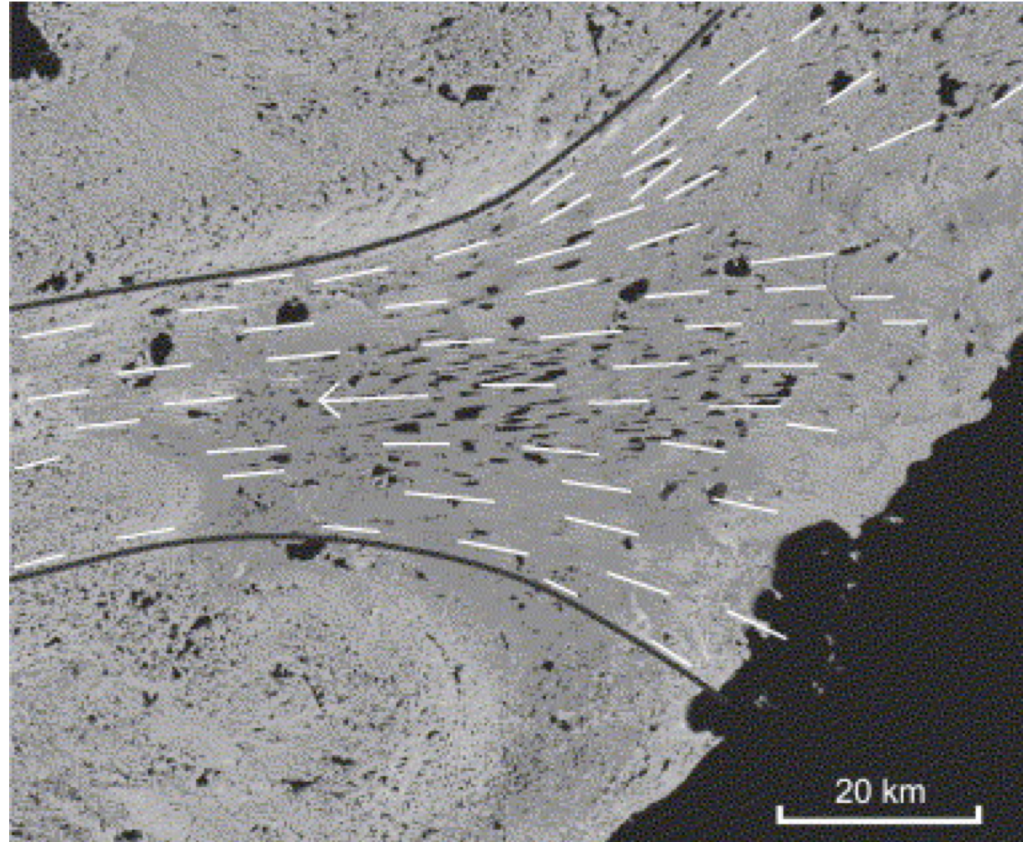


ICE SHEET-DOMINATED SEDIMENTARY SYSTEMS

PALEO ICE STREAMS Onshore evidence

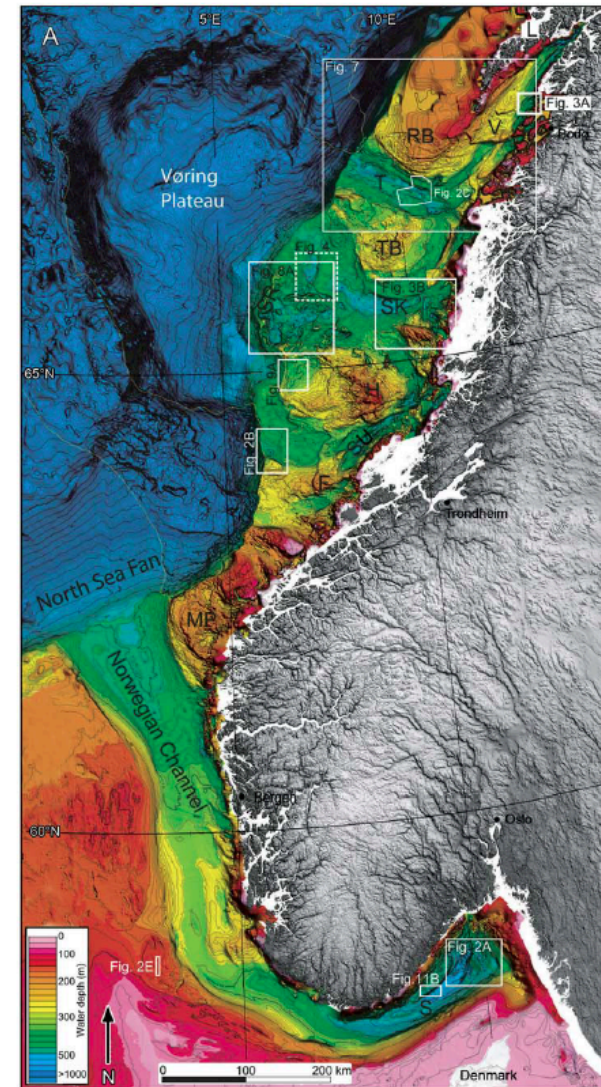
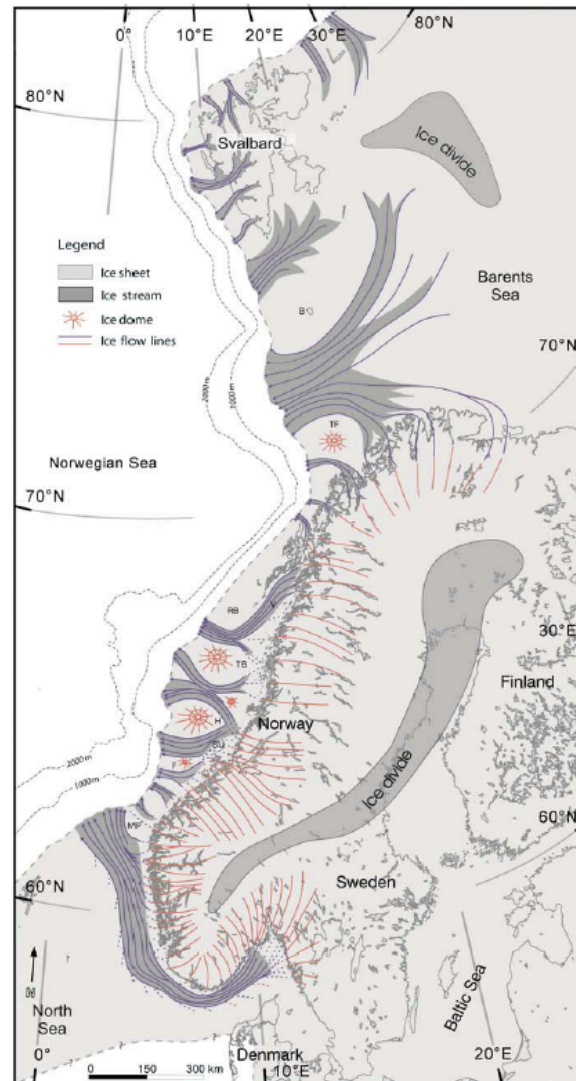


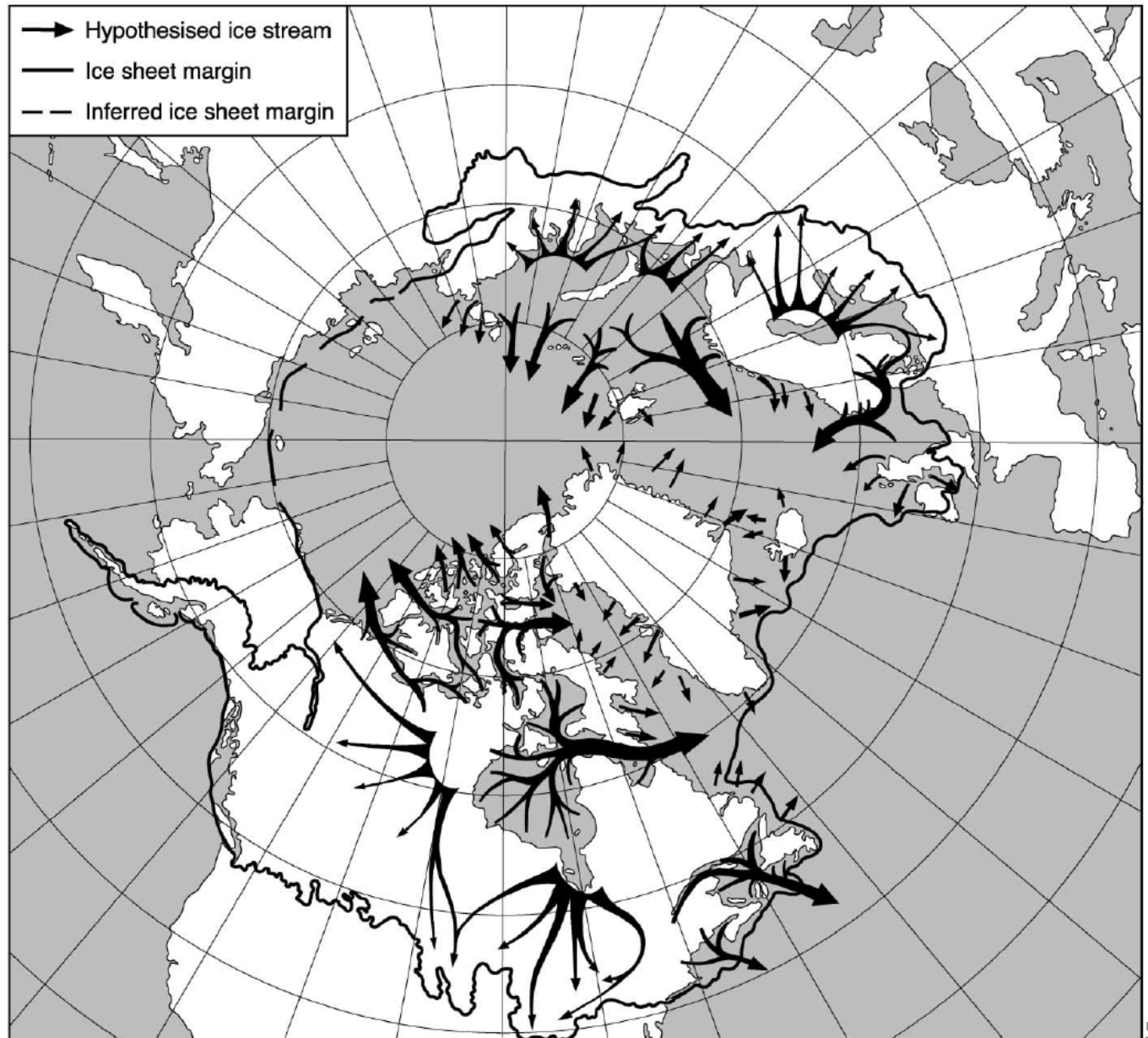
Mega-scale glacial lineations from a palaeo-ice stream land system in Northern Canada. Photograph: C. Stokes



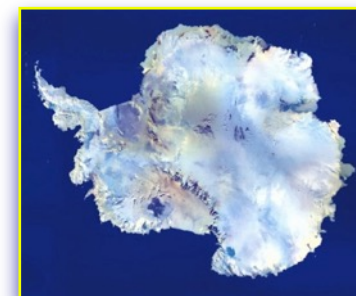
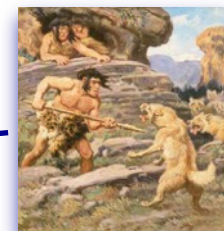
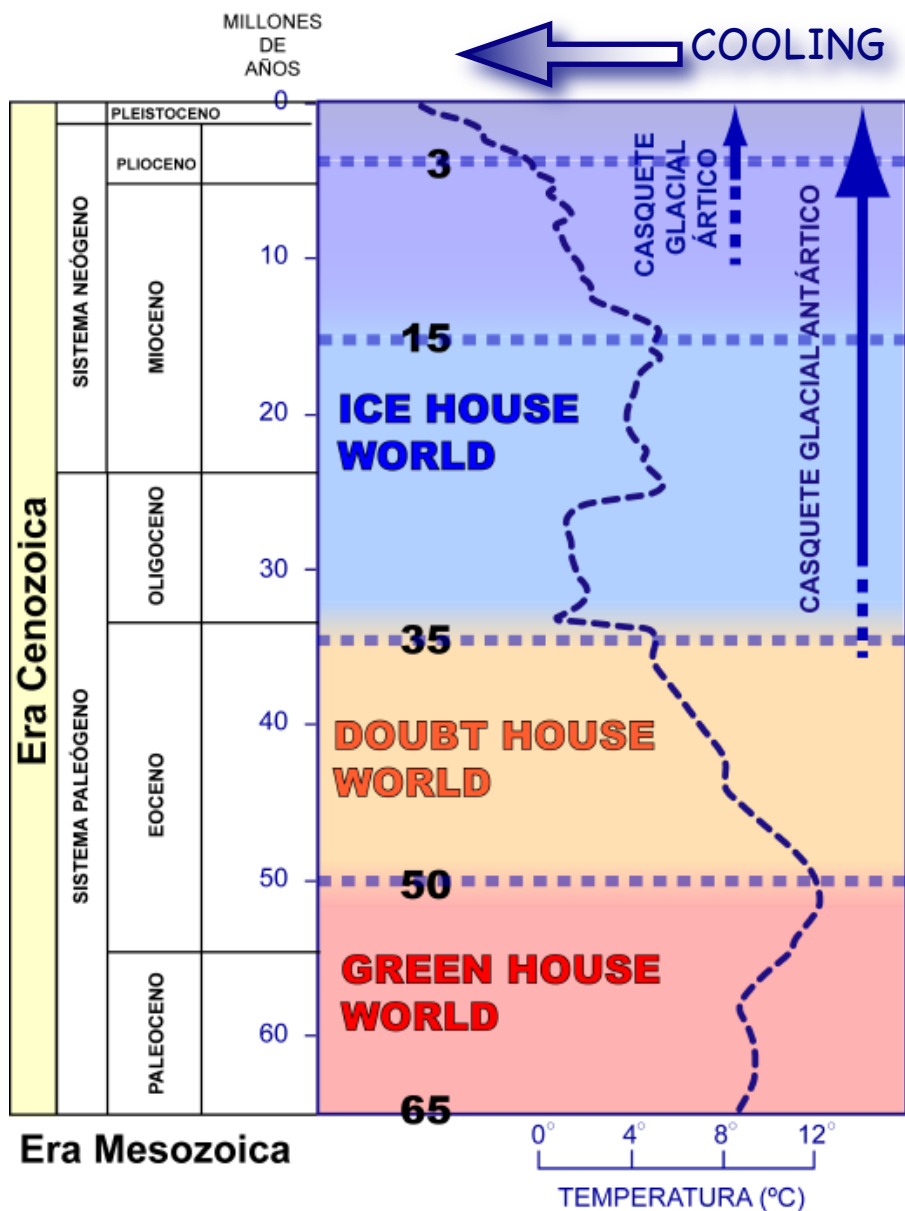
Head convergence of former Haldane Ice Stream northwest of Great Bear Lake, Canada (Winsborrow et al., 2004).

Onshore and offshore Evidence of ice streams



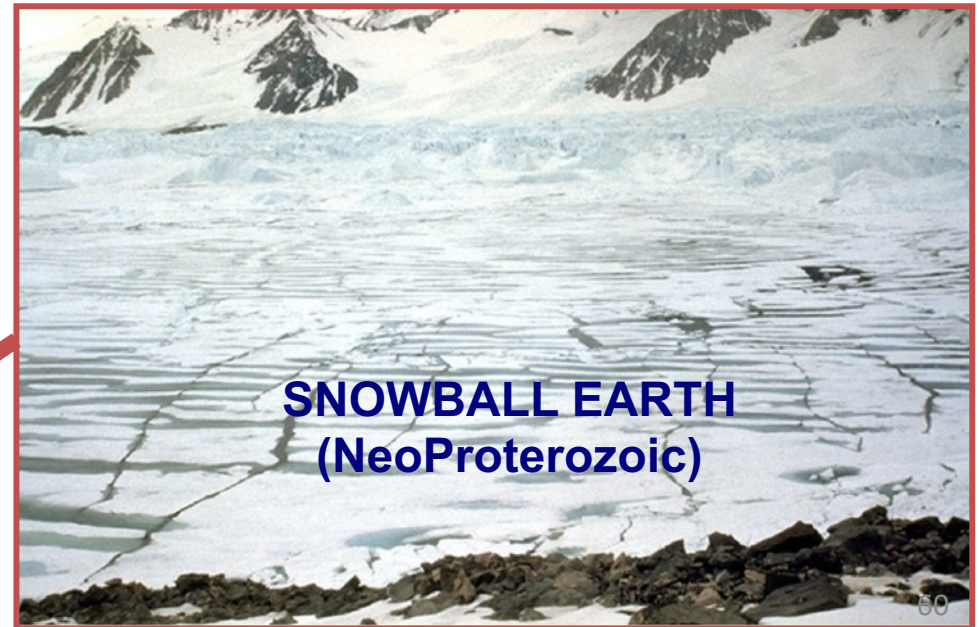
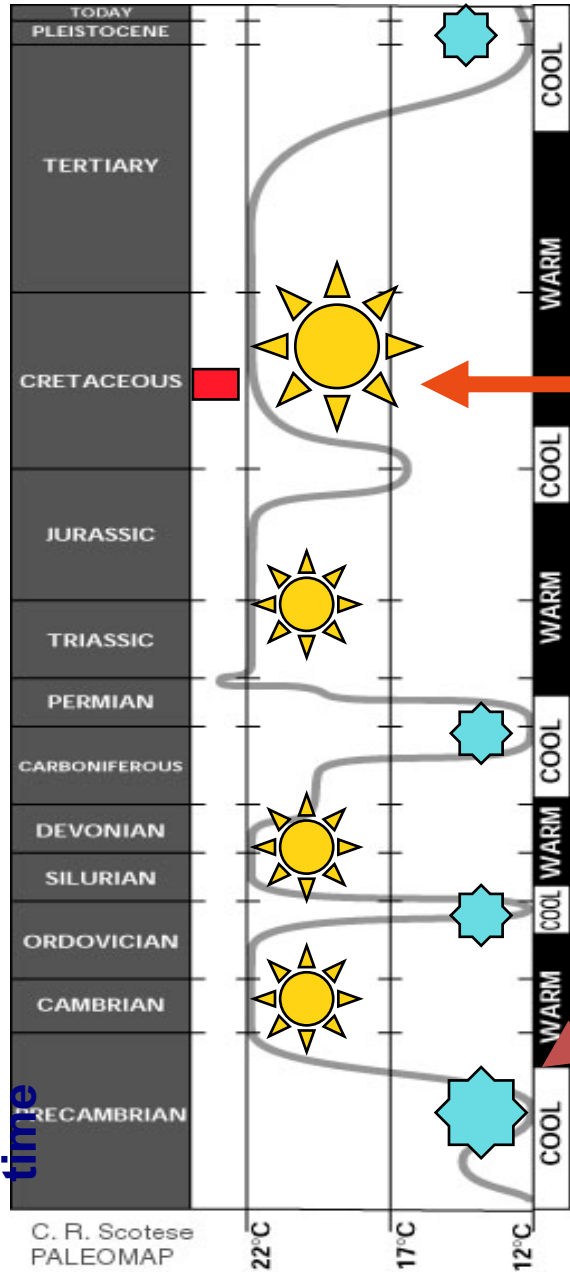


Global cooling in the last 50 million years approximately

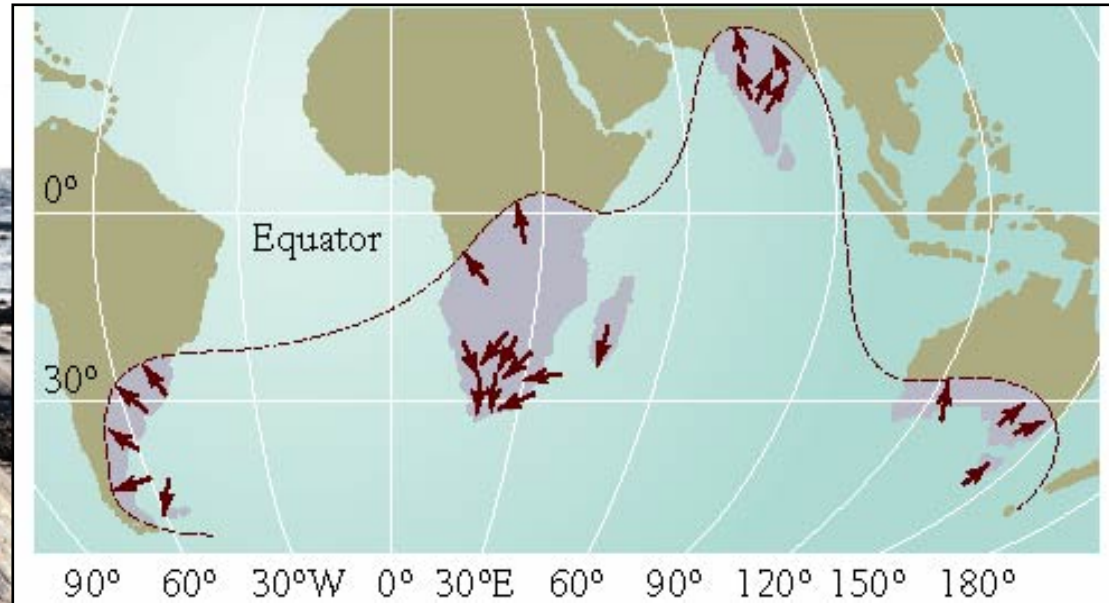
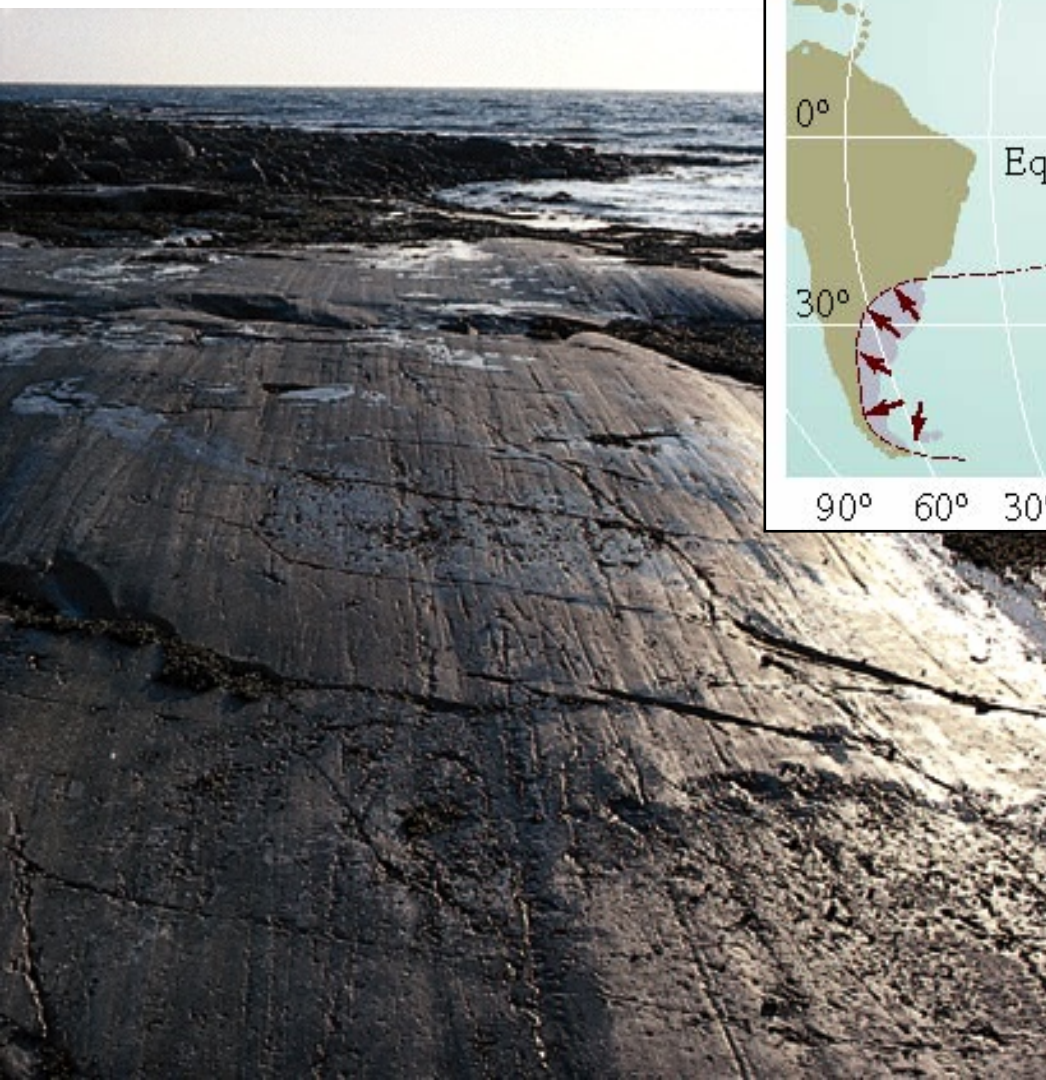


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Extreme climates throughout the geological time



Evidence of Continental Drift



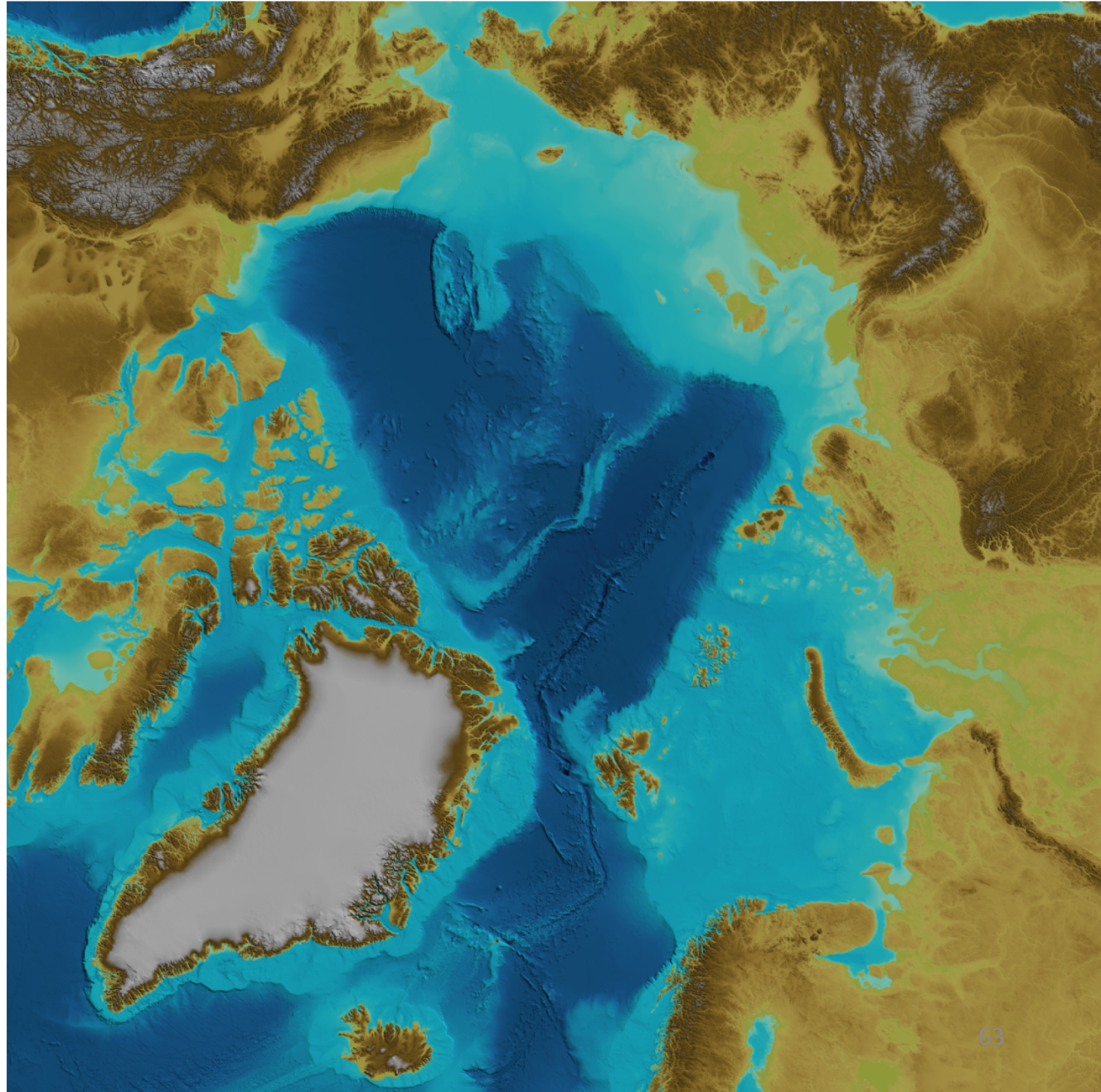
- **Stratigraphic Evidence**
 - Glaciers
 - Orientation of glacial markings on all continents suggest they were linked

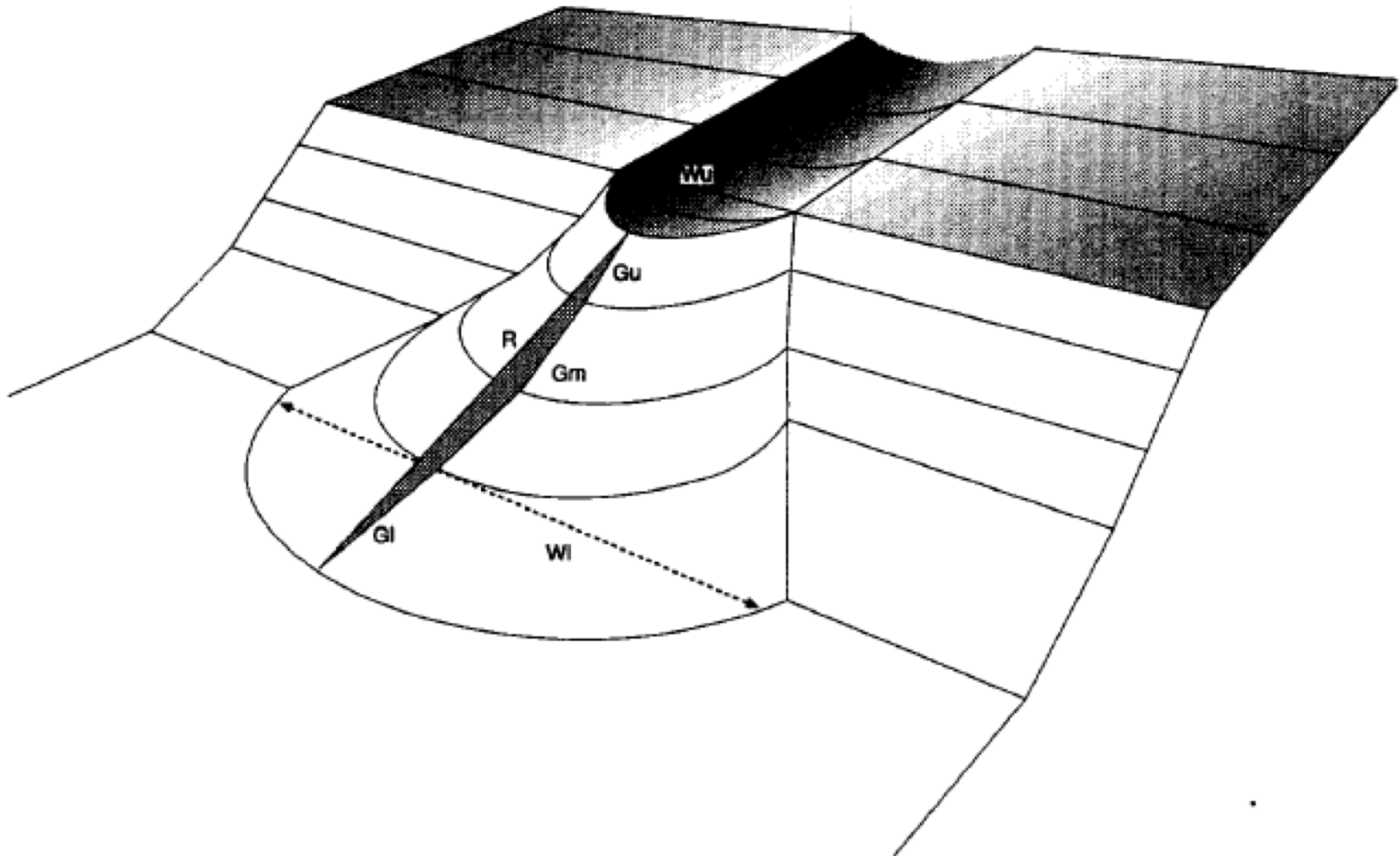
ICE SHEET-DOMINATED SEDIMENTARY SYSTEMS

TROUGHS-MOUTH FANS

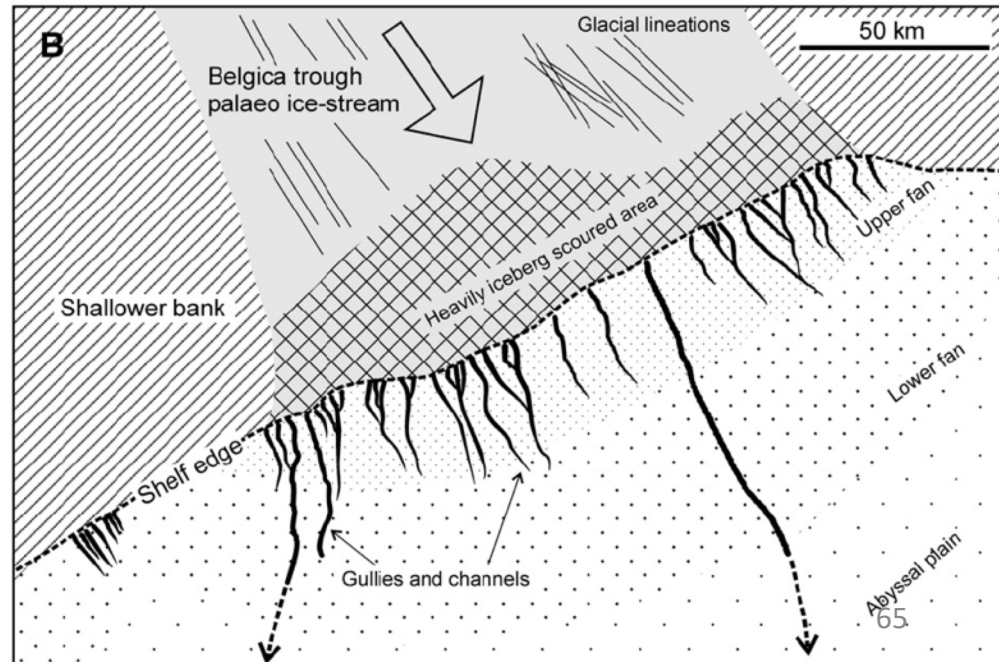
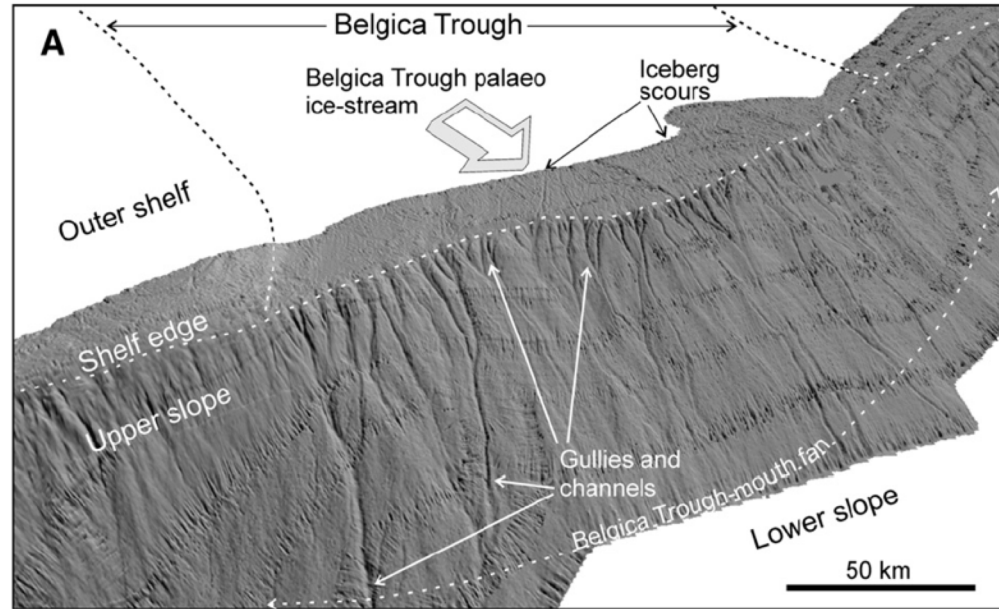
TOPOGRAPHY

Note presence of TMF
on Arctic and
northern Atlantic
margins





Bellingshausen Sea, West Antarctica: The Belgica Fan



STORFJORDEN TMF NW BARENTS SEA

