



**The Abdus Salam
International Centre for Theoretical Physics**



1849-35

**Conference and School on Predictability of Natural Disasters for our
Planet in Danger. A System View; Theory, Models, Data Analysis**

25 June - 6 July, 2007

**A New Continent-wide Map of 1-Hz Lg
Coda Q Variation across Eurasia & its
Relation to Lithospheric Evolution**

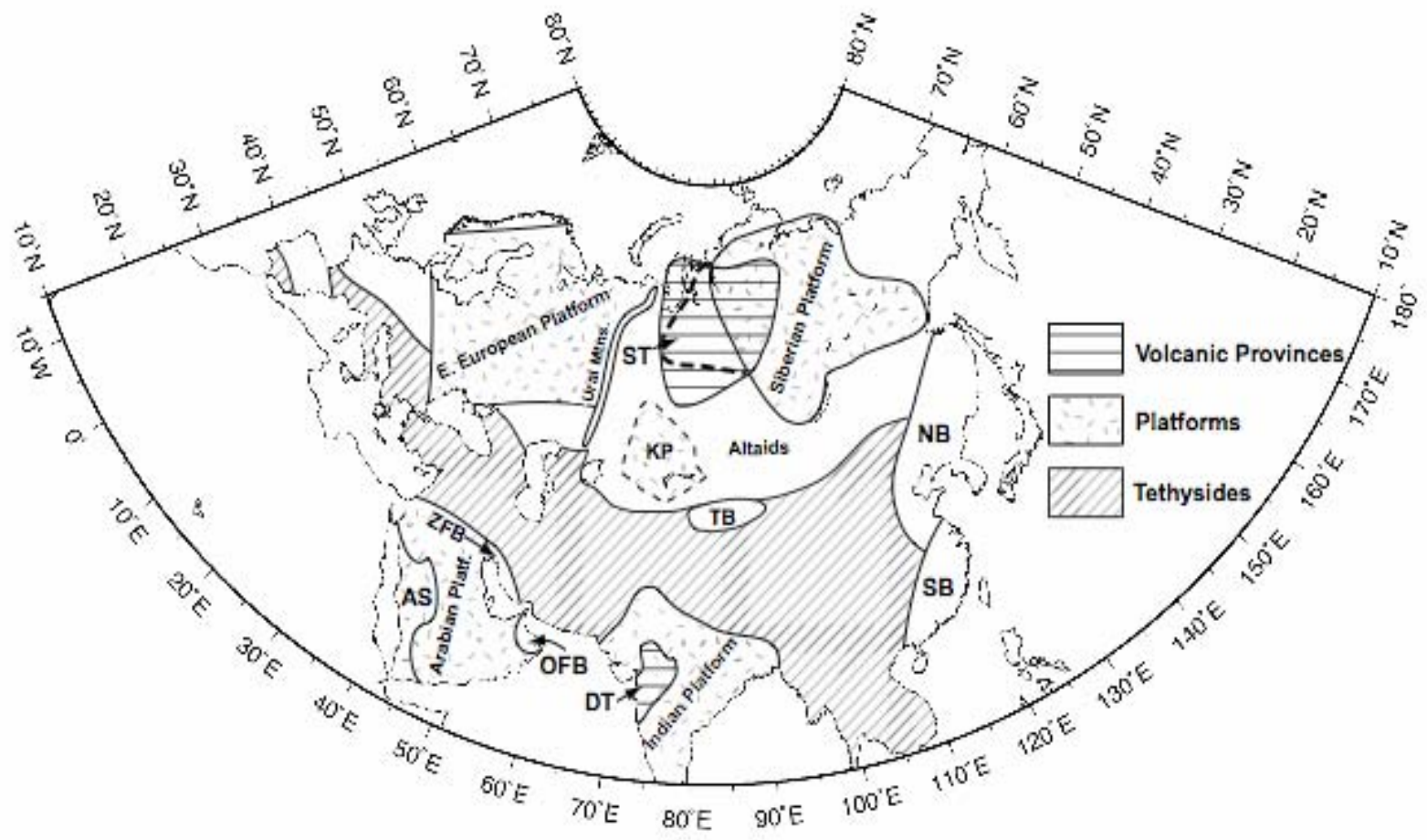
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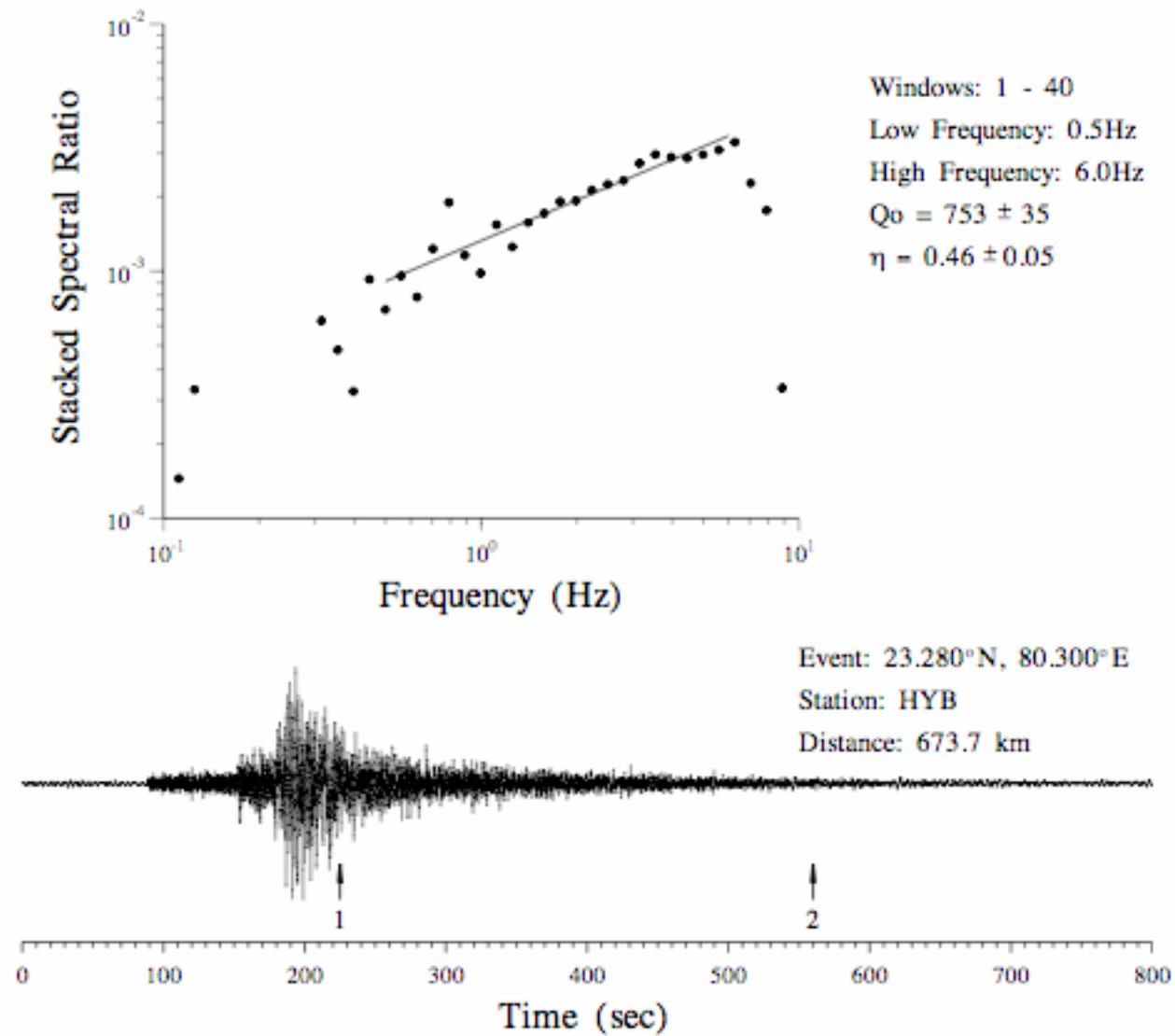
*Department of Earth & Atmospheric Sciences
Saint Louis University
U.S.A.*

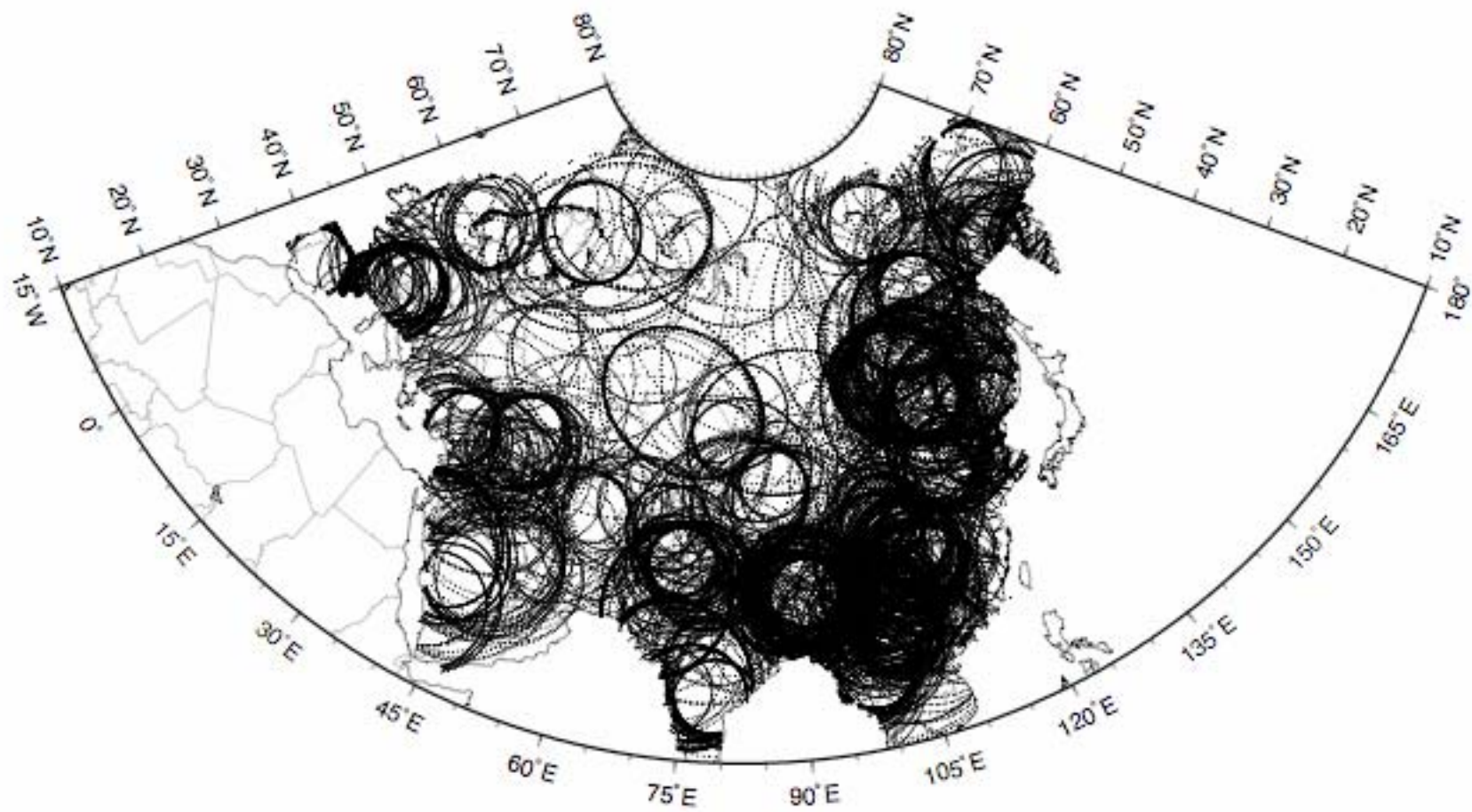
A New Continent-wide Map of 1-Hz Lg Coda Q Variation across Eurasia and its Relation to Lithospheric Evolution

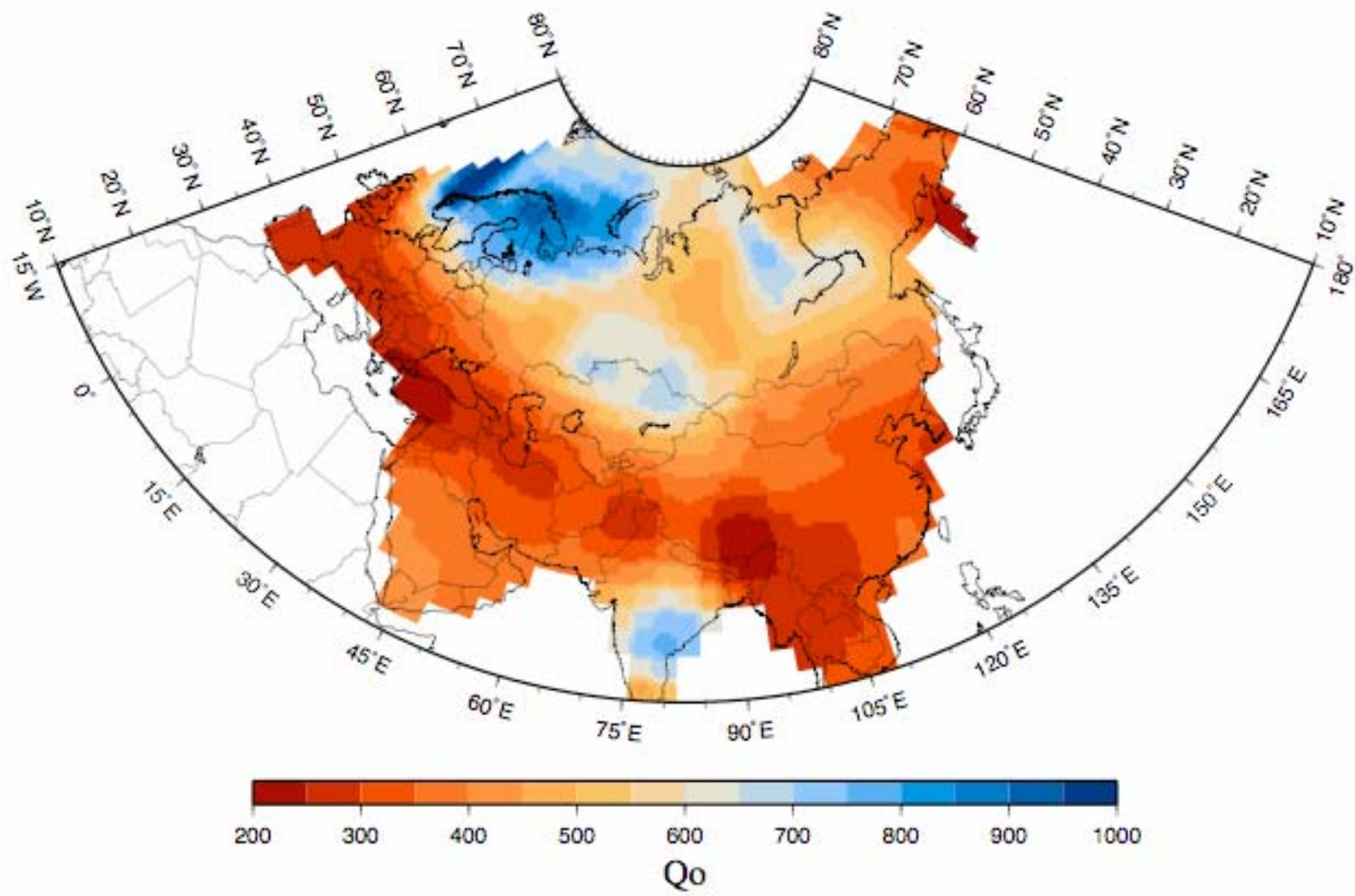
Brian J. Mitchell

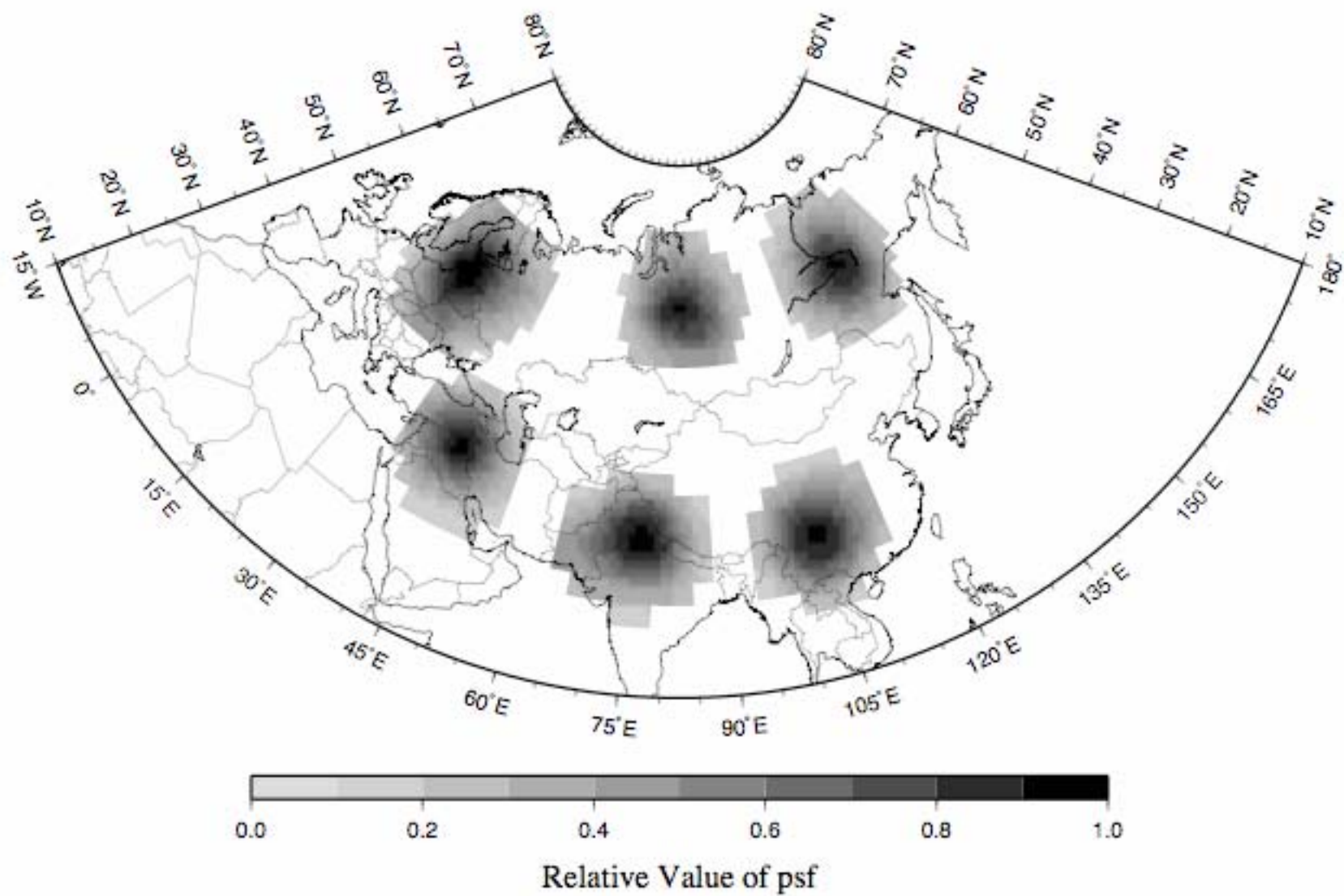
1. How well can we determine Lg coda Q?
2. How is the variation of Lg coda Q related to the tectonic evolution of Eurasia?

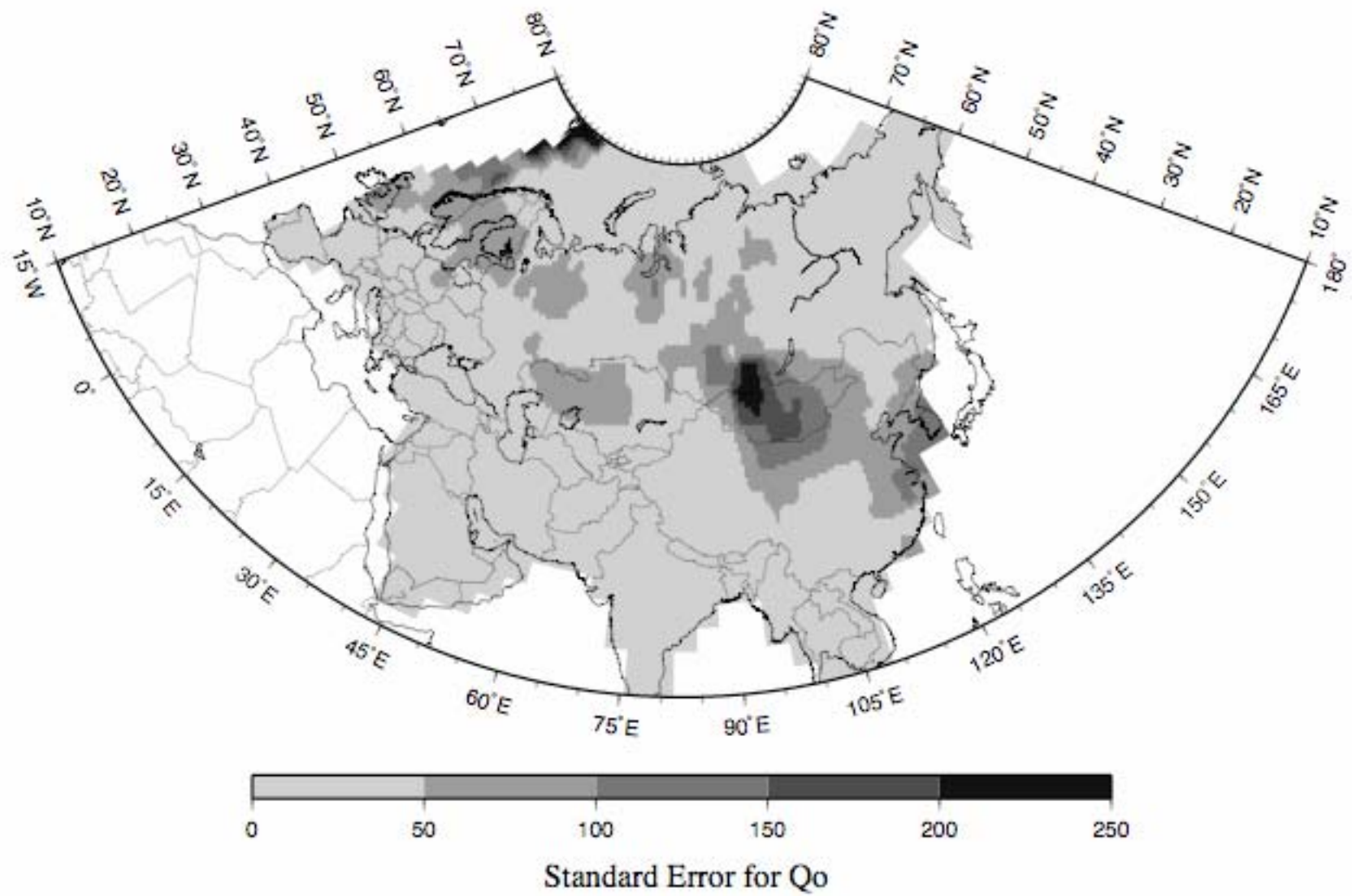


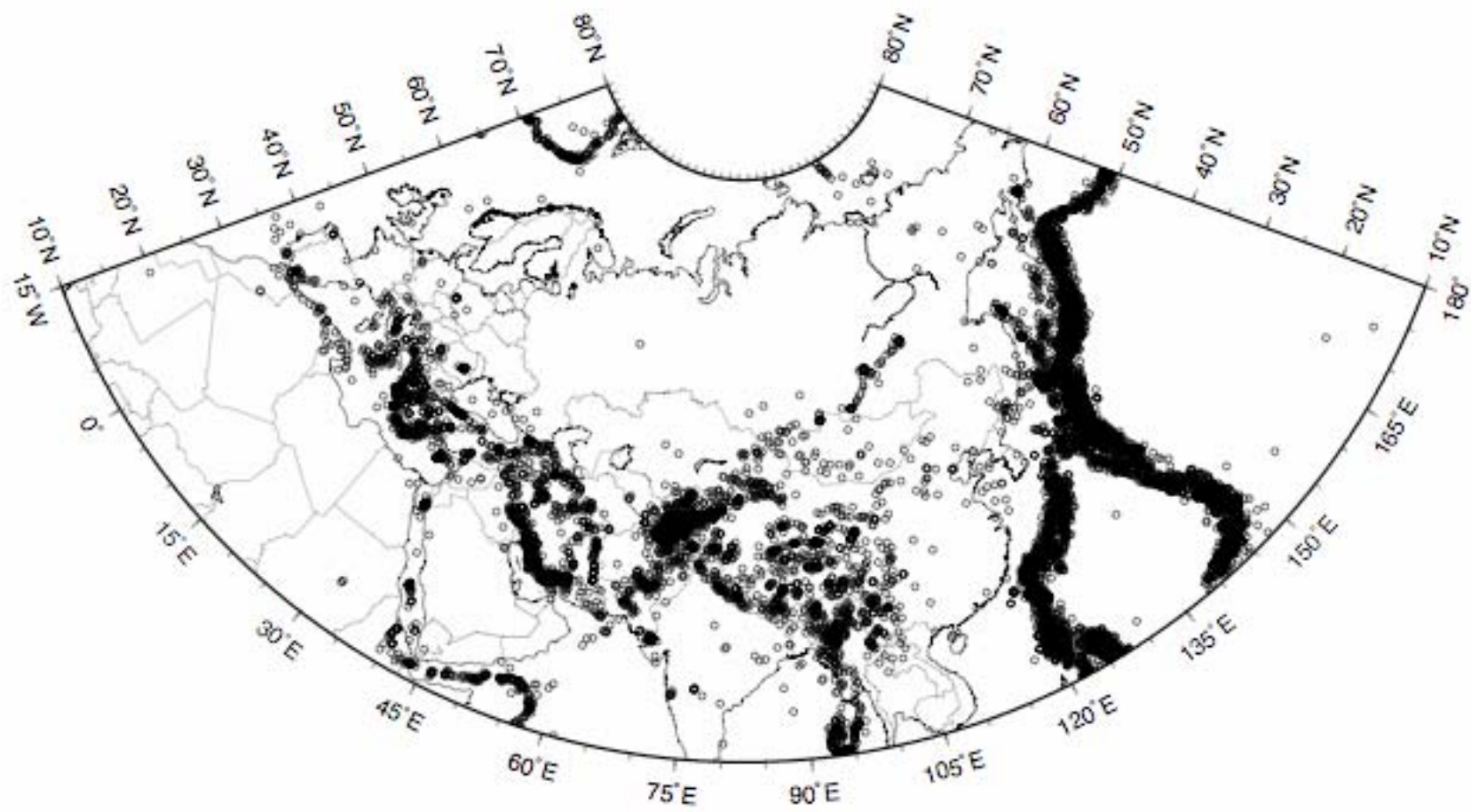


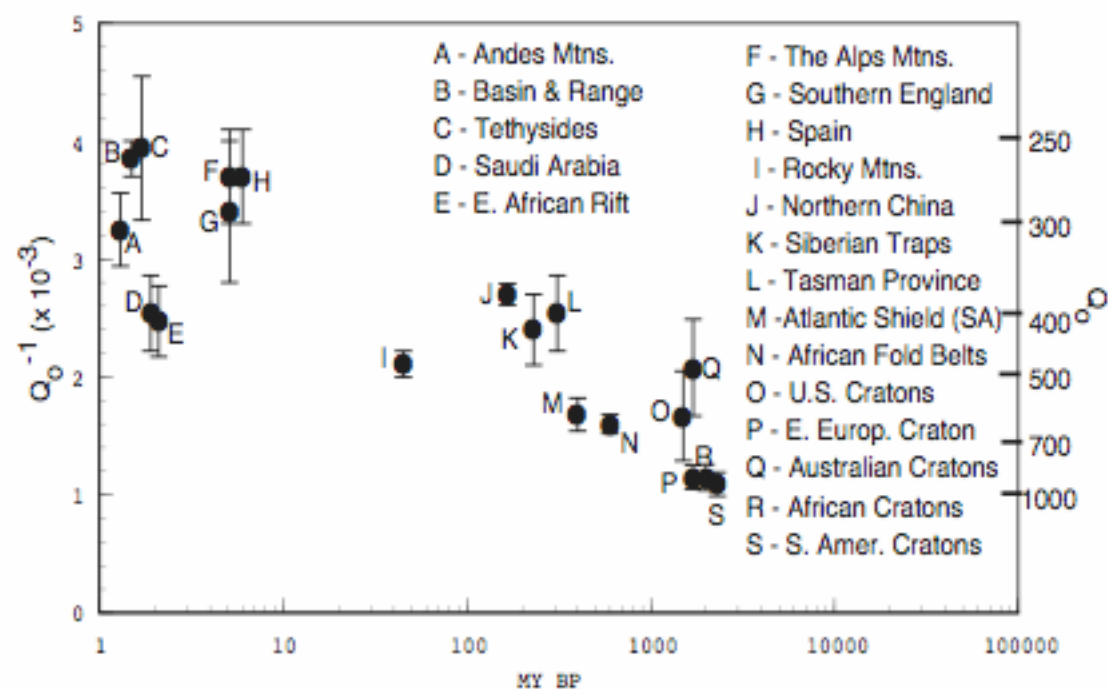


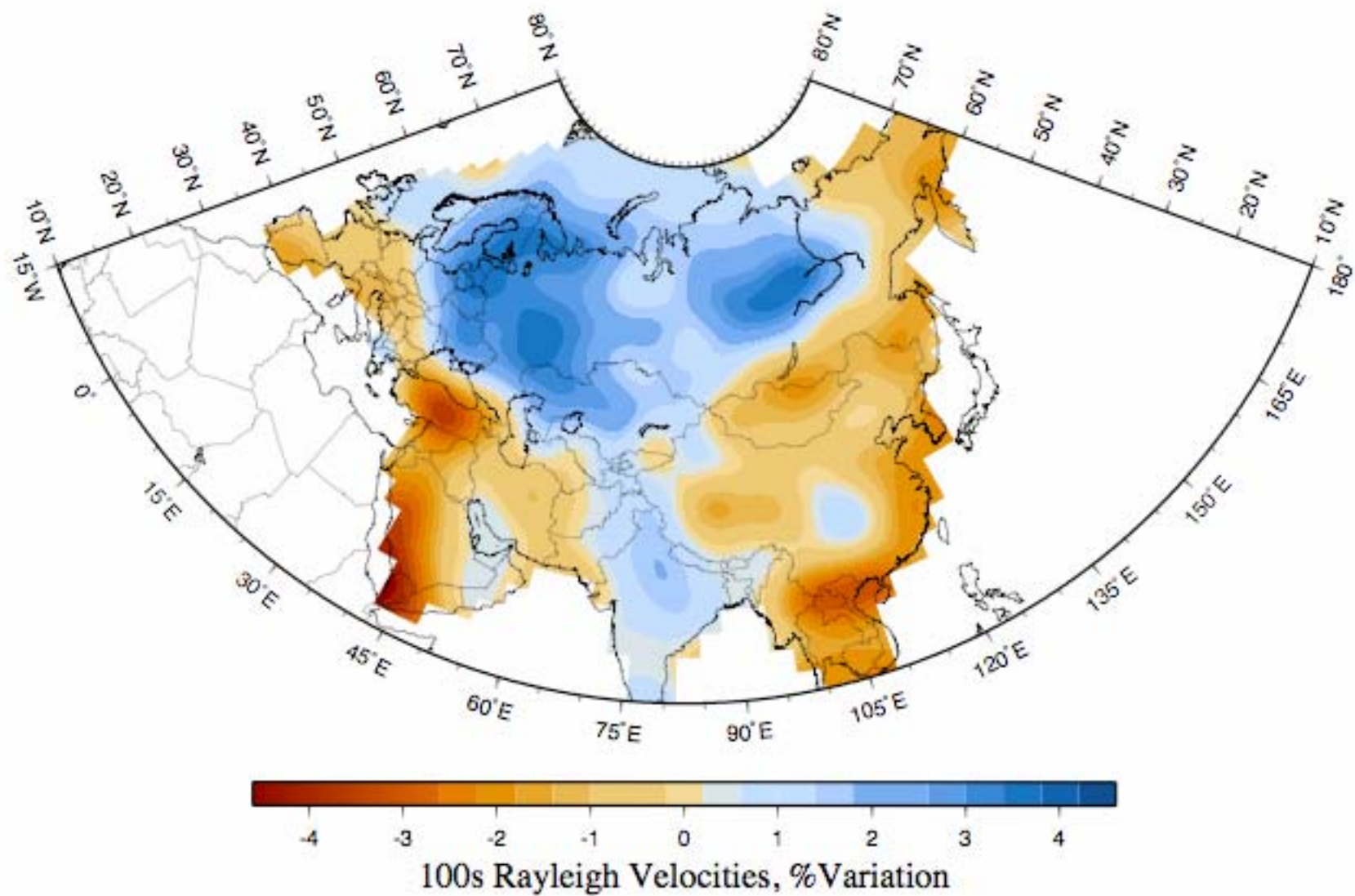


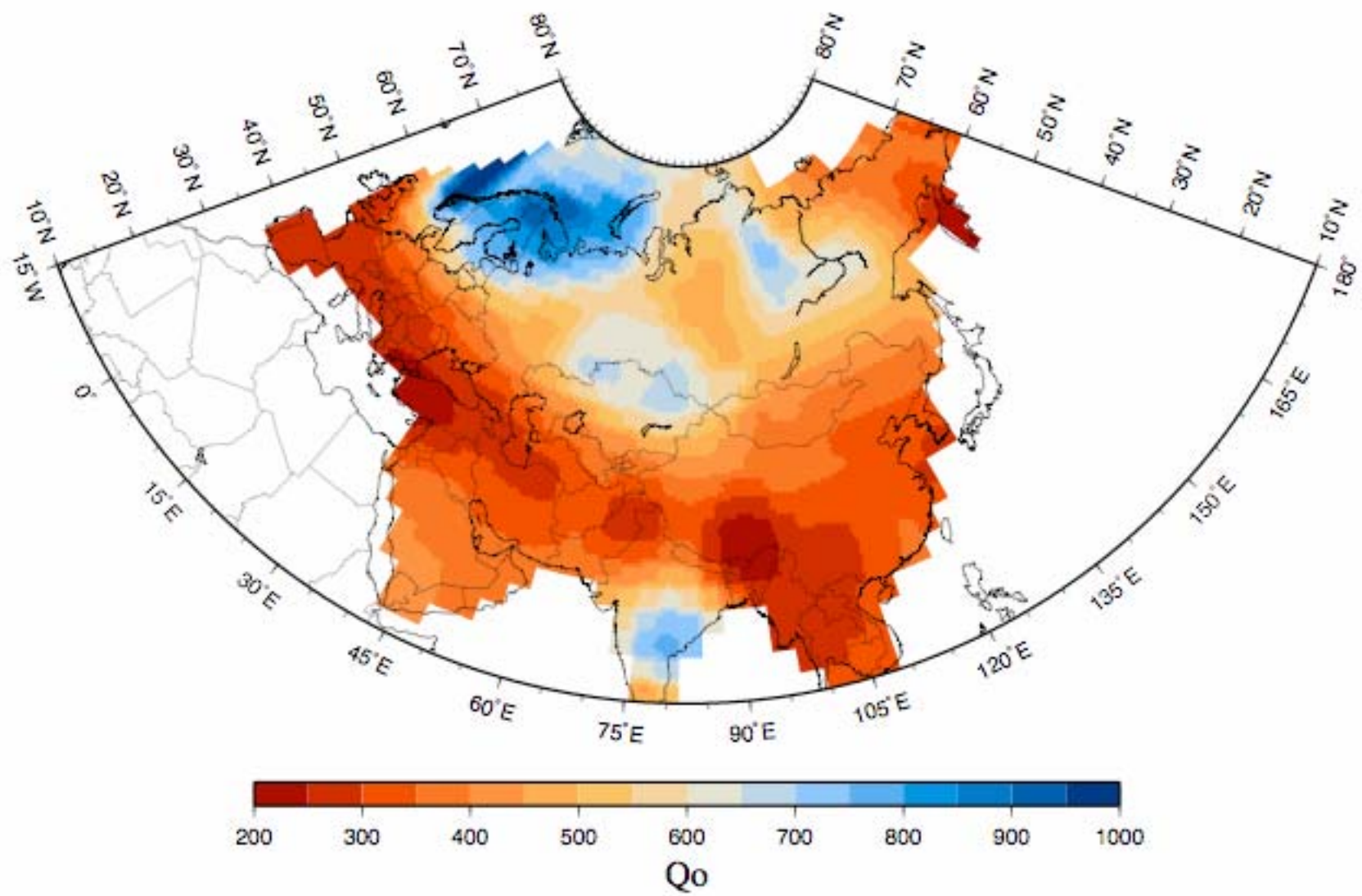


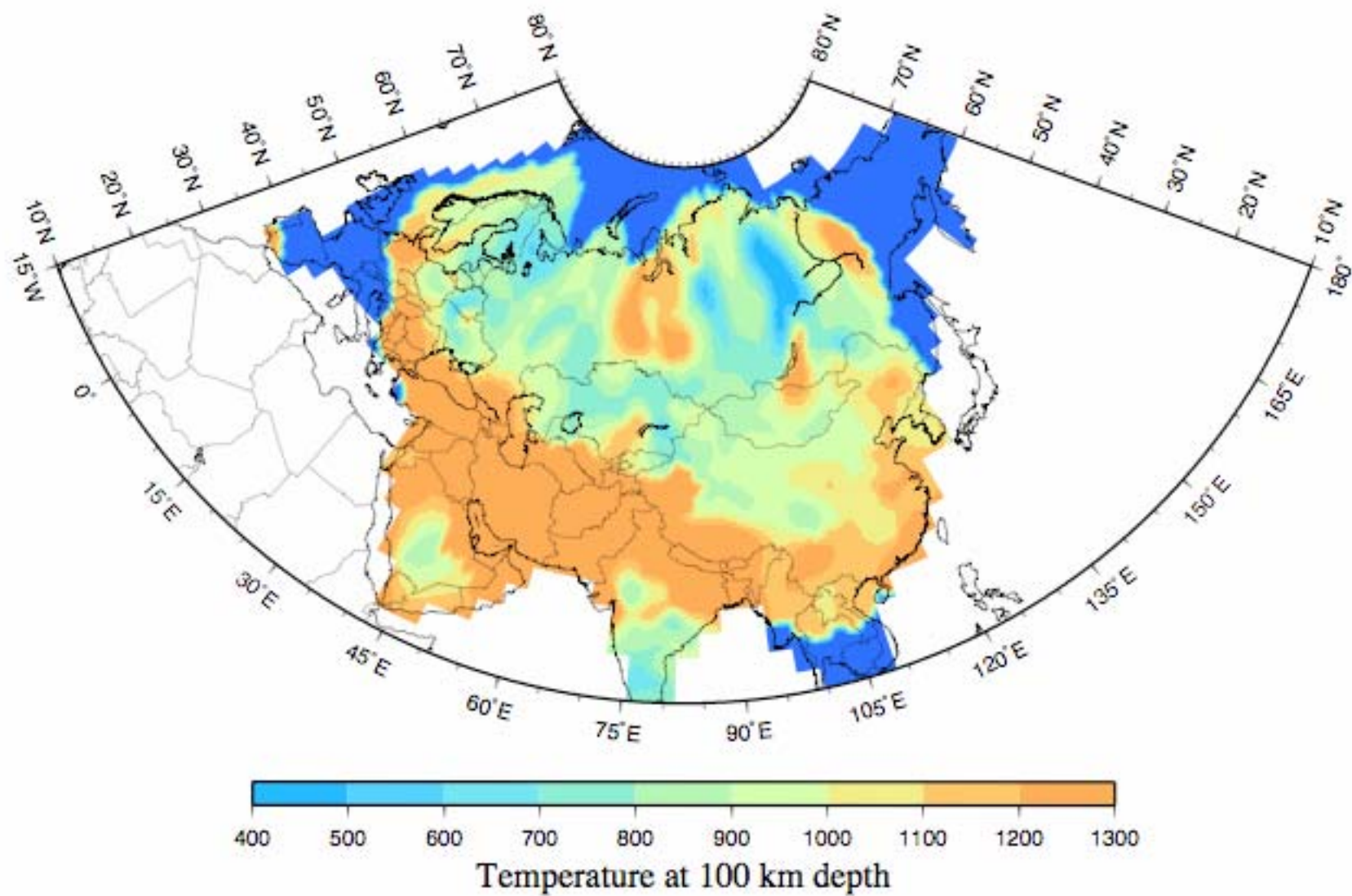












Conclusions

1. Lg coda Q determinations can be made reliably and mapped values can resolve features with dimensions as small as 600 km if sufficient data are available.
2. Lg coda Q varies by about an order of magnitude across continents.
3. Lg coda Q (and by implication average crustal shear-wave Q) increases with time in any region since the most recent episode of tectonic or orogenic activity there.