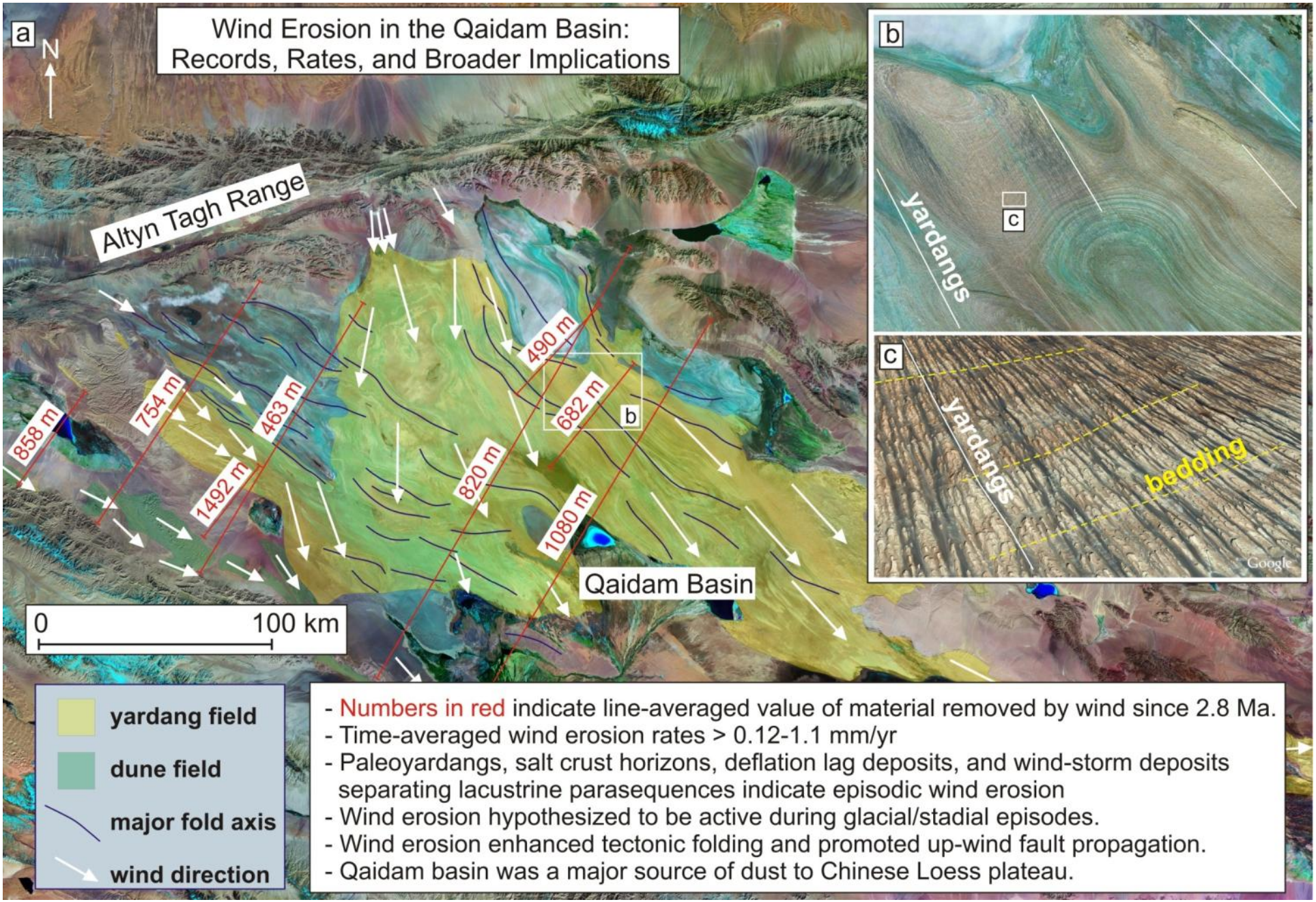
a
N
Wind Erosion in the Qaidam Basin:
Records, Rates, and Broader Implications
Altyn Tagh Range
858 m
754 m
463 m
1492 m
490 m
682 m
820 m
1080 m
b
Qaidam Basin
0
100 km
b
c
yardangs
c
yardangs
bedding
Google
yardang field
dune field
major fold axis
wind direction
- Numbers in red indicate line-averaged value of material removed by wind since 2.8 Ma.
- Time-averaged wind erosion rates > 0.12-1.1 mm/yr
- Paleoyardangs, salt crust horizons, deflation lag deposits, and wind-storm deposits separating lacustrine parasequences indicate episodic wind erosion
- Wind erosion hypothesized to be active during glacial/stadial episodes.
- Wind erosion enhanced tectonic folding and promoted up-wind fault propagation.
- Qaidam basin was a major source of dust to Chinese Loess plateau.