Data repository items for “Slow Rates of Subduction Erosion and Coastal Underplating along the Andean Margin of Chile and Peru”, by Clift, P.D. and Hartley, A.

Figure DR1. Figure showing how the rates of mass loss are calculated for the Andean margin since ~20 Ma. Present day section is redrawn from von Huene and Ranero (2003). The difference between the forearc prism at 20 Ma and the present can be clearly seen and quantified, albeit partially offset by underplating under the coastal regions, mostly since ~2 Ma.

Table DR1. Thicknesses, ages, lithologies and estimated water depths for the sections backstripped in Figure 2. For the purpose of this study we estimate nearshore facies to have been deposited in 0–5 m, inner shelf to represent 5–50 m water and outer shelf to range 50–150 m. Pisco Basin data is taken from Dunbar et al. (1990) and Tsuchi (1992). Mejillones Peninsula log is derived from work of Hartley and Jolley (1995), Krebs et al. (1992), Ortlieb et al. (1996) and Ibaraki (2001). Caldera and Carrizalillo sections are simplified from Marquardt et al. (2004) and Le Roux et al. (2005) respectively. Water depth uncertainties are shown in parentheses.

Table DR2. Table showing the calculated amount of underplating required to generate the terraces mapped and dated on the Andean margin. The calculations assume local isostatic equilibrium and a density of 2.75 g/cm³ for the underplated material.
References


Figure DR-1
Clift and Hartley
Table DR1

**Caldera Basin**

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Clift and Hartley
Table DR1

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Clift and Hartley
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Clift and Hartley