**Description of Additional Supplementary Files**

**File name:** Supplementary Movie 1

**Description:** Video of the Amorgos fault mirror acquired with the HROV Ariane during the AMORGOS-23 cruise (Leclerc and Escartin, 2023), at the base of the cumulative scarp. This video was used to produce the Digital outcrop Model presented in Figure 3. Interpretation of this video is described in the main text.