Restoration of lateral offset for paleoearthquakes using 3-D trench and Geoslicer: A test across the Tanna fault, Japan

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To restore fault surface geometry and lateral offset for paleoearthquakes, we propose the combination of three-dimensional trenching technique at surface and geoslicer for recovering the deeper section. We tested this method across the Tanna fault, Japan, and found that the recent two paleoseismic events have produced the same amount of the sinistral offset (40-50 cm) along the right-stepping en echelon faults at the surface.