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How to make a transverse triple junction—New evidence for the assemblage of Gondwana along the Kaoko-Damara belts, Namibia

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Supplementary material

Details of the structures observed in the Lower Ugab Domain (LUD) and eastern domain (ED), except the newly discovered D_{2a} phase, have earlier been published in Maeder et al., 2007, 2014 and Passchier et al., 2002, 2007, 2011, while details of the stratigraphy were published in Swart, 1992; Paciullo et al., 2007 and Nascimento et al., 2016. The relationship of the structures in relevant publications is summarised in Table DR1.

Details of granite dating in the LUD were given in Schmitt et al., 2008, 2012. In this supplementary section, we only show more recent, unpublished structural data from the NW part of the ED, near Vrede, Fig. DR1 shows the lithological boundaries and formations that occur in the area, and summarised stratigraphic sections. This stratigraphy is only shown as outlines in the LUD in Fig. 2. Figure DR2 shows details of the orientation of S_1 , L_1 , S_2 , S_{2a} and S_3 in the NE part of Fig. DR1. For correlation with earlier work, we stress that recognition of D_{2a} structures throughout the region gave rise to a reinterpretation of the deformation sequence for the area. In previous publications, S_1 in the ED was correlated with the first foliation in the LUD, but recent work has shown that the earliest structures in the LUD must correlate with the second deformation event (D_2) in the ED. In our earlier publications (Maeder et al., 2007, 2014; Passchier et al., 2002, 2007, 2011, and Schmitt et al., 2007, 2012) and in publications by Gray et al. (2006, 2008) and Goscombe et al. (2003a, 2003b, 2004, 2005), regional deformation phases D_2 and D_{2a} in the LUD as described in this publication, were therefore referred to as D1 and D2 respectively. In area ED-A in Fig. DR1, also known as the Goantagab domain, D_{2a} was earlier referred to as D_{2b} in Passchier et al., 2011. D_2 and D_3 have been previously described (Miller, 2008; Passchier et al., 2011; Lehmann et al., 2016) while D_{2a} is a newly recognised phase. Some of the D₃ structures described in earlier work (e.g. Passchier et al., 2007, Lehmann et al., 2016) are probably D_{2a} features.

Figure DR1. Simplified geological map of the LUD and ED, as reproduced in Fig. 2. In this map, formations are given which are only shown as contours in the LUD in Fig. 2. Simplified stratigraphic columns (after Nascimento et al., 2016) show the stratigraphic differences between the LUD and ED.

Fig. DR2. Tectonic map showing the distribution of observed S_1 , S_2 and S_{2a} in the NE part of Figure 2. This map was the basis of the tectonic contours shown in Fig. 2. Contours from other areas in Fig.2 were derived from maps in Passchier et al., (2007, 2011) and Maeder et al., (2014).

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TABLE DR1. RELATIONSHIP OF STRUCTURAL PHASES AS PUBLISHED IN THE								
LITERATURE, AND IN THIS PUBLICATION								
	LUD				ED			
Hoffman et al 1994; Passchier et al., 2002, 2007;	D1	D2		D3	D1	D2		D3
Miller, 2008; Maeder et al., 2007, 2014; Schmitt et al.,								
2007, 2012								
Passchier et al., 2011	D1	D2		D3	D1	D2	D2b	D3
This publication	D2	D2a		D3	D1	D2	D2a	D3