The so-called African superplume is arguably the largest seismic anomaly in Earth’s lower mantle, and it has long been suggested that the anomaly may extend from the lower mantle beneath southern Africa into the upper mantle beneath eastern Africa. If so, the origin of Cenozoic rifting, volcanism and plateau uplift across eastern Africa may be rooted in the dynamics of the lower mantle. In this talk, seismic images of the upper and mid mantle beneath eastern Africa developed using data from AfricaArray will be presented which support a thermal anomaly extending from the lower mantle into the upper mantle beneath northern Zambia and southern Tanzania. This finding is consistent with geochemical evidence for a lower mantle source for some of the Cenozoic volcanism in eastern Africa.