



Scientific ocean drilling offers the opportunity to learn about the composition and evolution of oceanic plates, mantle anomalies, mantle plume nurseries, and oceanic volcanic chains. This conceptual sketch illustrates the connections among these elements in Earth's interior. ULVZ = Ultra low velocity zone. LLSVP = Large low shear wave velocity province. *Illustration by Geo Prose, inspired by Figure 20 in Sager et al. (2016), <https://doi.org/10.1016/j.earscirev.2016.05.011>*