Ophiolites are on-land remnants of oceanic lithosphere, but individual researchers tend to apply a wide range of definitions, ranging from the broad one above, to a narrow one in which ophiolites are defined as sheets of on-land oceanic lithosphere, whose lower contact marks the boundary between the upper and lower plate of a subduction system (the narrow definition includes the "classic" ophiolites such as those in Oman, Cyprus, Greece, Turkey, and Newfoundland). Emplacement of ophiolites, the process that leads to us being able to see the ophiolites on land, also has a range of definitions, but in all cases emplacement involves the development of a subduction zone beneath an ophiolite. Most of the more extensive ophiolites (those of the "classic" definition) apparently formed above a subduction zone, a tectonic setting known as a supra-subduction zone (SSZ) setting based on their igneous petrology and geochemistry. Sheets of high-grade (predominantly mafic) metamorphic rocks, usually less than 500 m thick, known as metamorphic soles, crop out structurally beneath many SSZ ophiolites. Such rocks may have formed during the inception of subduction beneath young and hot oceanic lithosphere. These relations appear to require the existence of an earlier subduction zone, that predates the metamorphic sole, to form the ophiolite. Accordingly SSZ ophiolites may be formed over one subduction zone but emplaced above a second one that began with the formation of the metamorphic sole. This contrasts sharply with the prevailing model in which an ophiolite is emplaced over same the subduction it formed over. Although it the age of the metamorphic sole versus the age of the overlying SSZ ophiolite should be a good test of the prevailing models, problems with closure temperatures of isotopic systems and the type of rocks dated from ophiolites permit both interpretations. The need for very young oceanic lithosphere existing at the time of subduction initiation (to provide sufficiently high temperatures for sole formation) requires a preexisting spreading center of some sort and it is a far simpler model for that young lithosphere to be the SSZ ophiolite we now observe above the sole (ie an SSZ ophiolite that predates the sole as required by the dual subduction model) rather than requiring earlier MOR spreading followed very shortly by SSZ spreading in nearly the same place. Geochemical studies of soles are relatively few, but results show some soles as having SSZ geochemical signatures, whereas others appear to have MORB or OIB affinities. Although MORB and OIB soles permit a single or dual subduction model, solely on the basis of geochemistry, SSZ soles demand at least two subduction zones.