

# Design in the Ammonite Shell

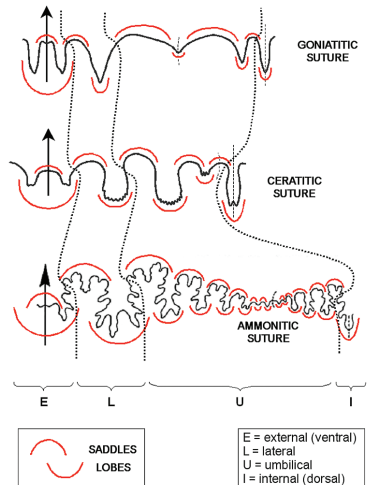
**A**s an ammonite grew larger, it added a new, larger chamber to its spiral shell. The chambers were joined together by curved suture lines that varied in complexity. Ammonites found in Jurassic and Cretaceous sediments had the most complex sutures while those from Paleozoic ammonoids and nautiloids had relatively simple suture lines.

The complexity of the sutures may have affected the strength of the shell to withstand the pressures of deep water. A tube connecting all the chambers was used by the animal to control its buoyancy by adjusting the amount of gas in the chambers.



Cross-section of shell of an ammonite, *Cleoniceras*

Image: GRI



Ammonite suture patterns

Image: Antonov, Public Domain