

Fig. 125. Scheme showing the genesis of load structures on the lower surface of a sand layer resting on a mud layer (black)



Figure 2. Flowage features in interbedded muds and sands. Sandstone dikes, load casts, mud lumps, and boudinage structures all have soft-sedimentary deformation origins. (Some can also result from structural deformation of lithified sedimentary rocks.) From Selley (1976).

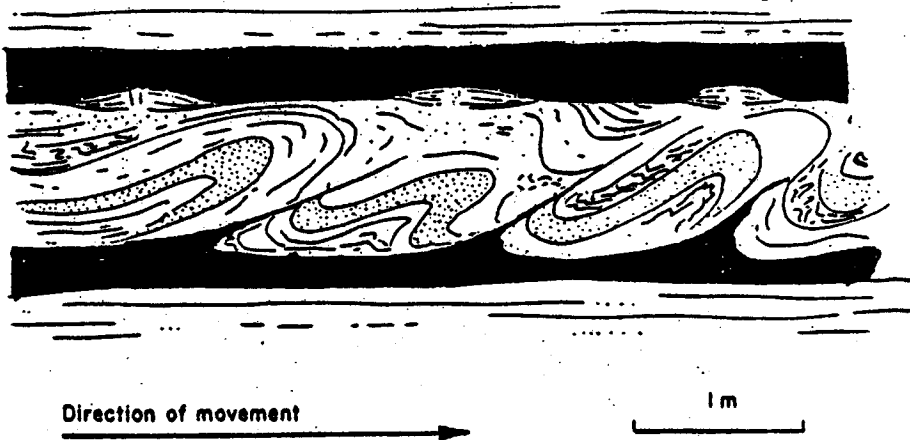


Figure 3. Contorted bedding, produced by lateral movement of uncompact sediments due to shock (earthquake trigger, for example) or down a slight slope (slump features). From Selley(1976).

Unlithified sediments deform not only in a liquid or plastic mode (Figure 3) but also in a brittle mode. Brittle deformation of sedimentary laminae is indicated by the presence of micro-faults within otherwise undisturbed laminated sequences. This response requires that at least some of the laminae be competent so as to prevent the sediment as a whole from deforming plastically. Micro-faulting is relatively common in algal laminated sediments, and in thinner rather than thicker bedded sediments in general.