



Development of parasequences

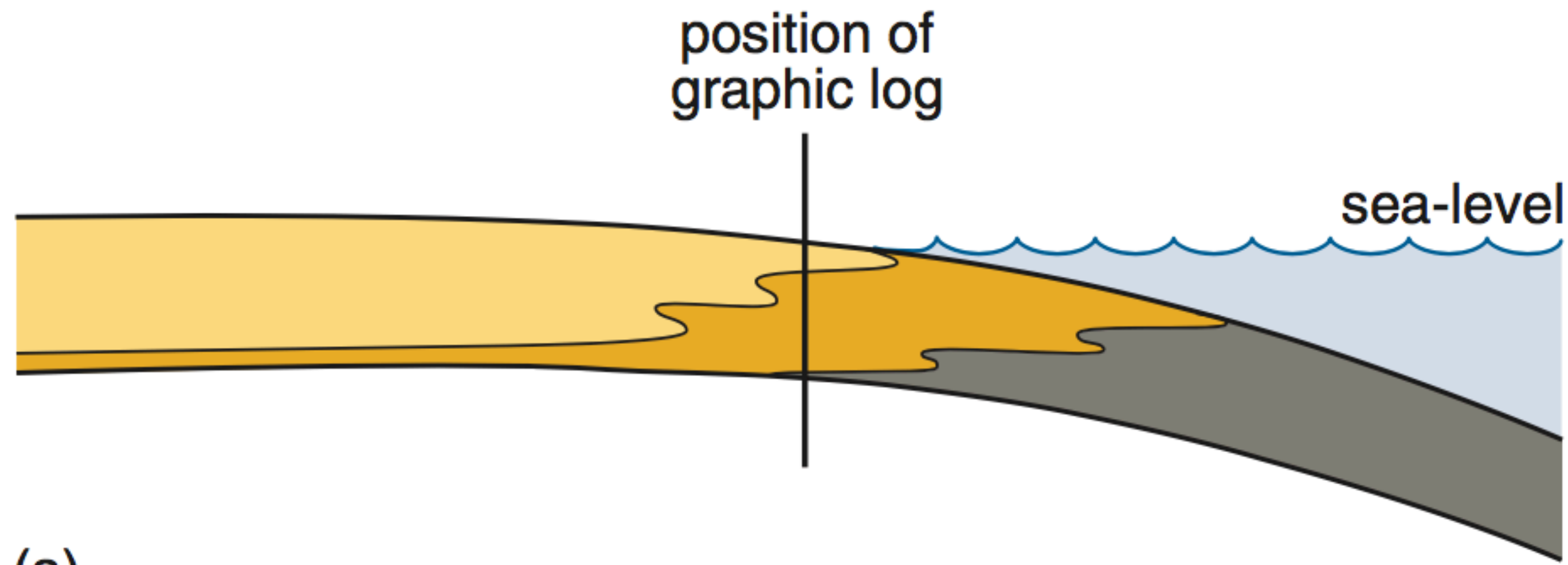


School of Geosciences



Relative sea-level and therefore accommodation space, together with sediment supply vary over a number of different time-scales.

Small-scale **sequence stratigraphical depositional units** (parasequences) stack together due to changes in accommodation space and/or sediment supply over longer time periods to form sequences.



(a)

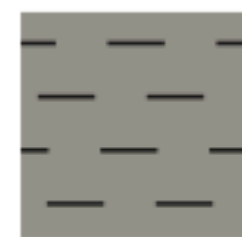
KEY



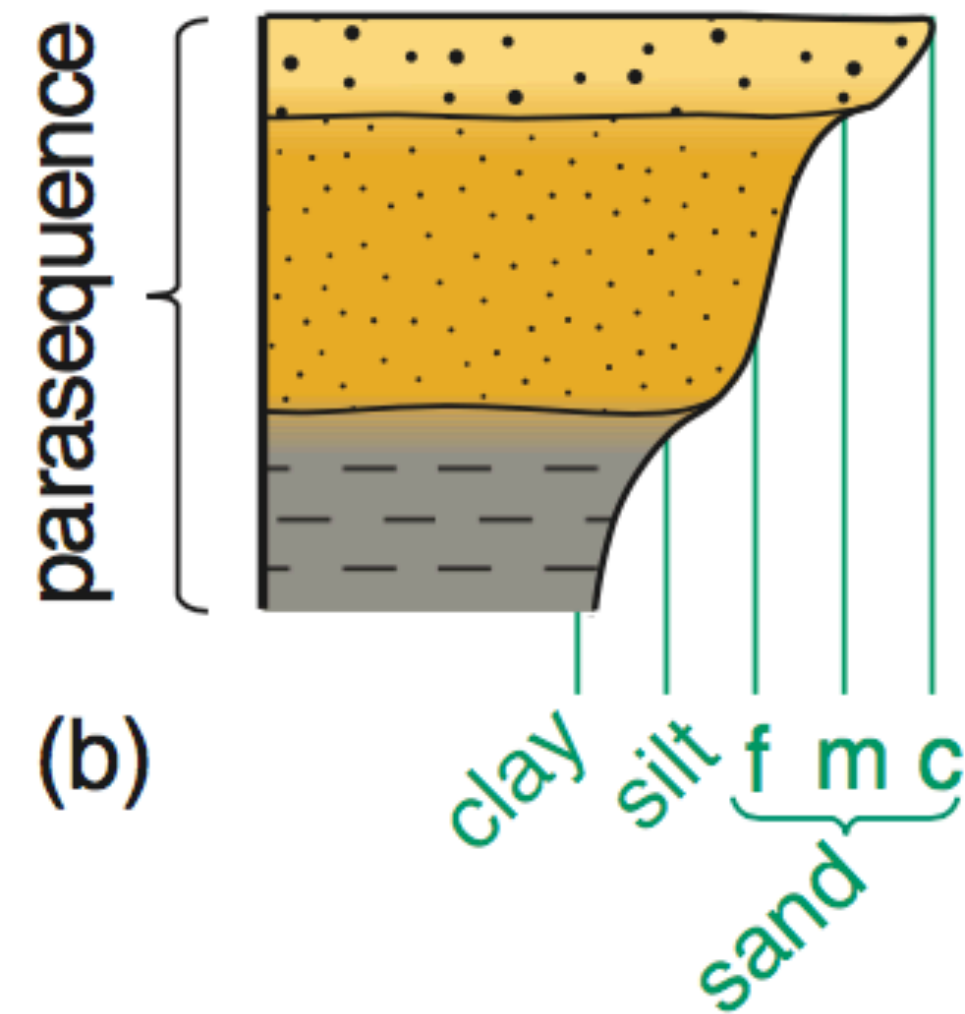
alluvial and coastal  
plain sediments



shallow-marine  
sediments



offshore-marine  
sediments



(b)

A simplified graphic log of the resultant coarsening-upward succession termed a parasequence.



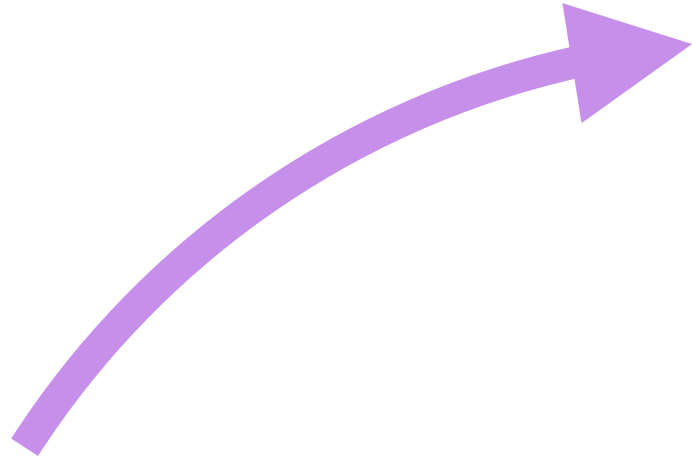








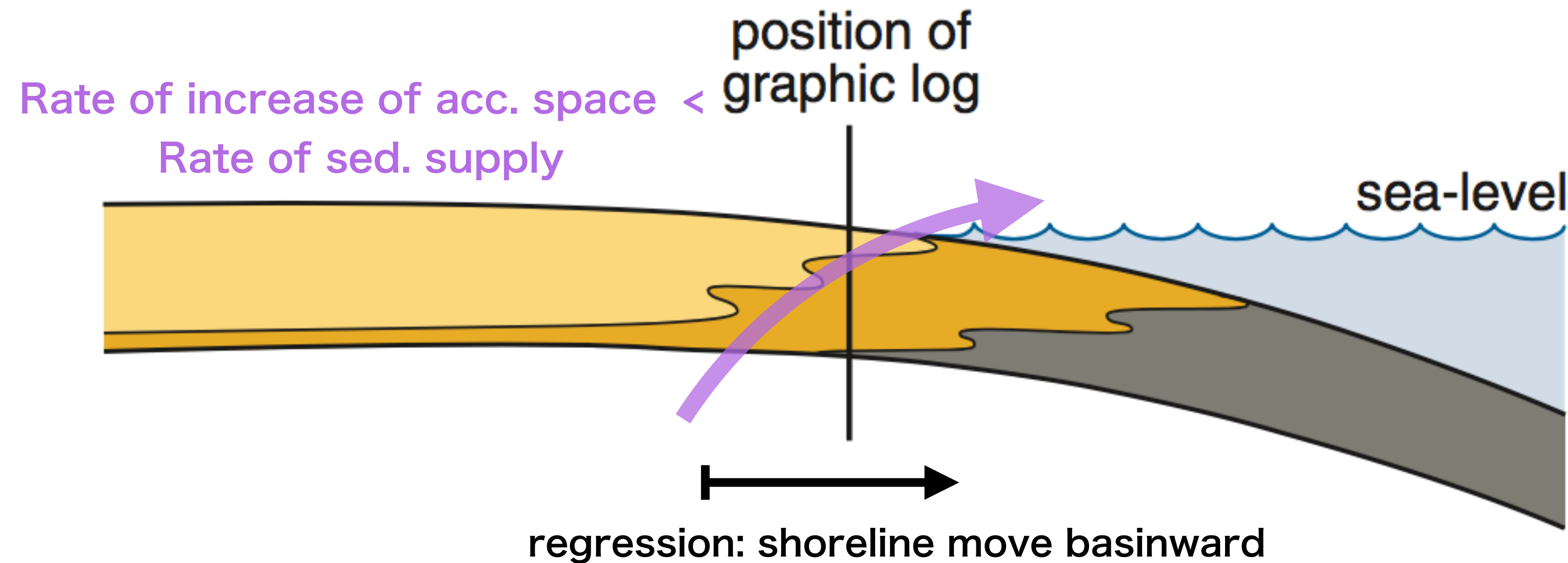
Rate of increase of acc. space <  
Rate of sed. supply





**regression: shoreline move basinward**

# Development of parasequences



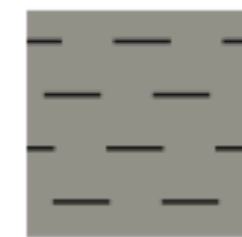
## KEY



alluvial and coastal  
plain sediments

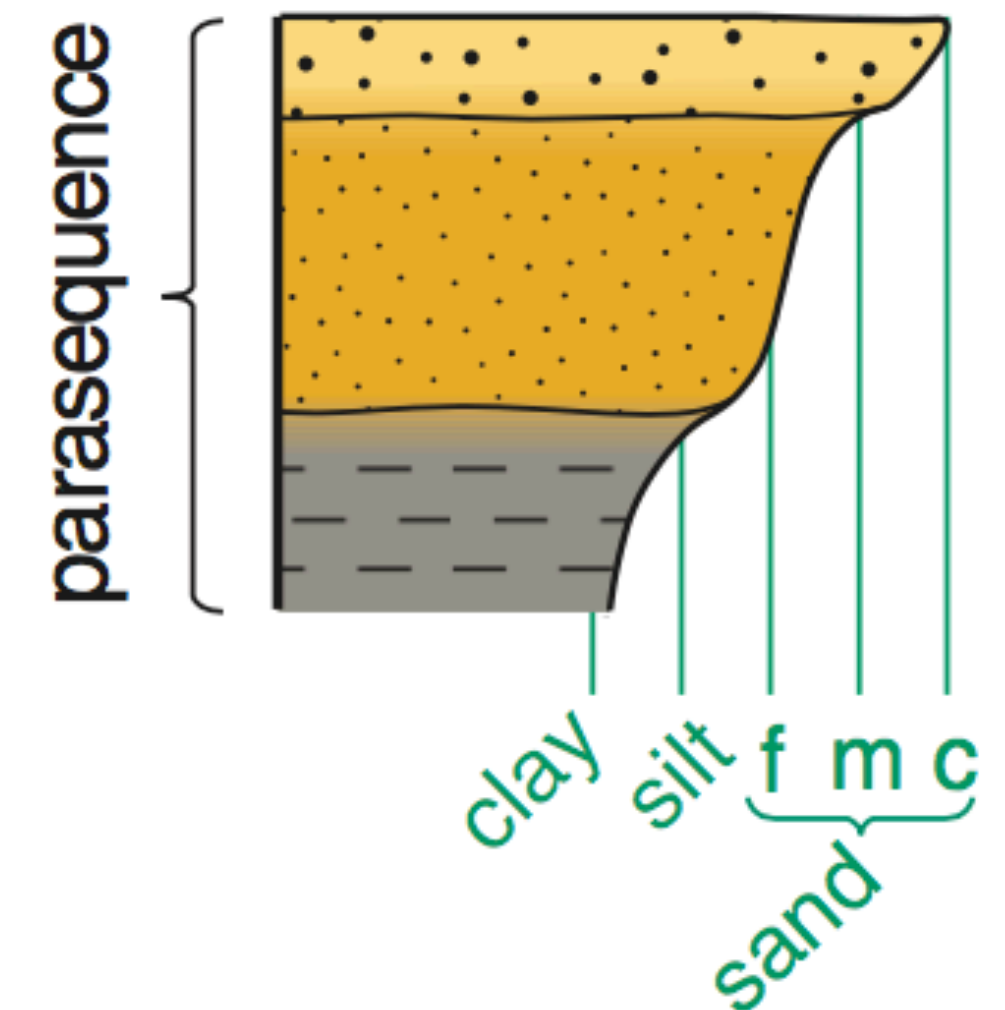


shallow-marine  
sediments



offshore-marine  
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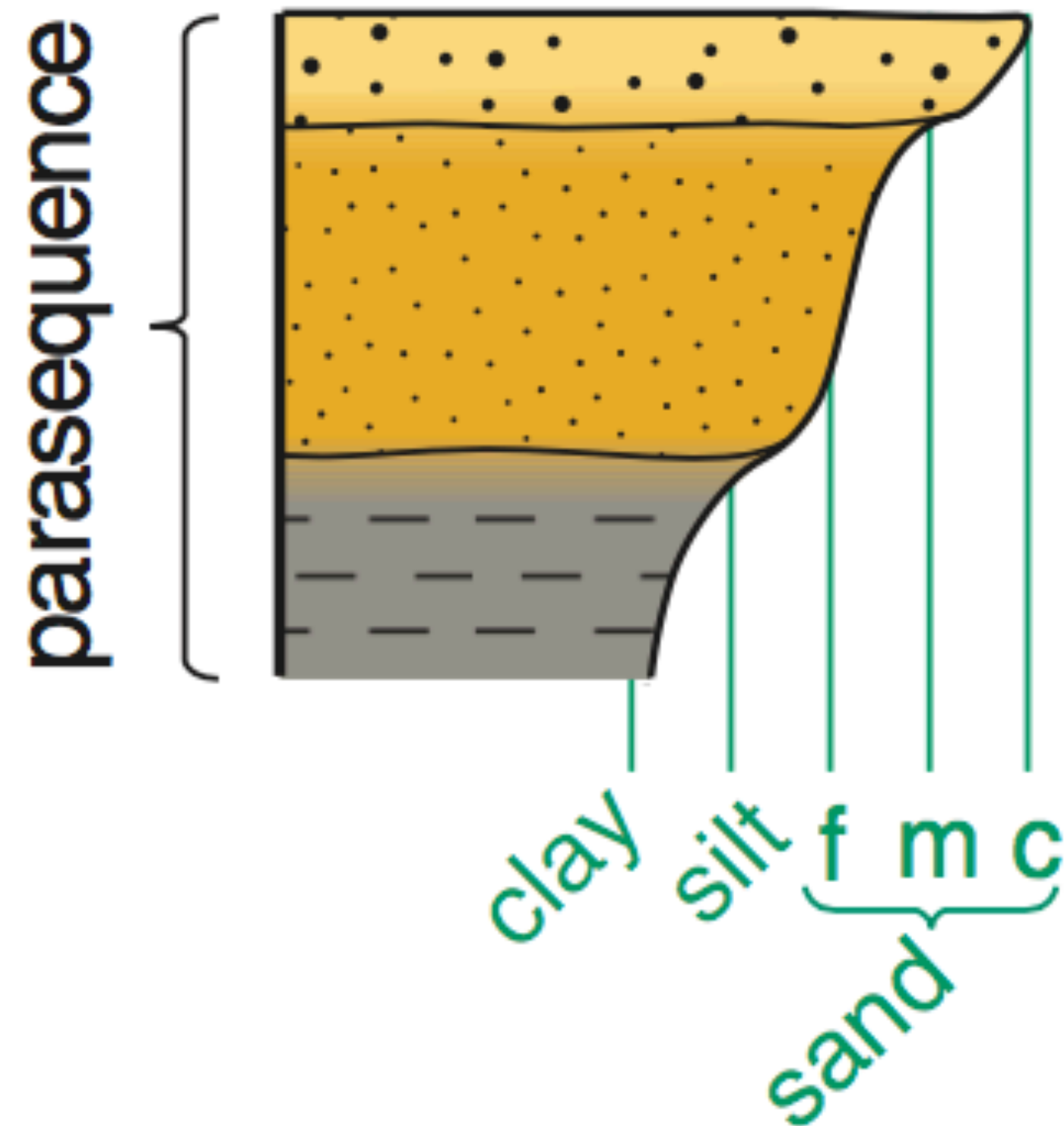
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# Development of parasequences



Deposits accumulate through time in progressively  
**shallower-water depths**



**parasequence is shallowing-upward and usually  
coarsening-upward**

If rate of sed. supply & rate of acc. space remained constant: the succession continues to prograde into the basin until the sediments have filled all the available accommodation space.

