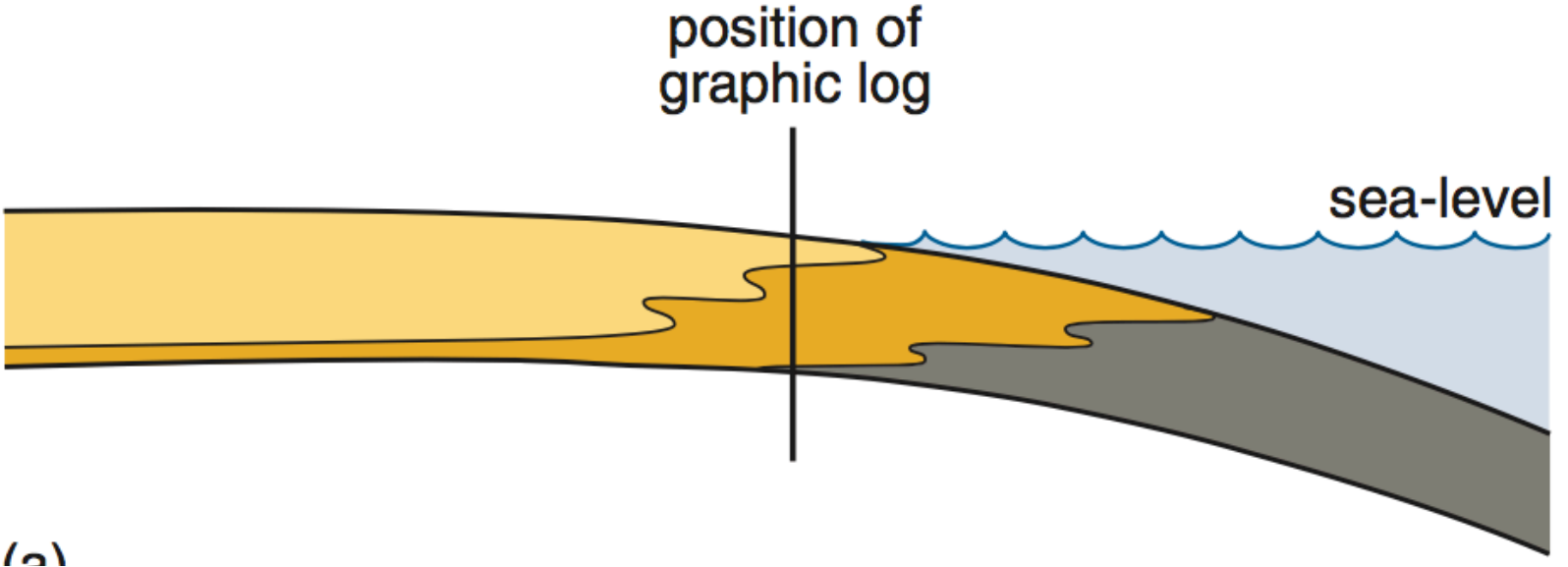
School of Geosciences

(b)
parasequence
clay
silt
f
m
c
sand

What will happen if there is an increase in the rate of creation of acc. space (i.e. a relative sea-level rise) such that it is greater than the rate of sed. supply?

Development of parasequences



(a)

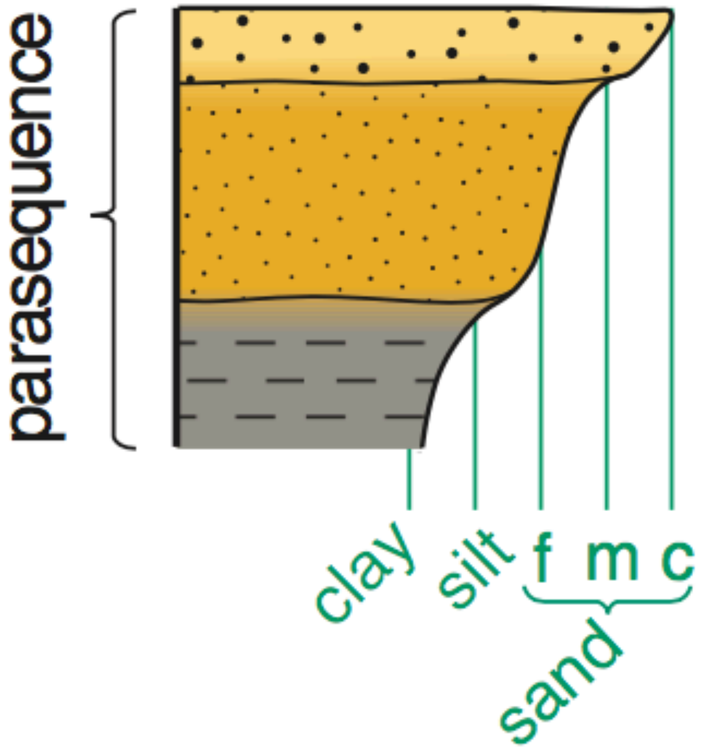
transgression of the sea over the succession

transgression

This transgression event is marked either by a much thinner set of facies representing transgression or, more often, by a distinct surface which caps the succession (called a **flooding surface**)

relative sea-level rise

Development of parasequences



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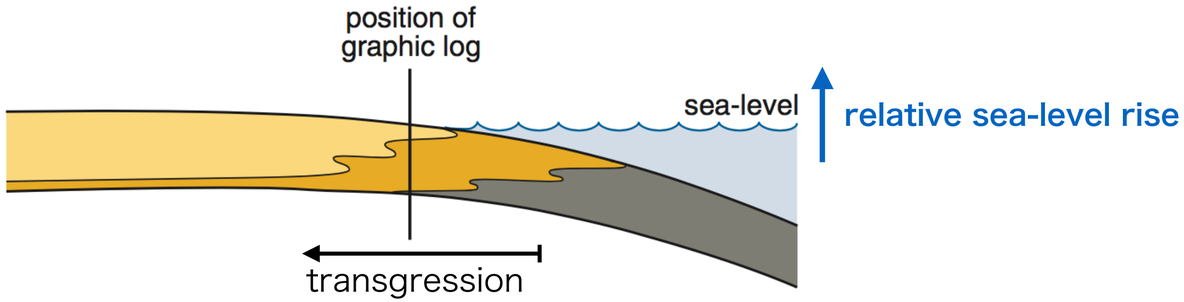
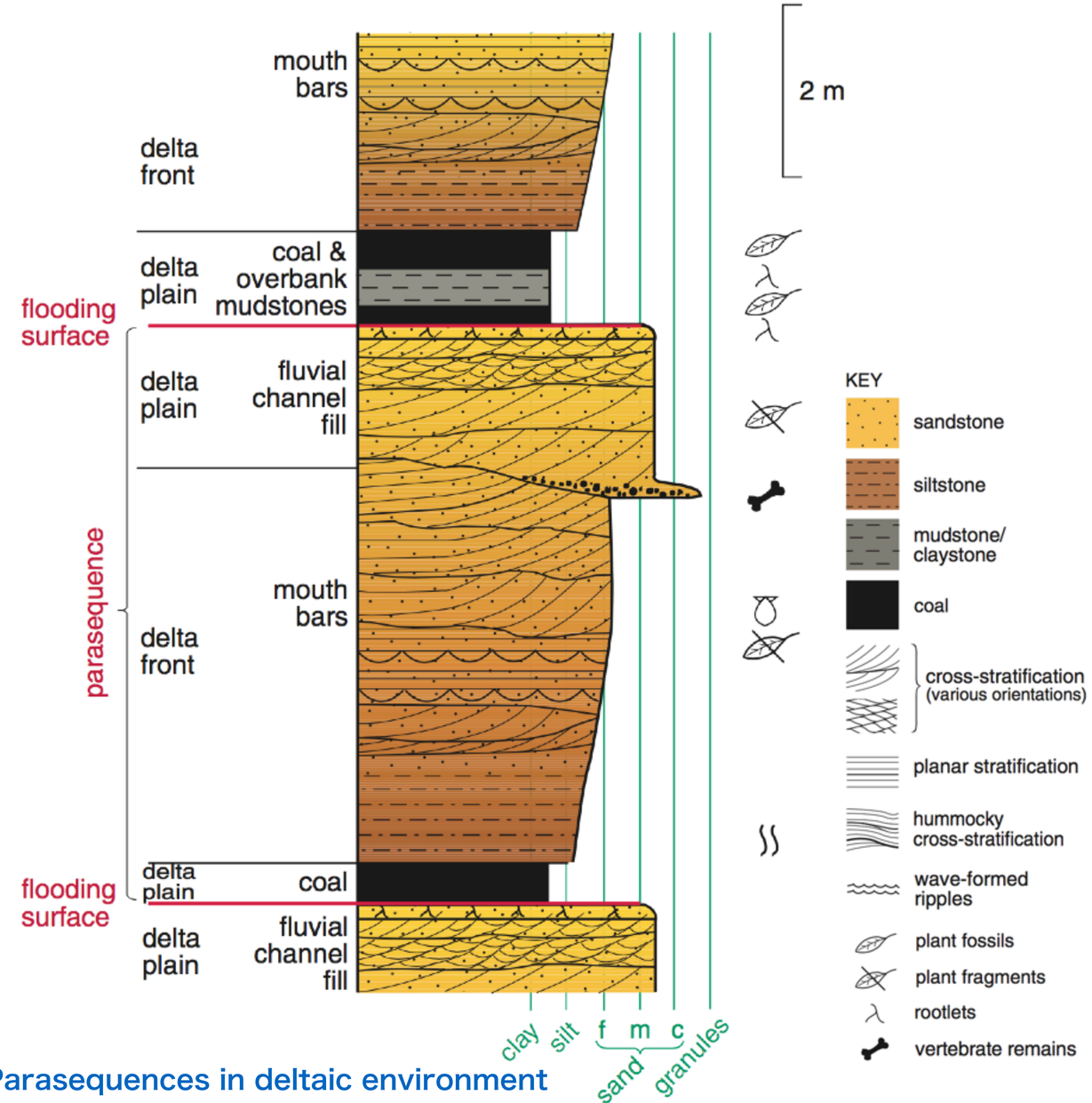


Development of parasequences



Parasequences in deltaic environment

Following transgression, a new parasequence will start to build out on top of the first one, utilizing the accommodation space that was newly created as relative sea-level rose.

Parasequence characteristics:

- **thickness**: 1 to tens of m
- **lateral extent**: tens to thousands of km^2

They are the smallest bed-scale cycle commonly observed in the sedimentary record and the smallest unit usually considered in sequence stratigraphical analysis.