

Study Questions from Ch1, Nichols, p.1-7

1. Distinguish between sedimentology and stratigraphy. How are these geosciences subdisciplines related? How are they different?
2. What is the basis for distinguishing discrete sedimentary facies? Why is recognition of sedimentary facies such a fundamental methodology in sedimentary geology?
3. What general processes are responsible for the features that distinguish sedimentary facies, that is, how are sedimentary facies related to depositional environments?
4. Distinct, earth surface depositional environments have limited lateral extent. Why is this fact so important to an understanding of the geometry of time-equivalent but lithologically distinct sedimentary strata? How does this logical relationship relate to stratigraphy?
5. How are changes in sedimentary rocks in a vertical stratigraphic section related to changes in depositional environment? How might we explain the vertical (with time) variation in sedimentary rocks and depositional environments, that is, what are the controlling factors?
6. Why is “geological time” so important in the study of sedimentary geology? What are some methods of determining relative geological time?
7. Think about the influence of tectonic, climate, sea level, and biological evolution dynamics on the stratigraphic record.
8. Why might a geosciences student be interested in sedimentary geology? Why are YOU interested in (are you?) In sedimentary geology?
9. Describe the various applications of sedimentary geology.

Vocabulary:

1. Sedimentology	9. Clastic detritus
2. Stratigraphy	10. Biogenic productivity
3. Sedimentary petrology	11. Topography/bathymetry
4. Sedimentary process versus sedimentary product	12. Suspension settling
5. Sediment transport and deposition	13. Lateral facies variations/ “facies relationship”
6. Sedimentary structures	14. Paleogeography
7. Sedimentary facies	15. Geological climate change
8. Depositional environment	16. Relative versus absolute geological time