Facies, Diachronism and Walther's Law

See also river and beach deposits under Sedimentary environments

Modern deposits TE

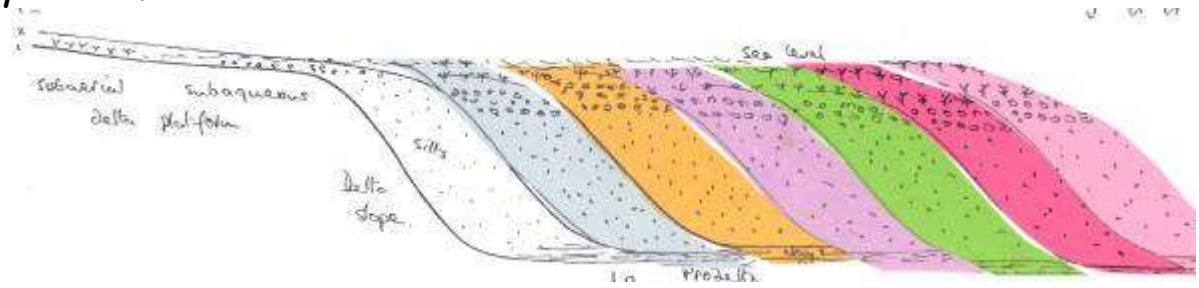
Students are asked what sediments are found forming today in a line from top of beach to deep sea, or from lagoon to coral reef to open sea.

Walther's Law and deltaic deposits D

Draw a cross section of a delta so that it is about 50cm long and copy or stick it onto card. The deposits of each time unit are cut out and magnetic tape stuck to each. They are then added to the magnetic board one by one so students can see how the diachronous beds are built up, how the coarsening upward sequence is formed and how the vertical sequence represents the original horizontal sequence of environments. A similar model can be made for river deposits.

Paper delta deposits A F 10 min

As above but students are given pieces of paper each representing the deposits of one time unit and must stick them in position and then answer questions.



Magnetic Bridport Sands facies change D

Columns showing the sequence at each place are put on the magnetic board initially arranged to show the clay layer followed by the sands followed by the limestone. The columns are then moved so that each ammonite zone is in a horizontal line and thus showing that clay, sand and limestone were all being deposited at the same time.

Bridport Sands I PE F 10 min

Students are shown the rock sequence as imagined before the zone fossils were known. They are then given sections at the same sites but with zone fossil data on and must to show that the sands are transgressive.