Exercise 2 Chris Kendall's simulation movies: siliciclastics

You should allow about 30 minutes to complete this Exercise. You will need access to the World Wide Web and some coloured pencils.

Chris Kendall at the University of South Carolina, USA, has constructed a number of movie simulations of different depositional sequences which he has made available on his website: http://www.geol.sc.edu/kendall/TestMovie.htm

Once you have downloaded any of the simulation movies within your web browser (to do this you need to click on the image), it is possible to run and pause the movie to see how the different packages build up both in the cross-section and on the sea-level curve. It is also possible to copy the movie files onto your desktop, so that you can view them at a later stage without having to go via the web.

Using the movie simulation entitled '2. Repeated uniform cycles of sea-level and clastic input', part of which is reproduced in Figure 2.1 (up to time step 35 (22.5 Ma) — see top right of movie), complete the following questions:

Question 2.1 What term could be applied to each package of sediment between the thin black lines on the cross-section in Figure 2.1 and on the movie?

Question 2.2 Shade and label the cross-section and sea-level curve in Figure 2.1 to show each of the systems tracts and key surfaces represented.

Question 2.3 Is the sea-level shown in the simulation movie a relative sea-level curve or a eustatic sea-level curve? Give a reason for your answer.

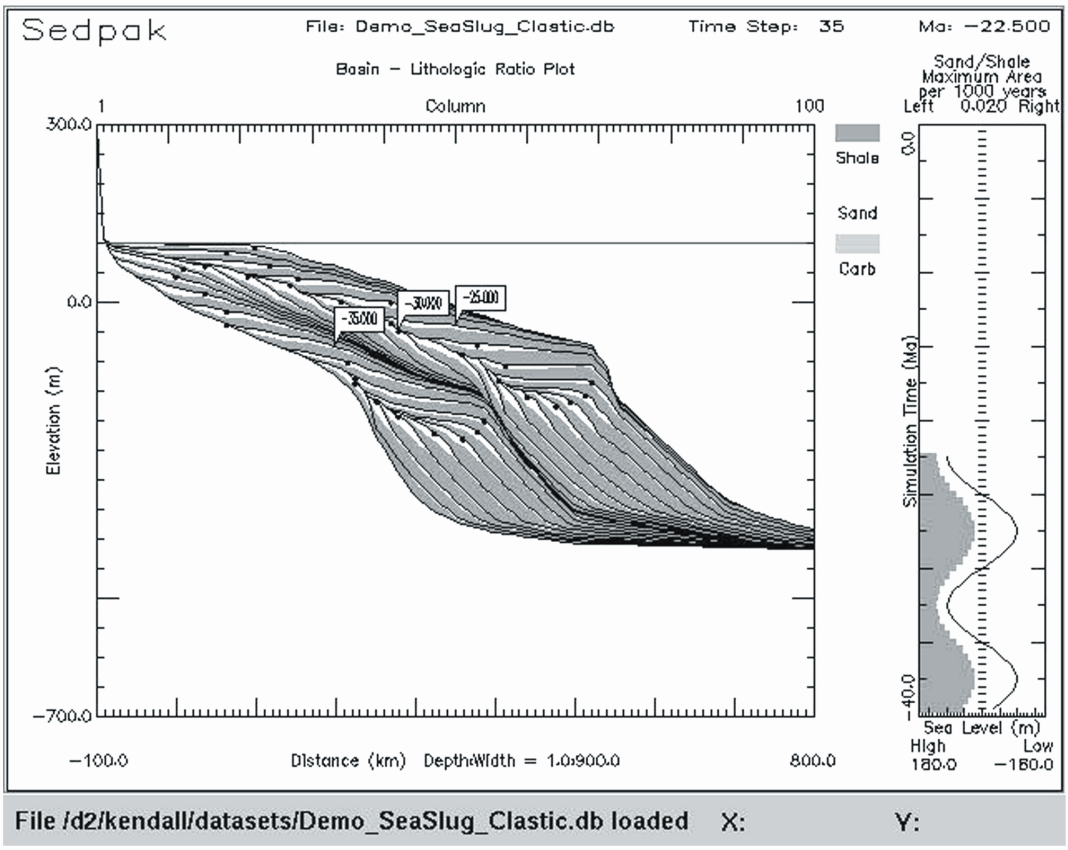

Figure 2.1 Part of the simulation movie '2. Repeated uniform cycles of sea-level and clastic input' from Chris Kendall's website.