Questions from Part V

1. As Kane’s party moved south towards open water, he was making glaciological observations. What was the observation he made about glacial runoff and implications for the glaciers.

2. Forbes reported that one species of oysters lived off the shores of Britain before and after the Ice Age with a different cold-adapted species during the Ice Age. It would seem to us today that this variation in species supports Agassiz’s hypothesis of a changing climate. Yet why did Agassiz feel that this evidence did not support his work? What was Lyell’s position on species change?

3. While on Lake Superior, Agassiz discussed slope and glacier motion, saying that in some cases steep glaciers move more slowly than glaciers at more gentle angles. Given the two angles provided in the text, and the equation for the shear stress, how, realistically, can the basal shear stress for the two slopes be made equal? Show your work.

4. What finally convinced Lyell? And what does that say, finally, about Lyell as a scientist?