

Lunar Features

1. In Figure 1, count the number of craters you can find in each square. Based on the number of craters, which is older, the Lunar Maria or the Lunar Highlands? What is your reasoning?
2. In Figure 2, compare the two craters marked L and R. Which do you think is older, the left crater or the right one? What is your reasoning?
3. Compare the two craters marked T and B. Which do you think is older, the top crater or the bottom one? What is your reasoning?

(At this point, form pairs or trios and compare your answers.)

4. Go back to Figure 1. If the Maria are estimated to be around 3 billion years old, and we assume a constant rate of cratering, how old are the Highlands (based on your counts in question 1)? We believe the Solar System to be around 4.6 billion years old. How can you explain the discrepancy?

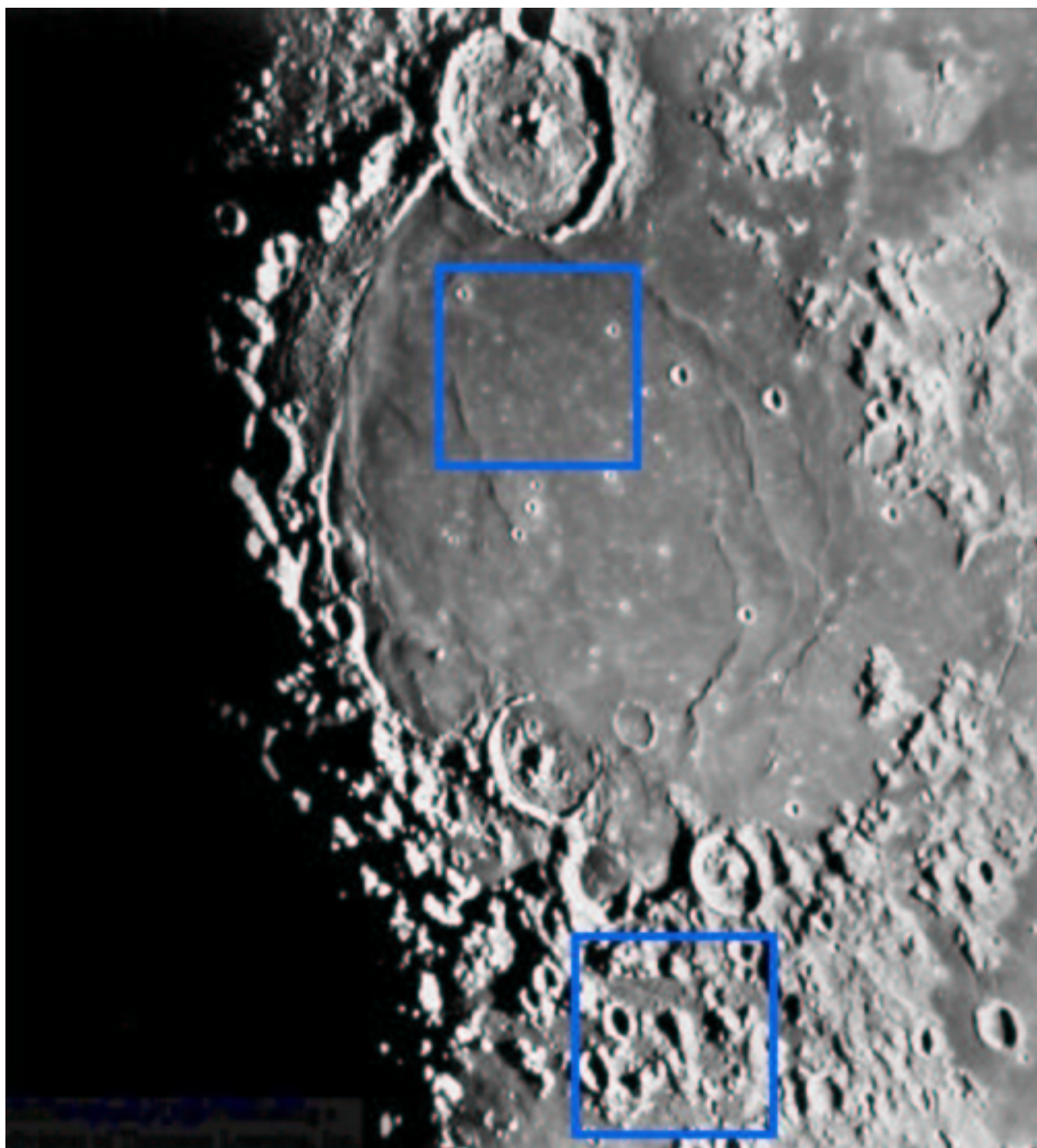


Figure 7: Figure 1

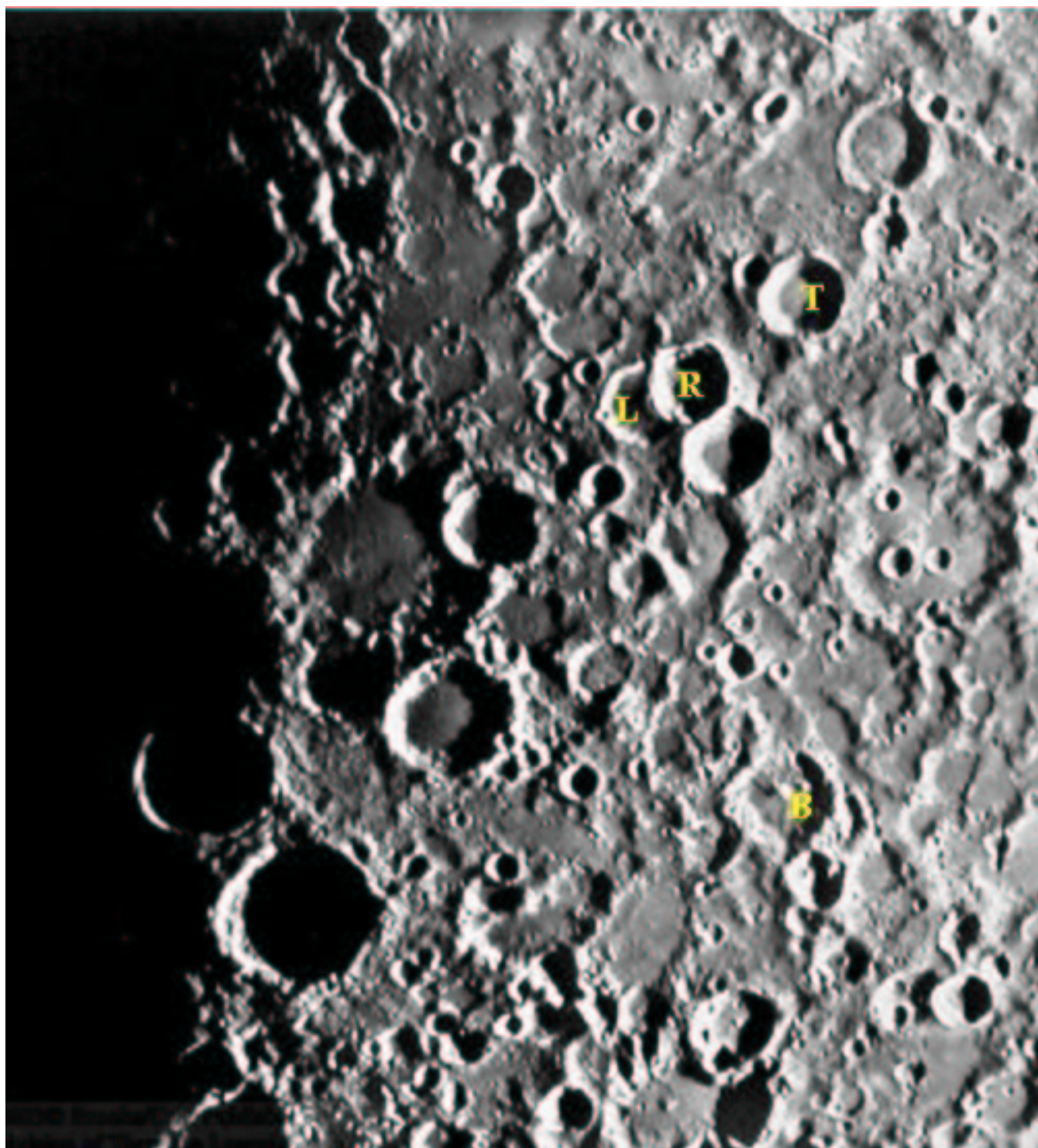


Figure 8: Figure 2