Questions for Chapter 2 in Scott Solomon's Future Humans

1. Explain what the author means by saying that there was a "serial bottleneck problem" that led to there being less and less genetic diversity in human populations the farther they were from the ancestral homeland of Africa. (p. 43)
2. Explain the theory of Nina Jablonski and George Chaplin regarding human skin pigmentation and ultraviolet radiation. In what way is skin color in populations a compromise between competing biological factors that each affect reproduction? (pp. 49-54)
3. Explain the concept of gene flow. How is it affected in humans by globalization and the increased ease of long-distance travel? (p. 53)
4. High altitudes mean low oxygen levels. What adaptations appear to have evolved in populations that have been living high in the Andes for thousands of years? (pp. 58-59)
5. What adaptations to low oxygen levels appear to have evolved in populations that have been living for millennia at high altitudes in Tibet? How does this adaptation differ from that of the Andeans? (pp. 59-60)
6. Explain how the spread of lactose tolerance in many human populations provides evidence of culture acting as an agent of evolutionary change. (p. 68-70)