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| **OUTLINE**  The Big Picture: What is Technology?  Lenses in Theory and Practice  *Advances in Lens Technology*  *Leeuwenhoek’s Observations*  Leeuwenhoek and the Scientific Method  Lenses and Realism: Photography  Flat Glass: Light and Reflection  Flat Glass: The Success Story  The Bigger Picture: Evaluating New Technology | **THINKING ABOUT THE BIG PICTURE**   1. According to the author, what is technology and how should we understand its role in world history? 2. What are some of the key developments in ancient glass­making? What were the major centers of glass production in the ancient world? What conclusions can be made about the significance of glassmaking technology in the ancient world? 3. How does the author contrast technology’s impact on the ancient world with that of the modern world? 4. Gordan defines new technology as “an invention that either directly changes society or produces something that affects survival, health, material well‑being, or values and beliefs.” Evaluate this definition in light of his discussion of lens and plate glass technologies. 5. Starting with Ibn al­‑Haytham in the tenth century, discuss technological innovations in optics and lens‑making and their impact on the modern world. 6. What are the different processes that have been invented to produce flat glass? How did demand shape the flat glassmaking industry in Europe and the United States? 7. What is the “scientific method”? Why are there disagreements on how it should be defined? According to the author, why is Leeuwenhoek a good example of the scientific method in action? 8. How does the author’s examination of glassmaking cause us to pause and reconsider the various definitions of technology given at the beginning of the chapter? Should we see technology as a “driver” of history? Why or why not? |
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