Reading Questions for Dec. 3-5

Tues. 12/3: Calls for a New Science
Read: Bacon, 1-33 (The Great Instauration).

1. According to Bacon, what are the problems with received views of philosophy? How are they related to Bacon’s claim that philosophy has not made any progress? How does philosophy compare with the mechanical arts in this regard?

2. Bacon identifies two problems with human knowledge that his “New Organon” (new logical method) will have to address. The first is the unreliability of our senses; the second is the unreliability of our understanding. How does he propose to correct the first? How does he propose to correct the second?

3. What does Bacon mean when he says “that the office of the sense shall be only to judge of the experiment, and that the experiment itself shall judge of the thing” (24)? Is Bacon using “experiment” in our modern sense of “controlled laboratory investigation”? Why or why not?

4. What are the “idols or phantoms” of the mind (25)? Which ones can be corrected, and which ones must simply be taken into account by philosophical method?

5. Why is a “natural history” necessary to the Great Instauration? What function does it serve in Bacon’s natural philosophy?

6. Bacon emphasizes all along that his New Philosophy will be an Active Science. What does he mean by this? If his goal is operative knowledge, why does he dismiss “experiments of fruit” and insist that he aims to produce “experiments of light” (12)?

7. Will Bacon be able to accomplish his Great Instauration over the course of a lifetime?

Thurs. 12/5: Galileo: The New Sciences and the New Science
REMINDER: Your report is due today at the beginning of class. (Note: this is a two-day extension from the syllabus.)
Read: McClellan/Dorn, 234-247 (rest of chapter 11); Galileo, Discoveries and opinions, 229-280.

After quickly reading the entire reading selection from Galileo quickly, return to the passages indicated below and come up with answers to the following questions:

1. Read pp. 237-238. How does Galileo distinguish the study of nature from the study of poetry? In what language is the Book of Nature written? How does Galileo’s position compare with the medieval distinction between philosophy and mathematics?

2. Read pp. 238-240. What does “Sarsi” think about how philosophy should be done? How does Galileo’s approach differ? Why will the proper philosophy attract few followers, according to Galileo? Why does Galileo claim that good philosophy will teach few propositions?

3. Read pp. 273-277. According to Galileo, what is the difference between those properties of an object that are inherent in itself (what John Locke would later call “primary qualities”) and those that are the product of human sensation (Locke’s “secondary qualities”)? If there were no human beings around, would objects have colors or odors (according to Galileo)? What properties do objects possess in themselves?