

A Matter of Time
CL 65/Math 5
Winter 2005

Friday Discussion #4

The material below comes from the Connecting Across Borders sections of the textbook, *A Matter of Time*, by Lahr and Pastor.

From Section 6.3:

1. How is time conceptualized in Newton's work?

Related Issues

- (a) Is the mass of a falling object a factor in determining when it hits the ground?
- (b) What is the role of force, and how does it relate to time?
- (c) According to Newton, do all clocks measure the same Time?

2. How is time conceptualized in the work of Shakespeare?

Related Issues

- (a) Is there only one time in Shakespeare?
- (b) What does the verse "When I do count the clock that tells the time" tell us about Shakespeare's time?
- (c) Richard II says:

And here have I the daintiness of ear
To check time broke in a disordered string,
But for the concord of my state and time,
Had not an ear to hear my true time broke.

- i. How can time break? What is the meaning of broken time? What is Richard's "true time"?
 - ii. What is the relationship between Richard's time, Bolingbroke's time, and Time in Shakespeare?
 - iii. What is the meaning of Richard's metamorphosis into a clock? What time does it measure?
3. How can you argue in favor of, or against, the independent existence of time?

4. How is Newton's calculus different from Shakespeare's English as an instrument to capture and express time?

From Section 7.3:

1. Descartes, French physician, mathematician, and philosopher, is regarded as the father of modern reason. Why do you think that is?

Related Issues

- (a) What was Descartes' Method?
 - (b) How was it related to geometry?
 - (c) How was it used to develop a new kind of geometry?
 - (d) How did he apply it to his philosophical investigations?
 - to his conception of time?
 - to his conception of the universe?
 - to the human body?
 - to the nature and existence of God?
 - (e) How effective do you think Descartes' Method is?
2. What is the difference between the function of the clock in the Flemish miniature—depicted in the dialogue between Wisdom and a monk—and its function in Descartes' thought?
 3. Do you think that the displacement of time by mechanism in Descartes' philosophy is a result of his work as a mathematician or of his views of the world as a philosopher?
 4. In what specific ways is Goya's Kronos devouring his son a critique of Descartes' analytical/scientific approach to time and reality?
 5. Compare and contrast Descartes' clockwork universe with Zeno's world and Scharlach's view of the world in *Death and the Compass*.