A Matter of Time
CL 65/Math 5
Winter 2003

Friday Discussion #3

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

From Section 5.3:

1. What is the difference between the physically oriented compass of Aristotle and the humanistic one of St. Augustine? What are their respective contexts?

2. How is time conceptualized in Galileo's work?

   Related Issues
   (a) Why does Galileo abandon the characterization of motion given by Aristotle?
   (b) What does he replace it with?
   (c) What is the role of Time in Galileo's laws for the motion of an object falling near the surface of the earth?
   (d) Find an explicit formula for the speed of a falling object as a function of distance.
   (e) Aristotle said that the speed of a falling object increased directly in relation to the distance traveled. Was he correct?

3. We have talked about how the intellectual discussion of time can be far removed from the actual perception of time that most people have in a given society. Let's expand on that theme. Does this split have meaning for you? If so, then what is it? If not, then why not?

4. Do you see any connection between Petrarch's obsession with time—the *seize the day* philosophy—and Galileo's need for precise time measurements in his experimental work?

5. In what way did the technological revolution in time keeping devices represented by the mechanical clock create the sense of a unified time out of the multiplicity of time views and experiences?

6. One definition of time is that it is that which is measured by a clock. But we use clocks to measure things as diverse as the giving of a speech, the running of a race, the boiling of an egg, the taking of a nap. What then would you describe as the nature of time according to this definition?