The impact of the microscope on the study of biology is incalculable. Not only has the instrument contributed to the furthering of knowledge in virtually every discipline of biology, but it is also the reason for the origin of some biological sciences, for example, microbiology. Modern students of biology have a large amount of knowledge to assimilate, and time is not usually given in the classroom to the history of biology. This is unfortunate, since we are in debt to earlier scholars who laid the foundations for recent achievements in biology. Time factor notwithstanding, it should not be difficult to give students (in either lecture or laboratory exercises covering a particular topic in biology) some idea of worthy contributors to the topic.

Optical magnification was known to the ancient Greeks and Romans, but they saw no practical application for it. Both civilizations left good records of their achievements in the arts and sciences, but there is no evidence of any aids to vision, either to overcome weak vision or to extend the power of normal vision. The invention of eyeglasses did not occur until the 13th century, and it would then be another 300 years before other aids to vision were invented: the telescope and the microscope (Bardell, 1981).

The First Microscopic Observations

The earliest records of microscopic observations date from 1625 and 1630 and are studies of a bee by the Italians Federico Cesi (1585-1630) and Francesco Stelluti (1577-1652). Since the observations were published in an unusual book for a study of that nature, they are little known among biologists. In 1625 Cesi, a wealthy nobleman, wrote a short treatise on bees, titled Apiarium, which was to be part of a larger work on natural studies. However, he died at an early age before completing the work. Stelluti assisted Cesi in preparing Apiarium, and it was Stelluti who made the illustrations showing the microscopic appearance of a bee (Keller, 1976).

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