

simply did not exist in their world view. The question of the extent of the Creator's involvement directly or indirectly in his creation was an issue of the eighteenth century, but there was universal agreement among scientists and philosophers as to the supernatural origin of the universe.

The scientific revolution of the sixteenth and seventeenth centuries tended to replace religion as the explanation of the educated for occurrences in the physical world. In contrast to religious articles of faith, the approach of science relied on experiment and mathematics. Learning, including the arts, moved away from Renaissance models to emphasize the emotions and individual variations.

Society (1650 to ca. 1789)

Demography

Exact figures for the population of Europe during the fifteenth and sixteenth centuries are not known, as complete censuses did not then exist. Following the Black Death and its endemic outbreaks in the fourteenth century, population remained stagnant until the sixteenth century, when, *ca.* 1550, it again reached preplague levels. Between 1550 and 1650, the population of Europe nearly doubled, and was checked only by widespread warfare. After 1650, growth leveled off for a century.

The following are population estimates for the year 1650:

England: 5.5 million

France: 18.0 million

Holy Roman Empire: 11.0 million

Italian peninsula: 12.0 million

Spain: 5.2 million

Sweden: 1.5 million

United Provinces: 1.5 million

Population in the cities grew much faster than did the population as a whole, as people migrated from the countryside. London grew from 50,000 in 1500 to 200,000 in 1650. Cities contained perhaps 10–20 percent of the total population of Europe.

The Family

The majority of households consisted of the nuclear family in the West, with more extended families in the East. A baby had a 25 percent chance of surviving to the age of one, a 50 percent chance of surviving to the age of twenty, and a 10 percent chance of reaching sixty. The average marriage age was twenty-seven for men and twenty-five for women, though nobles married younger. Few people married early enough or lived long enough to see their grandchildren.

sprezzatura—a lightness of touch, the ability to do something very well, with seeming ease, though much effort may have gone into the final product. This book, translated into many languages, greatly influenced Western ideas about correct behavior.

Art

Artists broke with the medieval past, in both technique and content. Medieval painting, which usually depicted religious topics and was used for religious purposes, was idealized. Its main purpose was to portray the essence or idea of the topic. Renaissance art still used religious topics but often dealt with secular themes and individuals. Oil paints, *chiaroscuro*, and linear perspectives all combined to achieve greater realism (for an example, see Figure 2-1).



Galleria Brera, Milan, Italy

Figure 2-1. Andrea Mantegna's *Lamentation over the Dead Christ* (1490) shows, more than other works, how skillfully Italian Renaissance artists worked with the exciting ideas of perspective adumbrated earlier by Filippo Brunelleschi and Leon Battista Alberti. This down-the-body view still arrests and captivates us as realistic, just as it opens up a new emotional reaction.

Medieval sculpture was often affixed to churches and its figures designed to teach illiterate believers Bible and saints' stories. By copying classical models and using freestanding pieces, Renaissance sculptors produced works celebrating the individual and the "pagan" spirit of the day. Though some Renaissance statues were meant for exhibition in churches, many were not, making their way instead to private collections or, as with Benvenuto Cellini's *Perseus*, into public squares.

Medieval architecture included the use of pointed arches, flying buttresses, and fan vaulting to obtain great heights, while permitting light to flood the interior of the church