

"Earth water fire and air met together in a garden fair"

In Shakespeare's time most people accepted religious doctrines about the creation of the world, mixed with the theories of classical authors like Plato, Aristotle and Ptolemy.

Although by then people commonly accepted that the earth was round, it was still generally thought to be the centre of the universe, with the moon, planets and sun going round it. These were thought to be fixed on transparent crystal spheres. As the spheres moved they made harmonious music corresponding with their distance relative to each other. This music was called the 'harmony of the spheres'. Beyond the planets there was the sphere of the 'fixed' stars which were unchanging in their relative positions.

The stars were believed to influence events on earth in ways which could be predicted through the study of astrology, according to the positions of stars and planets in the sky at particular times. Comets and shooting stars were usually seen as special omens.

Below the sphere of the moon, the earth was subject to change, growth and decay according to the pattern of the seasons.

On earth everything consisted of four elements: earth, water, fire and air. People were less interested in looking for the causes of things, and more interested in patterns, so they sought correspondences between different phenomena. For instance the sun was fiery and represented the 'monarch of the sky' and might be compared with a king and the heart. The seasons might be compared with the phases of human life.

The human body contained fluids, and before the discovery of the circulation of the blood (a theory published by William Harvey in 1628), it was assumed that the heart produced heat like the sun and that the blood took this to the outer extremities of the body. In addition to blood there were the fluids phlegm (e.g. saliva in the mouth), choler (or yellow bile) and black bile. They were also associated with the characteristics of hot and cold, or moist and dry. The mixture of these fluids (called humours) was believed to determine someone's personality (or temperament). Choleric people got angry easily; sanguine people were positive and optimistic; people who were phlegmatic showed little excitement or enthusiasm; melancholic people were sad and depressed. This table shows their relationship:

<i>elements</i>	<i>bodily fluids</i>	<i>character</i>	<i>heavenly body</i>	<i>metal</i>
fire (hot, dry)	yellow bile	choleric	Sun / Mars	gold / iron
air (hot, wet)	blood	sanguine	Jupiter	tin
water (cold, wet)	phlegm	phlegmatic	Moon / Venus	silver / copper
earth (cold, dry)	black bile	melancholic	Saturn	lead

Types of food and drink could affect the proportions of the humours (so that we still refer to a 'hot' food or a 'dry' wine).

It was also assumed that illnesses were caused by an imbalance in the humours. So, for instance, if a person was feverish (hot and wet), it was assumed that he or she had too much blood, and the treatment was bleeding (either opening a vein or applying leeches, little black animals which sucked the blood). For a long time doctors (usually known as physicians) were nicknamed 'leeches', but this may have been because of the high fees they charged.

Certain 'wise women' were known to cure diseases by using herbs. Through the doctrine of correspondences, a Swiss alchemist known as Paracelsus (1493-1541) looked for signs in plants which associated them with certain diseases, or the shape of the parts of the body that were affected. This eventually led in two directions: to the development of modern drugs and to the substances used in homeopathy (or the principle of 'like curing like'). Shakespeare's son-in-law was a doctor who used herbal methods.

[Michael Mitchell]