TEXT 1: Plato, Timaios

[The Creator's] intention was, in the first place, that the animal should be as far as possible a perfect whole and of perfect parts: secondly, that it should be one, leaving no remnants out of which another such world might be created: and also that it should be free from old age [eternal] and unaffected by disease [incorruptible] . . . . Wherefore he made the world in the form of a globe, round as from a lathe, having its extremes in every direction equidistant from the center, the most perfect and the most like itself of all figures; for he considered that the like is infinitely fairer than the unlike. This he finished off, making the surface smooth all round for many reasons; in the first place, because the living being had no need of eyes when there was nothing remaining outside him to be seen; nor of ears when there was nothing to be heard; and there was no surrounding atmosphere to be breathed; nor would there have been any use of organs by the help of which he might receive his food or get rid of what he had already digested, since there was nothing which went from him or came into him: for there was nothing beside him. Of design he was created thus, his own waste providing his own food, and all that he did or suffered taking place in and by himself. For the Creator conceived that a being which was self-sufficient would be far more excellent than one which lacked anything; and, as he had no need to take anything or defend himself against any one, the Creator did not think it necessary to bestow upon him hands: nor had he any need of feet, nor of the whole apparatus of walking; but the movement suited to his spherical form was assigned to him, . . . and he was made to move in the same manner and on the same spot, within his own limits revolving in a circle.[2]

TEXT 2: Aristotle, On the Heavens

It is plain, then, . . . that there is not, nor do the facts allow there to be, any bodily mass beyond the heaven. The world in its entirety is made up of the whole sum of available matter. . . , and we may conclude that there is not now a plurality of worlds, nor has there been, nor could there be. This world is one, solitary, and complete. It is clear in addition that there is neither place nor void . . . beyond the heaven; for in all place there is a possibility of the presence of body, [and] void is defined as that which, although at present not containing body, can contain it. . . .[1]

The natural motion of the earth as a whole, like that of its parts, is towards the center of the Universe: that is the reason why it is now lying at the center. It might be asked, since the center of both is the same point, in which capacity the natural motion of heavy bodies, or parts of the earth, is directed towards it; whether as center of the Universe or of the earth. But it must be towards the center of the Universe that they move. . . . It so happens that the earth and the Universe have the same center, for the heavy bodies do move also towards the center of the earth, yet only incidentally, because it has its center at the center of the Universe. . . .

From these considerations it is clear that the earth does not move, neither does it lie anywhere but at the center. In addition the reason for its immobility is clear from our discussions. If it is inherent in the nature of earth to move from all sides to the center (as observation shows), and of fire to move away from the center towards the extremity, it is impossible for any portion of earth to move from the center except under constraint. . . . If then any particular portion is incapable of moving from the center, it is clear that the earth itself as a whole is still more incapable, since it is natural for the whole to be in the place towards which the part has a natural motion. . . .

Its shape must be spherical. . . . To grasp what is meant we must imagine the earth as in process of generation. . . . It is plain, first, that if particles are moving from all sides alike towards one point, the center, the resulting mass must be similar on all sides; for if an equal quantity is added all round, the extremity must be at a constant distance from the center. Such a shape is a sphere. But it will make no difference to the argument even if the portions of the earth did not travel uniformly from all sides towards the center. A greater mass must always drive on a smaller mass in front of it, if the inclination of both is to go as far as the center, and the impulsion of the less heavy by the heavier persists to that point. . . .

Further proof is obtained from the evidence of the senses. (i) If the earth were not spherical, eclipses of the moon would not exhibit segments of the shape they do. . . . (ii) Observation of the stars also shows not only that the earth is spherical but that it is of no great size, since a small change of position on our part southward or northward visibly alters the circle of the horizon, so that the stars above our heads change their position considerably, and we do not see the same stars as we move to the North or South. Certain stars are seen in Egypt and the neighborhood of Cyprus, which are invisible in more northerly lands, and stars which are continuously visible in the northern countries are observed to set in the others. This proves both that the earth is spherical and that its periphery is not large, for

TEXT 4: Ptolemy, Almagest

Certain thinkers, though they have nothing to oppose to the above arguments, have concocted a scheme which they consider more acceptable, and they think that no evidence can be brought against them if they suggest for the sake of argument that the heaven is motionless, but that the earth rotates about one and the same axis from west to east, completing one revolution approximately every day. . . .

These persons forget however that, while, so far as appearances in the stellar world are concerned, there might, perhaps, be no objection to this theory. . . , yet, to judge by the [terrestrial] conditions affecting ourselves and those in the air about us, such a hypothesis must be seen to be quite ridiculous. . . . [If the earth] made in such a short time such a colossal turn back to the same position again, . . . everything not actually standing on the earth must have seemed to make one and the same movement always in the contrary sense to the earth, and clouds and any of the things that fly or can be thrown could never be seen travelling towards the east, because the earth would always be anticipating them all and forestalling their motion towards the east, insomuch that everything else would seem to recede towards the west and the parts which the earth would be leaving behind it.[3]

TEXT 5: Aristotle, On the Heavens

From what has been said it is clear why . . . the primary body of all [that is, celestial matter] is eternal, suffers neither growth nor diminution, but is ageless, unalterable and impassive. I think too that the argument bears out experience and is borne out by it. All men have a conception of gods, and all assign the highest place to the divine, both barbarians and Hellenes, as many as believe in gods, supposing, obviously, that immortal is closely linked with immortal. It could not, they think, be otherwise. If then – and it is true – there is something divine, what we have said about the primary bodily substance [namely that it is weightless, indestructible, unalterable, and so on] is well said. The truth of it is also clear from the evidence of the senses, enough at least to warrant the assent of human faith; for throughout all past time, according to the records handed down from generation to generation, we find no trace of change either in the whole of the outermost heaven or in any one of its proper parts. It seems too that the name of this first body has been passed down to the present time by the ancients. . . . Thus they, believing that the primary body was something different from earth and fire and air and water, gave the name *aether* to the uppermost

TEXT 6: Aristotle, Physics

The typical locomotions of the elementary natural bodies – namely fire, earth, and the like – show not only that place is something, but also that it exerts a certain influence. Each is carried to its own place, if it is not hindered, the one up, the other down. . . . It is not every chance direction which is "up," but where fire and what is light are carried; similarly, too, "down" is not any chance direction but where what has weight and what is made of earth are carried – the implication being that these places do not differ merely in relative position, but also as possessing distinct potencies.[9]