Ptolemy, That the Earth Performs No Progressive Motion

(A.D. 120 - A.D. 140)

In the same way it will be proved by what precedes that the earth cannot make a contrary motion to the aforementioned lateral sides, or ever be displaced at all from its position in the center [of the universe]...The earth occupies the central position in the cosmos, and all heavy objects move toward it. ... If it had any one movement in common with the other heavy bodies, it would outstrip them all in its descent because its size is so much bigger. It would leave living creatures behind, and partly dense bodies floating on the air. For its part, it would swiftly drop out of the heavens, altogether. . . .

For let us grant them what is unnatural: the lightest and least dense bodies [the stars] do not move at all...while the densest and heaviest bodies execute their own swift and uniform motion. ... The geokineticists [those who suppose that the earth moves] would then admit that of all the motions in the earthly region the swiftest is the rotation of the earth. In a short time it performs so vast a rotation. As a result, everything not attached to it would appear to be always moving in the direction opposite the earth's. Not a cloud nor any other thing flying or thrown upward would ever be floating eastward. For the earth would always outstrip them all as it overtook them in its eastward motion. Consequently all other bodies would seem to be traveling westward as they were left behind.

On the other hand, the geokineticists might say that the air is carried around with the earth in the same direction and at the same speed. Nevertheless, whatever bodies are caught up in the air would always be seen falling behind the speed of both the earth and the air. Or if these bodies were carried around as though united with the air, they would no longer be seen either moving ahead or falling behind. On the contrary, they would always maintain the same position. Neither in the things flying or thrown would there be any dislodgment or displacement. [Yet] we do see all these things happening with such clarity that no part at all of their slowness or swiftness is attributable to the earth's failure to stand still.

SOURCE: Edward Rosen, ed., *Copernicus and the Scientific Revolution* (Malabar, Florida: Krieger, 1984), 139-140.