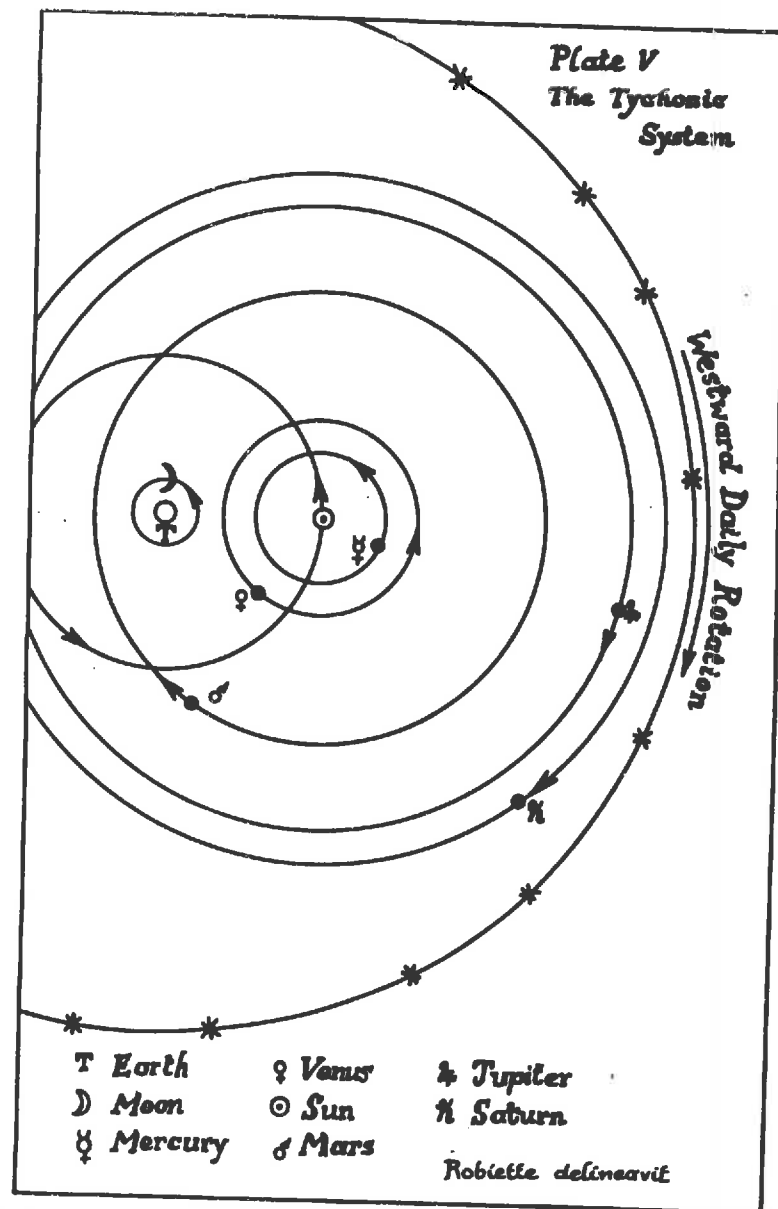


The Sun is at the center of the stellar sphere. The Earth rotates once a day from west to east and revolves eastward in a yearly circular orbit with its center at c. c itself moves on a deferent and epicycle system whose center is the Sun. The planets move eastward in circular orbits, the centers of which each move in such a way as to maintain a fixed relationship to c.



The Earth is motionless at the center of the stellar sphere, and the stars, Moon, and Sun move as they do in the Ptolemaic system. The planets, however, move in orbits centered on the moving Sun; Mercury and Venus revolve eastward around the Sun, and the remaining planets revolve westward.

III,28. That the Earth, properly speaking, is not moved, nor are any of the Planets; although they are carried along by the heaven.

And it is important to remember here what was said earlier concerning the nature of movement, i.e. that (if we are speaking properly and in accordance with the truth of the matter) it is only the transference of a body from the vicinity of those bodies which are immediately contiguous to it, and considered to be at rest, into the vicinity of others. However, in common usage, all action by which any body travels from one place to another is often called movement; and in this sense of the term it can be said that the same thing is simultaneously moved and not moved, according to the way we diversely determine its location. From this it follows that no movement, in the strict sense, is found in the Earth or even in the other planets; because they are not transported from the vicinity of the parts of the heaven immediately contiguous to them, inasmuch as we consider those parts of the heaven to be at rest. For, to be thus transported, they would have to be simultaneously separated from all {the contiguous parts of the heaven}, which does not happen. However, because the matter of the heaven is fluid, sometimes some of its particles, and sometimes others, move away from the Planet to which they are contiguous, and this by a movement which must be attributed solely to them and not to the Planet: in the same way as the partial transferences of water and air which occur on the earth's surface are usually attributed, not to the earth, but to those portions of water and air which are transported.

II,25. What movement properly speaking is

If, however, we consider what should be understood by movement, according to the truth of the matter rather than in accordance with common usage (in order to attribute a determinate nature to it): we can say that it is *the transference of one part of matter or of one body, from the vicinity of those bodies immediately contiguous to it and considered as at rest, into the vicinity of others*. By *one body, or one part of matter*, I here understand everything which is simultaneously transported; even though this may be composed of many parts which have other movements among themselves. I also say that it is a *transference*, not the force or action which transfers, in order to show that this motion is always in the moving body and not in the thing which moves it (because it is not usual to distinguish between these two with sufficient care); and in order to show that it is only a mode [of the moving body] and not a substance, just as shape is a mode of the thing shaped, and rest, of the thing which is at rest.

... I have also added that the transference is effected *from the vicinity of those bodies contiguous to it into the vicinity of others*, and not from one place to another. [II, 28]