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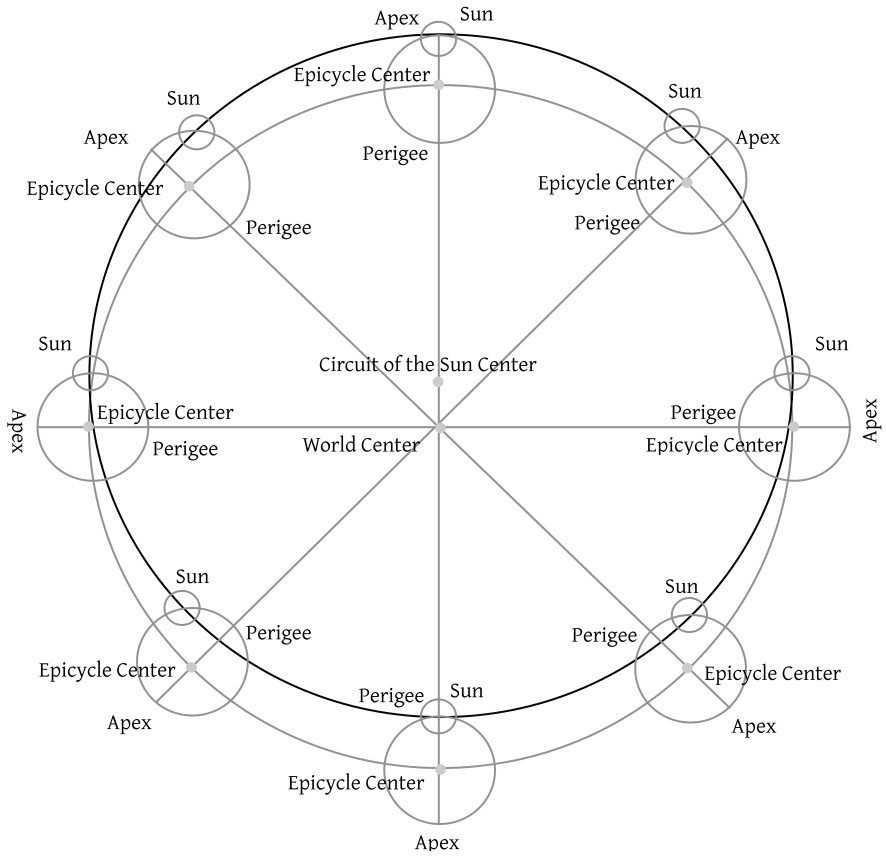
declination of its degree is close to the obliquity. Thus, at the time when [the first of] Cancer is at midheaven in a city whose latitude is 36°, it will be 36° from the horizon to the equinoctial pole below the Earth. At this time, the zodiacal orb's pole that is below the Earth is at its closest position to the horizon, [and the distance] between it and the horizon is in the amount of the excess of the local latitude over the obliquity, approximately 12°. The distance of Canopus from the [ecliptic] pole, i.e. its colatitude, is 15°; thus, it has risen 3° above the horizon. And when it reaches the first of Leo, and it comes to be 3° less in the declination of its degree, its distance from the equinoctial [equator] will become greater by this amount, [so] it will fall on a permanently invisible circuit. Thus, as long as it is in the signs of Gemini and Cancer, it will become visible [and invisible]; in the other ten signs, it will be permanently invisible. One can depict this on a globe.

## Section [Two]
## On Why the Eccentric Orb Was Chosen for the Sun over the Epicycle

[1] In Chapter Four of Book II, it has been stated that the eccentric orb and the epicyclic orb amount to the same thing in accounting for the variation in the movement of the Sun, and, whichever is posited, the intended result will be obtained. However, the eccentric is more nearly simpler, for the reason that the motion of the Sun on the circumference of the epicycle and the motion of the epicycle on the circumference of the deferent will result in an eccentric circuit for the body of the Sun. Thus, from the positing of an epicycle, there follows the positing of an eccentric, [whereas] from the positing of an eccentric there does not follow the positing of an epicycle. For this reason, Ptolemy posited an eccentric for the Sun. For an explanation of this matter, [let] us conceive the Sun to have a deferent orb whose center

is the center of the World and an epicyclic orb whose center is on the circumference of the deferent moving in the sequence [of the signs]; the Sun moves on the circumference of the epicycle in such a way that in the upper half it moves opposite the motion of the deferent, i.e., in counter-sequence [of the signs], while in the lower half in the sequence [of the signs] like the Moon, and both revolutions are completed altogether, so that when the Sun reaches a given point on the epicycle, the epicycle center will likewise have reached a given point on the deferent, each having completed one full revolution. Then on this assumption, from the motion of the body of the Sun with respect to the center of the World, a circle will result whose center is eccentric to the center of the World. The farthest position on that circle is a point whereby the Sun is on that point at the epicyclic apex; the nearest position is where the Sun is at the epicyclic perigee. And since the movement of the Sun on that side that is farther from the center of the World is in the counter-sequence [of the signs] on the epicycle, the slowness in the motion of the Sun [will result] on the apogean half, and the fastness will result from the motion on the other half, in which the two motions are in the same [direction].

[2] So as to facilitate the conception [of this], we have drawn a figure on which we have indicated in several places the epicycle orb and the body of the Sun according to different states of the motion. And we have drawn the circuit resulting from the motion of the body of the Sun in black, so that when one examines it, this matter will become clear.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[Figure 1]