

belt of Orion (Jacob's staff), Cassiopeia, the Swan, the Scorpion, the Southern Cross (owing to the striking difference in its direction before and after its culmination), the Southern Crown, the Feet of the Centaur (the Twins, as it were, of the Southern hemisphere), &c.

Wherever steppes, grassy plains, or sandy wastes present a far-extended horizon, those constellations whose rising or setting corresponds with the busy seasons and requirements of pastoral and agricultural life have become the subject of attentive consideration, and have gradually led to a symbolizing connection of ideas. Men thus became familiarized with the aspect of the heavens before the development of measuring astronomy. They soon perceived that besides the daily movement from east to west, which is common to all celestial bodies, the sun has a far slower proper motion in an opposite direction. The stars which shine in the evening sky sink lower every day, until at length they are wholly lost amid the rays of the setting sun; while, on the other hand, those stars which were shining in the morning sky before the rising of the sun, recede further and further from it. In the ever-changing aspect of the starry heavens, successive constellations are always coming to view. A slight degree of attention suffices to show that these are the same which had before vanished in the west, and that the stars which are opposite to the sun, setting at its rise, and rising at its setting, had about half a year earlier been seen in its vicinity. From the time of Hesiod to Eudoxus, and from the latter to Aratus and Hipparchus, Hellenic literature abounds in metaphoric allusions to the disappearance of the stars amid the sun's rays, and their appearance in the morning twilight—their *heliacal* setting and rising. An attentive observation of these phenomena yielded the earliest elements of chronology, which were simply expressed in numbers, while mythology, in accordance with the more cheerful or gloomy tone of national character, continued simultaneously to rule the heavens with arbitrary despotism.

The primitive Greek sphere (I here again, as in the history of the physical contemplation of the universe,\* follow the investigations of my intellectual friend Letronne) had become gradually filled with constellations, without being in any degree considered with relation to the ecliptic. Thus Homer and Hesiod designate by name individual stars and

\* *Cosmos*, vol. ii., p. 167.