90 cosmos.

anchini (probably of the third century after Christ), examined by myself elsewhere,\* and as they are met with in the Egyptian monuments of the time of the Cæsars, does not belong to the ancient astronomy, but to the subsequent epochs, in which astrological chimeras had become universally diffused.† We must not be surprised that the Moon was included in the series of the seven planets, since, with the exception of a memorable theory of attraction put forward by Anaxagoras (Cosmos, vol. ii., p. 309, and note), its more intimate connection with the Earth was scarcely ever suspected by the ancients. On the contrary, according to an opinion respecting the system of the world which Vitruvius‡ and Martianus Capella§ quote, without stating its originator, Mercury and Venus, which we call planets, are represented as satellites of the Sun, which itself revolves round the Earth.

\* Humboldt, Monumens des Peuples Indigènes de l'Amérique, vol. ii., p. 42-49. I have already directed attention in 1812 to the analogy between the zodiac of Bianchini and that of Dendera. Compare Letronne, Observations Critiques sur les Représentations Zodiacales, p. 97; and Lepsius, Chronologie der Ægypter, 1849, p. 80.

† Letronne, Sur l'Origine du Zodiaque Grec, p. 29. Lepsius, Chronol. der Ægypt., p. 83. Letronne opposes the old Chaldean origin of

the planetary week on account of the number seven.

† Vitruv., De Archit., ix., 4 (ed. Rode, 1800, p. 209). Neither Vitruvius nor Martianus Capella mention the Egyptians as the originators of a system, according to which Mercury and Venus are considered as satellites of the planetary Sun. The former says, "Mercurii autem et Veneris stellæ circum Solis radios, solem ipsum, uti centrum, itineribus coronantes, regressus retrorsum et retardationes faciunt." "But Mercury and Venus, which encircle in their orbits the Sun itself as a center,

retrogress and proceed slowly round its rays."

§ Martianus Mineus Felix Capella, De Nuptiis Philos. et Mercurii, lib. viii. (ed. Grotii, 1599, p. 289): "For though Venus and Mercury appear to rise and set daily, yet their orbits do not, however, go round the Earth, but revolve round the Sun in a wider orbit. In fact, the center of their orbits is in the Sun, so that they are sometimes above it . . . ." "Nam Venus Mercuriusque licet ortus occasusque quotidianos ostendant, tamen eorum circuli Terras omnino non ambiunt, sed circa Solem laxiore ambitu circulantur. Denique circulorum suorum centrum in Sole constituunt, ita ut supra ipsum aliquando . . . . . " As this place is written over, "Quod Tellus non sit centrum omnibus planetis," "Because the Earth is not the center of all the planets," it may certainly, as Gassendi asserts, have had an influence upon the first views of Copernicus, more than the passages attributed to the great geometer, Apollonius of Perga. However, Copernicus only says, "Minime contemnendum arbitror, quod Martianus Capella scripsit, existimans quod Venus et Mercurius circumerrant Solem in medio existentem." "I by no means think that we should despise what Martianus Capella has written, who supposes that Venus and Mercury revolve round the Sun, which is fixed in the center" Compare Cosmos, vol. ii., p. 312, and note.