162 cosmos.

May not the knowledge of the form and habits of the animals above referred to, and which, for the most part, was comprised in short notices, have been transmitted to Aristotle, independently of the Macedonian campaigns, either from Persia or from Babylon, which was the seat of a widely-extended foreign commercial intercourse? Owing to the utter ignorance that prevailed at this time of the preparation of alcohol,* nothing but

(t. iii., p. 66) considers the reading πάρδιου preferable to that of τὸ The latter reading would be best interpreted to mean the giraffe, as Pallas also conjectures (Spicileg. Zool., fasc. i., p. 4). If Aristotle had himself seen the guepard, and not merely heard it described, how could he have failed to notice non-retractile claws in a feline animal? It is also surprising that Aristotle, who is always so accurate, if, as August Wilhelm von Schlegel maintains, he had a menagerie near his residence at Athens, and had himself dissected one of the elephants taken at Arbela, should have failed to describe the small opening near the temples of the animal, where, at the rutting season, a strong-smelling fluid is secreted, often alluded to by the Indian poets. (Schlegel's Indische Bibliothek, bd. i., s. 163-166.) I notice this apparently trifling circumstance thus particularly, because the above-mentioned small aper ture was made known to us from the accounts of Megasthenes, to whom, nevertheless, no one would be led to ascribe anatomical knowledge. (Strabo, lib. xv., p. 704 and 705, Casaub.) I find nothing in the different zoological works of Aristotle which have come down to us that necessarily implies his having had the opportunity of making direct observations on elephants, or of his having dissected any. Although it is most probable that the Historia Animalium was completed before Alexander's campaigns in Asia Minor, there is undoubtedly a possibility that the work may, as Stahr supposes (Aristotelia, th. ii., s. 98), have continued to receive additions until the end of the author's life, Olymp. 114, 3, and therefore three years after the death of Alexander; but we have no direct evidence on this subject. That which we possess of the correspondence of Aristotle is undoubtedly not genuine (Stahr, th. i., s. 194-208; th. ii., s. 169-234); and Schneider says very confidently (Hist. de Animal., t. i., p. xl.), "hoc enim tanquam certissimum sumere mihi licebit, scriptas comitum Alexandri notitias post mortem demum regis fuisse vulgatas."

* I have elsewhere shown that, although the decomposition of sulphuret of mercury by distillation is described in Dioscorides (Mat. Med., v. 110, p. 667, Saracen.), the first description of the distillation of a fluid (the distillation of fresh water from sea water) is, however, to be found in the commentary of Alexander of Aphrodisias to Aristotle's work De Meteorol. See my Examen Critique de l'Histoire de la Géographie, t. ii., p. 308-316, and Joannis (Philoponi), Grammatici in libro de Generat. et Alexandri Aphrod., in Meteorol. Comm., Venet., 1527, p. 97, b. Alexander of Aphrodisias in Caria, the learned commentator of the Meteorologica of Aristotle, lived under Septimius Severus and Caraculla; and although he calls chemical apparatuses xvikà ŏργava, yet a passage in Plutarch (De Iside et Osir., c. 33) proves that the word Chemie, applied by the Greeks to the Egyptian art, is not derived from xéw. Hoefer (Histoire de la Chimie, t. i., p. 91, 195, and 219; t. ii., p. 109).