

impression on the unaided eye as might be excited by two bright portions of the Milky Way, equal in size and isolated in position. The smaller cloud entirely disappears in clear moonlight, while the larger one only loses a considerable portion of its brightness. Sir John Herschel's delineation of these objects is admirable, and accurately corresponds with the vivid impressions excited in my own mind during my sojourn in Peru. Astronomy is indebted to the laborious researches of this observer at the Cape of Good Hope in 1837, for the first accurate analysis of this most wondrous aggregation of heterogeneous elements.* He found a large number of individual and scattered stars, stellar swarms and globular clusters of stars, and both oval regular and irregular nebulae more closely thronged together than in the nebulous zone of Virgo and Coma Berenices. The *nubeculae* can not, therefore, from this condition of complicated aggregation, be regarded, as has too often been done, either as exceedingly large nebulae, or as detached portions of the Milky Way; for, with the exception of a small zone lying between the constellation Ara and the tail of the Scorpion, globular stellar clusters and oval nebulae are of rare occurrence in the Galaxy.†

The Magellanic Clouds are not connected with one another.

* *Cosmos*, vol. i., p. 85, and note. See *Observ. at the Cape*, p. 143-164; pl. vii. gives a representation of the Magellanic Clouds as they appear to the naked eye; pl. x. the telescopic analysis of the *Nubecula Major*, and pl. xi., fig. 4 (§ 20-23), affords a special view of the nebula Doradus.—*Outlines*, § 892-896, pl. v., fig. 1, and James Dunlop in the *Philos. Transact.* for 1828, part i., p. 147-151. So erroneous were the views of the earlier observers, that the Jesuit Fontaney, who was greatly esteemed by Dominique Cassini, and to whom we are indebted for many valuable astronomical observations in India and China, wrote as follows so recently as 1685: "Le grand et le petit nuages sont deux choses singulières. Ils ne paraissent aucunement un amas d'étoiles comme Præsepe Cancri, ni même une lueur sombre, comme la nébuleuse d'Andromède. On n'y voit presque rien avec de très grandes lunettes, quoique sans ce secours on les voie fort blancs, particulièrement le grand nuage." "The large and the small cloud are both very remarkable objects. They do not appear a mere mass of stars, like Præsepe in Cancer, nor are they a faint light, like the nebula in Andromeda. Very little is to be seen within these bodies even with large instruments, although when observed without such optical aid they appear very white, and this is especially the case with the large cloud."—*Lettre du Père de Fontaney au Père de la Chaize, Confesseur du Roi*, in the *Lettres Edifiantes*, Recueil vii., 1703, p. 78; and *Hist. de l'Acad. des Sciences dep. 1686-1699* (tom. ii., Paris, 1733), p. 19. In my description of the Magellanic Clouds, in the text, I have exclusively followed Sir John Herschel's work.

† *Cosmos*, vol. iii., p. 145, and note.