

ually look through as into free space. "It leads us," says Sir John Herschel, "irresistibly to the conclusion that in these regions we see *fairly through* the starry stratum."* In other regions we see, as it were, through openings and fissures, remote world-islands, or outbranching portions of the annular system; in other parts, again, the Milky Way has hitherto been *fathomless*, even with the forty-feet telescope.† Investigations on the different intensity of light in the Milky Way, as well as on the magnitudes of the stars, which regularly increase in number from the galactic poles to the circle itself (an increase especially observable for 30° on either side of the Milky Way in stars below the eleventh magnitude,‡ and therefore in $\frac{1}{7}$ ths of all the stars), have led the most recent investigator of the southern hemisphere to remarkable views and probable results in reference to the form of the galactic annular system, and what has been boldly called the *sun's place* in the world-island to which this annular system belongs. The place assigned to the sun is eccentric, and probably near a point where the stratum bifurcates or spreads itself out into two sheets,§ in one of those desert regions lying nearer to the Southern Cross than to the opposite node of the Milky Way.|| "The depth at which our system is plunged in the sidereal stratum constituting the galaxy, reckoning from the southern surface or limit of that

* *Outlines*, p. 536, 537, where we find the following words on the same subject: "In such cases it is equally impossible not to perceive that we are looking *through* a sheet of stars nearly of a size, and of no great thickness compared with the distance which separates them from us."

† Struve, *Etudes Stell.*, p. 63. Sometimes the largest instruments reach a portion of the heavens, in which the existence of a starry stratum, shining at a remote distance, is only announced by "a uniform dotting or stippling of the field of view." See, in *Observations at the Cape*, p. 390, the section "On some indications of very remote telescopic branches of the Milky Way, or of an independent sidereal system or systems bearing a resemblance to such branches."

‡ *Observations at the Cape*, § 314.

§ Sir William Herschel, in the *Philos. Transact. for 1785*, p. 21; Sir John Herschel, *Observations at the Cape*, § 293. Compare also Struve, *Descr. de l'Observatoire de Poulkova*, 1845, p. 267-271.

|| "I think," says Sir John Herschel, "it is impossible to view this splendid zone from a *Centauri* to the Cross without an impression amounting almost to conviction that the Milky Way is not a mere stratum, but annular; or, at least, that our system is placed within one of the poorer or almost vacant parts of its general mass, and that eccentrically, so as to be much nearer to the region about the Cross than to that diametrically opposite to it." (Mary Somerville, *On the Connection of the Physical Sciences*, 1846, p. 419.)