

stars, Struve enumerates about 300 in which both stars are white.\* Procyon, Atair, the Pole Star, and more especially  $\beta$  Ursæ Min. have a more or less decided yellow light. We have already enumerated among the larger red or reddish stars Betelgeux, Arcturus, Aldebaran, Antares, and Pollux. Rümker finds  $\gamma$  Crucis of a fine red color, and my old friend, Captain Bérard, who is an admirable observer, wrote from Madagascar in 1847 that he had for some years seen  $\alpha$  Crucis growing red. The star  $\eta$  Argûs, which has been rendered celebrated by Sir John Herschel's observations, and to which I shall soon refer more circumstantially, is undergoing a change in color as well as in intensity of light. In the year 1843, Mr. Mackay noticed at Calcutta that this star was similar in color to Arcturus, and was therefore reddish yellow;† but in letters from Santiago de Chili, in Feb., 1850, Lieutenant Gilliss speaks of it as being of a darker color than Mars. Sir John Herschel, at the conclusion of his *Observations at the Cape*, gives a list of seventy-six *ruby-colored* small stars, of the seventh to the ninth magnitude, some of which appear in the telescope like drops of blood. The majority of the variable stars are also described as red and reddish,‡ the excep-

moreover unaccredited form of  $\sigma\epsilon\iota\rho\iota\acute{\upsilon}\nu$ ), is likewise entirely erroneous. While the motion of heat and light is implied by the expression  $\sigma\epsilon\iota\rho\iota\omicron\varsigma$ , the radical of the word  $\Sigma\epsilon\iota\rho\eta\nu$  represents the flowing tones of this phenomenon of nature. It appears to me probable that  $\Sigma\epsilon\iota\rho\eta\nu$  is connected with  $\epsilon\acute{\iota}\rho\epsilon\iota\nu$  (Plato, *Cratyl.*, 398, D, τὸ γὰρ εἶρειν λέγειν ἐστὶ), in which the original sharp aspiration passed into a hissing sound." (From letters of Prof. Franz to me, January, 1850.)

The Greek  $\Sigma\epsilon\iota\rho$ , the sun, easily admits, according to Bopp, "of being associated with the Sanscrit word *svar*, which does not indeed signify the sun itself, but the heavens (as something shining). The ordinary Sanscrit denomination for the sun is *sûrya*, a contraction of *svârya*, which is not used. The root *svar* signifies in general *to shine*. The Zend designation for the sun is *hware*, with the *h* instead of the *s*. The Greek  $\vartheta\epsilon\rho$ ,  $\vartheta\acute{\epsilon}\rho\omicron\varsigma$ , and  $\vartheta\epsilon\rho\mu\acute{\omicron}\varsigma$  comes from the Sanscrit word *gharma* (Nom. *gharmas*), warmth, heat."

The acute editor of the Rigveda, Max Müller, observes, that "the special Indian astronomical name of the Dog-star, *Lubdhaka*, which signifies *a hunter*, when considered in reference to the neighboring constellation Orion, seems to indicate an ancient Arian community of ideas regarding these groups of stars." He is, moreover, principally inclined "to derive  $\Sigma\epsilon\iota\rho\iota\omicron\varsigma$  from the Veda word *sira* (whence the adjective *sairyâ*) and the root *sri*, to go, to wander; so that the sun and the brightest of the stars, Sirius, were originally called wandering stars." (Compare also Pott, *Etymologische Forschungen*, 1833, s. 130.)

\* Struve, *Stellarum compositarum Mensuræ Micrometricæ*, 1837, p. lxxiv. et lxxxiii.

† Sir John Herschel, *Observations at the Cape*, p. 34.

‡ Mädler's *Astronomie*, s. 436.