

Göthe not only adopted and strenuously maintained the opinion that the Newtonian theory was false, but he framed a system of his own to explain the phenomena of color. As a matter of curiosity, it may be worth our while to state the nature of this system; although undoubtedly it forms no part of the *progress* of physical science. Göthe's views are, in fact, little different from those of Aristotle and Antonio de Dominis, though more completely and systematically developed. According to him, colors arise when we see through a dim medium ("ein trübes mittel"). Light in itself is colorless; but if it be seen through a somewhat dim medium, it appears yellow; if the dimness of the medium increases, or if its depth be augmented, we see the light gradually assume a yellow-red color, which finally is heightened to a ruby-red. On the other hand, if darkness is seen through a dim medium which is illuminated by a light falling on it, a blue color is seen, which becomes clearer and paler, the more the dimness of the medium increases, and darker and fuller, as the medium becomes more transparent; and when we come to "the smallest degree of the purest dimness," we see the most perfect violet.¹⁷ In addition to this "doctrine of the dim medium," we have a second principle asserted concerning refraction. In a vast variety of cases, images are accompanied by "accessory images," as when we see bright objects in a looking-glass.¹⁸ Now, when an image is displaced by refraction, the displacement is not complete, clear and sharp, but incomplete, so that there is an accessory image along with the principal one.¹⁹ From these principles, the colors produced by refraction in the image of a bright object on a dark ground, are at once derivable. The accessory image is semitransparent;²⁰ and hence that border of it which is pushed forwards, is drawn from the dark over the bright, and there the yellow appears; on the other hand, where the clear border laps over the dark ground, the blue is seen;²¹ and hence we easily see that the image must appear red and yellow at one end, and blue and violet at the other.

We need not explain this system further, or attempt to show how vague and loose, as well as baseless, are the notions and modes of conception which it introduces. Perhaps it is not difficult to point out the peculiarities in Göthe's intellectual character which led to his singularly unphilosophical views on this subject. One important cir-

¹⁷ *Farbenlehre*, § 150, p. 151.

¹⁸ *Ib.* § 227.

¹⁹ *Ib.* § 238.

²⁰ *Ib.* § 223.

²¹ *Ib.* § 239.