

to explore and explain what is called its phenomena, has never been explained or understood, the cause of which has been the same that has prevented the advance of knowledge in the other departments of light, which is, the idea that objects sent images of themselves to all eyes that viewed them.

The rainbow is formed by what I term a natural prism, being and composing a section of the atmosphere that is sufficiently darkened to lower the brilliancy of the eye, in the same manner that the prism does. The sun is shining on the back of an observer, whilst he is looking at the bows, the great light of the sun, with the addition of the eye-light of the observer, meet at an angle and obliterate all shadows, hence the space between the bows. The light from this space is gradually darkened, upwards and downwards, and thereby the necessary shadows are formed, and the light of the eye, by the direction of the magnifying power of the prism, finds its right place for seeing the colours, in the curvilinear shape.

The fact that the bows are formed by the magnifying power of the prism, in union with the circular arch of the eye, may be easily understood by a knowledge, that if a number of persons are standing in a row, with their backs to the sun, whilst the rain forms the necessary cloud for making a bow in their front; then each of those persons will have a bow, respectively; and if that number of persons stand at equal distances from each other, so will the arch or upper section of their bows be at equal distances from each other. It therefore follows, that all parts of the cloud, with right height and right density, possesses all the necessary materials for rainbow making; and the light of