

Color of the sky. In the question of the color of the sky, as in many other physical problems, two points should be considered separately. The first refers to the actual facts observed in nature: the second relates to the theories by which the facts may be explained. The facts, being manifestations of the laws of nature, are constant. The hypotheses, being the product of human elaboration, are subject to the improvement of human knowledge and to the unceasing perfectibility of the mind.

A-Facts: To any observer of normal vision the following facts are undisputed. 1) The zenithal portions of the sky, on a bright cloudless day, are deep blue. 2) As the angular distance from the vertical increases, the portions of the sky become more mixed with white, that often merges into a greyish horizon. 3) Before sunrise and just after sunset, portions of the sky often are distinctly green, yellow, orange and even dark red. It can be truly said that the color of the sky can assume any color within the range of the entire spectrum.

Hypotheses. The blue is the most striking color in the sky: the other colors are comparatively ignored. Very discrepant hypotheses have been held at various times, as to the origin of the normal blue.

Inherent property.

A. According to some philosophers, the air or some unknown particles floating in the air have the inherent property of reflecting blue and transmitting red and orange light.

B. Newton's Theory. From the study of the colors, produced, when light is reflected from thin films of transparent substances, Newton was led to the conclusion that the blue of the sky was of the same tint as the "blue of the first order" and that the color of the sky was due to the reflexion of sunlight from drops of water, of such a size that the reflected light was